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A Cognitive Behavioral Approach to Occupational Therapy Hippotheapy [i.e., Hippotherapy] for Children and Adolescents with Mood Disorders

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A Cognitive Behavioral Approach to Occupational Therapy Hippotherapy for Children
and Adolescents with Mood Disorders

By

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This Scholarly Project Paper, submitted by Abby Heaton & Krista Tangen 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.

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TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	vi
ABSTRACT	vii
CHAPTER	
I. INTRODUCTION.....	1
II. REVIEW OF LITERATURE.....	4
Hippotherapy Defined.....	4
History of Hippotherapy.....	5
Benefits of Hippotherapy.....	6
Limitations to Hippotherapy.....	8
Populations Served by Hippotherapy.....	9
Hippotherapy Theory.....	10
Mood Disorders.....	10
Cognitive Behavioral Therapy Defined.....	11
History of Cognitive Behavioral Therapy.....	12
Indications of Cognitive Behavioral Therapy.....	12
Characteristics of Cognitive Behavioral Therapy.....	14
Occupational Therapy Intervention with Hippotherapy.....	15
Occupational Therapy and Cognitive Behavioral Therapy.....	17

Conclusion.....	19
III. METHODOLOGY.....	20
IV. A COGNITIVE BEHAVIORAL APPROACH TO HIPPO THERAPY: A PROGRAM FOR OCCUPATIONAL THERAPISTS.....	1
V. SUMMARY.....	58
REFERENCES.....	60

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ABSTRACT

Children and adolescents are increasingly being identified with mood disorders. A growing concern is that children and adolescents are not afforded a wide range of interventions to address the symptoms of mental illness. Cognitive behavioral therapy (CBT) has been identified as a useful treatment method for mood disorders. Hippotherapy has also been utilized in the treatment of mental illness. A literature review was conducted to explore the therapeutic benefits of cognitive behavioral therapy and hippotherapy for children and adolescents diagnosed with mood disorders. Although CBT has been recognized as useful, CBT methods applied to hippotherapy in occupational therapy does not appear to have been explored.

A CBT-based hippotherapy program was developed for use by occupational therapists in treating children and adolescents diagnosed with mood disorders. The program includes program goals, admission criteria and referral, assessment recommendations, interventions, outcomes and discharge planning. The Model of Human Occupation (MOHO) addresses the concept of volition and is the focus for intervention in addition to CBT and hippotherapy. Volition and motivation are often areas of concern for persons diagnosed with mental illness. MOHO was influential in assessment selection, intervention development, and selection of outcome measures.

CHAPTER I

INTRODUCTION

According to Bhatia and Bhatia (2007), “at any given time, up to 15 percent of children and adolescents have some symptoms of depression” (p.73). Of the children and adolescents identified with depressive disorders, over 70% are not receiving the treatment needed (Bhatia & Bhatia, 2007). Cognitive behavioral therapy (CBT) is commonly used in the treatment of depression with children, adolescents and adults. CBT combines cognitive and behavioral approaches and has been identified as a useful and viable option in treatment of various populations in mental health such as depression, eating disorders and abuse (Cara & McRae, 2005).

Hippotherapy is a therapy that uses a horse in assisting in treatment of all ages and populations. Research has shown that hippotherapy has many therapeutic benefits including physical, psychological, social, and emotional benefits for children and adults (MacKinnon et al., 1995). The American Hippotherapy Association (AHA, 2007) defines hippotherapy as a therapy that utilizes the movements of a horse as a component in treatment to facilitate improvements in specified areas. Occupational therapists, physical therapists, and speech-language pathologists typically use the term hippotherapy.

An investigation of the literature yielded information pointing to the effectiveness of both hippotherapy and CBT. Research has shown that hippotherapy is an effective treatment method for a variety of populations including children and adolescents with mental illnesses. Cognitive behavioral therapy has also been proven to be a reliable

therapeutic intervention for children, adolescents, and adults with mental illness. There appears to be a gap between the utilization of cognitive behavioral therapy in conjunction with hippotherapy for children, and adolescents with mental illness. Based on the literature findings of hippotherapy and CBT, the use of these two therapies combined may prove to be a welcome addition to the occupational therapists repertoire of intervention for children and adolescents with depressive disorders.

The aim of this product is to develop a program that assists occupational therapists in the treatment of children and adolescents diagnosed with mood disorders through the use of hippotherapy utilizing a cognitive behavioral therapy approach. The population chosen for this project is children and adolescents aged 9-17 diagnosed with a mood disorder. The occupational therapy theory utilized for this program is the Model of Human Occupation (MOHO) by Gary Kielhofner. MOHO is client-centered and occupation-based and can be used with other therapeutic models. MOHO's foundation consists of three components including volition, habitation, and performance capacity; and the interaction of the person and the environment (Forsyth & Kielhofner, 2003). The primary component that is addressed is volition. Components of volition may be absent or impaired in clients diagnosed with mood disorders.

The following chapters address components of the proposed program. Chapter II is a review of literature focusing on hippotherapy, cognitive behavioral therapy, and mood disorders. Chapter III discusses the methodology and approaches utilized to design the product. Chapter IV is the program developed to address client-centered occupational therapy using a cognitive behavioral approach to hippotherapy for children and adolescents diagnosed with mood disorders. Chapter V consists of the scholarly project

summary including limitations and recommendations for additional program development. A comprehensive listing of the references concludes the scholarly project.

CHAPTER II
REVIEW OF LITERATURE
INTRODUCTION

Occupational therapy's scope of practice is ever expanding with access to new and innovative forms of treatment and research literature. Hippotherapy is a therapy that uses a horse in assisting in treatment of all ages and populations. Research has shown that hippotherapy has many therapeutic benefits including physical, psychological, social, and emotional benefits for children and adults (MacKinnon et al., 1995). Cognitive Behavioral Therapy (CBT) is well established in the literature as a model for treatment of mental illness. CBT has been shown effective in the treatment of children, adolescents, and adults. CBT often is used in the treatment of clients diagnosed with mood disorders including depressive and bipolar disorders. Occupational therapists have been integrating the use of Cognitive Behavioral Therapy (CBT) as an adjunct to therapy. This literature review aims to show research findings regarding hippotherapy and CBT.

Hippotherapy Defined

The term hippotherapy is derived from the word hippos, meaning horse in the Greek language (Meregillano, 2004). Meregillano (2004) describes hippotherapy as a distinctive approach utilizing the "three-dimensional movement of the horse's hips and pelvis as the hind legs move forward at the walk provides a movement challenge to the client" (p. 844). The American Hippotherapy Association (AHA, 2007) defines hippotherapy as a therapy that utilizes the movements of a horse as a component in

treatment to facilitate improvements in specified areas. Hippotherapy can be identified by a variety of pseudonyms such as therapeutic riding, equine-assisted therapy, equine-assisted psychotherapy, riding therapy programs, horse aided therapy, equestrian rehabilitation therapy, equitherapy, equotherapy. Different professions use different terms when referring to therapy on horses. For example occupational therapists, physical therapists, and speech-language pathologists typically use the term hippotherapy; however, some current literature may refer to this type of therapy as therapeutic riding. Engel (2007a) suggests that occupational therapy practitioners using hippotherapy should specify incorporation of the *Occupational Therapy Practice Framework* (2008) in conjunction with the horse to differentiate services delivered from that of other professions. For the purpose of this paper, the term hippotherapy will be used as defined by the American Hippotherapy Association, a therapy that utilizes the movements of a horse as a component in treatment to facilitate improvements in specified areas (AHA, 2007).

History of Hippotherapy

As early as the 1500s, horses were thought to be medically beneficial for individuals with disabilities. The development of therapeutic riding centers began in the 1960s in Europe, Canada and the United States (AHA, 2007). In 1969, the North American Riding for the Handicapped Association (NAHRA, 2007) was established. In 1992, the American Hippotherapy Association was formed and became associated with NAHRA in 1993. The AHA established practice standards and certification for therapists in 1994 (AHA). The American Hippotherapy Certification Board was launched in 1999 to establish eligibility and certification standards for physical, occupational, and speech

therapists in the clinical specialty of hippotherapy (AHA, 2007). Currently there are over 700 NARHA hippotherapy centers providing services to over 5,000 members in the United States (NARHA, 2007).

Benefits of Hippotherapy

Based on the development of these organizations, research has been conducted to show the benefits of hippotherapy for persons with disabilities. A number of studies indicate improvements in posture and trunk control. Bertoti (1988) assessed a variety of postural traits including hyperextension, asymmetry, and compensatory strategies in eleven subjects diagnosed with cerebral palsy and found improvements in posture after a ten week riding program. Land, Errington-Povalac, and Paul (2001) found a statistically significant improvement in postural control in research of three participants with cerebral palsy and developmental delay. Researchers analyzed data using motion analysis software to determine the changes in posture after participation in therapeutic riding. Debuse, Chandler, and Gibb (2004) surveyed one-hundred and thirteen physical therapists from the United Kingdom and Germany to determine benefits identified using hippotherapy as a treatment method. Results found that there were improvements in trunk control, sustained muscle tone, and psychiatric well-being. British participants, in particular, reported improvements in equilibrium and balance.

Research-based literature also reports benefits in treatment of psychiatric disabilities utilizing hippotherapy. Bizub, Joy, and Davidson (2003) interviewed five non-randomized participants with a main diagnosis of schizophrenia to gather their opinions of the effectiveness of treatment in a riding program. Participants reported improvements in self-confidence, self-esteem, self-worth, horsemanship, and personal

growth. Glazer, Clark, and Stein (2004) found similar results in their study involving five grieving children who were coping with a recent death of a family member. Their qualitative study generated three themes describing benefits of the riding programs including communication, confidence, and trust-building based on parent, child and volunteer written reports. Lechner, Kakabeeke, Hegemann, and Baumberger (2007) found that patients with spinal cord injuries reported a significantly improved sense of emotional health after intervention utilizing hippotherapy versus therapy on a Bobath roll or using a mechanical rocking seat. In addition to these findings, Lechner et al. (2007) found a decrease in spasticity in the hippotherapy group in comparison with the other two groups.

Two studies addressing activities of daily living, motor abilities, and quality of life were examined to determine their benefits utilizing hippotherapy. Hammer et al. (2005) studied the impact of hippotherapy on eleven patients diagnosed with Multiple Sclerosis. Results showed that there were positive benefits in one or more areas including motor abilities, activities of daily living performance, and quality of life. The level of improvements was dependent upon the disease progression of each participant. Although not statistically significant, MacKinnon et al. (1995) found improvements in motor abilities, activities of daily living, and psychosocial advancements to be improved from baseline among nineteen research participants diagnosed with cerebral palsy.

Based on the literature research findings, there are numerous benefits to the utilization of hippotherapy for patients with a variety of disabilities. Benefits identified in the literature include improvements in posture, trunk control, sustained muscle tone, balance, self-confidence, self-worth, horsemanship, and personal growth. Identifying

interventions that improve patients physically as well as their psychological well-being will provide therapists with a broader repertoire of possibilities to benefit the patient.

Limitations to Hippotherapy

As with any therapeutic method, there are limitations to consider. Therapists should consider the safety of the client prior to beginning to providing hippotherapy services. Bizub, Joy, and Davidson (2003) specified a 180 pound weight limit for clients. This is likely due to weight limits for the horse to be able to perform safely and to ensure safe dismount in an emergency situation. In addition, Bizub et al. (2003) identified contraindications to include “severe symptomology, medication side-effects that would impair concentration and balance...” (p.379). Seizure disorders have been identified as a precaution to participation in hippotherapy, as well as complications regarding orthopedic abnormalities such as spine or pelvic deformities (Land, Errington-Provolac, & Paul, 2001).

Contraindications to hippotherapy for persons with mental illness identified by the North American Riding for the Handicapped Association (NAHRA, 2007) include suicidal or homicidal ideations, violent behaviors, psychosis, confusion, disorientation, compromised health, or drug and alcohol abuse/misuse. Contraindications are likely related to client safety concerns, as well as possible danger to the horse and staff. Safety concerns may additionally cause psychological and social challenges within the therapeutic environment. Finally Schultz, Remick-Barlow, and Robbins (2007) excluded participants if they had an abhorrence towards horses.

Populations Served By Hippotherapy

A variety of persons have been identified to benefit from hippotherapy interventions. NAHRA provides a list of diagnoses that can be found in Table 1 (2007, About NAHRA, ¶ 16) (2007, Equine Facilitated Psychotherapy (EFP) Fact Sheet, ¶ 4).

Table 1:

Physical and Mental Health Diagnoses Served By Hippotherapy

General Diagnoses	Mental Health Diagnoses
Muscular Dystrophy	Anxiety Disorders
Cerebral Palsy	Psychotic Disorders
Visual Impairment	Mood Disorders
Down Syndrome	Behavioral Difficulties
Mental Retardation	Schizophrenia
Autism	Attention Deficit Hyperactivity Disorder
Multiple Sclerosis	Attention Deficit Disorder
Spina Bifida	Receptive or Expressive Language Disorder
Emotional Disabilities	Personality Disorder
Brain Injuries	Depression
Spinal Cord Injuries	Post Traumatic Stress Disorder
Amputations	
Learning Disabilities	
Deafness	
Cardiovascular Accident/Stroke	

Table adapted from North American Riding for the Handicapped Association (NAHRA). (2007). Retrieved September 10, 2008 from <http://www.narha.org/>

With a wide array of diagnoses, clients may be affected throughout different stages in their life. Participation in hippotherapy can span throughout all ages from childhood to adolescents extending into adulthood. MacKinnon et al. (1995) studied nineteen individuals ranging in ages from four to twelve years of age diagnosed with cerebral palsy and Bizub, Joy and Davidson (2003) studied five adult participants who were diagnosed within the schizophrenia continuum to participate in their therapy riding program.

Hippotherapy Theory

Current literature does not specify a particular theory that is utilized in the practice of hippotherapy. Studies have focused primarily on improvements in skill performance to the neglect of theory application. According to Engel (2007c), occupational therapy theorists have strived to maintain their focus on the person, the occupation, and the environment in which meaningful activities are performed. A common theme that is reiterated in occupational therapy theories is the element of environment. The environment has been identified as a unique concept to treatment using hippotherapy, consisting of both human and nonhuman elements. The nonhuman, physical environment can be modified or altered by designating different tasks to be completed in therapeutic intervention. The human element of the therapist establishes an opportunity to address the client's needs and goals.

Mood Disorders

According to the World Health Organization (WHO), approximately 121 million people are affected by depression worldwide. "Fewer than 25% of those affected have access to effective treatment" (WHO, 2008). The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, 2000) defines mood disorders as a set of "...disorders that have a disturbance in mood as the predominant feature" (p. 345). The DSM-IV-TR categorizes mood disorders as depressive disorders, bipolar disorders, mood disorders due to a general medical condition, and substance-induced mood disorders. Depressive disorders include major depressive disorder, dysthymic disorder, and depressive disorder, not otherwise specified. Symptoms for depressive disorders include a loss of or increase in appetite, changes in sleep, difficulty concentrating, suicidal thoughts, and feelings of

emptiness or guilt. Bipolar disorders include bipolar I disorder, bipolar II disorder, cyclothymic disorder, and bipolar disorder not otherwise specified. Symptoms of bipolar disorders include symptoms of depressive disorders as well as exaggerated confidence, lower desire for sleep, disorganized, increased involvement in risk-taking behaviors with disregard of consequences (DSM-IV-TR, 2000). According to MayoClinic.com (2008), depression is treated using a variety of methods including medications such as selective serotonin reuptake inhibitors (SSRI), tricyclic antidepressants (TCA), and monoamine oxidase inhibitors (MAOI). Other therapies include electroconvulsive therapy (ECT), and psychotherapy such as cognitive behavioral therapy, interpersonal therapy, and psychodynamic psychotherapy (MayoClinic.com, 2008).

Specifically regarding children and adolescents, Bhatia and Bhatia (2007) reported that “at any given time up to 15 percent of children and adolescents have some symptoms of depression” (p. 73). Of the children and adolescents identified with depressive disorders, over 70% are not receiving the treatment needed (Bhatia & Bhatia, 2007). Cognitive behavioral therapy (CBT) is commonly used in the treatment with children, adolescents, adults, and their family (Giroux Bruce & Borg, 2002).

Cognitive Behavioral Therapy Defined

Psychiatrists and psychologists have developed several theories and approaches to treat patients affected with mental illness. One such treatment is cognitive-behavioral therapy (CBT). The National Association of Cognitive-Behavioral Therapists (NACBT) defines CBT as “a form of psychotherapy that emphasizes the important role of thinking and how we feel and what we do” (2008, ¶1). There are several forms of CBT that have been identified to give patients tools to change their ways of thinking which will change

their behaviors. According to NACBT (2008), forms include Rational Behavior Therapy, Rational Therapy, Dialectical Behavior Therapy, Rational Living Therapy, Rationally Emotive Behavior Therapy, and Cognitive Therapy. All forms are similar in their focus on altering cognition to support changes in behaviors.

History of Cognitive Behavioral Therapy

Different approaches to Cognitive Behavioral Therapy have unique developmental histories. In the 1950s, Albert Ellis developed Rationally Emotive Therapy which was the first approach to CBT. Ellis renamed this approach in the 1990s Rationally Emotive Behavior Therapy. Another therapist, Aaron Beck developed Cognitive Therapy in the 1960s (NACBT, 2008). Beck's Cognitive Therapy is now recognized as Cognitive Behavioral Therapy because of the use of cognitive and behavioral methods (Martin, 2007). The NACBT identifies other significant contributors to CBT to include Donald Michenaum, David Burns, Aldo Pucci, and Marsha Linehan (NACBT, 2008). A number of psychologists have contributed to the development and evolution of CBT; however, for the purposes of this project, Beck's theory will be applied.

Indications of Cognitive Behavioral Therapy

Cognitive Behavioral Therapy has been utilized for a variety of diagnoses. Some specific diagnoses identified by the National Alliance on Mental Illness (NAMI) include mood disorders, substance abuse disorders, anxiety disorders, and personality disorders (NAMI, 2008). CBT has been found to be a reliable therapeutic intervention for children and adolescents (Martin, 2007).

Research has been conducted to determine parental preference in treating children with cognitive behavioral therapy versus pharmacotherapy. Brown, Deacon, Abramowitz, Dammann, and Whiteside (2007) surveyed seventy one parents of children, ages 5-18, with anxiety disorder to determine their perception of treatment methods for this population. Results suggested parents found CBT as being more acceptable, credible, and successful rather than using medication alone, or a combination of CBT and medication (Brown et al., 2007). Smith et al. (2007) studied the effectiveness of trauma-focused CBT for children and adolescents, ages 8-18, who suffer from post traumatic stress disorder (PTSD). The participants who received CBT exhibited significant improvement in symptoms of PTSD, anxiety, and depression compared to the waitlist (WL) group. Only eight percent of the participants who received CBT maintained a diagnosis of PTSD as compared to fifty eight percent of the WL participants. Six month follow-up determined that results were retained. Research has shown that CBT is a reliable treatment intervention for children with anxiety and depressive disorders in comparison to pharmacotherapy and receiving no treatment.

Research on CBT and adolescents appears to be more prevalent. This is likely due to diagnostic criteria present at this age and lack of accessibility to the younger population. Munoz-Solomando, Kendall, and Whittington (2008) explored a number of systematic reviews on the use of CBT for adolescents and children suffering from mental illness. Evidence was located for CBT effectiveness in the treatment of children with depression, generalized anxiety disorder, obsessive compulsive disorder and posttraumatic stress disorder. Additional results suggest that attention deficit hyperactivity disorder and behavioral problems may also benefit from CBT. Evidence of

effectiveness of CBT was limited in the treatment of antisocial behavior, psychotic disorders, substance misuse, eating disorders, and self-harm behavior. Munoz-Solomando, Kendall, and Whittington conclude that the systematic reviews suggest that CBT has an essential role in the enhancement of mental health in children and adolescents with mental health problems. Klein, Jacobs, and Reinecke (2007), sought to determine the effectiveness of CBT utilizing a meta-analytic procedure. The meta-analytic procedures included searches in PsychoINFO and Medline utilizing key words “depression”, “dysthymia”, and “major depression” (Klein, Jacobs, & Reinecke, 2007, p. 2). Results indicated that CBT was an effective treatment intervention for adolescents diagnosed with depression. Stice, Rohde, Seeley, and Gau (2008) studied adolescents who are at high risk for depression to determine effectiveness of brief cognitive behavioral intervention compared to supportive-expressive intervention, bibliotherapy, or assessment-only control group. Results indicated the cognitive behavioral intervention group exhibited less depressive symptoms as compared to the control group at conclusion of the study and 6 months after treatment. Results also found cognitive behavioral intervention to be more effective when compared to supportive-expressive intervention and bibliotherapy. Though effectiveness of CBT is inconsistent across mental illnesses, the evidence suggests CBT is a reliable therapeutic method in treatment of children and adolescents diagnosed with depression.

Characteristics of Cognitive Behavioral Therapy

Cognitive behavioral therapies may have similar concepts but may vary in therapeutic techniques. According to the NACBT website (2008), key components are identified as follows. CBT is known to be a briefer form of treatment, yet has long lasting

effects. On average, clients may attend around sixteen sessions compared to psychoanalytic therapy which may require years of treatment (NACBT, 2008). CBT provides a warm, welcoming environment to establish rapport and trust between patient and therapist. CBT components include learning coping skills, changing one's thoughts to facilitate changes in behaviors, relationship building, and problem solving (Martin, 2007). NACBT (2008) also suggests that CBT is a client-centered collaboration between the therapist and the client. A key element to CBT is the utilization of the Socratic Method which gives the client the opportunity to challenge their ways of thinking. Structure and direction are important to each CBT session to provide a variety of tools for behavior modification. CBT challenges clients to investigate their beliefs to promote rational thinking. Homework is another key component for the success of CBT because it holds the patient responsible for their own learning outside of the therapy session. Together, all of these components combine to provide a brief and effective form of therapy that has been proven through research to be beneficial (NACBT, 2008).

Occupational Therapy Intervention with Hippotherapy

“Occupational therapy through hippotherapy provides a unique opportunity to gain skills and accomplish meaningful and productive occupations” (Engel, 2007b, p.9). Hippotherapy can offer therapy which integrates all systems including vestibular, proprioceptive, tactile, visual, and motor systems (Meregillano, 2004). Occupational therapists can integrate occupation-based interventions utilizing hippotherapy (Engel, 2007b). The hippotherapy environment offers a natural environment with different sights, sounds and smells when compared to an indoor standard clinic. The stalls, horses, therapeutic equipment, and staff in the arena provide visual stimuli. The sounds include

birds, horses eating and neighing, and the sound of footsteps from people and the horses. The smell of the stable and arena smells like horses, hay, and manure. This open, relaxed environment can be less threatening to the client and offer a serene and pleasurable experience (Meregillano, 2004).

A variety of potential benefits have been identified through research of occupational therapy utilizing hippotherapy including physical and emotional gains. Occupational therapists can assist clients in achieving improved development of societal proficiency, self-worth and reliance (Bracher, 2000). Physical benefits may also include improved muscle tone, increased trunk control, and increased awareness of the client's body in space (Meregillano, 2004). Occupational therapists can easily adapt their treatment strategies using hippotherapy to target each client's goals. For example, the therapist can maintain occupation-based treatment on horseback by providing opportunities to develop everyday skills. Clients may be asked to practice buttoning which will additionally address balance and trunk control as well as an increased sense of independence.

Hippotherapy can be utilized in a variety of treatment settings for different reasons. Engel (2007) makes reference throughout her book regarding possible settings for practicing hippotherapy including rehabilitation centers, hospitals, schools, and private practice. The hippotherapy treatment team is a unique group including the horse, the client, the therapist, the side walkers, the horse leader, and the family. Dependent upon the client's needs and physician referrals, physical therapy, speech-language pathology, psychology, or psychotherapy may be included within the treatment team (Meregillano, 2004). The AHA (2007) identifies therapists roles in hippotherapy as a

license or registration in specific area of practice, basic training in hippotherapy, a NARHA registered therapist, and maintaining professional liability insurance. Additionally, NARHA requires all registered therapists to attend approved courses in treatment principles and equine skills to provide specialized treatment (NARHA, 2007). NARHA (2007) also requires a number of documented hours utilizing hippotherapy in practice to maintain certification. NARHA also provides an annual national conference for therapists to attend for new information for continuing education. Hippotherapy is a complex mode of treatment which requires the therapist to maintain current hippotherapy practice education and certifications.

Occupational Therapy and Cognitive Behavioral Therapy

As described by Duncombe (1998), “the basic tenants of cognitive-behavioral therapy and the philosophy of occupational therapy have many commonalities” (p. 188). Occupational therapy philosophy is congruent with CBT philosophy (Duncombe, 1998). Both CBT and occupational therapy emphasize the client’s life experience, client and therapist gaining a collaborative relationship, increasing the client’s awareness of their thinking towards problem solving and behavior awareness, and the ability to utilize therapeutic concepts and apply them to specific areas of their life (Duncombe, 1998). The occupational therapists’ role is that of an educator versus an authority figure. Clients and occupational therapists work in a partnership throughout therapy sessions to determine and obtain clients’ goals (Giroux Bruce & Borg, 2002). The occupational therapist provides an opportunity for “structured, experiential, or self-directed learning” (Giroux Bruce & Borg, 2002, p.181). The therapist provides reasoning of specific therapeutic methods and homework for reinforcement to provide recurrent comments regarding the

client’s beliefs and actions in terms of their goals (Giroux Bruce & Borg, 2002). The therapist provides the client an opportunity for problem solving and the ability to apply what has been learned to his/her occupations in real-life situations.

Five principles of cognitive therapy are reflected in cognitive behavioral therapy including phenomenology, collaboration, activity, empiricism, and generalization (Duncombe, 2005). Phenomenology refers to the client’s perceived life experiences. Collaboration is the therapist and client working together to determine the course of treatment and determine goal priorities. Activity is the way in which therapy is conducted through occupation-based activities. Empiricism is the data collection piece to direct further treatment directions. Generalization refers to the ability to utilize therapeutic strategies within their personal environment (Duncombe, 2005).

Cognitive and behavioral strategies provide a structure for therapists to utilize during therapeutic treatment. Cognitive strategies are used to challenge the client’s ways of thinking as a technique for changing thoughts and actions. Behavioral strategies make use of action approaches for changing thoughts and behaviors (Duncombe, 2005). Some examples of cognitive and behavioral strategies are provided in Table 2.

Table 2:

Strategies Used in Cognitive and Behavioral Therapy

Strategies of Cognitive Therapy	Strategies of Behavioral Therapy
Challenging Automatic Thoughts	Behavioral Change
Elimination of Cognitive Distortions	Cognitive Change
Challenging Underlying Assumptions	
Mental Imagery	
Controlling Recurrent Thoughts	
Changing and Controlling Behaviors	

Table adapted from Duncombe, 2005. p. 191-192.

Cognitive therapy principles are similar to the occupational therapy philosophy in that there is an element of client-centered practice. Cognitive therapy and occupational therapy provides collaboration between the client and the therapist regarding goals and the therapy process while teaching strategies for problem solving with increasing self-awareness. Lastly, clients are able to generalize learned skills to the client's personal contexts (Duncombe, 2005). Occupational therapists facilitate the use of CBT through the use of a collaborative, trusting relationship utilizing functional activities to aid in the process of changing beliefs and facilitating a change of behavior.

Conclusion

An investigation of the literature yielded information pointing to the effectiveness of both hippotherapy and CBT. Research has shown that hippotherapy is an effective treatment method for a variety of populations including children with mental illnesses. Cognitive behavioral therapy has also been proven to be a reliable therapeutic intervention for children, adolescents, and adults with mental illness. There appears to be a gap between the utilization of cognitive behavioral therapy in conjunction with hippotherapy for children, adolescents, and adults with mental illness. Based on the literature findings of hippotherapy and CBT, the use of these two therapies combined may prove to be a welcome addition to the occupational therapists repertoire of intervention for children and adolescents with depressive disorders.

CHAPTER III

METHODOLOGY

A literature search was completed using several online databases including CINAHL, PubMed, and OT Search, in addition to occupational therapy textbooks, books on cognitive behavioral therapy (CBT) and hippotherapy, and current and reliable information from internet websites. The purpose of the search was to gather information pertaining to the use of hippotherapy and cognitive behavioral therapy for children, adolescents, and adults with a variety of diagnoses. The process involved various topics including hippotherapy, equine assisted therapy, cognitive behavioral therapy, and information on mood disorders and treatment methods. The literature also provided statistical information about the prevalence of mood disorders and common treatments traditionally used for treatment.

Based on the literature, findings the combination of utilizing cognitive behavioral therapy and hippotherapy appeared to be an effective therapeutic method for treatment of children and adolescent diagnosed with a mood disorder. Several occupational therapy theories and models were investigated for use with children and adolescents diagnosed with mood disorders. The Model of Human Occupation (MOHO) was chosen for the components of volition, habituation, and performance capacity which support the model for occupational therapy intervention with children and adolescents diagnosed with mood disorders. The application of MOHO, CBT, and hippotherapy led to the development of a program titled “A Cognitive Behavioral Approach to Hippotherapy: A Program for

Occupational Therapists” that can be utilized by occupational therapists treating children and adolescents diagnosed with mood disorders. The concepts of MOHO were evaluated to assist in the selection of assessments to be administered, intervention development, and outcome measurements. Interventions were developed utilizing basic riding principles while applying cognitive behavioral concepts and elements of MOHO to each session.

The goal of this project is to offer a unique program for occupational therapists to utilize when treating children and adolescents diagnosed with mood disorders. It is anticipated that by offering this distinctive form of treatment, children and adolescents will have a decrease in mood disorders symptoms, improved self-concept, trust, and social and problem solving skills to improve quality of life. Chapter four presents the developed program including assessment selection, intervention activities, and outcome measurements.

CHAPTER IV
PRODUCT

**A
Cognitive
Behavioral
Approach to
Hippotherapy:
A Program for
Occupational
Therapists**



TABLE OF CONTENTS

INTRODUCTION.....4

PROGRAM GOALS.....5

ADMISSION CRITERIA & REFERRAL.....5

FACILITY AND STRUCTURE OF PROGRAM.....6

COGNITIVE BEHAVIORAL THERAPY.....6

MODEL OF HUMAN OCCUPATION (MOHO).....8

REIMBURSEMENT AND DOCUMENTATION.....9

ASSESSMENT..... 11

 Occupational Self Assessment (OSA).....11

 Child Occupational Self Assessment (COSA)..... 11

 Pediatric Interest Profiles.....12

 Modified Interest Checklist.....12

 Children’s Depression Rating Scale-Revised (CDRS-R)..... 12

 Beck’s Depression Inventory 2nd Ed. (BDI-II).....13

 Hamilton Rating Scale for Depression.....13

INTERVENTION PROCESS.....14

OUTCOMES AND DISCHARGE PLANNING.....34

 Occupational Self Assessment (OSA).....34

 Child Occupational Self Assessment (COSA).....34

 Survey.....36

INTRODUCTION

The aim of this product is to develop a program that assists occupational therapists in the treatment of children and adolescents diagnosed with mood disorders through the use of hippotherapy utilizing a cognitive behavioral therapy approach. Depression is one of the leading health issues in this day in age. Not only is depression a leading diagnosis in mental illness, depression also causes a variety of problems including the ultimate devastation of suicide (Beck, 1967). The studies in the literature review support the use of cognitive behavioral therapy (CBT) for treating clients diagnosed with depression. Occupational therapists are trained in the techniques of CBT in treating clients with a variety of diagnoses. Another therapeutic tool that occupational therapists have employed for treating clients with mental illness is hippotherapy. There is a distinction between hippotherapy and therapeutic riding that involves a certified therapist providing therapeutic services. Hippotherapy provides clients with treatment that is goal-directed with outcome measures utilizing a horse. Therapeutic riding is more of a recreational or leisure based activity for clients that do not require skilled services.

Program Goals

- 🐾 Promote client-centered and occupation-based therapy services
- 🐾 Facilitate positive thinking to improve behavior
- 🐾 Facilitate personal responsibility for choices
- 🐾 Develop trustworthiness and self-esteem
- 🐾 Develop new problem solving skills
- 🐾 Facilitate improved social skills
- 🐾 Assist in interest and leisure exploration through the therapeutic activity of riding

Admission Criteria & Referral

The admission criterion for participation in this program includes a diagnosis of a mood disorder and children and adolescents ages 9-17. According to Piaget's Cognitive Development at age nine children are moving from concrete thinking ability to more abstract thinking (Law, Missiuna, Pollock, & Stewart, 2005). The client must not have an allergy or aversion to horses and must be willing to abide by the rules and regulations of the facility and hippotherapy standards. Those safety standards include wearing a helmet when in the arena, respecting the horse, therapist, staff, and equipment, participating in therapy safely, and abiding by all other arena rules.

Referrals will be obtained by a variety of facilities in the area including hospitals (community and/or state), day treatment programs, in-patient clinics, school systems, and other mental health providers. Additionally, referrals may come from psychologists, psychiatrists, pediatricians, teachers, parents or self-referral. Due to the driving force of reimbursement procedures from Medicaid and 3rd Party Payers, a physician's order must

be obtained for the therapy service. If reimbursed through fee-for-service, a doctor's order may not be necessary or required.

Facility and Structure of Program

The structure of this program will consist of a six week long intervention period with two treatment sessions per week being one hour in duration per treatment session. This program will be implemented in an established rehabilitation center with a hippotherapy arena for clients with physical and psychiatric dysfunction. The hippotherapy facility is located off-site because of the amount of land required and zoning laws within city limits. Most therapy sessions will take place indoors, however, there is a small outdoor arena that can be used weather permitting. The hippotherapy arena would adhere to the rehabilitation facility's policies and procedures as well as meet the standards set by Commission on Accreditation of Rehabilitation Facilities (CARF). Due to the rehabilitation facility employing occupational therapists full-time, there may be flexibility that would allow practice within the clinic as well as at the hippotherapy site. Clients will have the opportunity to receive services in both the clinic as well as at the hippotherapy arena. The rehabilitation facility owns and maintains the hippotherapy arena, horses, and other facility equipment.

Cognitive Behavioral Therapy (CBT)

Psychiatrists and psychologists have developed several theories and approaches to treat patients affected with mental illness. One such treatment is cognitive-behavioral therapy (CBT). The National Association of Cognitive-Behavioral Therapists (NACBT) defines CBT as "a form of psychotherapy that emphasizes the important role of thinking and how we feel and what we do" (2008, ¶1). There are several forms of CBT that have

been identified to give patients tools to change their ways of thinking which will change their behaviors. According to NACBT (2008), forms include Rational Behavior Therapy, Rational Therapy, Dialectical Behavior Therapy, Rational Living Therapy, Rationally Emotive Behavior Therapy, and Cognitive Therapy. All forms are similar in their focus on altering cognition to support changes in behaviors.

Cognitive behavioral therapies may have similar concepts but may vary in therapeutic techniques. According to the NACBT website (2008), key components are identified as follows. CBT is known to be a briefer form of treatment, yet has long lasting effects. On average, clients may attend around sixteen sessions compared to psychoanalytic therapy which may require years of treatment (NACBT, 2008). CBT provides a warm, welcoming environment to establish rapport and trust between patient and therapist. CBT components include learning coping skills, changing one's thoughts to facilitate changes in behaviors, relationship building, and problem solving (Martin, 2007). NACBT (2008) also suggests that CBT is a client-centered collaboration between the therapist and the client. A key element to CBT is the utilization of the Socratic Method which gives the client the opportunity to challenge their ways of thinking. Structure and direction are important to each CBT session to provide a variety of tools for behavior modification. CBT challenges clients to investigate their beliefs to promote rational thinking. Homework is another key component for the success of CBT because it holds the patient responsible for their own learning outside of the therapy session. Together, all of these components combine to provide a brief and effective form of therapy that has been proven through research to be beneficial (NACBT, 2008).

Model of Human Occupation (MOHO)

This program plan will utilize the Model of Human Occupation (MOHO) for intervention planning and assessment selection. MOHO's foundation consists of three components including volition, habitation, and performance capacity; and the interaction of the person and the environment (Forsyth & Kielhofner, 2003). Within volition are areas including personal causation, values and interest which are the motivational elements in MOHO. Habitation includes habits and roles of the person, such as daily life routines. The component of performance capacity consist of the body's systems performance capabilities, including "musculoskeletal, neurologic, cardiopulmonary... [and] mental and cognitive abilities" (Forsyth & Kielhofner, 2003, p. 57). Environment is defined as "the particular physical and social, cultural, economic, and political features of one's context that impact upon the motivation, organization, and performance of occupation" (Kielhofner, 2008a, p. 86). These components of environment may influence a person's life experiences (Kielhofner, 2008a). Together the essential areas of MOHO interact to determine what a person does, and in what way they do it.

The primary component that will be addressed is volition. Components of volition may be absent or impaired in clients diagnosed with mood disorders. Clients may have a decline in their sense of personal capacity and self-efficacy. Clients may feel as if they are unable to control their lives or the outcomes of their decision-making. Clients often exhibit a difficulty in participating in activities that are important to them. Clients have a lack of value which causes a decrease in the number of interests that the client has. Culture may also have an important role in determining motivating factors in participation of treatment which may be attributed by support systems, values, cultural

images, and social expectations. According to Kielhofner (2008b), "...volition provides the framework by which people make sense of their actions" (p.47).

Though volition will be the primary focus for treatment with clients diagnosed with mood disorders; habituation and performance capacity should also be considered and addressed. Habituation is patterns of living that are individualized and specific according to the physical, temporal, and social contexts. Routines and habits assist clients in organizing and structuring their days. Routines and habits determine efficiency and productivity and can assist or hinder performance capacities. The component of cognition within performance capacity may be affected by a client who suffers from a mood disorder. Clients may be affected by difficulty in making decisions, problem solving, memory, following directions, and communication. Clients suffering from mood disorders may have deficits in their habits, routines and performance capacities which may decrease volition and personal productivity.

Reimbursement and Documentation

Information regarding insurance coverage, documentation of services, and billing of services is available in Table 1.

Table: 1

Coverage, Documentation and Billing for Occupational Therapy Services

Coverage	Documentation	Billing
Do not use hippotherapy when requesting an order for services. Request an order for therapy services instead.	A registered therapist must complete an evaluation.	One must use Current Procedural Terminology (CPT) codes for billing to obtain reimbursement.
Determine available insurance coverage through speaking with the insurance provider.	Appropriate goals should be documented to highlight purposeful improvements in daily life activities.	Be sure codes are up to date.
Determine if your facility will be approved to provide services.	Improvements must be written based on standards of practice and guidelines.	Codes include therapeutic exercise, neuromuscular reeducation, sensory integrative techniques, and development of cognitive skills.
Ask insurance if coverage will extend to the therapist performing services outside of their network.	“Terminology: <i>Avoid using:</i> moving horse or halt-walk transitions <i>Instead use:</i> dynamic base of support or stop-start transitions” (Taylor, p. 266).	Services may be charged per CPT code at \$25 to \$50. Charges will vary based on region and other reimbursement rates.
Determine limits for number of treatment sessions.		
Establish if recertification is required, and if it is, determine the number of therapy appointments.		
If the client is already receiving therapy services from another therapy facility, will other services be reimbursed?		

Information above adapted from Johnson, A.T., (2007). Reimbursement for occupational therapy services using hippotherapy as a strategy. In B.T. Engel, & J.R. MacKinnon (Eds.), *Enhancing human occupation through hippotherapy: A guide for occupational therapy* (p. 266). Bethesda, MD: The American Occupational Therapy Association, Inc.

Assessment

At the initial visit, clients will be asked to complete the assessment phase prior to beginning treatment. Several assessments can be considered to determine baseline performance. Assessment is conducted to measure level of depression, interests, and self-perception of occupational performance. At a minimum it is recommended that the therapist would use the OSA/COSA, an Interest Checklist, and a depression rating scale. The assessment process would be best appropriate during the first treatment session and may extend into the second session. After assessments have been scored and interpreted, the therapist will meet with the client and family collaboratively to determine client's goals for therapy. The following assessments are recommended.

Occupational Self-Assessment (OSA) version 2.2, published 2006

Authors: Kathy Baron, Gary Kielhofner, Anita Iyengar, Victoria Goldhammer, Julie Wolenski

Purpose: MOHO assessment and outcome measure used to determine client's self perception of occupational performance, occupational functioning, and environmental adaptation.

Assessment type: Self-report questionnaire

Population: Appropriate for ages 12 and older

Availability: Model of Human Occupation Clearinghouse

Website: www.moho.uic.edu

Child Occupational Self-Assessment (COSA) version 2.1, published 2005

Authors: Kathy Baron, Gary Kielhofner, Anita Iyengar, Victoria Goldhammer, Julie Wolenski

Assessment type: Self-report questionnaire

Population: Children ages 8-13

Availability: Model of Human Occupation Clearinghouse

Website: www.moho.uic.edu

 **Pediatric Interest Profiles**, published 2000

Author: Alexis Henry

Assessment type: Self-report questionnaires that include MOHO based assessments that are designed to be administered to clients based on their age to gather information regarding play interests.

Population: Kid Play Profile is designed for ages 6-9 years, Preteen Play Profile is designed for ages 9-12 years, and Adolescent Leisure Interest Profile is designed for ages 12-21 years

Availability: Model of Human Occupation Clearinghouse

Website: www.moho.uic.edu

 **Modified Interest Checklist**

Population: Appropriate for adolescents and adults

Purpose: Designed to identify client's activity interests in the past, present, and future

Availability: For free at Model of Human Occupation Clearinghouse

Website: <http://www.moho.uic.edu/mohorelatedsrsrcs.html#OtherInstrumentsBasedonMOHO>

 **Children's Depression Rating Scale-Revised (CDRS-R)**, published 1996

Authors: Elva Poznanski and Hartnut Mokros


Assessment Type: Interview format

Purpose: To determine possible depression in children and adolescents. Also may be used later in treatment to determine effectiveness of treatment

Population: Children aged 6-12 and adolescents

Availability: Western Psychological Services

Web site: www.wpspublish.com

 **Beck's Depression Inventory 2nd Edition (BDI-II)**, published 1996

Authors: Aaron Beck, Robert Steer and Gregory Brown

Assessment type: Self-report survey

Purpose: To determine the level of depression in adolescents and adults

Population: Adolescents and adults aged 13-80

Availability: Psychological Corporation

Qualifications to administer: “personnel possessing masters and doctorates of psychology or education, and/or have licensure in a relevant area of assessment with one of the following provincial or national organizations: the Canadian Psychological Association (CPA), the Canadian Register of Health Service Providers in Psychology (CRHSPP), the Canadian Association of School Psychologists (CASP), the American Psychological Association (APA), the American Speech-Language-Hearing Association (ASHA), or the National Board for Certification in Occupational Therapy [(NBCOT)]”

Web site: www.harcourtassessment.com

Resource:

Information adapted from Early Childhood Measurement and Evaluation Resource Centre (n.d.). Tool Review. Retrieved on November 14, 2008 from <http://www.cup.ualberta.ca/view-document/81-tool-review-beck-depression-inventory-2nd-edition>

 **Hamilton Rating Scale for Depression**, published 1979

Author: Max Hamilton

Assessment Type: Self-report

Purpose: To measure the severity of depression

Population: Children and adults

Availability: Journal of Operational Psychiatry, 10(2), p. 149-165.

Qualifications to administer: Administered by a health care professional

Intervention Process

The intervention phase of treatment will be addressing client needs and focus on achieving the client's goals. The first two therapeutic interventions are mandatory to ensure client education and safety. The structure of each session will include five minutes to discuss previous week's homework, ten minutes of introduction to new topic and discussion; these two portions will take place in the therapy room. Following the discussion the client will perform ten minutes of grooming, the client will also be asked to saddle their horse during this time as well. The hippotherapy portion will last approximately twenty minutes leaving ten minutes for discussion and homework assignment while untacking the horse. The extra five minutes will allow extra time where necessary. The following therapeutic activities are suggested dependent upon client needs, activities may be adjusted.

Session #1: Introduction and Arena Safety

Objective:

- Introduction to arena safety
- Review of consequences for breaking safety rules
- Tour of arena and introduction of horses and equipment

Materials:

- Poster reflecting arena rules
- Arena equipment located in the tack room

Activity:

- Review of the posted safety rules and consequences for disobeying the rules
 - No horseplay
 - No running
 - No unnecessary yelling or screaming
 - Be respectful of horses, staff, equipment, and others
 - Riders must always wear a helmet
 - Riders must be accompanied to and from the arena with staff
 - Consequences will be determined based on the severity of offense, a warning will be issued once, and therapy may be discontinued for that session if necessary
- Review necessary safety equipment including belts and helmets followed by fitting of this equipment
- Introduction of tack
- Question and answer period to address any issues, concerns, or other questions the client may have

Session#2: Horse 101

Objectives:

- To introduce safety concerns regarding the horse
- To introduce horse handling techniques

Materials:

- List of safety and arena etiquette concepts
- Horse, halter and lead rope

Activity:

- Introduce safety and etiquette information in the therapy room to the client
- Provide a typed list of safety and etiquette information to refer to throughout the therapy program
- Examples of safety information include:
 - Be sure to keep a horse length between yourself and the horse when working around them
 - No smoking
 - No inappropriate language such as cuss words
 - There should be no other loose horses in the arena
 - Know where the nearest phone for emergency is located
 - Keep all gates closed when not entering or exiting the arena
 - Be respectful and aware of the horse
 - Be aware of other riders if in the arena
 - **Always ride safe**
 - Stay out of others way, spectators must stay outside of the arena
- Examples of etiquette information include:
 - Tell others what you intend to do with your horse – “entering the arena,” “leaving the arena”
 - Mount and dismount out of the way of others
 - Cue the horse quietly – “clicking” sounds
 - Clean up after yourself
 - Follow posted arena rules
- Grooming techniques will be introduced and practiced in the arena with the horse.
 - Brushing the horse’s body, mane and tail
- Demonstrate and discuss horse handling guidelines such as:
 - Walk to the left of the horse, never in front
 - Do not approach the horse from the back
 - Talk to the horse as you approach it so they are aware you are around
 - No running while leading the horse
 - Use your inside voice with the horse
 - Be gentle with the horse
- Client will provide a return demonstration of horse handling guidelines to ensure understanding

Session #3: Leading the Horse

Objectives:

- ➊ To gain an understanding of the meaning of self talk and how it relates to thoughts and behaviors
- ➋ CBT element addressed – Cognitive awareness of internal dialogue and the relationship to behaviors
- ➌ Hippotherapy element addressed – Relationship building and personal confidence
- ➍ MOHO element addressed – Volition, Personal Causation

Materials:

- ➊ Horse, halter, and lead rope

Activity:

- ➊ The therapist introduces “self-talk” and the differences in positive and negative self-talk. The therapist clarifies that people often talk to themselves silently throughout the day and this is known as “self-talk”. The therapist explains that self-talk can determine thoughts and behaviors. For example, if the client believes they are bad at math they may not perform as well in math.
- ➋ Discuss with the client that today they will be leading the horse around the arena and reminded of the horse handling techniques
- ➌ Possible discussion questions prior to leading the horse:
 - What are your thoughts about leading the horse?
 - How are you feeling about yourself today?
 - How are you feeling about leading the horse today?
 - Are you ready?
- ➍ After the discussion period, the therapist and client will enter the arena to lead the horse.
- ➎ Possible discussion questions for after leading the horse:
 - What were you thinking about as you led the horse?
 - What were you thinking about before you led the horse?
 - What were thinking about after you led the horse?
 - How did you feel while you were leading your horse?
 - What was it you expected as you led the horse?
 - How can you take what you have learned today and apply it to other activities?
 - How did you do leading the horse?

Session #4: Mounting/Dismounting

Objectives:

- Client will acknowledge that a person is trustworthy if he/she does what they say they will do
- CBT element addressed – Acknowledgement of one’s responsibility for personal characteristic choices regarding their actions
- Hippotherapy element addressed – Trust, communication, and relationship building
- MOHO element addressed - Volition, Values, Personal Causation

Materials:

- Index cards with scenarios to determine level of trust: the therapist will read one scenario as an example and have the client complete the other two independently
 - Example: Destiny was sent to the office with the class role sheet. She went to the office and right back to the classroom.
 - Example: Freddie said he had to go get a drink. On the way, he stopped off to see his brother in his classroom before returning to class.
 - Example: Jessie asked his parents if he could go to Josh’s house to hang out. But he went to Sally’s house instead.
- Horse, saddle, saddle blanket, halter, reins, lead rope

Activity:

- The therapist will introduce trustworthiness concepts and utilize the scenarios for the client to develop an understanding of trustworthy behaviors
- Based on scenarios provided, the client will determine whether or not the person was trustworthy and justify their response
- Relate the scenarios to the horse by asking the client their feelings about their horse.
 - What qualities does a person who is trustworthy possess?
 - How do people respond to people who are trustworthy?
 - What if you didn’t trust your horse?
 - If you did not trust your horse, would you get on it?
 - Do you trust your horse? If not, why?
 - What if you aren’t a trustworthy person, how can you change that? What are the consequences of not being trustworthy?
- Instruction will be provided on how to saddle the horse properly
- Client will saddle the horse
 - If the client is not strong or tall enough to saddle the horse independently the therapist will assist the client
- Therapist will demonstrate proper mounting and dismounting technique
- Client will practice proper mounting and dismounting technique
- Discuss client trust related to the horse:
 - Do you trust your horse?

- If not, why?
- If so, how much do you trust your horse?
- What would happen if you did not trust your horse?
- Would you get on the horse if you did not trust the horse?
- Did you develop a greater sense of trust in your horse?
- Are you a trustworthy person?
- What are some things you could change to be a more trustworthy person?
- Do you think you can be a trustworthy person?
- Do you trust other people?

Session #5: Halting and Walking

Objectives:

- To challenge thought processes by analyzing a situation
- To promote problem solving skills such as challenging irrational thoughts to promote rational thinking and behaviors
- CBT element addressed – Increase self-awareness, promote rational thinking
- Hippotherapy element – Communication, confidence, and trust
- MOHO element addressed – Volition, Personal Causation

Materials:

- Index card with a scenario
 - Sample scenario for demonstration: A child/adolescent's team lost the basketball game, and the child/adolescent feels responsible for the loss because he/she missed the basket at the last second. Now this child/adolescent thinks that he/she is a failure and cannot play basketball at all.
 - Sample scenario for a child: A child misses 5 out of 10 spelling words on a quiz. The child is upset because she thought she got them all correct. Now she is afraid that her parents will be angry. She thinks that if she would have gotten them all right, her parents would be happy.
 - Sample scenario for adolescent: A student takes a science test and feels that they deserve 100 percent on the test because they studied for several hours. The next day the teacher returns the test and the student received a B. The student immediately feels like a failure because they did not receive the grade they expected.
- Saddled horse, halter, reins and lead rope

Activity:

- Describe black, white, and gray thinking styles
 - White – good, always right
 - Black – bad, always wrong
 - Gray – okay, in between, depends
- After reading the scenario provided, questions will be asked to the client
 - Is this type of thinking black, white, or gray?
 - What would be another way to respond to what happened?
 - Can you tell me of a time when you had similar thoughts?
 - How could you have changed your response?
- Red light/Green light
 - After practicing proper mounting techniques learned in the previous session, the therapist will demonstrate walking (clicking) and halting (“whoa”) commands
 - The client will practice by playing red light, green light throughout the arena
 - When the therapist says red light, the client must stop the horse

- When the therapist says green light, the client must cue the horse to walk forward
- Discussion questions for after the riding portion
 - What were you thinking about today?
 - On a scale of one to 10, one being the worst and 10 being the best, how do you think you did with walking and halting?
 - Is this thought black, white, or gray (good, bad, or somewhere in between)?
 - What were some challenges that you had with the riding activity?
 - What were some things you thought you did well?
 - What kinds of thinking do you usually have daily?
 - How have your thoughts affected your actions?
 - How could you change this way of thinking to change your actions?

Session #6: Neck Reining

Objectives:

- ⊕ Ability to identify personal qualities
- ⊕ Enhance self-esteem by identifying positive qualities within themselves
- ⊕ CBT element addressed – Positive self-talk, self-awareness of thoughts
- ⊕ Hippotherapy element addressed – Self-esteem, developing trust, and relationship building
- ⊕ MOHO element addressed – Volition, Personal Causation

Materials:

- ⊕ Sample list of personal qualities
- ⊕ Paper and writing utensils
- ⊕ Saddled horse, halter, lead rope, reins
- ⊕ 10-12 flags positioned throughout the arena

Activity:

- ⊕ Introduce samples of personal qualities
 - Examples: Honesty, friendly, funny, athletic, etc.
- ⊕ The client will be asked to generate a list of personal qualities that the client possess and write them down.
- ⊕ Also the client will be asked to generate two to four qualities that the client would like to possess that they feel they don't.
- ⊕ Discuss any negative qualities the client may generate.
- ⊕ Discussion questions
 - How do you show these qualities?
 - Do you appreciate these qualities in others?
 - Is there a quality you could change to better yourself?
 - What ways could you change this?
 - If there is a negative quality, ask the client why they feel they possess this quality?
- ⊕ The child will mount the horse and practice halting and walking a couple of times.
- ⊕ The therapist will then demonstrate neck reining techniques and commands to allow the client to control the horse independently.
- ⊕ The therapist will assist the client and determine whether or not the client is ready for independent riding.
- ⊕ If the client is not, the session will assist by leading the horse while the client practices neck reining.
- ⊕ The client will be instructed to direct their horse to pick up flags that have been posted throughout the arena
- ⊕ At each flag, the client must produce a personal quality about themselves and why they possess that quality
- ⊕ After the riding session, possible discussion questions to address:
 - What kind of thinking did you have while on the horse while you were learning to neck rein?

- What are some examples of positive self statements?
- Is there a personal quality that you feel is responsible for helping you to complete the horse riding activity today?
- How do you feel you did neck reining?
 - If the response is negative, encourage a positive self statement from above.

Positive Personal Qualities

1. Personality
2. Patience
3. Dependability
4. Honesty
5. Intelligence
6. Trustworthy
7. Leadership
8. Assertiveness
9. Flexibility
10. Problem solver
11. Ambitious
12. Cooperative
13. Friendly
14. Independent
15. Motivated
16. Courageous
17. Honest
18. Loyal
19. Sincere
20. Open-minded



Session #7: Trotting

Objectives:

- Identify leisure activities or interests
- CBT element addressed – Self-esteem, leisure exploration
- Hippotherapy element addressed – Trust, communication, self-confidence, and self-esteem
- MOHO element addressed – Volition, Interests, Values, and Personal Causation

Materials:

- Saddled horse, halter, reins

Activity:

- Discussion pertaining to leisure activities related to horses and riding
 - What are some activities that you could do that involve horses and riding?
 - Could you do this activity with friends?
 - How do you think you do when participating in this activity?
 - Do you think you are successful when completing this activity?
 - How does this activity make you feel?
 - How often do/could you do this activity?
 - Discuss other activity possibilities for expanding interests and improving self esteem while performing these activities.
 - How do you want to feel when doing the activity?
 - What are some ways that you can continue your leisure interests? (Examples: photography, read stories, draw pictures, continue riding, and going to the rodeo)
- The therapist introduces the activity of trotting on the horse
 - What thoughts are you having about trotting?
 - What is the scariest or best thing that could happen?
 - Do you feel like you are ready to trot?
- The client will be asked to practice trotting
- The therapist may choose to incorporate the game Red light/Green light into this activity depending on the comfort level of the client
- Discussion questions for after the horse riding session:
 - What thoughts are you having now that you trotted?
 - Was it scary or exciting?
 - Do you think that horse riding could be a leisure activity you would like?
 - What does it feel like now that you have trotted?
 - Do you think that you were successful with trotting today?

Session #8: Obstacle Course

Objectives:

- Client will increase self-esteem and confidence
- Client will improve problem solving strategies and skills
- This activity demonstrates horse riding abilities gained from previous therapeutic sessions
- CBT element addressed – Problem solving
- Hippotherapy element addressed – Self-confidence, communication, and personal growth
- MOHO element addressed – Volition, Personal Causation

Setting:

- This activity will take place in the arena

Materials:

- Materials used to create obstacle course such as:
 - Mailbox
 - Flags (various colors)
 - Poles
 - Barrels
 - Tires (various colors)
 - Rings (various colors)
- Index cards with directions such as:
 - If you take a right, you must take a left
 - If you go around the green flag, you must pick up the orange ring
- Saddled horse, reins, halter

Activity:

- The client will be instructed to get from the beginning of the obstacle course to the end following instructions on the direction cards
- Grade activity as appropriate for each client.
- Discussion will focus on problem solving abilities by asking
 - Did you have negative thoughts at the beginning of the activity?
 - What kind of self-talk did you have during this activity today?
 - How do you feel you did?
 - How did it make you feel to finish the obstacle course?
 - What was hard about the obstacle course?
 - What was easy?

Homework

Homework is a key component of CBT and can be utilized to reinforce the strategies presented in the therapy session. Different methods of homework can be used to ensure the client is generalizing information in their everyday life. Homework is to be assigned as appropriate, but minimally the therapist will assign homework once a week throughout the intervention phase. Parents/caregivers are an essential component to the therapy process, as well as ensuring completion of the homework portion of treatment. The parents/caregivers will be provided information regarding homework after each session by the therapist, and encouraged to support their child/adolescent effort. The potential homework assignments address problem solving strategies, positive thinking, journaling regarding thought processes and the behaviors associated with them, reflection on emotions and what evokes these emotions, among others that are pertinent to the client and their needs. The client and therapist will discuss the homework previously assigned during the grooming segment of the session. The following activities are a few examples of homework.

Write A Like Yourself Letter

Objective:

- To address positive qualities and characteristics the client possesses
- To express emotions in a healthy manner
- CBT element address – Self-awareness
- MOHO element addressed – Volition

Materials:

- Notepad
- Writing materials
- Envelope

Activity:

- Instruct the client to compose a love letter to self that expresses the positive personal qualities and characteristics possessed.
- The client should also include interests and hobbies as well as what the client appreciate about them self.
- The note should begin with “Dear _____,”
- Upon completion the client should put the letter in an envelope and bring it to the following session.
- The therapist may choose to send the letter to the client at discharge if appropriate.

Journaling

Objective:

- To become aware of personal thoughts and be able to put them on paper
- CBT element addressed – Self-awareness of how thinking influences behavior
- MOHO element addressed – Volition

Materials:

- Notepad
- Writing materials

Activity:

- The client will be asked to journal about each session and the client's thoughts about the experience.
 - Can you recall what you thought about therapy today?
 - What feelings did you experience/have about the activity today?
 - How did you do during the activity today?
 - The client will then be asked to journal about the questions above.
- The client will also journal about what was learned about the self during the session and how it can be applied in everyday life.
- Additionally, other topics that may be addressed could include emotions, utilization of learned strategies and their effectiveness, areas for growth, and questions that the client may have regarding treatment.

Draw a Picture

(This activity may include one picture or multiple pictures per one week of therapy)

Objectives:

- To identify times throughout the day when the client had positive thoughts
- CBT element addressed – Self-awareness
- MOHO element addressed - Volition

Materials:

- Paper, construction paper, notepad (client preference)
- Writing materials such as crayons, markers, colored pencils, paint, etc.

Activity:

- The client will reflect on a positive event from the day and draw a picture representing that event and their thoughts
- The client will be encouraged to be as creative with this activity as possible

Plan an Outing

Objective:

- To plan an outing with a friend or family member
- To take time to go out in the community for the outing planned
- CBT element addressed – Relationship building, leisure exploration
- MOHO element addressed – Volition, Interests

Materials:

- Notepad
- Writing utensils

Activity:

- The client will plan an outing with a friend or family member.
- The client and friend or family member will choose a time to take the outing.
- The client will reflect in their journal regarding the outing and feelings that they had during the outing.
- Example outings – movies, dinner, park, McDonald's, putt-putt golf, bowling.
- Discussion questions to address in the journal:
 - What did you do?
 - With whom did you do the outing with?
 - Describe the experience.
 - What thoughts did you have before the outing?
 - Did your thoughts change after the outing?
 - How did the outing/activity make you feel?
 - How did your thoughts affect your actions?
 - Is this an outing/activity that you would like to do again? Why?

Additional Journaling Topics

Objectives:

- To recognize negative thinking patterns throughout their day
- CBT element addressed – Addressing negative thinking patterns
- MOHO element addressed – Volition, Personal Causation

Materials:

- Notepad
- Writing materials

Activity:

- The following concepts that are discussed in negative thinking are possible topics for journal homework activities
- Presentation of the topic chosen will be discussed prior to the end of the previous session to ensure client understanding of the material they will journal on
- Topics to consider are:
 - Understanding how your feelings affect your thinking (Emotional reasoning) - irrational beliefs regarding feelings and emotions provoked by a specific situation or interaction and believing them to be fact. The client may feel that they are ugly and therefore believe they are ugly.
 - Feeling at fault/guilty about others actions (Personalizing) - taking responsibility for everything that goes on. The client may feel excessively guilty regarding others actions. The client may feel that if another child makes a face at them on the playground the child assumes that the other child does not like him/her. The client has feelings of insufficiency in life.
 - Jumping to conclusions - assuming that you know the outcome before even obtaining all of the facts or information. An example of this would be a child on the playground was not picked first for a game and therefore jumped to the conclusion that nobody liked him/her.
 - Blowing everything out of proportion (Catastrophizing) - making things much worse than they actually are. Clients may use extremely negative words to describe the event or feeling they are experiencing. Examples of this would be using words such as horrible, nightmarish, devastating, it's over, and everyone hates me now.
 - Turning good things bad (Disqualifying the positive) - takes a success and applies a negative thought or action to it. Clients may exclude any positive aspect and regard any and all actions from others as negative. An example of this may be another child says I like your haircut and the client thinks the person is just saying that to make him/her feel better and they really hate it.

- “Should” statements - thought processes that hold themselves and others to a high standard of performance. This includes having high expectations of everything. In turn the person/client is expectedly let down, perturbed, and upset. An example regarding “should” statements is when a child is playing basketball and they feel that they “should have made that basket”, which ultimately makes them feel inadequate about themselves and their performance.
- Seeing all situations as the same (Overgeneralization) - person takes one unpleasant or bad situation and assumes that every similar situation will end in the same fashion. An example of overgeneralization is when the person uses words such as never, every person, or always to describe a situation or event. A child may think that he/she will never have any friends at school, or that everyone dislikes them because they are not cool.
- Mind reading - the client assumes that he/she knows what someone is thinking about him/her, and that they know exactly what those thoughts are. For example, the client is asked to shoot a basket in gym class, and the client assumes that the other children automatically think that he/she cannot make the basket.
- Name-calling (Labeling) - utilizing negative words to describe a situation. The client may use words or phrases such as “I am worthless”, “Dummy”, “Brainless”, or “It’s impossible” to describe themselves or their abilities.
- Thinking only about yourself (Egocentric thinking) - assuming that other people’s beliefs are the same as their own beliefs; in that what negative thought they are having must be the same of the other person’s thoughts. For example the client may think “I am bad at spelling, so they think that I am a bad speller.”

Resource:

Adapted from Pittman, K., (2008). Negative Thinking. Retrieved on October 30, 2008 from http://www.cognitivebehaviourtherapy.org.uk/guides/depression/negative_thinking

Outcome and Discharge Planning

The remaining two sessions will be dedicated to outcome measures and discharge planning. During the outcome measure session, the therapist will administer outcome assessments to determine progression. The following outcome measures will be used to compare baseline results. The outcome measures selected are also compatible with MOHO.

Occupational Self-Assessment (OSA) version 2.2, published 2006

Authors: Kathy Baron, Gary Kielhofner, Anita Iyengar, Victoria Goldhammer, Julie Wolenski

Purpose: MOHO assessment and outcome measure used to determine client's self perception of occupational performance, occupational functioning, and environmental adaptation.

Assessment type: Self-report questionnaire

Population: Appropriate for ages 12 and older

Availability: Model of Human Occupation Clearinghouse

Website: www.moho.uic.edu

Child Occupational Self-Assessment (COSA) version 2.1, published 2005

Authors: Kathy Baron, Gary Kielhofner, Anita Iyengar, Victoria Goldhammer, Julie Wolenski

Assessment type: Self-report questionnaire

Population: Children ages 8-13

Availability: Model of Human Occupation Clearinghouse

Website: www.moho.uic.edu

Discharge planning will be carried out during the last session of therapy with the therapy team and the client and their family. During this session, additional resources will be identified if needed or re-evaluation of therapeutic needs for continuation of services. Discussion will revolve around improvements that were shown through assessment, as well as clinical observations from the therapist. At this point, the client and family will be asked to provide feedback regarding the services that were received. The client and the family will be asked to complete a customer satisfaction survey.



Parent Satisfaction Survey

Please help us to ensure that our program is providing the best therapeutic experience possible by filling this survey out. We appreciate your help and feedback.

1. My child is thinking more positively today than before treatment.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

2. My child has been taking more responsibility for personal choices.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

3. My child has shown an improvement in trusting him/herself and others.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

4. My child's self-esteem has improved.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

5. My child's problem solving skills have improved.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

6. My child's social skills have improved.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

7. My child expresses more leisure interests since beginning therapy.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

8. Overall, indicate your satisfaction with your child's hippotherapy treatment.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

9. What changes would you recommend to make this therapeutic experience better?

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CHAPTER V

SUMMARY

Conclusion

This scholarly project presents an occupational therapy-based program designed for occupational therapists for treating children and adolescents with mood disorders using a cognitive behavioral approach to hippotherapy. Through a thorough review of the literature, currently occupational therapy hippotherapy programs do not appear to be available for this population. The proposed program has the potential to benefit children and adolescents aged 9-17 diagnosed with mood disorders. Occupational therapists have the knowledge and skills to treat this population utilizing a client-centered, occupation-based therapy approach. *A Cognitive Behavioral Approach to Hippotherapy: A Program for Occupational Therapists* is based on a review of the literature and designed for use by occupational therapists.

The program developed utilizes the Model of Human Occupation (MOHO) to guide assessments, intervention development, and outcome measure selection. MOHO addresses the concept of volition and motivation which are often areas of concern for individuals diagnosed with mood disorders and are the focus for the interventions utilizing both CBT and hippotherapy.

Limitations and Recommendations for Future Action

Limitations identified regarding this program for children and adolescents with mood disorders include the following. One limitation identified is that the product was

developed specifically for children and adolescents aged 9-17 diagnosed with a mood disorder. Additionally, the program is designed as a six week treatment period limited to eight intervention sessions. Lastly, this product is not research tested to verify the efficacy of the interventions and outcomes measured.

It is recommended that the product be expanded to treat additional mental health illness in various age groups. If treatment extends past the six week period, it is recommended that the therapist modify or adapt therapy sessions to meet the client's needs and abilities for success with the program. Furthermore, the program needs to be implemented by a qualified occupational therapist that is willing to collect data to determine the efficacy of this type of therapeutic treatment. Additional recommendations include educating pediatricians, occupational therapists, and other health care professionals regarding the utilization of this therapeutic approach. Expansion of evidence-based research to provide data supporting the effectiveness of CBT and hippotherapy for children and adolescents diagnosed with mood disorders is essential to contribute to the occupational therapy literature base.

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