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Fostering self-identity in adolescents who experience spinal cord injuries

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FOSTERING SELF-IDENTITY IN ADOLESCENTS WHO EXPERIENCE SPINAL CORD INJURIES

by

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Submitted to the Occupational Therapy Department

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This Scholarly Project Paper, submitted by Lauren Schneibel and Terese Boeder 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 completed and is hereby approved.

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Title           Fostering Self-Identity in Adolescents Who Experience Spinal Cord Injuries
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Lauren Schneibel

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ABSTRACT

The purpose of this scholarly project is to identify a need and to guide occupational therapists during the treatment of adolescents who have acquired a spinal cord injury. During the adolescence stage, an individual begins to develop a sense of self and sense of direction, as well as formulate values which all contribute to personal identity formation (Erickson, 1968). The manual will guide the occupational therapist to address identity formation through use of the chosen assessments and interventions. It is believed that focusing on aspects of identity formation as experienced in the midst of a traumatic spinal cord injury will foster successful adolescent identity development and a resultant higher quality of life.

A literature review was conducted utilizing the search items “typical adolescent development, identity formation, spinal cord injury, and occupational therapy” in multiple online databases including: CINAHL, PubMed, PsychInfo, Academic Search Premier, OT Search, and Google Scholar. Textbooks and government-based websites were also utilized to obtain additional information.

A manual was developed to guide occupational therapists treating adolescents with spinal cord injuries to foster a positive self-identity. The assessments and interventions chosen are guided by the Model of Human Occupation (MOHO), with the goal of building a strengthened identity, increasing self-esteem, and promoting a higher
quality of life. The manual is appropriate for practicing occupational therapists in the inpatient neuro-rehabilitation setting. Prior to full implementation, it is suggested that research be conducted in order to test the clinical significance of the manual. Addressing identity as a part of the treatment for an adolescent with a spinal cord injury is an important aspect of occupational therapy services.
CHAPTER I

INTRODUCTION

Adolescence is a time of life that presents many changes and challenges (Peterson, Leffert, & Graham, 1995). Specifically, adolescence is a time when the individual is in the process of determining who he/she is, distinguishing values, as well as developing a sense of direction (Erikson, 1968). Adolescent development and identity formation can be greatly influenced by a life-long spinal cord injury. According to the National Spinal Cord Injury Statistical Center (NSCISC) (2012), approximately 12,000 new spinal cord injuries are reported each year. In 2012, the NSCISC reported 6,456 spinal cord injuries occurred to individuals between the ages of 10-20 years old, with the most common age of injury at 19 years of age (NSCISC, 2012). Current literature does not specifically address the population of adolescents with a spinal cord injury, even though the statistical incidence of injury is evident. The majority of the current literature focuses on the child or the adult populations with spinal cord injuries. Adolescents with spinal cord injuries often get placed into either the child or adult category. The current literature is even more limited when it comes to addressing the developmental stages, specifically identity formation, during adolescent intervention related to spinal cord injury.

For this scholarly project, a manual was developed to help guide the intervention process for occupational therapists working with adolescents with spinal cord injuries. The manual presents examples of assessments and interventions that can be utilized
during occupational therapy intervention with this population. The assessments chosen assist the occupational therapist to understand who the individual is, identify the individual’s values, and learn about the individual’s self-perceptions. The information gathered by the assessment can help to identify psychosocial areas that need to be addressed and enable the development client-centered interventions addressing elements of psychosocial development. The assessments chosen can also be utilized as progress or outcome measures of treatment. The interventions focus on building the individual’s self-esteem, assist the individual to identify important values and roles, and provide the individual an opportunity to test the identity-building while engaged in social participation.

The occupational therapy model chosen to guide the manual is the Model of Human Occupation (MOHO). The four components of the model are volition, habituation, performance capacity, and environment (Kielhofner, 2008). In order to meet the needs of an adolescent with a spinal cord injury, the four components of MOHO need to be addressed to provide client-centered care. Specifically, MOHO will assist the occupational therapist to find out what motivates the individual in the form of personal values and interests. Addressing the adolescent’s sense of personal causation encourages self-examination and realization of personal talents. The development of habits and routines is important to optimal performance in role performance. By addressing performance capacity, the occupational therapist will have a deeper understanding of the individual’s ability to physical and mentally perform occupations. The individual interacts with the social and physical environment in all aspects of life. By considering
the factors of the environment that foster or inhibit identity, the occupational therapist can help promote increased occupational performance.

Chapter II reviews the current literature relating to normal adolescent development, identity formation, spinal cord injury, and the role of occupational therapy. Chapter III describes the methodology used for this scholarly project and the development of the manual for practicing occupational therapists. Chapter IV presents the product, which is a manual containing a selection of assessments and interventions guided by Model of Human Occupation. The manual can assist occupational therapists working with adolescents who have acquired spinal cord injuries to foster a positive self-identity. Chapter V summarizes the scholarly project, limitations, recommendations and conclusions related to implementation of the manual.
CHAPTER II
LITERATURE REVIEW

Typical Adolescent Development

Adolescence is a time of life that presents many changes and challenges (Peterson, Leffert, & Graham, 1995). It is a chance to explore new opportunities and learn from each experience. It can also be a time of challenge, with the main focus being on peer acceptance and the start of romantic relationships (Cromer, 2011). Adolescence is a point in life that is spent trying to figure out who an individual is, including values and beliefs apart from parents (Cromer, 2011). This self-development can be positively or negatively influenced by many internal and external factors (Peterson, Leffert, & Graham, 1995).

According to Cromer (2011), adolescence (ages 10-20) can be divided into 3 sub phases: early adolescence (10-13), middle adolescence (15-17), and late adolescence (18-20). Early adolescence is when the transition from childhood to adolescent begins with the main focus being on puberty. Middle adolescence is the time of the stereotypical adolescent and has the main focus on peer involvement. The stereotypical adolescent is focused on physical appearance or actions and how others perceive these factors. This can appear to others as being selfish or self-centered. An adolescent also has the mentality of being invincible and that “it won’t ever happen to me, just other people,”
thought process. Late adolescence is the transition from adolescence to adulthood with the main focus as beginning to take on adult roles and responsibilities (Cromer, 2011).

Adolescence is a period in life when many changes occur biologically, cognitively, psychologically, and socially. According to current literature (Cromer, 2011; Gemelli, 2008; Peterson, Leffert, & Graham, 1995; American Psychological Association, 2002), the main biological change that occurs during adolescence is puberty. Puberty is a time when physical appearance begins to change, as well as changes in the hormone levels. Along with all the physical changes in puberty, interest in sex often increases (Cromer, 2011). These transitions are different for females and males, but ultimately both are developing into adults. For girls these changes typically occur from age 10-13 (Gemelli, 2008). The development of breasts occur earlier, followed by menstruation and body hair. For boys, these changes typically occur later between ages 11-14 (Gemelli, 2008) with the development of enlarged testes and their first ejaculation. Males will also experience the development of body hair and voice changes, which typically occur later during puberty. Some additional shifts that both sexes may experience are changes in height, weight and skin due to hormone level changes (Gemelli, 2008; Peterson, Leffert, & Graham, 1995; American Psychological Association, 2002; Cromer, 2011).

The main cognitive changes that occur during adolescence are the development of hypothetical thinking and abstract reasoning (Gemelli, 2008; American Psychological Association, 2002; Petersen, Leffert, & Graham 1995). It is during this time that the ability to process information more efficiently, as well as become more independent with decision-making occurs. The adolescent is better able to think decisions through by using hypothetical thinking to predict possible consequences (Gemelli, 2008). Adolescence is
commonly a period of time when the adolescent is criticized for impulsive or bad decision-making, often linked to the lack of experience or making decisions based primarily on emotions (Peterson, Leffert, & Graham, 1995; Cromer, 2011; American Psychological Association, 2002). In either case, it is a learning experience for the adolescent and helps to shape values and beliefs in the future.

The psychosocial changes may be some of the most challenging aspects of adolescence. In early adolescence, it is common for an individual to feel uncomfortable in his/her body due to the many changes that occur (Peterson, Leffert, & Graham, 1995; Cromer, 2011). It can also be a time when an individual begins to worry about being ‘normal’ and fitting in with a peer group (American Psychological Association, 2002). During this time, self-esteem commonly seems to be a struggle and can continue to be a struggle throughout the adolescent years (Peterson, Leffert, & Graham, 1995). An adolescent often struggles between personal looks and what others such as peers or the media claims to looks good (Cromer, 2011). Self-esteem typically sees a decline during the adolescent years with comparisons to peers or even celebrities in the media (Cromer, 2011). Self-esteem can be affected by an individual's appearance, peer acceptance, academic abilities, and athletic skills (Peterson, Leffert, & Graham, 1995). Poor self-esteem is more commonly seen in females, but males can exhibit self-esteem issues, as well (Peterson, Leffert, & Graham, 1995; Cromer, 2011). Due to this poor self-concept, adolescence is a period of time when depression and eating disorders can occur (American Psychological Association, 2002; Cromer, 2011). During the later adolescent years, an individual typically gets a better sense of who he/she is and becomes more comfortable with himself/herself (Cromer, 2011).
Another significant psychosocial change for an adolescent is the shift from family based relationships to peer and romantic-based relationships (Cromer, 2011). This change is seen in transitions from early adolescent same sex friendships, to middle and late adolescent opposite sex relationships (Peterson, Leffert, & Graham, 1995). During the adolescent years, increasing amount of time is spent with peers and conforming to peer group expectations (Peterson, Leffert & Graham, 1995; Cromer, 2011). The adolescent stage is the time spent experimenting with new ideas and situations in order to figure out who an individual is, which often times can be difficult due to peer group expectations (Peterson, Leffert, & Graham, 1995).

Each individual develops at his/her own pace and in his/her own unique way (Cromer, 2011; Peterson, Leffert, & Graham, 1995). Besides these typical adolescent developments, an adolescent also is influenced by environmental factors that can prevent or delay this typical development. Peterson, Leffert, and Graham (1995), found that family, peer groups, community, and income level have effects on various aspects of adolescent development. The many different aspects of development are all interconnected and have influences on the adolescent’s development of personal identity.

**Identity.**

According to the Deaux (2000), the term identity is extensively used in many different areas including developmental, personality, and social psychology, as well as areas of sociology. Identity is considered a feature of an individual reflecting an internal process of self-definition. Throughout centuries, identity has been conceptualized and written about by many theorists. Virtually all writers use this term to refer to how individuals define themselves (Deaux, 2000). One of the foremost writers focusing on
adolescence and identity formation was Erik Erikson. Erikson argued that identity “is not feasible before and is indispensable after the end of adolescence” (1968, p.61). Erikson proposed that different aspects of the self becomes integrated during adolescence. From this perspective, the goal of the individual is to merge different motives and experiences into a consistent sense of identity (Erikson, 1968).

According to Deaux (2000), characteristics that are frequently associated with identity include continuity, differentiation, and categorization. Continuity is the adolescent’s ability to envision where the individual has been, where the individual is now, and what the future holds. Categorization refers to how an individual relates to others who share similar characteristics and are a part of the same cohort, whereas differentiation emphasizes the ways in which an individual distinguish him/herself from others (Deaux, 2000).

**Erikson: Identity vs. role confusion.**

Erikson theorized that during adolescence, the individual is going through the developmental stage of identity versus role confusion (Erikson, 1968). During this stage, an adolescent begins to define who he/she is, and what his/her values in life are, as well as begin to develop a sense of direction. An increase in autonomy and independence allows for more interaction with communities, extracurricular groups, and other peers. Social relationships become the main priority during this period of life. Within this stage, an adolescent is experimenting with different roles, activities, and behaviors in hopes to form a sense of self or a sense of direction (Erikson, 1968).

When the individual is able to assess personal attributes and match them to the demands within the environment successfully, Erikson (1959) would declare that identity
has been formed. An individual with a stronger sense of who he/she is and where his/her life is heading would be more likely to engage in mature relationships and successfully assume adult roles (Beyers & Seiffge-Krenke, 2010, Cote, 2002). However, when an individual is unsuccessful at matching the demands of the environment, role confusion occurs. Individuals who are unclear about his/her identity would be more likely to experience distress, engage in destructive behavior, and experience difficulties maintaining healthy relationships (Schwartz, et al., 2010). In a critique of Erikson’s theory, Sokol (2009) stated that role confusion could lead an individual to question his/her personality characteristics and view of self. The individual can also have doubt about sense of purpose, which leads to confusion. Typically an individual will go through some role confusion as the demands of life change, but many are able to reach resolution and move to the next developmental stage (Sokol, 2009).

According to Schwartz, Donnellan, Ravert, Luyckx, and Zamboanga (2013), many social and cultural factors have changed aspects of identity formation such as changes in the labor market, an increase in the amount of people attending college, and an increase in the advances in technology that has widened the opportunities for a vast array of life options. With these social and cultural changes in society, the task of developing a sense of identity has become increasingly important and also more challenging to navigate. The transition from adolescence to adulthood has become far more extended, precarious, and difficult (Schwartz, Donnellan, Ravert, Luyckx, and Zamboanga, 2013).
Spinal Cord Injuries

According to the National Spinal Cord Injury Statistical Center (NSCISC) (2012), it is estimated that the annual incidence of spinal cord injury, not including those who died the scene of the accident, is approximately 40 cases per million population in the U. S. or approximately 12,000 new cases each year. The NSCISC (2012) reported 6,456 spinal cord injuries from ages 10-20 years of age, with the most common age of injury at 19 years of age. Nearly a quarter of all injuries occurred between the ages of 17 and 22 years and nearly half of all injuries occurred between the ages of 16 and 30. The most common causes for spinal cord injuries in adolescents are motor vehicle accidents (40%), sports injuries (24%), diving accidents (13%), gunshot wounds (8%), falls (8%), transverse myelitis (4%), and spinal cord tumors (3%) (Betz & Mulcahey, 1994).

Spinal cord injuries are defined in Taber’s Encyclopedic Medical Dictionary (2009), as, “compression, contusion, or cutting of the spinal cord as a result of trauma (p.1260).” A spinal cord injury can occur in two types: complete or incomplete. Complete spinal cord injuries cause paralysis and loss of sensation while an incomplete spinal cord injury has varied amounts of sensory and motor functions still intact (Hanak & Scott, 1983; Somers, 2010). According to Somers (2010), the level of injury can also affect the amount of function the individual will have after a spinal cord injury. If the injury occurs in the cervical region, it will cause loss of function in the upper and lower extremities, trunk, and pelvic organs and is referred to as tetraplegia. If the injury occurs in the thoracic, lumbar, or sacral regions, it is referred to as paraplegia and amount of function varies depending upon the level of injury. In paraplegia, function can be affected in the trunk, lower extremities, and pelvic organs with upper extremity function still intact.
Spinal cord injuries not only affect the physical movements an individual is able to complete, but can also affect sensation, thermoregulation, respiratory, cardiovascular, bowel and bladder, and reproductive functions (Somers, 2010).

Both the type of injury and level of injury determine the amount of disruption an individual will experience in their everyday lives (Zhang et al, 2013). From an occupational therapy perspective, spinal cord injuries interfere in all aspects of life. Although injuries are physical, the impact on the individual’s psychological, financial and social well-being can be just as important (Somers, 2010; Zhang et. al, 2013).

According to Atkins (2008), spinal cord injuries can lead to under achievement in social, educational, and vocational pursuits; conflict in peer relationships; alteration in leisure activities; financial devastation; family stress; and forced lifestyle changes for the patient and his or her family members. Martz et al. (2005) suggests that adapting to spinal cord injuries may “involve greater psychological efforts that those mobilized after traumatic events where physical functioning returns to normal (p. 1182).”

Depression and anxiety are commonly seen in individuals with a spinal cord injury due to the dramatic changes in level of function (Anderson et. al, 2009). According to Craig (1990), approximately 30-40% of individuals with a spinal cord injury are estimated to be 3-5 times more likely to develop an anxiety disorder; with an estimated 30% of individuals continuing to experience depression or anxiety two years post injury.

Due to the dramatic change in lifestyle, individuals who experience a spinal cord injury often go through a process of grief and loss of identity when reflecting on who the person was before the injury (Somers, 2010). This grieving process is reflected by Seidel (1982) in an adjustment theory created to increase therapist’s understanding. Seidel
proposes that there are five major stages that individuals go through: shock, expectancy of recovery, mourning, defense, and adjustment. Shock refers to the disbelief in what has happened, as well as the severity of the situation. Expectancy to recover refers to the hope that the injury is only temporary and a response typically involves bargaining as a means of ensuring recovery. The mourning stage involves the individual recognizing that the injury is permanent and that previous abilities have been lost. A response to this stage can be seen as self-deprecating behavior, such as self-pity or a sense of hopelessness. Depressive behaviors can be seen including turning away from family and friends. The stage following mourning is defense, which involves the individual beginning to form a new self-image, as well as experimenting with new behaviors, including anger and acting out to get needs met. There is a struggle between dependence on others and regaining independence, much like in adolescence. The final stage of acceptance involves the individual creating a new self-image, exploring interests, setting goals, and making plans for the future (Seidel, 1982). This framework of emotional responses is variable to each individual and each individual may experience several different responses at one time. Each individual goes through these stages at his/her own rate and in his/her own way (Hanak & Scott, 1983).

People are affected physically, psychologically, and socially when a spinal cord injury is acquired. Socially, people who acquire spinal cord injuries get titled as ‘disabled’ and the fear of this title can add to the stress experienced (Somers, 2010). Commonly in society, people feel uncomfortable when it comes to socializing with people who are different, which can limit an individual with a spinal cord injury from connecting with others in the community (Somers, 2010). The social changes can also
include changes in personal relationships due to the shift in roles that may occur, as well as, the ability to form new relationships (Ingram & Grundy, 2002).

**Adolescent with spinal cord injury.**

Psychological adaptation to the injury may be especially difficult for adolescents, as the injury comes in the middle of the development of adult self-image, identity, and independence (Atkins, 2008). According to a study by Dewis (1989), physical appearance and function, physical and emotional independence, and social skills and interpersonal relationships were the top rated concerns for an adolescent with a spinal cord injury. These factors all contributed to the adolescent’s ability to maintain a sense of normalcy. Physical appearance is a top priority during adolescence, but when a spinal cord injury occurs, the body experiences many additional changes. According to Dewis (1989), impaired excretory function, loss of musculature and physique, and deterioration in personal appearance and hygiene were areas that the adolescent with a spinal cord injury was most uncomfortable with and most often tried to cover up.

The physical changes and dependence on others can lead to decreased self-esteem, feelings of helplessness and anger (Dewis, 1989). According to study by Anderson, et. al. (2009), researchers found children and adolescents with spinal cord injuries and reduced functional independence to be associated with depression as well as, shorter duration of injury to be associated with higher levels of anxiety. Children and adolescent with spinal cord injuries most commonly experienced anxiety or depression due to decreased community participation (Anderson, et. al, 2009). Kelly and Vogel (2013) determined an adolescent was most commonly engaged in sedentary activities in their home settings such as watching television, listening to music or playing video
games. The majority of adolescents rated school as the area of occupation that they were least satisfied with (Kelly & Vogel, 2013). According to a study by Mulcahey (1992), the occupation of school was challenging for students with spinal cord injuries due to inadequate accessibility in the school environments and peer groups. Social interactions were challenging due to others reactions to a disability, embarrassment of loss of function, feelings of being a disruption, anger, and fear of rejection (Mulcahey, 1992).

Adolescents with a spinal cord injury are experiencing many changes during a time when they are still developing physically, psychologically, and socially, as well as trying to build a personal identity. These developmental factors make the treatment of adolescents unique from adults. Adolescents are going through a time when increased independence is desired and acquiring a spinal cord injury is a significant set-back (Dewis, 1989). The individual is not able to explore new things or participate in the activities he/she was able to prior to the injury (Dewis, 1989). Socially, an adolescent is at a stage of life when peer acceptance and romantic relationships are beginning, but these aspects are greatly impacted by a spinal cord injury (Augutis, Levi, Asplund, & Berg-Kelly, 2007). With all the stress associated with a spinal cord injury, an adolescent has limited experiences to help to cope with the dramatic event and the hardships faced (Dewis, 1989).

**Role of occupational therapy**

According to AOTA (2008), the role of occupational therapy is to “support health and participation in life through engagement in occupation (pg. 626).” Occupation is defined by Hinojoso & Kramer (2007) as, “activities that people engage in throughout their daily lives to fulfill their time and give life meaning (p.865).” When a spinal cord
injury is acquired, the physical and psychological factors of the injury can limit the ability to participate in everyday purposeful activities.

The goal of occupational therapy is to assist patients to reach the highest level of functional independence that the injury will allow through meaningful activity (AOTA, 2008). From a mental health standpoint, the goals of occupational therapy are twofold: to promote mental health and well-being in all persons with and without disabilities; and to restore, maintain, and improve function and quality of life for people at risk for or affected by mental illness (AOTA, 2010). Regaining independence can be achieved by using alternative methods, as well as adaptive equipment to complete tasks (Martin & Grundy, 2002). Occupational therapy interventions focus on all areas of life and address all aspects of a person including psychological, emotional, and physical barriers (AOTA, 2008). This holistic view of the client is beneficial in the treatment of spinal cord injuries due to major impact the injury has on all aspects of everyday life.

**Summary**

Adolescence is a period in life when many changes occur biologically, cognitively, psychologically, and socially. Biologically, adolescence is a time when the body is experiencing many changes and puberty occurs (Gemelli, 2008, Peterson, Leffert, & Graham, 1995). Adolescence is a time when cognitive skills are becoming more efficient and abstract reasoning is developing (Gemelli, 2008; American Psychological Association, 2002; Petersen, Leffert, & Graham, 1995). It is a time of challenge with the main focus being on physical attributes and living up to peer group expectations. Adolescence is a time when self-esteem can show a decline and peer pressure can influence an adolescent’s behaviors (Cromer, 2011).
Identity formation is one of the most important areas of the adolescent development. According to Erickson (1968), it is during this time that an adolescent begins to define who the individual is, and what the individual values in life, as well as developing a sense of direction. Identity formation allows an adolescent to experiment with different roles, activities, and behaviors in hopes to form a better sense of self or a sense of direction (Erikson, 1968). Adolescence is a time to increase independence, explore new things, participate in activities, and build relationships (Dewis, 1989). Typical activities that define who an individual is are halted when the adolescent acquires a spinal cord injury. A spinal cord injury changes an adolescent’s life drastically and requires a reconsideration of personal identity. An adolescent who acquires a spinal cord injury faces changes in physical status, as well as increased dependence on parents (Dewis, 1989). A spinal cord injury can result in decreased self-esteem, feelings of worthlessness, anger, and embarrassment (Dewis, 1989). By addressing identity during treatment, an adolescent can be assisted to rebuild that identity that was lost and begin to live more confidently and successfully. Occupational therapy offers the ability to address identity due to the holistic approach of the profession.

**Problem Statement**

Extensive literature is available regarding typical adolescent development, identity formation, spinal cord injury, and occupational therapy however, a lack of information exists to guide the occupational therapists use of skills to benefit adolescent clients with newly acquired spinal cord injuries. Much of the research in occupational therapy literature for SCI focuses on the child or the adult population with adolescents commonly placed into one of the two categories depending upon developmental
maturity. The lack of knowledge on the different age-related developmental issues specific to adolescence results in the loss of client-centered care that could limit the functional outcomes of the adolescent.

**Purpose**

The purpose of this scholarly project is to identify a need and to guide occupational therapy during the treatment of adolescents who have acquired a spinal cord injury. The manual can assist to better treat adolescents recovering from spinal cord injuries by focusing on age-related, developmental issues. In particular, it is believed that focusing on aspects of identity formation as experienced in the midst of a traumatic (SCI) event will foster successful adolescent identity development and a resultant higher quality of life.
CHAPTER III

METHODOLOGY

A literature review was conducted utilizing the search items “typical adolescent development, identity formation, spinal cord injury, and occupational therapy” in multiple online databases including: CINAHL, PubMed, PsychInfo, Academic Search Premier, OT Search, and Google Scholar. Textbooks and government-based websites were also utilized to obtain additional information.

There was an abundance of professional literature found within the area of pediatric and adult spinal cord injury, but limited literature was specific to adolescents with spinal cord injuries. The literature review revealed more literature regarding spinal cord injury treatment focused on the physical aspects and less on the psychosocial aspects. Literature specifically focusing on identity formation during the treatment of an individual who has experienced a traumatic event was even more limited and seldom from the occupational therapy literature. The authors concluded, there is limited information regarding the role of occupational therapist in fostering self-identity and on treatment options for adolescents who experience spinal cord injuries. Therefore the literature review supports the need for a manual to guide occupational therapist in the treatment of adolescents with spinal cord injuries in order to foster identity formation is needed in order to promote a higher quality of life is therefore supported by the literature review.
A variety of occupational therapy theories and models were considered for their potential in guiding development of the manual. The four concepts of the Model of Human Occupation (MOHO) were determined to be the best-suited to meet the identity-based needs of adolescents with a spinal cord injury. These main concepts of MOHO include volition, habituation, performance capacity, and environment. The MOHO concept of volition addresses the adolescent’s motivations or interests, values, and awareness of his/her capabilities (self-efficacy). The concept of habituation addresses the adolescent’s habits and his/her expectations for self and society (internalized role). The concept of performance capacity is influenced by the individual’s mental and physical abilities, which will vary from person-to-person. The environment concept looks at the adolescent’s physical and social environment and how it can impact the process of building an identity. MOHO was utilized to select effective assessments and intervention that promote positive identity formation.

The manual development consisted of researching occupational therapy assessments that addressed the aspects of identity formation. The assessments chosen had to be age appropriate, have the ability to be utilized by an occupational therapist, and have relevant outcomes. The interventions were similarly created or selected to be age appropriate and promote identity formation. The manual reflects assessment and interventions adapted for the occupational therapist that supports the fostering of identity in adolescents with spinal cord injuries.
CHAPTER IV
PRODUCT
Fostering Self-Identity in Adolescents Who Experience Spinal Cord Injuries:

A Manual for Occupational Therapists

Terese Boeder, MOTS
Lauren Schneibel, MOTS
Sonia Zimmerman PhD, OTR/L, FAOTA
INTRODUCTION

Typical Adolescent Development

Adolescence is a time of life that presents many changes and challenges (Peterson, Leffert, & Graham, 1995). Changes are occurring biologically, cognitively, psychologically, and socially (Gemelli, 2008; Peterson, Leffert, & Graham, 1995, American Psychological Association, 2002; Cromer, 2011). Biologically, an adolescent is experiencing puberty with many physical and hormonal changes (Cromer, 2011). Cognitively, an adolescent is developing more abstract thinking and becoming more independent with decision-making (Gemelli, 2008). Psychologically, an adolescent is experiencing a time when peer expectation and the society’s view of ‘beautiful’ can lead to low self-esteem, depression, or anxiety (Peterson, Leffert, & Graham, 1995). Socially, an adolescent is changing from a family-based to more of a peer social group focus (Cromer, 2012). These different aspects of development are all interconnected and have influences on the adolescent’s personal identity (Cromer, 2012). It is during this time that an adolescent begins to define who the individual is, and what the individual values in life, as well as developing a sense of direction in his/her life (Erikson, 1968). Experimenting with different roles, activities, and behavior are some ways in which the adolescent hopes to form a sense of self-direction (Erikson, 1968). When an adolescent is unable to form a positive self-identity role confusion occurs. The individual
may begin to question personality characteristics and his/her view of self, which leads to a pause in development into further stages (Sokol, 2009).

**Spinal Cord Injuries**

A traumatic lifelong injury such as a spinal cord injury (SCI) can have various dramatic effects on an adolescent both physically and psychosocially (Atkins, 2008). According to National Spinal Cord Injury Statistical Center (NSCISC) (2012), approximately 12,000 SCIs are reported each year, with the most common age of injury at 19 years old. In 2012, the NSCISC reported 6,456 SCIs occur between the ages of 10-20 years old (NSCISC, 2012). SCIs can lead to underachievement in social, educational, and vocational pursuits; conflict in peer relationships; alteration in leisure activities; financial devastation; family stress; and forced lifestyle changes for the patient and his or her family members (Atkins, 2008). Due to the dramatic change in so many aspects of life, an individual who has experienced a SCI often goes through a process of grief and loss of identity when reflecting on who the person was prior to the injury (Seidel, 1982). At a time in an individual’s life when an increase in independence should be experienced, acquiring a spinal cord injury is a significant set-back to this developmental step (Dewis, 1989).

**Role of Occupational Therapy**

The goal of occupational therapy (OT) is to help an individual to reach the highest level of functional independence that the injury will allow through meaningful activity (AOTA, 2008). The occupational therapist takes a holistic approach that not only addresses the physical aspects that occur with a SCI, but also the psychosocial
challenges that arise (AOTA, 2008). Extensive literature is available regarding typical adolescent development, identity formation, spinal cord injury, and occupational therapy, however, a lack of information exists to guide the occupational therapists use of skills to benefit adolescent clients with newly acquired SCI.

**Manual Purpose**

The purpose of this manual is to assist occupational therapists to better treat adolescents recovering from SCI in an inpatient neuro-rehabilitation setting by focusing on age-related, developmental issues. In particular, it is believed that focusing on aspects of identity formation as experienced in the midst of a traumatic (SCI) event will foster successful adolescent identity development. The manual focuses on occupational therapy assessments and interventions that can be utilized with an adolescent who has experienced a SCI. The assessments focus on helping the OT to better understand the individual and providing the adolescent a chance to self-reflect on his/her current situation. The assessments focus on many of the internal aspects of the individual to assist in developing a new identity or adapting his/her current identity to fit with their new circumstances.

The interventions focused on in this manual address self-esteem, values, and social supports. The interventions can be utilized in individual sessions or in group sessions when appropriate. The interventions can be adapted for the individual’s needs and may require assistance with writing aspects depending on level of injury. The manual, including assessment and interventions, are guided by the Model of Human Occupation (MOHO).
Model of Human Occupation

The Model of Human Occupation (MOHO) was chosen to guide this manual due to its ability to prioritize individual needs, provide a holistic view of individuals, provide a client-centered approach to care, and supply a rationale for intervention (Kielhofner, 2008). The model conceptualizes three interrelated components of the person as volition, habituation and performance capacity (Kielhofner, 2008). These components can also be impacted by the physical and social environment, which can affect the individual’s ability to form a personal identity. These concepts seek out to offer explanations about an individual’s circumstances, the physical and emotional limitations, motivations, and how to implement OT interventions (Forsyth et al., 2014). MOHO is used as a framework to organize the individual’s motivations, roles and routines, as well as the physical and cognitive abilities of the individual.

Volition

Volition refers to the motivation an individual has to perform the occupation (Kielhofner, 2008). Not only should the individual have an overlying desire toward action, but he/she must attach value to the occupation, feel competent to do the occupation, and find it fulfilling (Forsyth et al., 2014). For individuals with a SCI, volition is greatly impacted due to a major change in the individual’s ability to complete desired occupations.

Habituation

Habituation refers to the process of how an occupation is organized into patterns or routines (Kielhofner, 2008). Through repetitive action, habits are shaped
that influence how individuals perform routine activities. Through roles, interaction, and social expectations, individuals internalize and develop a sense of identity (Forsyth et al., 2014). An adolescent is in the process of establishing roles in society and creating a personal identity. A traumatic event like a SCI requires the individual to initiate new roles, routines, and establish a new identity.

**Performance capacity**

Performance capacity is the mental and physical abilities that the individual needs in order to complete the occupation (Kielhofner, 2008). The performance capacity aspect has both subjective and objective approaches. The objective approach is addressed first when learning a new task. The subjective approach is utilized once an individual is able to complete a task with more of his/her focus being on the personal experience with completing the task (Kielhofner, 2008). The status of the neurological system is greatly impacted when a SCI occurs (Atkins, 2008). These neurological changes impact the individual’s physical abilities to complete tasks, but can also influence the individual’s view of self.

MOHO stresses that occupations are interactions between the person, including the characteristic of volition, habituation, and performance capacity, and the environmental factors (Forsyth, et al., 2014). A person displays function when he or she is able to choose, organize, and perform occupations that are personally meaningful. For adolescents with spinal cord injuries choosing, organizing, and performing occupations that are personally meaningful can help to foster a positive self-identity.
Consistent with the Model of Human Occupation (MOHO) the assessments chosen address the individual’s volition, habituation, and performance capacity. The assessments help the occupational therapist to better understand the internal thoughts and feelings of the individual, as well as show psychosocial factors that could be barriers or inhibitors to treatment. Although no assessments address environment directly, the individual’s social and physical environments should be considered throughout the treatment process. The social and physical environment can include the spaces an individual occupies, the objects he/she uses, the people he/she interacts with, and the meaning placed on these environments (Kielhofner, 2008). These environments can impact an individual’s self-esteem and self-efficacy, which can affect an individual’s identity formation. The number of assessments utilized can vary depending on the individual’s needs.
Self-Assessments

- Adolescent Leisure Interest Profile
- Bell Relationship Inventory for Adolescents (BRIA)
- COPE and Brief COPE
- Culture Free Self-Esteem Inventories (3rd ed.) (CFSEI-3)
- General Self Efficacy Scale
- Occupational Self-Assessment (OSA)
- Occupational Questionnaire (OQ)
- Role Checklist
- Tennessee Self-Concept Scale (2nd ed.). (TSCS:2)
Adolescent Leisure Interest Profile

Author: Alexis D. Henry, ScD, OTR/L, FAOTA

Purpose: The Adolescent Leisure Interest Profile helps to gather information on an individual’s interest, level of engagement, and personal perceptions of performance capacity.

Population: Adolescents in a variety of settings

Description: The self-report form consists of 83 activities that are grouped into categories depending on the type of activity. The individual rates each activity on how interested they are, how often they participate in the activity, how well they are at performing the activity, how much they enjoy the activity, and who they participate in the activity with. Once the self-report form is completed there is a section after each category of activities to interview the individual in order to receive more information about the activities.

Relevance: The Adolescent Leisure Interest Profile is relevant to this specific population because it addresses a variety of activities that could be possibly incorporated into interventions in order to make treatment more motivating and client centered.

MOHO Concepts Addressed: The Adolescent Leisure Interest Profile addresses volition by looking at the values and interests of an individual, as well as the habits pertaining to how often the activity is performed. Performance capacity and self-efficacy are addressed by having the individual report how well he/she can perform the activity.

Source
Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

*Can be downloaded (with registration) for free at MOHO Clearinghouse website

Reference
Bell Relationship Inventory for Adolescents (BRIA)

Author: Morris D. Bell, PhD

Purpose: The BRIA assesses an individual’s ability to maintain a stable sense of identity and appropriate emotional bonds with others.

Population: Individuals age 11-17 years old, especially helpful in assessing an individual who has experienced trauma or has a nonverbal learning disability. **Bell Object Relations and Reality Testing Inventory (BORRTI) available for individuals 18 years and up.

Description: Self report inventory containing 50-items with the individual responding to each item with true or false. The BRIA assesses five object relations subscales:
- **Alienation:** Lack of trust, difficulty with intimacy, feelings of alienation
- **Insecure Attachment:** Sensitivity to rejection, fears of separation and abandonment
- **Egocentricity:** Lack of empathy, self-protectiveness, tendency to control
- **Social Incompetence:** Social discomfort, shyness, difficulty making friends
- **Positive Attachment:** Satisfaction with current relationships with peers and parents

The results can help to identify an individual who is experiencing psychological disturbance and difficulty with interpersonal relationships. The BRIA helps the OT better understand the interpersonal aspect of the individual in order to provide client-centered practice.

Relevance: The BRIA is relevant for this specific population due to the focus on many of the developmental aspects of an adolescent. This assessment can provide information about who the individual is, show some of the individual’s strengths and weaknesses, and address the interpersonal aspects of the individual.

**MOHO Concepts Addressed:** The BRIA was developed by a psychologist, but can be compatible with the MOHO model. The BRIA addresses volition through person causation, specifically the self-efficacy aspect. Habituation is addressed by looking at an individual’s habits of behaviors.

Source:
Western Psychological Services
Website: www.wpspublish.com

Reference:
COPE and Brief COPE

Author: Charles Carver, PhD

Purpose: The COPE assists to identify patterns of coping with stress related to events.

Population: Adolescents and adults who are having scheduled surgery or following a traumatic event.

Description: Self-assessment that contains 60 “I” statements that are rated on a 4-point scale. The assessment consists of three scales that address problem-focused coping, emotion-focused coping and dysfunction responses. The results of this self-report display 15 patterns of coping, whether positive or dysfunctional coping skills.

*The Brief COPE is a shortened version containing 28 items for quick testing.

Relevance: The COPE is relevant to this specific population due to the increased stress levels an individual may experience from acquiring a SCI. The COPE can help to identify which coping skills an individual utilizes, as well as the need for additional or more positive coping skills in order to promote success in functional tasks.

MOHO Concepts Addressed: The COPE was developed in the psychology field, but is compatible with MOHO model. The COPE addresses habituation through examining the habits an individual has during stressful situation and the coping skills commonly used.

Source
Charles S. Carver
Department of Psychology
University of Miami
Website: http://www.psy.miami.edu/faculty/ccarver/sclCOPEF.html
http://www.psy.miami.edu/faculty/ccarver/sclBrCOPE.html

Reference

Culture-Free Self Esteem Inventories, 3rd ed. (CFSEI-3)

Author: James Battle, PhD

Purpose: The CFSEI-3 evaluates an individual’s level of self-esteem.

Population: Individuals age 6-18 years old

Description: The CFSEI-3 manual has three alternative age-related forms: Primary (ages 6-9), Intermediate (ages 9-12) and Adolescent (age 13-18). The primary form contains 29 items, the intermediate form contains 64 items, and the adolescent form contains 67 items. The assessment addresses 4 areas (Academic, General, Parental/Home, and Social) including an additional subscale on the adolescent form to measure personal self-esteem. Each item is given a yes or no response and totaled according to guidelines with the results being a global self-esteem score.

Relevance: The CFSEI-3 can help to identify the level of self-esteem that the individual is at. As an adolescent with a SCI begins to adjust to a new lifestyle and progresses in treatment, this assessment can be used as a measurement of progress or outcome measure.

MOHO Concepts Addressed: The CFSEI-3 was developed by psychologists, but is compatible with the MOHO model. The CFSEI-3 addresses volition by looking at personal causation and self-efficacy. Values are addressed through the decrease in occupational performance that is seen when a SCI is acquired. This decrease in occupational performance can lead to decreased self-esteem.

Source:
Pro-Ed. Incorporated
Website: www.proedinc.com

Reference
General Self-Efficacy Scale (GSES)

Authors: Ralf Schwarzer, PhD & Matthias Jerusalem, PhD

Purpose: The GSES assesses an individual’s perceived personal competence with dealing effectively with stressful situations.

Population: Adults and adolescents aged 12 and older

Description: Self-report form consists of 10 personal statements regarding successful coping strategies. Each statement is rated on a 4-point scale and scores are combined. A higher score indicates a higher perceived self-efficacy.

Relevance: The GSES is relevant to this specific population in order to identify the level of self-efficacy an individual has after a traumatic injury is acquired, as well as provides areas of growth to focus on during treatment. The results can be used to show progress throughout treatment as confidence builds.

MOHO Concepts Addressed: The GSES was developed by psychologists, but is compatible with MOHO model. The GSES addresses an individual’s self-efficacy and demonstrates the subjective view of performance capacity to cope with stress.

Source

May be downloaded from www.healthpsych.de

Reference
Occupational Self-Assessment (OSA)

Authors: Kathi Baron, MS, OTR; Gary Kielhofner, DrPH, OTR, FAOTA; Anita Iyengar, MS, OTR; Victoria Goldhammer, OTS; Julie Wolenski, OTS

Purpose: The OSA measures the individual’s competency with everyday activities and assists to identify the individual’s values in order to develop personal goals.

Population: Developed for individuals 12 years and older.
**If the individual is a younger adolescent, may benefit from the Child’s Occupational Self-Assessment (COSA), which is designed for ages 8-13.

Description: Two part self-report tool that contains 21 items that address different everyday activities. The individual uses a 4-point scale to rate how well he/she does each of the items, which assists to see the individual’s sense of occupational competency. The second part of this tool has the individual use a 4-point scale to rate how important the item is to him/her, which helps reflect the individual’s values. The results identify gaps between competency and value. Once completed it is reviewed by the individual and therapist in order to identify goals and plan interventions.

Relevance to specific population: The OSA is beneficial for this population due to its focus on the individual’s wants or needs. Discussing the outcomes assists to involve the individual in treatment, build rapport, and makes the goal setting process collaborative. The OSA allows an adolescent the opportunity to be part of the decision-making, which promotes independence and more control over treatment. Due to short length of time needed to complete assessment, it can be used as a measurement of progress or outcome.

MOHO Concepts Addressed: Developed by the MOHO Clearinghouse. The OSA addresses volition through personal causation by assessing the individual’s thoughts and feelings about his/her performance capacity. The self-assessment aspect helps to provide the subjective experience of performance capacity.

Source:
Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

Reference

Occupational Questionnaire (OQ)

Author: Nancy Riopel, MS, OTR; Gary Kielhofner, DrPH, OTR, FAOTA

Purpose: The OQ collects data on an individual’s use of time in daily activities and how it relates to his/her volition.

Population: Adults and adolescents

Description: Individuals report (self-report or interview) his/her main activities from memory of a typical weekday and weekend for half hour increments. The activities listed are rated on the value of the activity, as well as how well that activity is performed.

Relevance: The OQ helps to identify what a typical day would be like for the individual and what activities are the most meaningful for the individual.

MOHO Concepts Addressed: The Occupational Questionnaire was developed by the MOHO Clearinghouse. The OQ addresses volition by looking at the values and interests of the individual, as well as habituation by looking at the individual’s daily habits and routines. Performance capacity is addressed by having the individual rate him/herself on how well an activity is completed.

Source:
Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

*Can be downloaded (with registration) for free at MOHO Clearinghouse website

Reference
Role Checklist

Authors: Frances Maag Oakley, MS, OTR/L

Purpose: The Role Checklist assesses an individual’s perception of participation in past, present, and future roles, as well as the value associated with each role.

Population: Adolescent or adults with physical or psychosocial dysfunction

Description: A list of 10 roles are provided with the individual identifying if the role was performed in the past, presently performed, or anticipated to perform it in the future. The second part of the assessment asks the individual to identify the value of each of these roles. Additional roles can be added.

Relevance: Role Checklist would be beneficial to use with this specific population in order to identify roles that are valuable to an individual. These meaningful roles can help to motivate and direct interventions. Personal roles can also have a large impact on how an individual defines their identity. The Role Checklist can be utilized to show progress or changes in perceptions an individual may experience.

MOHO Concepts Addressed: The Role Checklist addresses volition through defining roles that are meaningful to an individual. This assessment also looks at habituation through internalized roles and how roles can impact an individual’s personal identity.

Source
Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

*Can be downloaded (with registration) for free at MOHO Clearinghouse website

Reference

Tennessee Self-Concept Scale, 2nd ed. (TSCS:2)

**Authors:** William H. Fitts, PhD & W. L. Warren, PhD

**Purpose:** The TSCS-2 measures various aspects of self-concept including perception of identity, satisfaction, and behavior.

**Population:** Child form: ages 7-14 years old.  
Adult form ages 13 years old and up

**Description:** The self-report adult form consists of 82 statements and the child form consists of 76 statements. The individual responds to each statement by rating him/herself on a 5 point scale. The statements assess five aspects of self-concept: physical, moral, personal, family, social, and academic/work. The results display 15 different scores of the individual’s perception of him/herself in various areas. The higher scores are correlated with better self-esteem levels.

**Relevance:** The TSCS-2 is relevant to this specific population because it helps to see the self-perceptions of the individuals and can help to identify areas that need to be addressed during treatment. The assessment also looks at which areas are most important to an individual. This assessment could be used overtime to show growth in self-esteem, as well as foster a stronger self-identity.

**MOHO Concepts Addressed:** The TSCS-2 was developed to be utilized in the psychology field, but is compatible with MOHO. The TSCS-2 addresses volition through self-efficacy by having the client self-reflect on abilities in many different areas of life, as well as values by looking at which areas are most meaningful to an individual.

**Source**  
Western Psychological Services  
Website: www.wpspublish.com

**Reference**  
Interview Assessments

- Occupational Circumstances Assessment Interview and Rating Scale (OCAIRS)

- Occupational Performance History Interview (Version 2) (OPHI-II)
**Occupational Circumstances Assessment Interview and Rating Scale (OCAIRS)**

**Author:** Kirsty Forsyth, PhD, OTR; Shilpa Deshpande, IOTR; Gary Kielhofner, DrPH, OTR, FAOTA; Chris Henriksson, PhD, OTR; Lena Haglund, PhD; Linda Olson, OTR; Sarah Skinner, Med, OTR; Supriya Kulkarni, IOTR

**Purpose:** The OCAIRS provides information on an individual’s life and occupational performance. The interview assesses factors that impact occupational participation, show strengths and weakness of the individual, and provides the individual’s self-perception of his/her occupational performance.

**Population:** Three interview formats, physical disability, mental health, and forensic mental health, each targeted for the different individuals’ needs.

**Description:** Semi-structured interview that assists the OT to gather, analyze and report data in order to better understand an individual’s perception of current circumstances. There are 12-guided questions addressing areas of MOHO. These 12 areas (interests, values, interpretation of past experiences, roles, habits, skills, personal causation, long and short term goals, physical and social environments, and readiness for change) are rated on a 4-point scale on whether they facilitate, allow, inhibit, or restrict occupational participation. The therapist ultimately makes the rating based on information received through the interview. The results show strengths and weaknesses in each of the 12 areas and the individual’s descriptions help to support the ratings.

**Relevance:** The OCAIRS can be helpful with this population due to the amount of information able to receive about the occupational performance prior to the injury, as well as provides the individual’s self-perceptions on why or how things have changed.

**MOHO Concepts Addressed:** The OCAIRS assessment addresses volition, habituation, and performance capacity in everyday life. The OCAIRS addresses self-efficacy by allowing the individual to self-evaluate his/her performance capacity, as well as helps the therapist get a subjective view of current circumstances the individual is facing.

**Source:** Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

**Reference:**

**Occupational Performance History Interview (Version 2) (OPHI-II)**

**Authors:** Gary Kielhofner, DrPH, OTR, FAOTA; Trudy Mallinson, MS, OTR/L, NZROT; Carrie Crawford, BA, OTS; Meika Nowak, BS, OTS; Matt Rigby, BS, OTS; Alexis Henry, ScD, OTR/L, FAOTA; Deborah Walens, MPHE, OTR/L, FAOTA

**Purpose:** The OPHI-II is an interview assessment that provides information about the individual’s occupational life history, as well as contains a measure that assesses occupational identity, occupational competence, and the impact of the occupational behavior settings.

**Population:** Individuals age 12 years and up that are in transitional programs, spinal cord injury rehabilitation program, residential program or day hospital program.

**Description:** The OPHI-II is a three-part assessment. The first part consists of a semi-structured interview that looks at the individual’s occupational roles, daily routines, occupational behavior setting, activity/occupational choices, and critical life events. The second part contains rating scales that measure an individual’s occupational identity, occupational competence, and the impact of the occupational behavior setting. The third part is constructing a life history narrative that can help to better understand the individual and assists in the intervention planning process.

**Relevance:** The OPHI-II can be helpful with this population due to the amount of information obtained about the individual’s past experiences and life events that influence treatment. The interview process also assists the therapist to build rapport with the client and incorporate meaningful occupations into the treatment process.

**MOHO Concepts Addressed:** The OPHI-II assessment addresses volition, habituation, and performance capacity. The OPHI-II also addresses values and interests by looking at meaningful occupations performed prior to injury. Habituation is addressed by assessing previous habits and routines.

**Source:**
Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

**Reference**

Observation Assessments

- Model of Human Occupation Screening Tool (MOHOST).
  - Combination of observation, interview, chart review, and consults with other disciplines.

- Volitional Questionnaire
**Model of Human Occupation Screening Tools**  
(MOHOST version 2.0)

**Author:** Sue Parkinson, DipCOT; Kirsty Forsyth, PhD, SROT, OTR; Gary Kielhofner, DrPH, OTR, FAOTA

**Purpose:** The MOHOST helps to identify an individual’s strengths and weaknesses

**Population:** Used primarily in mental health settings, but found to be beneficial for a variety of individuals in variety of settings.

**Description:** The MOHOST consists of 24 items that focus on six specific areas: motivation for occupation, pattern of occupation, communication and interaction skills, process skills, motor skills, and environment. Each item is scored on a 4-point rating scale indicting how participation is facilitated or restricted by individual or environmental factors. Data collection consists of multiple options: observation, client and caregiver interviews, chart reviews, and consultations with other disciplines.

**Relevance:** The MOHOST is relevant for this specific population because it allows the occupational therapist to use an objective view to assess an individual’s performance capacity. The MOHOST also looks at other aspects such as environment and physical skills, which are not addressed with other assessments provided in this manual.

**MOHO Concepts Addressed:** The MOHOST addresses volition, habituation, and performance capacity in a variety of areas while looking at the impact of environment on performance.

**Source:**
Model of Human Occupation Clearinghouse  
Website: www.cade.uic.edu/moho/

**Reference**

**Volitional Questionnaire (VQ)**

**Author:** Carmen Gloria de las Heras, MS, OTR/L; Rebecca Geist MS, OTR/L; Gary Kielhofner DrPH, OTR, FAOTA; Yanling Li, MA; Semonti Basu, MS, OTR; Ana Kafkes, MS, OTR

**Purpose:** The VQ provides information on how confident an individual feels doing an activity, how important that activity is, and how enjoyable the activity is.

**Population:** Individuals who can’t express their volitions verbally. Older children through adults who have significant impairments of cognitive, verbal, or physical abilities.

**Description:** Observation can occur during formal or informal sessions. Length and number of observations can vary. The therapist looks at 14 different aspects of an activity and rates those aspects on a 4-point scale. The therapist also considers the different aspects of the environment during the observation. The different environments help to show the influence of environment on each individual and how it supports or inhibits his/her occupational performance.

**Relevance:** The Volitional Questionnaire (VQ) is appropriate for the specific population to help identify which activities are most important and meaningful to the individual in order to plan client-centered interventions. The VQ also allows the individual to self-reflect on their strengths and weaknesses, which can be utilized or improved throughout the treatment process.

**MOHO Concepts Addressed:** The VQ addresses volition by looking at how important an activity is to an individual. Performance capacity is looked at by how environmental factors can either facilitate or inhibit participation.

**Source:**
Model of Human Occupation Clearinghouse
Website: www.cade.uic.edu/moho/

**Reference**

The interventions chosen are intended for the adolescent population, but may need to be adapted to meet the individual’s ability level. Many of the paper and pencil activities may require assistance to write depending on level of injury. The interventions chosen are guided by the Model of Human Occupation (MOHO) and address the main concepts of volition, habituation, and performance capacity. The interventions focus on helping the individual to self-reflect on his/her current situation so the individual needs some level of self-awareness. The interventions focus on strengthening identity, increasing self-esteem, and promoting a higher quality of life.
Self-Esteem

- My Self-Esteem Highs and Lows
- I Will Like Myself A-Z
- Positive Life Mottos
- Positive Affirmations
MOHO Concepts Addressed: Volition is addressed by assessing personal capacity and self-efficacy. Habituation is addressed by assessing the internalized role or how an individual thinks or feels about him/herself.

Objectives:
- Identity areas of self-esteem that are high or low
- Reflect on what has impacted self-esteem
- Identity ways to improve self-esteem

Activity: My Self-Esteem Highs & Lows
Materials: Paper, writing utensils
Format: Individual or Group Session

Activity Description:
1. What is self-esteem?
   - Our sense of self-worth or how we feel about ourselves

2. Have the individual or group members take a piece of paper and divide it into two sections.
   - In one section list areas in which self-esteem is high.
   - In the other section list areas in which self-esteem is low.

3. Once items are listed have the individual or each group member write down reasons why these areas are either high or low.
   Example: If school is in my high self-esteem area, the reason might be because I am good math and reading.
   
   If making friends is on my low self-esteem area, the reason might be because I don’t have good social skills.

4. Have each individual share one high and one low area of self-esteem.

5. Problem-solve and identify ways that self-esteem could be increased in the areas that are low.

Follow-up Questions:
- What are some ways to increase the low areas?
- What effects can the low self-esteem areas have on your life?

I Will Like Myself A to Z!

MOHO Concepts Addressed: Volition is addressed by assessing personal capacity and self-efficacy. Habituation is addressed by assessing the internalized role or how an individual thinks or feels about him/herself.

Objectives:
- Identify positive qualities of him/herself
- Express importance/benefits of having positive self-esteem

Activity: I Will Like Myself A to Z!
Materials: Handout and writing tools

Format A: Individual session
Activity Description:
Have individual fill out handout. Encourage the individual to only write down qualities that they truly believe they have. Engage the individual in conversation to further describe the positive qualities he/she wrote down.

*Additional Option: Assist the individual to make a larger version of handout to hang in the individual’s room. Allow the individual to fill out each letter overtime or as the individual is able to identify them.

Format B: Group Session
Activity Description:
Have each group member fill out the handout. Encourage them to discuss with others if unable to identify a specific letter. Have each member share their top 5 positive qualities and explain why those 5 qualities are the most important to the individual.

*Additional option: Have each member write his/her name on top of the paper. Pass paper around with members filling out each other’s sheets until all spaces are filled. Encourage members to personalize them to each person and not to use the same qualities for all members. Have members share if any of the comments surprised them and which 3 qualities they most agree with.

Follow-up Questions:
- Why is it important to have a good self-esteem?
- How can self-esteem affect your recovery?

will
I like myself A to Z!

A. ____________ n. ____________
B. ____________ o. ____________
C. ____________ p. ____________
D. ____________ q. ____________
E. ____________ r. ____________
F. ____________ s. ____________
G. ____________ t. ____________
H. ____________ U. ____________
I. ____________ V. ____________
J. ____________ W. ____________
K. ____________ X. exceptional
L. ____________ y. ____________
M. ____________ Z. ____________

Positive Life Mottos

MOHO Concepts Addressed: Volition is addressed by assessing the individual’s motivations and values.

Objectives:

- Identify mottos that are positive and influential
- Identify mottos that reflect one of the individual’s values
- Express the benefits of having a motto to live by

Activity: Positive Life Mottos

Materials: Piece of paper, list of mottos, writing tools, markers/crayons/colored pencils, Laptop (if possible)

Format: Individual or Group Session

Activity Description:

1. Discuss what is a motto?
   - Brief sentence or phrase used to state what one believes in. If you value the motto it can be motivating and encourage a positive attitude.

2. If a computer is available have individual or group members look up sayings/mottos. If no computer is available provide the members with the list of mottos provided.

3. Have individuals design their own motto by drawing, writing, or symbolizing a blank piece of paper.

4. Share mottos with group or therapist.

Additional Options:

- If group session: Do not write names on mottos and have members guess whose is whose. Allow the designer to explain the motto to the group and what it means to them
- Have members write three mottos down on strips of paper and put in bucket. Each member draws one and explains what that saying means to them. Allow others to share their thoughts as well. At end of group have each person choose one motto that really stuck out to them and complete handout.

Follow-up Questions:

- What are some benefits of having a motto to live by?
- How does “your motto” influence your life?

Created by Terese Boeder and Lauren Schneibel
List of Example Mottos

- “Do the best. Be the Best.”
- “Everyone has his burden. What counts is how you carry it.”
- “The big secret in life is that there is no big secret. Whatever your goal, you can get there if you’re willing to work.”
- “You may fall so many times, but always stand up!”
- “Think big and dream bigger.”
- “Do your absolute best, and have a good time!”
- “Where there’s a will, there’s a way.”
- “It is in your moments of decision that your destiny is shaped.”
- “Learn from yesterday; live for today; hope for tomorrow.”
- “All things are possible to him who believes!”
- “Ever onward, ever upward! It is the choices that you make today that count.”
- “Every Action has an Equal and Opposite Reaction.”
- “Live with passion today and every day!”
- “Success or failure are irrelevant. Do what makes you happy, and do it a little better every day. …and don’t forget to breathe!”
- “Do the best you can do in whatever you’re trying to do and never give up. Success is not by Chance it’s by Choice.”
- “NEVER GIVE UP!!!!!!”
- “Enjoy the journey.”
MOHO Concepts Addressed: Volition is addressed by assessing personal capacity and self-efficacy. Habituation is addressed by assessing the internalized role or how an individual thinks or feels about him/herself.

Objectives:
- Define what a positive affirmation is
- Identify positive affirmations to give him/herself
- Identify benefits of positive affirmations and positive self-esteem

Activity: Positive Affirmations
Materials: Handout, Paper, Scissors, Writing tools
Format A: Individual Session
Activity Description:
1. What is a Positive Affirmation?
   - Having you or someone else acknowledging a positive quality about yourself
2. Precut the cards out of handout.
3. The individual and therapist take turns drawing a card and answering the question. Have the individual write their answers on the cards.
4. Optional for the individual to keep the cards to hang in room or provide the individual with a box or something to keep the cards in to refer back if needed.
5. Encourage the individual to give him/herself one positive affirmation each day and to write down positive affirmations provided by others.
6. Have the individual set a goal regarding positive affirmations (optional).
Format B: Group Session
Activity Description:
1. What is a Positive Affirmation?
   - Having you or someone else acknowledging a positive quality about yourself
2. Precut one handout prior to group and give each person a copy of the handout.
3. Each member draws a card and answers the question.
4. The card gets passed around the group until each member answers the card. This continues until cards are completed or time allows.
5. Encourage the members to write down their answers on the handout copy provided.
6. Have each member make a goal regarding positive affirmations.
Follow-up Questions:
- What are benefits of positive affirmations?
- When others give you a positive affirmation how does it make you feel?
- What is the importance of having a positive self-esteem?

## POSITIVE Affirmations are Self-Esteem Boosters!

<table>
<thead>
<tr>
<th>1. I like myself because</th>
<th>9. I consider myself a good</th>
<th>17. I am most happy when</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________</td>
<td>___________________________</td>
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</table>

<table>
<thead>
<tr>
<th>2. I do __________ very well.</th>
<th>10. I like the way I feel about myself when I</th>
<th>18. My goals for the future are</th>
</tr>
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<tbody>
<tr>
<td>__________________________</td>
<td>_____________________________</td>
<td>_______________________________</td>
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</table>

<table>
<thead>
<tr>
<th>3. I feel good about __________</th>
<th>11. What I really enjoy most is</th>
<th>19. One of the many positive traits I have is</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________________</td>
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<table>
<thead>
<tr>
<th>4. My friends would tell you I have a great __________</th>
<th>12. The person I look up to the most is</th>
<th>20. People often compliment me about</th>
</tr>
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<tbody>
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<td>__________________________</td>
<td>_____________________________</td>
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</table>

<table>
<thead>
<tr>
<th>5. My favorite place is __________</th>
<th>13. The one person that always makes me feel good about myself is</th>
<th>21. My friends respect me because I always __________</th>
</tr>
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<tr>
<td>__________________________</td>
<td>_____________________________</td>
<td>_______________________________</td>
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</table>

<table>
<thead>
<tr>
<th>6. __________ loves me!</th>
<th>14. I look good when __________</th>
<th>22. I have a good sense of __________</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________________</td>
<td>_____________________________</td>
<td>_______________________________</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>7. People say I am a good __________</th>
<th>15. The color __________ looks great on me.</th>
<th>23. The two things I do best are __________ and __________</th>
</tr>
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<tbody>
<tr>
<td>__________________________</td>
<td>_____________________________</td>
<td>_______________________________</td>
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</table>

<table>
<thead>
<tr>
<th>8. I have been told that I have a pretty __________</th>
<th>16. I have a natural talent for __________</th>
<th>24. I know that I will be successful in life because I will __________</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________________</td>
<td>_____________________________</td>
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</table>

**Genuinely liking who you are is the core of your self-esteem!!!**

---

Values

- Life Assessment Chart
- Roles
- Coat of Arms
- Journaling
MOHO Concepts Addressed: Volition is addressed by assessing the individual’s values and motivations.

Objectives:
- Identify personal values
- Understand how values change over time
- Explain how values influence his/her life

Activity: Life Assessment Chart
Materials: Handout, Writing tools
Format: Individual or Group Session

Activity Description:
1. Have the individual or each group member fill out the Life Assessment Chart.

2. Share 3 of the most important items on the chart and have him/her explain why they are important.

3. After everyone has shared, have each individual look at the life assessment chart and mark which items will be more important in the future in order for them to be living independently.

Follow-up Questions:
- Are there any areas that you wish were of higher value? If so, how can you enhance that area?
- How do your values change over time?
- How do your values influence who you are?

# LIFE ASSESSMENT CHART

**Using the Following Scale,**

**Rate Importance of These Items to You:**

1 - not important  
2 - rarely important  
3 - fairly important  
4 - important  
5 - very important

<table>
<thead>
<tr>
<th>VALUES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>having a support system</td>
<td></td>
<td></td>
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<tr>
<td>being needed</td>
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<tr>
<td>feeling secure</td>
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<tr>
<td>outdoor activities</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>music</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>life balance</td>
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<tr>
<td>rituals</td>
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<tr>
<td>diversity in life</td>
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<td></td>
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<tr>
<td>family gatherings</td>
<td></td>
<td></td>
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<tr>
<td>friends</td>
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<td>work</td>
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<tr>
<td>play</td>
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<tr>
<td>organization/structure</td>
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<td>personal space</td>
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<td>money</td>
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<td>death</td>
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<tr>
<td>intimacy/sex</td>
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</table>

MOHO Concepts Addressed: Volition is addressed by assessing the values an individual relates to specific roles and self-efficacy by having the individual self-reflect on their performance capacity in each role.

Objectives:
- Identify meaningful roles
- Identify what is done well in those roles
- Identify areas of improvement in those roles
- Problem-solve ways to improve these areas

Activity: Roles
Materials: Handout and writing tools
Preparation: Cut-up piece of paper with different roles written on each slip (e.g. sister/brother, friend, daughter/son, worker/student)

Format A: Individual Session
Activity Description:
1. Have the individual draw slips and place roles that he/she participates in one pile and roles that do not apply to him/her in another pile.

2. Take the pile of currently participated roles and have individual identify the top five most important roles. Write those on the handout.

3. Have the individual identify one role and analyze what are some strengths in that role, as well as some areas of improvement. Write down on the handouts.

   Additional Options:
   - If time allows, continue to analyze each role
   - Discuss ways to address the areas of improvement
   - Collaborate to make goals that address the areas of improvement

Format B: Group Session
Activity Description:
1. While seated around a table, have a member draw a slip and read it out loud. Have all members who participate in the role identify themselves (either verbally or raising hand). Continue until all members have had a turn.

2. Distribute the handout and encourage the members to pick their top 5 most meaningful roles. Fill in the worksheet with the most important role to the individual, which will be the focus for positives and room for change.
3. Have members share the role they choose to focus on and three strengths within that role.

4. Also, have each member share an area for improvement and have group discuss different ways to improve these areas.
   Additional Options:
   - Have members partner up with other individual who chose the same role in order to problem solve ways to improve his/her role performance in that chosen role. Share the strategies with the group.
   - Help members make goals to address the room for change areas (optional).

Follow-up Questions:
- What roles do you think will be most challenging to improve on and why?
- What roles do you foresee becoming more important in the future?

My roles:
1. 
2. 
3. 
4. 
5. 

Choose one role: ____________________________

<table>
<thead>
<tr>
<th>Things I do well within this role.</th>
<th>Things I don’t do well within this role.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOCUS ON POSITIVES!</strong></td>
<td><strong>ROOM FOR CHANGE!</strong></td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

MOHO Concepts Addressed: Volition is addressed by assessing an individual’s values and what motivates him/her.

Objectives:
- Identify personal values
- Understand the importance of having personal values
- Express how these values have influenced his/her life

Activity: Coat of Arms
Materials: Handout, writing tools, markers/crayons/colored pencils
Format: Individual or Group Session

Activity Description:
1. Supply a list of six or more possible topics that can be drawn, written or symbolized in the blank boxes (e.g. Things I do well, A high point in my life, Something I value, Things I would like to do, My favorite things, Important people or places to me, hobbies. etc...) ---Try to keep the topics focused on the positives versus the negatives.

2. Encourage the individual to discuss with group members or the OT to come up with ideas. Have the individual complete the worksheet by choosing one topic for each box.

3. Share end result with group or OT and explain each box. Encourage the individual to share with others and to continue to add to it if desired.
   Additional Options:
   - Choose a specific 6 topics that would be appropriate for the group or individual

Follow-up Questions:
- Why is it important to know your values?
- How do the items on your coat of arms influence you?

MOHO Concepts Addressed: Volition and performance capacity are addressed by identifying what motivates the individual, how the individual views himself/herself, and personal growth.

Objectives:
- Increase self-awareness, self-esteem, and motivation by allowing the individual to put his/her thoughts down on paper.
- Journaling has the potential to reduce stress, increase problem solving, and overall help the personal heal and grow psychosocially.
- Reflect on past experiences in rehabilitation process.

Activity: Journaling
Materials: Journal and writing tools
Format: Introduce in an individual or group session; can be continued on an independent basis

Activity Description:
1. Introduce the journal to the individual. Allow the individual to have some type of say in what the journal looks like or have the individual design the journal so it is appealing to him/her.
2. Assure that he/she will be the only person reading and writing in the journal. It is completely private from anyone else unless he/she brings it up to others.
3. Encourage the individual to write in the journal at any time he/she has something to say or would like to put something down on paper.

Possible statements to facilitate journaling include:
- My goal for today is...
- My goals for the next few weeks are...
- One positive thing that happened to me today was...
- I am grateful for...
- I look forward to...
- A positive way I cope with my injury is.... Some other ways I could cope are?
- My greatest strength is.... It is my greatest strength because...
- I feel proud of myself when...
- I feel confident when...
- Having a support system is important because...
- __________, ___________, & __________ are three things that motivate me.
- They motivate me because....
- I am most happy when...

Created by Terese Boeder and Lauren Schneibel
Social Participation

- Peer Support Group
- Community Adventure
Peer Support Group

MOHO Concepts Addressed: Volition and habituation are addressed by assisting the individual in promoting peer relationships and a routine of attending support groups.

Objectives:
- Locate support groups within the community
- Help the individual to advocate for him/herself
- Increase the individual’s skills to obtain online resources

Activity: Peer Support Group
Materials: Handout, writing utensils, computer
Format: Individual or Group session

Activity Description:
1. Have the individual use a computer to look up support groups in his/her community. If in a larger community, the individual may be able to locate more support groups, while those located in smaller, rural areas may have more difficulty locating a support group. If unable to locate support groups have individual look for resources or other groups that could be utilized in the community upon discharge.

2. Have the individual fill out the handout and share why he/she choose the support group or resource.

3. Have the individual research websites that have useful information pertaining to his/her individual situations (e.g. programs to assist them in school, transportation that accommodates wheelchairs, funding for adaptive equipment if needed).

4. Fill out second handout with information found and share why he/she choose that website

Questions:
- What are some additional topics you may want to research in the future?
- If unable to find information you need, where can you receive that information?

Created by Terese Boeder and Lauren Schneibef
<table>
<thead>
<tr>
<th>Questions</th>
<th>Support Group #1</th>
<th>Support Group #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where is the support group located?</td>
<td></td>
<td></td>
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<tr>
<td>What are the times that the support group meets?</td>
<td></td>
<td></td>
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<tr>
<td>How many members are there?</td>
<td></td>
<td></td>
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<tr>
<td>What is the age range?</td>
<td></td>
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<tr>
<td>Is there a cost?</td>
<td></td>
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<tr>
<td>Additional Questions I would like to ask:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Created by Terese Boeder and Lauren Schneibel
# Online Resources

<table>
<thead>
<tr>
<th>Source: Example: Christopher and Dana Reeve Foundation</th>
<th>How to access info. (website)</th>
<th>Information on the website</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://www.christopherreeve.org">http://www.christopherreeve.org</a></td>
<td>“Paralysis Resource Center” – life after paralysis, blog, research, free paralysis resource guide</td>
</tr>
</tbody>
</table>

Created by: Terese Boeder and Lauren Schneibel
MOHO Concepts Addressed: Volition, habituation, and personal capacity are addressed throughout this activity. The individual will have the opportunity to go into the community in an outing of his/her choice. The individual will identify where he/she wants to go and select something that will be a part of his/her routine. The individual will gain self-efficacy, by increasing self-awareness of his/her capabilities within the community.

Objectives:
- To increase self-confidence during social interaction and participation within the community
- Gain skills on educating others about his/her injury
- Gain awareness to challenges and triumphs of the situations

Activity: Community Adventure
Materials: Pen and paper to develop a plan
Format: Individual session

Activity Description:
- This intervention is a multi-faucet intervention that will be planned in previous sessions, carried out, and then reflected on afterwards.
- The initial planning stages will involve the OT and the client collaborating on a social outing that is of interest to the individual (motivating/volition).
- Once the individual has decided on what he/she would like to do, the OT and the client will brainstorm different aspects of the outing.
- Some questions the OT may ask the individual:
  - What do you think the outing is going to be like?
  - What do you think will be the easiest parts and the hardest parts about the outing?
  - Do you feel comfortable explaining to someone why you are in a wheelchair?
  - Will this activity have a different meaning for you than it did before your injury?
  - What worries you the most about being in a social setting?
  - What are you excited about?
• Ask the individual what he/she would say if someone asked about his/her injury.
• While on the outing, take note of how the client interacts with others (ticket sales, crowds, etc.) Be aware of the individual’s overall body language.
• Following the outing, reflect with the individual. These questions could assist with this process.
  - How do you think the outing went?
  - What was the easiest and what was the most difficult about the outing?
  - What is an area that you still have concerns about?
  - What do you think we could work on to address those concerns?
  - How did you feel when you interacted with other people?
  - Did you feel like anyone treated you differently?
  - What do you think would be different if we chose to go somewhere else? (somewhere more crowded, more social interaction, other adolescents)
  - Where are some other places you would like to go? Do you think it would be different or similar than the outing we went on? How?

Created by: Terese Boeder and Lauren Schneibel
References


CHAPTER V

SUMMARY

Summary

The purpose of this scholarly project was to explore contemporary professional literature to identify knowledge and materials available to guide occupational therapists during the treatment of adolescents who have acquired a spinal cord injury. Review of the literature showed that a majority of information on spinal cord injury treatment is focused on either the adult or child populations, with limited literature available on treatment specific to the adolescent population. Of the literature available, a majority of the literature focused on the physical aspects of treatment of spinal cord injury; the psychosocial aspects of the treatment of spinal cord injury are less represented. Even less information was found regarding the development stages of adolescence, particularly identity formation.

Concerned that adolescence is the time of life when individuals develop a sense of self, confirm values, and form a personal identity, a manual was developed to guide occupational therapists treating adolescents with spinal cord injuries to foster a positive self-identity. Selection of the assessments and interventions was guided by the Model of Human Occupation (MOHO), with the goal of increasing self-esteem and building a strengthened identity. The development of the manual was guided by the belief that
focusing on aspects of identity formation as experienced in the midst of a traumatic spinal cord injury will foster successful adolescent identity development and a resultant higher quality of life.

**Limitations**

One limitation of the manual developed is the appropriateness of the interventions for adolescents ranging from age 10-20. The activities may need to be adapted for the individual’s needs; some may be more appropriate for younger adolescents and others for other adolescents. Another limitation is that the manual is specific to the population of adolescents with a spinal cord injury. Although the assessments may be indicated for other populations, as well, the interventions have been developed specific to adolescents who have experienced spinal cord injuries. The setting proposed for the manual’s implementation in is an inpatient neuro-rehabilitation setting; other settings, including outpatient or residential settings, may also be suitable. The manual incorporates recognized assessments based on the Model of Human Occupation (MOHO) and interventions commonly used in the mental health setting although they have not necessarily been tested for effectiveness in occupational therapy practice with this specific adolescent population. Although the manual encompasses many different assessments and interventions, it is not considered inclusive; therapists may find other assessments and interventions that would also be appropriate. Finally, the manual has not been research tested for clinical significance; the assessment and interventions have been selected for their potential in fostering self-identify, however outcomes-based research would be useful to prove effectiveness.
**Recommendations**

Due to the large age range of adolescents, it is imperative that the occupational therapist uses clinical judgment regarding age appropriateness in selection of the assessments and interventions. Although the setting recommended for implementation is the inpatient neuro-rehabilitation setting, aspects of this manual can be implemented in the outpatient and the residential setting with minor, if any, adaptations.

Prior to full implementation, it is suggested that research be conducted to test the clinical significance of the manual. Additional assessments and interventions may need to be added or existing ones adapted to increase utility of the manual in treatment of the population for which it is intended. Outcome measures will need to be developed in order to measure the effectiveness of the manual. Some of the assessments are designed for use as outcome measures. A patient satisfaction survey could be utilized, as well. The assessments measuring self-esteem and self-efficacy are especially well-suited to track gains in the areas that contribute to positive self-identity and effectiveness of the manual. Occupational therapist feedback on the use of the manual will be beneficial to track the feasibility and ease of use of the manual.

**Conclusion**

The manual developed for this scholarly project helps to guide occupational therapists in addressing the psychosocial development of adolescents who have acquired a spinal cord injury. The Model of Human Occupation (MOHO) is used to address aspects of identity formation including values, self-efficacy, habits, internalized roles, and performance capacity.
The manual is predicted to guide the practice of occupational therapists when working with adolescents who have acquired spinal cord injuries to help individuals to strengthen identity, increase self-esteem and promote higher quality of life. Addressing the identity formation aspect of adolescent development contributes to a more holistic approach and is a vital part of the occupational therapist’s client-centered therapy approach.
REFERENCES


Cote, J.E., (2002). The role of identity capital in the transition to adulthood: The individualization thesis examined. *Journal of Youth Studies. 5(2) 117-134*


APPENDIX

Wellness Reproduction Inc. Correspondence
Hi Lauren!

As long as you give us credit for the product they allow it.

Example:


They also like an email copy of how you are wording it if possible. You can forward to me and I can pass it on.

Thank you and have a great day!

Darlene Hawkins
Customer Service
The Guidance Group
C/O Karol Media, Inc.
375 Stewart Road
Wilkes-Barre, PA  18706
Phone: 800-962-1141
Fax: 800-262-1886
**From:** Lauren Schneibel [mailto:Lauren.B.Schneibel@my.und.edu]
**Sent:** Tuesday, March 25, 2014 12:46 PM  **To:** CSInternal  **Subject:** Contact Courage To Change [#178]

<table>
<thead>
<tr>
<th>Name</th>
<th>Lauren Schneibel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment</td>
<td>Hello, My name is Lauren Schneibel. I am an occupational therapist graduate student at University of North Dakota. My colleague and I are working on our graduate project and have found a few of the activities in the Life Management Books to be beneficial for our project. We were wondering if your company would allow us permission to utilize a few of the worksheets in our final project. If more information is needed feel free to contact me at <a href="mailto:Lauren.B.Schneibel@my.und.edu">Lauren.B.Schneibel@my.und.edu</a>. Thank You, Lauren Schneibel, MOTS</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:Lauren.B.Schneibel@my.und.edu">Lauren.B.Schneibel@my.und.edu</a></td>
</tr>
<tr>
<td>Phone</td>
<td>(701) 226-2107</td>
</tr>
</tbody>
</table>