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The Role of the Occupational Therapist in Adolescent Substance Intervention

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The Role of the Occupational Therapist in Adolescent Substance Intervention

By

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Submitted to the Occupational Therapy Department

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for the degree of

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

Faculty Advisor

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Department Occupational Therapy

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ABSTRACT

The current occupational therapy literature has limited information regarding the use of occupational therapy interventions for substance abuse specific to the adolescent population. Adolescents between the ages of 12 to 17 years have increased their engagement in illicit drug use from 9.3% in 2008 to 10% in 2009 (U.S. Department of Health and Human Services, 2009). In regards to alcohol use, in 2009, approximately 10.4 million persons (27%) ages 12-20 years reported drinking alcohol within the last month (U.S. Department of Health and Human Services, 2009). According to Martin, Bliven, and Boisvert, (2008) substance abuse addictions significantly impact the person's occupational performance, self-esteem, and overall quality of life. The concern is the interventions that are utilized are directed at the adult population. Limited research has been completed addressing the role of the occupational therapist within the recovery process of adolescents with substance related disorders.

A literature review was conducted utilizing multiple online databases including, PubMed, CINAHL, American Occupational Therapy Association (AOTA), PsychInfo, Academic Search Premier, Substance Abuse and Mental Health Services Administration (SAMHSA) and Google Scholar. Additional textbooks and government based websites regarding information relating to occupational therapy and substance related disorders were also referenced.

The developed guide is to provide practicing occupational therapists with effective options for assessments, interventions, discharge planning options and

additional resources applicable to the adolescent population with substance related disorders. This guide will be organized into categories relating to the chosen occupational therapy model, the Model of Human Occupation (MOHO) which was incorporated to guide the intervention process for occupational therapists. The assessments described in the guide are based on the MOHO components of volition, habituation, performance capacity, and environment (Kielhofner, 2009). These assessments are organized into three categories including self-administered, interview, and observational assessments. The interventions are designed utilizing components of evidence-based treatments including Cognitive Behavioral Therapy, Motivational Interviewing, Brief Interventions, and 12-Step Programs. These interventions are evidence-based and widely accepted methods of treatment. Discharge planning options include outcome measure assessments beneficial for obtaining objective data, and additional information to promote abstinence for the adolescent. Additional resources are included for the utilization by the occupational therapist, the adolescent and the adolescent's caregivers.

Chapter I

Introduction

Adolescents between the ages of 12 to 17 years have increased their engagement in illicit drug use 9.3% in 2008 to 10% in 2009 (U.S. Department of Health and Human Services, 2009). In regards to alcohol use, in 2009, approximately 10.4 million persons (27%) ages 12-20 years reported drinking alcohol within the last month (U.S. Department of Health and Human Services, 2009). According to Martin, Bliven, and Boisvert, (2008) substance abuse addictions significantly impact the person's occupational performance, self-esteem, and overall quality of life. Substance abuse disrupts the individual's current and future functioning in daily roles, routines, and occupations, all of which relate to optimal quality of life. Occupational therapists are trained to provide interventions to enable participation in valued occupations and in doing so, enhance the quality of life.

The targeted population for this scholarly project is practicing occupational therapists who work with adolescents aged 12-17 years experiencing substance related disorders. The product of the scholarly project is a guide to facilitate the treatment process for occupational therapists practicing with the adolescent with substance related disorders. The guide includes assessments, interventions, and discharge planning recommendations guided by occupation-based theory and current intervention methods described in the professional literature. Additional resources are provided for occupational therapists, adolescents, and parents for future reference.

The occupational therapy model chosen for the scholarly project is the MOHO developed by Gary Kielhofner. The four components of the model are volition, habituation, performance capacity, and environment (Kielhofner, 2009). In order to meet the needs of the adolescents with substance related disorders population the four components of the MOHO need to be addressed to provide client-centered care and address all areas of occupation. The MOHO provides direction in the development of occupational therapy intervention guide through incorporating the four components to evaluate effective assessments, create interventions, and provide discharge planning options.

Substance related disorders negatively impact areas of occupation such as social participation, leisure and work engagement, and instrumental activities of daily living for all age groups. Based on statistical data, engagement in substance related activities within the adolescent population is increasing. Occupational therapists are able to address occupational performance and provide the adolescents with tools to facilitate the recovery process, promote abstinence, and resume valued occupations.

Chapter II reviews current professional literature relating to substance addiction treatment and the roles of health care providers. Chapter III describes the methodology behind the development of the intervention guide for practicing occupational therapists. Chapter IV presents an intervention guide for practicing occupational therapists to utilize during the recovery process for adolescents with substance related disorders. Chapter V summarizes the scholarly project, limitations, recommendations and conclusions related to future implementation of the intervention guide.

Chapter II

Introduction

Substances are used for a variety of reasons and can result in a disability or can be used as a way to cope with a disability. Whatever the reason for use it can disrupt healthy progression through developmental stages (Haertlein Sells, Stoffel, & Plach, 2011).

Substance use is characterized by maladaptive use of psychoactive substances which create distress and disability (McHugh, Hearon, & Otto, 2010).

Definitions

Adolescence is described as being a period of development marked by dramatic changes taking place. The definition of adolescence is the “long transitional developmental period between childhood and adulthood and to a maturational development mental process involving major physical, psychological, cognitive, and social transformations” (Cotton, 2000, p. 2550-2551). Adolescence can be divided into three different phases, including the early phase (12-14 years), the middle phase (14-17 years), and the late phase (17-19 years). The foundations for and complex view of self, of others, and of society are built during adolescence. The adolescent’s thinking switches from concrete thinking to incorporating abstract ideas. During adolescence, information is processed more efficiently, selective attention is attained and proficient short and long term memory and organizational strategies are achieved (Cotton, 2000).

Adolescence is marked by brain maturation and hormonal adjustments resulting in physical changes and secondary sexual characteristics (Cotton, 2000). Every aspect of the body changes including increased prominence of facial features, body hair lengthens and becomes darker, sweat glands become active, and strength and endurance improve. Along with physical changes also come cognitive changes. The cognitive changes that develop during adolescence will allow for more abstract thought, processing skills, decision-making strategies, and a more complex view of self and of others as the individual matures into adulthood. Adolescents employ concrete thinking as a way to integrate experiences into an abstract generalization. Through this generalization the adolescent learns to become self-aware in order to produce higher cognitive functioning involving personal and moral categories. As adolescents progress through the stages, they are able to more efficiently process information, refine selective attention, increase memory, and develop strategies for organizational skills (Cotton, 2000). For the purpose of this scholarly project, “adolescent” will be defined as the age group of 12-17 years of age.

The definition of substance use is the consumption of alcohol or illicit psychoactive substance or using over-the-counter medication in an improper fashion (McHugh, et al., 2010). According to the American Psychiatric Association (APA) (2000), published in the Diagnostic Statistical Manual of Mental Disorders IV-TR (DSM-IV-TR), substance dependence is indicated when there is a pattern of substance use, which leads to distress. This distress or impairment is required to be clinically significant and three of the criteria for substance dependence must be met within a 12 month period (APA, 2000). See Appendix A for specific criteria. The APA (2000) describes substance abuse as a pattern of substance use that manifests into distress or impairment that is

significant enough to indicate clinical intervention. One or more of the listed criteria must be met within a 12 month period (APA, 2000). See Appendix A for specific criteria. The course of substance dependence is such that the individual proceeds through times of remission and relapse, followed by abstinence and a time of controlled drinking, which typically leads to problem behaviors reoccurring (Haertlein Sells, et al., 2011).

Prevalence

In 2009, there were approximately 22.5 million persons identified with substance dependence or abuse who were aged 12 to adulthood. Of those classified with substance dependence or abuse, 3.2 million were dependent on or abusing alcohol and illicit drugs. The number of persons dependent on or abusing illicit substances, but not alcohol was 3.9 million, and the number of persons dependent on or abusing alcohol, but not illicit drugs was 15.4 million (U.S. Department of Health and Human Services, 2009).

According to Kulig and the Committee on Substance Abuse (2005), substance abuse in adolescence may be one of the most frequently misdiagnosed pediatric concerns. Youths between the ages of 12 to 17 years have increased their engagement in illicit drug use to 10% in 2009 as compared to 2008 during which it was 9.3% (U.S. Department of Health and Human Services, 2009). Specifically, the use the illicit drug marijuana has increased among adolescents 12 to 17 years of age from 6.7% in 2008 to 7.3% in 2009. Among adolescents aged 12 to 17, alcohol use was reported at 14.7% in 2009 which is comparable to 2008 when it was 14.6%. Approximately 10.4 million persons (27%), ages 12-20 years reported drinking alcohol within the last month in 2009, which was similar to the results in 2008 when 26.4% of persons in the same age group reported alcohol usage (U. S. Department of Health and Human Services, 2009).

Difference Between Adults and Adolescents

The review of the literature presents limited information regarding adolescents with substance use, abuse, dependence, or the recovery process. More information is available regarding adults with substance abuse compared to adolescents. The main difference noted between adults and adolescents involved developmental differences and co-morbidities. Deas, Riggs, Langenbucher, Goldman, and Brown (2000) report adolescents' substance use disorders tend to be multi-determined and involve interrelated neurobiological, genetic, and environmental factors with varying positive and negative influences on the development of substance related patterns (Deas, et al., 2000).

Childhood mental disorders play an important role in predicting substance use disorders later in life. Childhood disorders that are a warning sign for an increase in the risk of developing substance use disorders include conduct disorder, attention deficit hyperactivity disorder, major depressive disorder, anxiety disorders and affective disorders (Deas, et al., 2000; Fagan, 2010). Sixty-one percent of adolescents with substance use disorders were also diagnosed with life-time affective disorder compared to 41% of adults, and 81% were previously diagnosed with conduct disorder compared to 35% of adults (Deas, et al., 2000). Even though there has not been a relationship found between childhood mental disorders and the risk of developing a substance use disorder, evidence suggests similarities between the increased risk for developing a substance use disorder in individuals with a history of a childhood mental disorder (Deas, et al., 2000).

There are several important differences between adolescent and adult drinking habits. Binge drinking is more likely to occur in the adolescent population compared to the adult population (Committee on Substance Abuse, 2010). Binge drinking can put the

adolescent at risk for alcohol poisoning. Differences can be observed in the way adolescents participate in substance use disorders compared to adults. Adolescents who engaged in alcohol use drank less and were less likely to experience blackouts in comparison to adults; however, adolescents consumed the same amount of alcohol per occasion as adults (Deas, et al., 2000). Regarding dependency, Deas, et al. (2000) report that adolescents who drank at least once per month for at least 6 months began to exhibit signs of dependency 3 years earlier compared to adults who consume alcohol on a regular basis.

Affects

According to Martin, et al. (2008) individuals with substance addiction often lack necessary skills for daily function and interchange the addiction for living. Substance addiction has a negative effect on not only the individual, but also the family, and the community (Martin, et al., 2008). The short term consequences that can occur with adolescent substance abuse include trauma and accidents, violent behaviors while under the influence of substances, high risk behaviors, such as early sexual behaviors, and contracting sexually transmitted diseases (Bukstein, 2000). Substance abuse can also disrupt the developmental tasks of adolescence. Mood, thought processes and sensory perception can be affected by psychoactive substances because of their pharmacological properties. However, the adolescent may not understand the extent to which the intoxication impairs his or her abilities (Bukstein, 2000). Substance use problems, if left untreated, can lead to severe consequences later in life, or tragic consequences early in life (Stoffel & Moyers, 2004). The Committee on Substance Abuse (2010) reported the number one cause of death of adolescents in the U. S. was motor vehicle accidents, to

which alcohol is one of the primary contributors.

The adolescent brain is not yet fully developed, making it more susceptible to toxicities and addictive properties of substances, which in turn can hinder the development process (Committee on Substance Abuse, 2010). Adolescents who use alcohol have reduced memory and recall abilities and fewer strategies to retain new information. The brain uses frontal lobes for functions such as response inhibition, emotional regulation, and planning and organization, which are higher functioning skills (Committee on Substance Abuse, 2010). According to Dunn and Mezzich (2007), engaging in substance use, abuse, or dependence, adolescents may fail to attain developmental tasks associated with their age. These developmental tasks can include deficits in self-regulation, aggression, poor social skills, affiliation with deviant peers, disengagement from the family, and academic failure (Dunn & Mezzich, 2007).

Prognosis

The social circle of adolescents highly influences prognosis and recovery. Adolescents whose social circle consists of individuals who engage in substance use are at a greater risk for relapse following completion of treatment (Ciesla, 2010; Valente, et al., 2007). Those adolescents whose social network consists of individuals who engage in substance related use are 9.96 times more likely to relapse (Ciesla, 2010). Adolescents who receive support from their parents are less likely to meet substance abuse criteria, compared to adolescents who received peer support who were more likely to meet substance abuse criteria (Park, Kim, & Kim, 2009).

Adolescents who have substance abuse in their family are at greater risk to meet substance abuse criteria compared to those adolescents whose parents consist of

individuals who do not engage in substance related use activities (Park, et al., 2009). Educating the individual on the benefits to remaining sober, as well as the risk factors associated with relapse is essential in order for the individual to experience a successful return to his/her daily occupations. Adolescents who meet new friends who do not engage in substance related activities are 54.7 percent less likely to relapse (Ciesla, 2010).

Priskanen, Pietilä, & Halonen (2006) discovered that substance use in the adolescent population in Finland is related to parental support, mother's education level, parental smoking, and adolescents' current education regarding substance use, peer support and current meaningful hobbies or activities. Depending on the factors listed, positive and negative effects on the individual will influence the engagement in substance related activities (Priskanen, et al., 2006). Intervention plans should be designed to incorporate the family and peer-related factors to facilitate an increase in positive outcomes following treatment (Park, et al., 2009). There are a variety of different aspects to consider when working with individuals who are seeking treatment for substance use disorders, especially when developing the intervention plan and providing discharge planning for an individual.

Co-morbidities

Psychiatric disorders that typically occur along with substance use disorders include oppositional defiant disorder, conduct disorder, attention deficit hyperactivity disorder, learning disabilities, affective disorders and anxiety disorders (Deas, et al., 2000; Moyers, 1992). Impairments associated with physical and psychosocial aspects decrease the individual's ability to independently function on a daily basis and impact the individual's social, physical and cultural environments (Stoffel & Moyers, 2004).

Some psychiatric disorders, for example conduct disorder, social phobia, and a history of posttraumatic stress disorder, may precede adolescent substance abuse (Bukstein, 2000). Depression can also be a result of substance abuse, which then has the potential to escalate to suicidal behavior, including ideation, attempts, and commitment of suicide. Adolescents that commit suicide are frequently under the influence of substances at the time. Anxiety disorders and panic disorders are examples of psychopathology that can result from the use of substances (Bukstein, 2000).

Referral Issues

In a 1995 survey of American Academy of Pediatrics (AAP) members, fewer than 50% of pediatricians reported screening for substance abuse in adolescent clients (Kulig & the Committee on Substance Abuse, 2005). Van Hook, et al. (2007) identified six barriers to screening adolescents for substance abuse. These include, in order of frequency: insufficient time, not feeling properly trained when a positive screen was found, the need to prioritize competing medical problems, lack of resources for treatment options, inability to provide confidentiality to the adolescent as the parent remained in the room, and finally, the provider was not familiar with the screening tools (Van Hook, et al., 2007).

Providers reported that in some cases one barrier was linked to another; for example, the lack of options for treatment resources was linked to insufficient time (Van Hook, et al., 2007). Physicians felt that they were not able to make referrals and obtain appropriate treatment methods due to the time constraints of the office visit. Lack of referral can also be attributed to cultural considerations. Cultural considerations need to be taken into account because some parents, particularly immigrant parents, did not feel it

was appropriate to leave a young girl alone with a male provider (Van Hook, et al., 2007). Because the physician could not address the adolescent in private, the physician was not able to assess her for substance use. If the parent was in the room, the adolescent may not give truthful answers, but if the parent was asked to leave, the physician would be disrespecting the cultural standards.

Current Treatment/Intervention

Contemporary practice suggests the use of evidenced-based interventions to create effective programs yielding positive outcomes. Therapeutic alliance, family support, intervention planning, social networking, manualized treatments and Alcoholics Anonymous 12-step programming are all effective treatments to incorporate into the interventions plan for an adolescent with substance related disorders during the recovery process.

Therapeutic alliance.

According to Rogers, Lubman, and Allen (2008) and Fagan (2010), therapeutic alliance greatly influences the outcome of substance abuse treatment. Therapeutic relationships are important across all areas of practice in order to assist and encourage the client to engage in treatment to improve the individual's quality of life (Committee on Substance Abuse, 2010; Fagan, 2010). Depressive symptoms improved when the individual reported having a positive therapeutic alliance at the beginning of intervention (Rogers, et al., 2008).

Family support.

According to Feldstein and Miller (2006), adolescents who are being treated for substance related issues should be evaluated utilizing the holistic approach in order to

reduce the risk of relapse among the individual adolescents. When planning the intervention plan for individuals with substance use issues, the professional should focus on interventions that involve both the family and the individual (Feldstein & Miller, 2006; Fagan, 2010). By incorporating the family into the intervention plan, the family may be more willing to assist the individual with meeting his/her goals and remain abstinent. The motivation to become abstinent and remain abstinent may be higher if the adolescent can accept the need for help by indicating to the professional how the behavior has escalated from occasional use to use in risky situations on a more regular basis (Kulig & The Committee on Substance Abuse, 2005).

Intervention planning.

Feldstein and Miller (2006) indicated that the intervention plan should be based on risky behaviors and ways to identify these behaviors as well as change the unwanted behaviors. By utilizing interventions aimed at changing the negative behaviors, this can assist the individual with finding meaningful leisure hobbies to engage in which can directly impact the engagement in substance use behaviors. Kulig and The Committee on Substance Abuse (2005) report there are several choices for intervention which can include various combinations of the following: counseling, behavioral therapy, drug treatment (inpatient or outpatient), psychological and psychiatric assessment, and detoxification.

Social network programs.

Valente, et al., (2007), studied a social network program designed for substance abuse prevention for its potential to reduce substance abuse for adolescents at high-risk for developing substance abuse problems. Two intervention-based groups were utilized; a

control group was provided interventions based off of a pre-existing evidenced-based curriculum and the other was provided a modified social network program consisting of peer interactions. The results of this study demonstrated effectiveness of the social based interaction group by reducing substance use among the majority of the adolescents treated. The social based interaction group had the greatest impact on adolescents whose social network consisted of friends who were non-users compared to the adolescents whose social network consisted of both friends who use and friends who do not use. The results suggest that individuals whose social network consists of peers who engage in substance related activities, are at greater risk for increasing use regardless of the intervention received (Valente, et al., 2007).

Manualized treatments.

Mason and Posner (2009), suggest manualized treatment to be an effective intervention strategy for treating individuals with substance abuse disorders. The research sought to identify if Motivational Enhancement Therapy/Cognitive Behavioral Therapy-5, a manualized treatment method, was effective with adolescent abusers. This approach utilizes two individual motivational enhancement therapy sessions and three group based cognitive behavioral therapy sessions. Mason and Posner (2009) have proven positive outcomes in a variety of settings and the manualized treatment has shown positive results in decreasing alcohol use among adolescents in a variety of settings.

Alcoholics Anonymous.

One of the most prominent associations for alcohol abuse treatment is Alcoholics Anonymous (AA), and a slightly lesser known association for substance abuse is Narcotics Anonymous (NA). Kelly, Dow, Yeterian, and Kahler (2010) discovered that

although adolescents are referred to AA and NA, it is not known how effective the treatment is for this population, as well as what the benefits or drawbacks would be for adolescents placed in a group intervention setting with adults. Adolescents who attended AA/NA more than once per week had significantly higher outcomes of percent of days abstinent than those who attended only one meeting per week or none at all. Individuals who are more likely to be involved in AA/NA are those who have increase severity of use, more previous treatment experience, and those who have a goal to be abstinent from substances (Kelly, et al., 2010).

In the investigation of the relationship between AA/NA attendance and outcomes, it was found that the frequency of attendance was an accurate predictor of positive outcomes (Gossop, Stewart, & Marsden, 2007). Statistically significant results were found for those who abused opiates and stimulants and the percentage went from 19% abstinence rates to 47% abstinence rates at the 4-5 year follow-up for opiates and from 30% to 61% for stimulants. Similarly participants who attended AA/NA prior to the follow-up were more likely than those who did not attend, to be abstinent from alcohol and opiates. The same was true for those who had left residential treatment and attended AA/NA treatment groups, although outcomes were better the more treatment sessions attended (Gossop, et al., 2007).

Interdisciplinary Teams

A variety of professionals are involved within the interdisciplinary team when treating an adolescent with substance use disorders. These professionals include physicians, nurses, counselors, social workers, psychologists and occupational therapists. Through use of the interdisciplinary teams, the professionals have the opportunity to

collaborate with each other in order to provide the best client-centered care possible.

Physician's role.

Pediatricians are in a unique position to screen for substance abuse among adolescents because they are the clients' primary provider over a number of years. In fact, they may be the only health care professional able to recognize changes in the behavioral and medical manifestations that are displayed by the client (Kulig & The Committee on Substance Abuse, 2005). It is difficult for the pediatrician to diagnose substance abuse, however some of the indications of substance abuse can include, trauma, chest pain, hepatitis, complaints of abdominal pain, even a headache or sore throat may be an indicator. The pediatrician is also in a unique position as he or she is typically knowledgeable about the family's history. This may be important because there are associations between substance abuse by family members and behavioral problems, including problems in school, of the children in the family (Kulig & The Committee on Substance Abuse, 2005).

The pediatrician may use open-ended questions and non-threatening language when interviewing adolescents suspected of substance abuse. The pediatrician can also build rapport with the client by assuming a non-judgmental attitude and portraying empathy towards the client (Kulig & The Committee on Substance Abuse, 2005).

According to Deas (2008) a unique contribution to the treatment of adolescents with substance abuse by pediatricians is the ability to prescribe medication and use pharmacotherapy. Pharmacotherapy is typically used to treat the adverse effects of the withdrawal symptoms rather than the actual addiction. It can also be used to treat accompanying psychiatric disorders (Deas, 2008).

Nursing's role.

Nurses working within the substance use setting engage in the assessment, management and care of those utilizing illicit and licit substances, as well as working with the family and community (Clancy, Oysfeso, & Ghodse, 2006). Piat, Sabetti, and Bloom (2009) report nursing play a role in regards to medication administration to individuals within the mental health setting. When individuals with mental health disorders, including substance use are describing how they view recovery, the majority of individuals feel there is no cure for the disease, however through medication compliance the individual can learn to live and cope with the disease. Since nurses are associated with medication administration, individuals within the mental health setting are looking for advice and education from these nurses. For this reason, nurses are and should be educated on the variety of medications and the side effects in order to be able to answer the questions that may arise from the individuals receiving the medication (Piat, et al., 2009).

Piat, et al., (2009) recommend nurses in the mental health setting need to shift their focus and begin utilizing a recovery-oriented model. It is suggested that by making this shift in focus, the nurses can provide treatment to meet the needs of the individual and to be able to incorporate how the individual views the recovery process into the treatment. Another role the nurse can fulfill involves educating the individual to accept greater responsibility for his/her recovery process and medication self-management (Piat, et al., 2009).

When providing educational programs for students within the academic setting, nurses are involved in identifying risk factors as well as empowering factors that may

facilitate or inhibit substance use within an adolescent (Priskanen, et al., 2006). Utilizing the Adolescent Substance Use Measurement and a semi-structured questionnaire, the nurses were able to obtain data regarding risk factors and empowering factors in adolescents with substance use disorders. By encouraging the individual to increase his/her responsibility level and providing educational information regarding substance use, this will have a positive effect on the treatment outcomes as well as increase the relationship between the individual and the professional. Priskanen, et al., (2006), discovered that nurses were less likely to place emphasis on the concern for substance abuse and more likely to consider the background factors of the individual if the background factors were considered positive versus negative. Empowering factors discovered in students who were not engaging in substance use include supportive relationships, non-smoking parents and parents who completed higher education (Priskanen, et al., 2006).

Counseling's role.

One of the professionals an individual with substance use problems can seek out for treatment is a counselor. It can be difficult for a counselor to discover the underlying meaning behind the adolescent's substance related activities since the majority of adolescents hide their true feelings and express these feelings through anger, indifference, apathy and/or by acting out (Fagan, 2010). When a counselor is treating an individual with substance use disorders it is pertinent to build rapport with the individual from the beginning to develop a trusting and therapeutic relationship. Fagan (2010) emphasized the importance of maintaining professional boundaries while remembering that the professional is not there to be the individual's friend but to assist him/her in the recovery

process. Remaining neutral is also important while simultaneously showing you care without jumping to conclusions and instead let the individual educate you about his/her experiences with substance related activities (Fagan, 2010).

The counselor may use a method involving three elements of change including collaboration, evocation, autonomy (Committee on Substance Abuse, 2010). Through collaboration, the counselor will establish a partnership with the individual; through evocation, he or she will assist the individual in reflecting on his or her own reason to change the behavior by using open-ended, thought provoking questions and finally, through autonomy the individual will determine how, or if the behavior change will occur (Committee on Substance Abuse, 2010).

When looking at the intervention process from a counselors view point, it is beneficial to include the family or guardians of the individual as well as other significant people within the individuals life in order to encourage the family to provide support for the individual (Fagan, 2010). Counseling focuses on assisting the adolescent during an individual session, sessions involving the family and significant others and/or providing prevention interventions to groups of at risk students (Soresi, Nota, & Ferrari, 2005). Fagan (2010) indicates that most individuals have limited knowledge regarding what actually occurs during a therapy session, unless the person has experienced counseling services prior. Because of the limited knowledge, it is important for the counselor to educate the adolescent and family as to what will occur throughout the treatment session. This will facilitate the adolescent and family feeling comfortable with the treatment process including asking questions regarding treatment (Fagan, 2010).

Counselors can facilitate the therapy session by offering suggestions, possible

explanations and other comments to encourage the individual to share additional information without seeming threatening or critical (Fagan, 2010). By utilizing this response, the adolescent may be more willing to share information which can positively influence the treatment and recovery process. During a therapy session with an adolescent the main outcome that counselors strive for is to assist the adolescent with communication and problem-solving skills since the majority of adolescents are more willing to engage in counseling sessions if the session is oriented around problem-solving and communication skill building versus only talking about feelings and problems. Without effective counseling, the adolescent may experience significant impairments in their daily routines and activities causing a decrease in quality of life, social interactions, physical and psychological development (Fagan, 2010).

Social worker's role.

Social workers have a long history of involvement in treatment of alcohol use and abuse. Alcoholics Anonymous (AA) was a program developed by social workers, along with other detoxification programs, and prevention and education programs (National Association for Social Workers, 2010). Social workers can be expect to work with individuals with substance use disorders in settings such as social work agencies, community mental health centers, hospitals, child welfare offices, and schools (Steenrod, 2009). Social workers in the community-sector and specialty programs treat individuals with substance abuse together by initiating screening and completing interventions, respectively. Specifically, social workers in community-sectors are responsible for recognizing individuals with possible substance use disorders, providing brief intervention, and referring the individual to a specialty program; however their core focus

in this context is to screen individuals who are at risk. Brief interventions consist of educating the individual on the consequences of drug or alcohol misuse, implementing a treatment plan, and holding follow-up appointments. The social workers in the specialty program then give assessments, and provide substance use treatment. The assessment has a biopsychosocial nature and assists the social worker to explore how the substance use has affected the individual's physical, emotional, spiritual, and social functioning (Steenrod, 2009).

While the specialty social worker will facilitate admission into treatment programs, the community-sector social worker will continue to provide early intervention programming (Steenrod, 2009). By working together, the social workers in each setting can prioritize clinical issues, establish goals, provide crisis intervention, and observe the individual's progression and obstacles. Motivational interviewing (MI) is used by social workers as well as other professionals. Through the use of MI, the social worker assists in defining the individual's readiness for change (Steenrod, 2009).

Psychology's role.

Psychologists provide services for persons with substance-related issues by addressing prevention and interventions. The goal of psychologists in regards to prevention is to delay the use of alcohol by adolescents until an appropriate age (Spaeth, Weichold, & Silbereisen, 2010). Some of the key components that are used in interventions are life skills programs, changes in attitude, and an increase in psychosocial competence. Increased psychosocial competence facilitates increased confidence and better processing for coping. Spaeth, et al., (2010) found that Information, Psychosocial Competence and Protection (IPSY) program helped to reduce the probability of

engagement in maladaptive drinking habits for adolescents. In addition, the IPSY program was found to decrease the amount of alcohol consumed by the adolescent, as well as the opportunities to use alcohol. The study suggests a need for similar programs to reduce the risk of engagement in risky behaviors and associations with peers that may condone such behaviors (Spaeth, et al., 2010).

Cognitive behavioral therapy (CBT) has been found to be more effective with those adolescents who are at a higher severity for substance use, while CBT and multidimensional family therapy (MDFT) were found to be equally effective with adolescents of all severities (Henderson, Dakof, Greenbaum, & Liddle, 2010). MDFT is aimed at juvenile offenders with substance abuse issues and works as a two-part process with one process being carried out while the individual is in detention, and the second carried out postrelease. In this way the intervention can target behaviors when the individual is in a safe environment with support, but also when the individual has returned to his/her natural environment and encounters everyday problems and pressures (Henderson, et al., 2010).

Family dynamics have been cited as a risk factor for development of substance abuse, and the family should be involved in the treatment of substance use. By involving the family in the therapy process, negative family functioning issues can be addressed. As Henderson, et al., (2010) show, there is not one catch-all treatment that is right for everyone. Treatments need to be individualized to be effective and have the best possible outcomes. However, outcomes may be improved if the individual was matched to the intervention according to severity and co-morbidities. Henderson, et al., (2010), found individuals with more severe problems may be referred to MDFT, which is a family-

based treatment and includes a more comprehensive focus.

Psychologists can also use Motivational Interviewing (MI) techniques to target the individual's ambivalence towards a behavior change related to drug and alcohol use (McHugh, et al., 2010). This strategy can be applied during individual sessions or with a group. Contingency management (CM) strategies are similar to MI in that motivation is used to assist the individual in the process of treatment, but CM uses tangible items as a reward for abstinence from substances. It is the goal that these external rewards will eventually turn into internal rewards for the individual. For example the individual will be motivated by employment or success in social situations such as a relationship. The limitation with this particular treatment is funding, which can be substantial before the individual becomes more satisfied with internal rewards (McHugh, et al., 2010). Relapse can be prevented by using a variety of approaches tailored to the individual. Education, skills training, and other behavioral strategies are options that can be explored. Other treatments such as behavioral couple's therapy, family therapy, and community therapy have also been implemented to improve the individual's recovery as well as the people around him or her (McHugh, et al., 2010).

Occupational therapists role.

Few authors have published on substance abuse in occupational therapy. Moyers (1992) presented an assessment and treatment approach specifically for occupational therapists. Although Moyers does not specifically address adolescent concerns, it is one of the only in the OT literature addressing the needs of persons with chemical dependency. Adolescents are facing similar issues yet it is rare that they are mentioned in the occupational therapy literature in relation to substance abuse.

Penelope A. Moyers' (1992) book *Substance Abuse: A Multi-Dimensional Assessment and Treatment Approach*, was the first published work to address treatment of substance abuse from an occupational therapy perspective. It is important to note that the book was based on expert opinion and opened the door for other occupational therapists to explore the possibility of becoming more involved in the treatment of substance abuse. Moyers (1992) describes interventions of the occupational therapist for the individual with substance abuse.

Moyers (1992) based her interventions for individuals with substance abuse on replacing previous unhealthy coping strategies with healthier ways of coping. The treatment she describes consists of three levels which include dealing with loss of control, learning coping strategies, and finally gaining insight. These treatment levels correspond with inpatient, outpatient, or extended inpatient settings. The therapist is expected to be a part of the interdisciplinary team. Level one specifically entails the process of detoxification, education, nutrition management, psychotherapy, and engagement in an AA/NA program. In level two, the therapist continues to provide encouragement to AA/NA programs and directive psychotherapy, but also allows the individual's family to become involved with supportive family therapy. The third level is a continuation of the previous two as the therapist provides encouragement for AA/NA program attendance, psychotherapy, and family therapy. At level three, it is hoped that the individual will have developed more maturity and is able to use introspection to recognize maladaptive coping strategies, replace them with healthy coping strategies. Through group and individual therapies, the individual can gain confidence to make appropriate decisions regarding substance abuse and therefore also gain a sense of trust and respect from others. She

advises that the individual should avoid competitive activities as this could possibly lower the individual's self esteem due to sensitivity to failure (Moyers, 1992).

Stoffel and Moyers (2004) completed an evidenced-based review of interventions for persons with substance use disorders. Four primary intervention methods were identified and discussed for use by occupational therapists. Brief intervention methods allowed the therapist to interact with the individual within a time span of five minutes to one hour, during which the individual is encouraged to focus his or her motivation on changing substance use habits, while also receiving feedback on the risks of substance use (Stoffel & Moyers, 2004). Workbooks are used to develop goals, identify advantages and disadvantages to using substances, and using coping skills and strategies to achieve goals (Barry, 1999). Stoffel and Moyers (2004) described cognitive behavioral intervention as the focus on how the cognitive aspects of the individual affect the behavioral aspects. It also emphasizes the need for healthy coping mechanisms in an attempt to prevent relapse, with the ultimate goal being that the individual would be able to adapt the cognitive processes during a situation in which using substance is possible. The third intervention method involves using motivational interviewing, motivational enhancement therapy (MET), decision balancing, and FRAMES (feedback, responsibility, advice, menu, empathy, self efficacy) to assist the individual in identifying his or her readiness to change, thereby initiating the actual change. The final method of intervention is the 12-step treatment programs. These programs have been shown to promote and assist in maintaining recovery skills, while also giving the individual peer support (Stoffel & Moyers, 2004).

Occupational therapists in all areas of practice can expect to encounter clients

with substance abuse whether referred for another physical or psychosocial problem (Stoffel & Moyers, 2004). It may be possible for the occupational therapist to implement both screening and testing for adolescent clients for substance abuse.

Occupations of daily living are greatly impacted in an individual with a substance use disorder. Some of the occupations impaired include impoverished social network, decreased structure and routines, lack of motivation, limited enjoyment in leisure activities and decreased obtainment in employment (Martin, et al., 2008). When an individual's routines are impaired due to substance use, the individual is impacted across all areas of his life. When an individual is not performing to his/her potential, impairments may be observed in self-esteem, quality of life and occupational performance. There is limited evidenced-based research of occupational therapy's effectiveness in the recovery process of individuals with substance abuse (Martin, et al., 2008).

A chapter by Haertlein Sells, et al., (2011) in the recently published book *Occupational Therapy in Mental Health: A Vision for Participation*, reports substance abuse causes the individual's meaningful activities to be disturbed, affecting all areas of occupation and including life roles. Occupational therapists can use motivational interviewing (MI) to address the individual in a non-confrontational manner in order to determine ambivalence of change. By exploring ambivalence, the individual can begin to accept the underlying issue that is resulting in substance abuse. Occupational therapists can also facilitate intervention through contingency management. Contingency management uses a system of vouchers that can be exchanged for items that are desired by the individual. It utilizes the characteristics of operant conditioning to provide

reinforcement for sobriety. Individuals can be reinforced for things such as a clean urine test, an increase in attendance, medication compliance, and reducing use of substances (Haertlein Sells, et al., 2011).

Substance abuse affects individuals differently regarding withdrawal symptoms, tolerance level, occurrence of relapse, and physical and psychological outcomes (Haertlein Sells, et al., 2011). One of the sociocultural influences that affect adolescents with substance abuse is the family dynamic. When a child grows up in a family in which substances negatively affect the functioning of the family, he or she is more likely to abuse substances. However, family dynamics can also positively affect the adolescent with substance abuse and motivate him or her to make changes to sustain sobriety. Ethnicity and culture need to be considered when planning interventions as these factors will have an effect on the individual's occupational behaviors, roles, habits, and routines, and the success of the individual's participation in these areas will therefore affect treatment outcomes (Haertlein Sells, et al., 2011).

Occupational therapists work with individuals who are early in the recovery process in order to determine routines that will assist the individuals' recovery (Haertlein Sells, et al., 2011). The occupational therapist assists in the pursuit for leisure activities as well as participation in activities that do not involve alcohol or substances, which are challenges for the individual who is just beginning the recovery process. At this point the individual needs to make deliberate choices about the situations in which he or she engages. Occupational therapists can be used as resources to facilitate in guiding individuals through the process of change. Occupational therapy intervention can occur in hospitals, rehabilitation facilities, prisons, medical or psychology offices, or in mental

health facilities (Haertlein Sells, et al., 2011).

Problem Statement

The current occupational therapy literature has limited information regarding the use of occupational therapy interventions for substance abuse specific to the adolescent population. The concern is the interventions that are utilized are directed at the adult population. Limited research has been completed addressing the role of the occupational therapist within the recovery process of adolescents with substance abuse. According to the U. S. Department of Health and Human services (2009), the number of persons identified with substance dependence or abuse was approximately 22.5 million for those aged 12 through adult.

The rate of adolescents between the ages of 12 to 17 years increased from 11.1% in 2008 to 12% in 2009 of adolescents admitting to being involved in drug, tobacco, or alcohol prevention programs not in conjunction with the school system (U. S. Department of Health and Human Services, 2009). Due to statistical increase in participation in prevention programs and the fact that there is a greater number of persons being diagnosed with substance related disorders (U. S. Department of Health and Human Services, 2009).

Dunn and Mezzich (2007) found by engaging in substance use, abuse, or dependence, adolescents may fail to attain developmental tasks associated with their age. These developmental tasks can include deficits in self-regulation, aggression, poor social skills, affiliation with deviant peers, disengagement from the family, and academic failure (Dunn & Mezzich, 2007). As a result of substance addiction, the individual lacks necessary skills for functioning in daily life, and therefore exchanges addiction for

healthy living (Martin, et al., 2008). The brain of the adolescent has not yet fully developed, which makes the individual more liable to the addictive properties of the substance and its' toxicities, and will have negative effects on memory retention and recall abilities. The number one cause of death of adolescents in the U. S. is motor vehicle accidents, from which alcohol is one of the primary contributors (Committee on Substance Abuse, 2010).

Individuals rely on the support provided from professionals such as physicians, social workers, case managers, nurses, OTs, PTs, psychologists and psychiatrists. Medication was viewed as an important aspect in the recovery process; however the majority of individuals also felt that in order to be successful in the recovery process medication needed to be used in combination with other therapies (Piat, et al., 2009).

Treatment of adolescents with substance abuse calls for an interdisciplinary approach where a variety of professionals provide interventions. For example, physicians are able to provide assessment and prescribe medication, nursing provides medication management, counselors have an idea of psychological development, and psychologists can assist with cognitive behavioral therapy and family therapy. Despite the interdisciplinary approach, occupational therapists can do more to represent the profession within the recovery process for adolescents. Review of contemporary occupational therapy literature indicates occupational therapy treatments were aimed at adults with substance abuse and there were not a sufficient number of programs being dedicated to prevention or treatment of adolescents with substance abuse.

The chosen occupational therapy model for this scholarly project is the Model of Human Occupation (MOHO) developed by Gary Kielhofner. The focus of this model

involves evaluating the individual's volition, habituation, and performance capacity, while also taking into account the environment and context (Kielhofner, 2008). The MOHO focuses on a holistic approach which allows the therapist to consider the person as a whole and how occupations affect his or her life. The MOHO assumes that when the patient participates in his or her chosen occupations, it helps to create occupational identity. The outcome of the MOHO is occupational adaptation which allows the patient to participate in occupations while using motivation, routines, and performance abilities (Kielhofner, 2008).

Summary

This project aims to develop a guide for practicing occupational therapists delivering services to adolescents with substance use, abuse, and/or dependence. The role of occupational therapy will include effective assessments to evaluate areas of occupation including activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, leisure, and social participation (American Occupational Therapy Association, 2008); interventions enhance quality of life through promoting engagement in occupational performance, discharge planning and additional resources. The guide will be applicable to all practice settings including inpatient, partial hospitalization centers, outpatient, day treatment programs, community based programs and residential treatment centers.

Chapter III presents the methodology used to develop this scholarly project.

Chapter III

Methodology

A literature review was conducted utilizing multiple online databases including, PubMed, CINAHL, American Occupational Therapy Association (AOTA), PsychInfo, Academic Search Premier, Substance Abuse and Mental Health Services Administration (SAMHSA) and Google Scholar. Additional textbooks and government based websites regarding information relating to occupational therapy and substance related disorders were also referenced. The literature review was completed in order to obtain information pertinent to the subjects of definitions, prevalence, differences between adults and adolescents, affects, prognosis, co-morbidities, referral issues, current treatments, and the roles of interdisciplinary teams. The literature provided applicable information and facilitated the structure for the product resulting in a guide for the occupational therapist to utilize during the recovery process for an adolescent with substance related disorders.

There was an abundant of professional literature found within the area of substance related disorders and other healthcare professionals such as physicians, nurses, counseling, social workers and psychology. Limited information was discovered within the professional literature regarding the role of occupational therapy in the treatment of adolescents with substance related disorders. Based on the current professional literature, a need for the development of the role of the occupational therapist with this adolescent population emerged. A guide was created to assist the occupational therapist in implementing the recovery process. This guide reflects current evidence-based

interventions adapted for the occupational therapist and supports engagement in meaningful occupation.

A variety of theories and models were considered in order to choose the appropriate model to guide occupational therapy intervention for this population. The four components of the Model of Human Occupation (MOHO) volition, habituation, performance capacity and environment were determined to be best suited to meet the needs of adolescents with substance related disorders. The MOHO guided the process of selecting effective assessments, interventions, and discharge planning options. Volition is emphasized within the MOHO to this particular population, as volition has an effect on healthy habituation, increased performance capacity, and supportive environments. A focus on habituation facilitates the adolescent's participation in healthy habits, roles and routines that do not condone substance use. Increasing volition and habituation will positively impact the adolescent's performance capacity, as well as enable development of needed skills and abilities. Discharge planning options accentuate the need for supportive environments to promote abstinence. Together the four components of the MOHO facilitate engagement in meaningful occupations and improved quality of life.

The purpose of this project is to establish the role of the occupational therapist within the recovery process of an adolescent with substance related disorders. A guide was developed in order to enhance the effectiveness of the occupational therapy process including assessment, intervention planning and implementation and discharge planning. The guide is designed to assist the occupational therapist in development of client-centered, evidence-based practice strategies appropriate for use with adolescents with substance related disorders.

The Role of the Occupational Therapist in Adolescent Substance Intervention

Cassandra Leach, MOTS, Kori Le Blanc, MOTS, &
Sonia Zimmerman, PhD, OTR/L, FAOTA



Chapter IV

Introduction

The purpose of the guide is to provide practicing occupational therapists with effective options for assessments, interventions and discharge planning applicable to the adolescent population with substance use, abuse, or dependence. The occupational therapist role, effective assessments, interventions, discharge planning and additional resources will be described in the guide. Interventions are designed to be completed individually or in a group setting with adolescents with similar characteristics. It is expected that positive outcomes related to the recovery process within the adolescent population with substance abuse will be attained through utilizing the assessments, interventions, discharge recommendations and additional resources provided in this guide.

This guide will be organized into categories relating to the chosen model, the Model of Human Occupation, which guides the assessment, intervention and discharge process. Following the description of the MOHO, specific assessments will be described and their applicability to the adolescent population. After the assessment portion, possible interventions will be provided that target specific components of the MOHO such as volition, habituation, performance capacity and environment. A section on discharge planning will also be described followed by a list of resources for additional information.

The Model of Human Occupation

The chosen model for this scholarly project is the Model of Human Occupation (MOHO) developed by Gary Kielhofner (2008). This model can be used across the lifespan, with varying populations, and utilizes a holistic, client-centered approach (Kielhofner, 2008). The four main components of the model include volition, habituation, performance capacity and environment. There are three stages involved within the concept of dimensions of doing: occupational participation, occupational performance and occupational skill (Kielhofner, 2009). Other important concepts related to the MOHO involve occupational identity, occupational competence, occupational adaptation and occupational narrative. Change is achieved through the client's occupational engagement including what the individual does, thinks and feels (Kielhofner, 2009).

Kielhofner (2008) defines volition in its basic form as the individual's motivation for his or her chosen occupations, including interests, values, and personal causation. Interests are defined as those occupations in which the individual finds enjoyable or satisfying. Values are derived from culture and determine what the individual perceives as good, right and important to do. Personal causation is the combination of the individual's sense of personal capacity and self-efficacy (Kielhofner, 2008).

The second component is habituation and is defined as the individual's occupations in the form of habits and roles that manifest into behaviors (Kielhofner, 2008, 2009). Habits are automatic responses produced in familiar environments or situations. Roles are identified when the individual and others perceive that person as occupying a certain status or position. These habits and roles interrelate to guide how an individual interacts in a variety of environments including physical, temporal and social (Kielhofner, 2008, 2009).

Performance capacity comprises physical and mental abilities required in order to engage in occupational performance (Kielhofner, 2008). The individual's performance is impacted by musculoskeletal, neurological, cardiopulmonary, and additional bodily systems. Within performance capacity, there are subjective and objective approaches. The objective perspective is determined by the observer, while the subjective perspective is determined by the individual. When first learning how to complete an activity, attention is focused on objective aspects. Once the activity has been performed repeatedly, the individual focuses additional attention to the experience rather than the separate tasks that make up the action, thus defining the subjective piece (Kielhofner, 2008).

When considering an individual's environment, it is important to evaluate how the physical, social, cultural, economic and political contexts within the environment impact the individual's occupations (Kielhofner, 2008, 2009). Contexts provide a range of opportunities for occupations in which the individual can engage in meaningful activities. The environment that an individual is performing an occupation in, affects the way the individual participates and how that person perceives his/her performance. Similarly, context can also determine motivation for participate in meaningful occupations (Kielhofner, 2008, 2009).

The concept of doing refers to the individual's participation, performance, and skill in a chosen occupation (Kielhofner, 2008). Through the dimensions of doing, occupational participation is influenced by volition, habituation, performance capacity, and environment, and therefore substantiating participation as a intermingling of personal and contextual features. It is through the act of doing that the individual determines

his/her motives, roles, habits, routines, and limitations. In order to participate in a meaningful occupation, the individual must have a defined set of skills, which include motor, processing, and communication skills. Embedded in the concept of doing are the components of occupational identity, occupational competence, and occupational adaptation (Kielhofner, 2008).

According to Kielhofner (2008), occupational identity is the sense of who an individual is, based on the occupations in which he or she engages. Occupational competence reflects occupational identity by determining a pattern of engagement in meaningful activity. By achieving occupational identity and competence, an individual has therefore attained occupational adaptation. Occupational adaptation is context dependent, and includes motivation, life patterns, and performance. (Kielhofner, 2008).

Occupational narrative is a story of the interaction between an individual's volition, habituation, performance capacity, and environments over time (Kielhofner, 2008, 2009). It includes the past, present and future, and integrates both the self and the world. The occupational narrative ascertains the meanings of occupations and guides how the individual engages in occupational life. Narratives can either assist or interfere with action. For example, individuals can either see the outcome of their lives as being a tragedy or successful and therefore affects motivation for occupational performance (Kielhofner, 2008, 2009).

When looking at change through the process of therapy, change is driven by occupational engagement (Kielhofner, 2009). This engagement in occupations involves the individual and how he or she perceives performance under specific environmental conditions. These occupations shape the individuals abilities, routines, thoughts and

feelings in regards to themselves. Volition, habituation and performance capacity are all involved in the process of change and how that individual engages in occupations.

According to Kielhofner (2008) there are three steps to determining the readiness for change. The first step is for the individual to decide if he/she is ready for change. The second step involves exploring opportunities for change. The last step is initiating the change.

Kielhofner (2008) explains the factors involved in change differ between adolescents and adults. Both adolescents and adults experience internal and external forms of change. Adolescents experience internal change by transitioning into puberty, while adults experience internal change through self-evaluation in adult life. External change occurs for adolescents through a transition into different societal roles. For example, shifting focus from a student role to a worker role. Adults experience external change as recognized by events such as marriage, divorce, and other crises (Kielhofner, 2008).

Therapeutic reasoning is involved in the intervention planning, implementation and evaluation of the therapy process (Kielhofner, 2008). Therapeutic reasoning involves six steps including generating questions, collecting information, using the information, generating goals, execute and monitor therapy and determine outcomes. In step one the therapist builds rapport with the individual by asking questions to begin to understand the individual's needs. Step two includes information collected through relevant assessments and observation. In step three, the individual's strengths and limitations are established and will assist with defining the goal areas determined in step four. Step five utilizes the goals to implement therapeutic interventions. In this implementing step, goals can be

modified to meet the dynamic needs of the individual. Determining the outcome is step six where the therapist documents and utilizes assessments to measure change in order to determine if goal areas have been achieved (Kielhofner, 2008, 2009).

By utilizing the MOHO within this guide for practicing OTs, the components of volition, habituation, performance capacity and environment will all be assessed when creating the intervention plan for an adolescent with a substance related disorder. The assessments chosen will be based on the MOHO in order to utilize a holistic client-centered approach when evaluating adolescents. Interventions will be aimed at promoting an increase in the MOHO components, as well as looking at the contexts that the individual is engaging in.

Adolescents with substance related disorders present impairments that affect their daily occupations and performance areas. Utilizing the volition component of the MOHO, the OT can facilitate an increase in the adolescent's motivation through finding meaningful activities and occupations to engage in. Habituation related interventions are used to promote an increase in healthy habits and routines through exploration and participation in a variety of activities. Having the adolescent critically think about his or her performance capacity through the use of roles plays and journaling will facilitate an increase in positive performance within his or her occupations and environments and reduced engagement in substance related activities. It is important to consider all environments and aspects of an adolescent when providing interventions during the recovery process in order to analyze his or her habits, routines, and occupations that are facilitating substance use. Utilization of the holistic approach suggested by the MOHO

will increase positive results in regards to the recovery process for an adolescent with substance related diagnoses.

Assessments

Assessments are described to assist the occupational therapist with beginning the intervention process. The assessments listed are based on the MOHO components of volition, habituation, performance capacity, and environment. The MOHO components addressed are identified within each assessment. Some of these assessments do not come from the MOHO, but are considered to be MOHO compatible.

Assessments include:

Self-administered Assessments

- The Occupational Self-Assessment
- The Child Occupational Self-Assessment
- Role Checklist
- Problem Oriented Screening Instrument for Teenagers

Interview Assessments

- The Occupational Circumstances Assessment Interview and Rating Scale
- Occupational Questionnaire
- Canadian Occupational Performance Measure
- The Occupational Performance History Interview-II

Observational Assessments

- The Assessment of Communication and Interaction Skills
- Comprehensive Occupational Therapy Evaluation
- The Model of Human Occupation Screening Tool
- Volitional Questionnaire
- Occupational Therapy Task Observation Scale

Self-Administered Assessments

The Occupational Self-Assessment

Developed by Baron, Kielhofner, Iyenger, Goldhammer and Wolenski, the Occupational Self-Assessment (OSA) is a two-part self-report tool used for planning interventions, as well as a measurement of outcomes. The purpose of the OSA is to measure the client's occupational competence, the environmental impact, and the individual's values. It also measures the impact the environment has on occupation. Specifically, it addresses the individual's perception of his or her own occupational competence, values and impact of the environment, assist with prioritization of change and establishing goals, establish rapport and collaboration, measure occupational competence, and provide a sense of client satisfaction with occupational adaptation. This assessment is based on the MOHO and is directed at individuals 18 years of age or older; however, the OSA may also be appropriate for older adolescents with capacity for self-evaluation. The OSA addresses the components of occupational competence, environmental impact on adaptation, and individual values about the impact of competence and the environment within the MOHO.

Available from:
Model of Human Occupation Clearinghouse
Department of Occupational Therapy
College of Applied Sciences
1919 West Taylor Street
Chicago, IL 60612-7250
Fax: 321-413-0256

Baron, K., Kielhofner, G., Iyenger, A., Goldhammer, V., & Wolenski, J. (2002). *A user's manual for the occupational self assessment (OSA)* (version 2.0). Chicago, IL: The Model of Human Occupation Clearinghouse, The University of Illinois at Chicago.

Child Occupational Self Assessment

Developed by Kafkes, Basu, Federico, and Kielhofner, the Child Occupational Self Assessment (COSA) is an assessment designed for children aged 8 to 17 years. The COSA is similar to the OSA in that it is a self report and is used to establish goals and rate interests, but it uses symbols such as smiley faces and stars to rate the client's perceptions. There is a second version that utilizes a card sort. Either version can be used for assessment. It can be used in a variety of settings including inpatient, outpatient, schools, and home health, and is not diagnosis specific. The assessment would not be appropriate for children who have difficulty with attention, have severe cognitive deficits, or who do not have the ability to provide insight. The COSA will allow the therapist to gain insight into how the child views his or her strengths and limitations, and also indicates the values placed on each occupation. The COSA addresses occupational adaptation and its components including occupational identity and occupational competence. It also addresses volition, habituation, and environmental impact.

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Keller, J., Kafkes, A., Basu, S., Federico, J., & Kielhofner (2005). *A user's guide to child occupational self assessment (COSA)* (version 2.1). Chicago, IL: The Model of Human Occupation Clearinghouse, The University of Illinois at Chicago.

Problem Oriented Screening Instrument for Teenagers (POSIT)

The POSIT was developed by Rahdert and is a self-administered screening tool designed for use with adolescents aged 12 through 19. The time required to administer this screening is approximately 20-25 minutes and consists of 139 items or problem areas. The POSIT can be utilized in schools, juvenile and family court system and medical psychiatric settings to determine the problematic areas within an adolescents life which are need for further assessment and intervention. There is also a POSIT follow-up questionnaire which can be utilized at a later time during the recovery process in order to measure change over time.

The questions cover a variety of occupations, contexts and areas pertinent to the adolescent and are formatted so the individual circles “yes” or “no” in response to the question being asked. The answers are then transferred to a score summary sheet in order to calculate the overall score for the screening tool and determine what problem areas are potentially damaging to the individual’s performance in everyday life. This tool addresses components of the MOHO such as volition, habituation and performance capacity in order to evaluate the individual and determine problem areas to guide the intervention plan. This is not a comprehensive assessment and should be used as a screen only. Based on the summary scores, the need for further assessment can be determined and additional assessments can be utilized.

Rahdert, E. (1991). *Problem Oriented Screening Instrument for Teenagers (POSIT)*. Rockville, MD: National Clearinghouse for Alcohol and Drug Information.

Role Checklist

Developed by Oakley, the Role Checklist is a self-administered checklist that obtains information about an individual's occupational roles. Information is obtained regarding how the individual perceives participation in daily roles, how valuable each role is and the individual's capacity to maintain a balance between roles. The role checklist is appropriate for use with adolescents, adults and elderly individuals. Younger adolescents will have difficulty with this assessment due to the complexity of critical thinking required to complete this assessment and modifications will need to be made in order to accommodate for the needs of the client. The Role Checklist is beneficial for use in a variety of settings such as inpatient, outpatient and community based settings.

The Role Checklist is a written inventory that takes approximately 15 minutes to administer and is divided into two parts. Part one assesses along a temporal continuum the major occupational roles that organize an individual's daily life. Part two evaluates the degree to which each role is valued. The MOHO components addressed in this model include habituation and performance capacity.

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Dickerson, A. E. (2008). The role checklist. In Barbara J. Hemphill-Pearson's *Assessments in occupational therapy mental health: An integrative approach* (2nd ed.). Thorofare, NJ: SLACK, Inc.

Interview Assessments

The Occupational Circumstances Assessment Interview and Rating Scale

Developed by Forsyth, et al. (2006), the Occupational Circumstances Assessment Interview and Rating Scale (OCAIRS) is an interview, rating scale, and summary form that allows the therapist to address motivation, performance, and occupational participation in everyday life. It allows the therapist to gather, analyze, and report data on occupational participation of an individual. It is based on the MOHO, and is appropriate for persons aged 12 years and older. It can be used in an inpatient, outpatient, or community setting and is directed at individuals with psychiatric and physical disabilities. There are three different semi-structured interview forms to choose from, each with its own set of questions to guide the therapist. The interview is based on a four-point scale: F, facilitates participation; A, allows participation; I, inhibits participation; and R, restricts participation. The assessment addresses volition, habituation, performance capacity, and environment within the realm of the MOHO

Available from:
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Forsyth, K., et al. (2006). *A user's manual for the occupational circumstances assessment interview and rating scale (OCAIRS)* (version 4.0). Chicago, IL: The Model of Human Occupation Clearinghouse, The University of Illinois at Chicago.

Occupational Questionnaire

The Occupational Questionnaire was developed by Riopel Smith, Kielhofner, and Hawkins Watts and is based in the MOHO. The assessment is a self report, but can be used as a semi-structured interview. During the interview, the individual can offer insight that supports problem-solving and planning. The interaction can also direct therapy and strategies for intervention. The purpose of the assessment in the first part is to document an individual's participation in his or her occupations in half-hour intervals throughout the day. In the second part, the individual classifies the activity as work, play, or leisure, and then reports his or her own perception of competence, value, and enjoyment of each occupation. In general the Occupational Questionnaire can provide information on the individual's habits, patterns, and occupational participation.

Available from:
Model of Human Occupation Clearinghouse
Department of Occupational Therapy
College of Applied Sciences
1919 West Taylor Street
Chicago, IL 60612-7250
Fax: 321-413-0256

Smith, N. R., Kielhofner, G., & Hawkins, J. (1986). *Occupational questionnaire*. Chicago, IL: The Model of Human Occupation Clearinghouse, University of Illinois at Chicago.

The Canadian Occupational Performance Measure (COPM)

Developed by Law, Baptiste, Carswell, McColl, Polatajko and Pollock, This assessment is based on the Canadian Model and not specifically the MOHO; however, the COPM does utilize components of the MOHO such as volition, performance capacity and habituation. The COPM is used as an initial evaluation interview to identify, name, validate and prioritize areas of concern in occupational performance, daily occupations requiring further evaluation. The assessment can also be used to measure change in a client's perception of occupational performance over the course of occupational therapy intervention.

Administration of the COPM is approximately 20 minutes. The assessment is beneficial in a variety of clinical settings, populations and cultures. The COPM is an outcome measure assessment where the client is compared against his/her own previous score. The problems the client identifies using this assessment can be considered targeted outcomes and assist with establishing and prioritizing goal areas for occupational therapy. The COPM is compatible with the MOHO's components of volition, habituation and performance capacity obtaining information that is not only motivating and meaningful for the client but also directly focuses on the client's participation in daily occupations, habits, roles and routines.

Law, M., Baptiste, S., Carswell, A., McColl, M. A., Polatajko, H., & Pollock, N. (2005). *Canadian occupational performance measure* (4th ed.). Ottawa, Ontario: CAOT Publications ACE.

Occupational Performance History Interview Version 2.0 (OPHI-II)

Developed by Kielhofner, Henry and Walens, the OPHI-II is a semi-structured interview which provides the therapist with information regarding the client's occupational identity, occupational competence and the impact of the client's environments. The OPHI-II provides a narrative view of the client's occupational life history including roles, routines, occupations and critical life events as well as the plan the client has for his/her life.

The OPHI-II is designed to benefit individuals in a variety of settings such as community-based, outpatient, inpatient and long term care settings; however it is less useful for acute settings. The client must have intact cognition and verbal skills to complete this assessment. Although potentially lengthy, the OPHI-II can be completed in multiple steps. The information gathered from this assessment will assist the therapist with developing an understanding of the client in order to establish and create client-centered goals and interventions. The OPHI-II addresses the MOHO components of volition, habituation and performance capacity while identifying specific steps and aspects of the MOHO such as occupational identity and occupational competence.

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Fax: 321-413-0256

Kielhofner, G., Henry, A. D., & Walens, D. (1989). *A user's guide to the occupational performance history interview*. Rockville, MD: The American Occupational Therapy Association, Inc.

Observational Assessments

The Assessment of Communication and Interaction Skills

The Assessment of Communication and Interaction Skills (ACIS) was developed by Forsyth in collaboration with Salamy, Simon, and Kielhofner and is based on the MOHO. The ACIS has an interview component, but is classified as observational. The assessment is criterion referenced and the outcomes can be compared to the individual's own score. The ACIS is used to measure the consequences of disease or illness on communication interaction abilities. There is no age specified, but the ACIS may be appropriate for older adolescents with higher cognitive functioning. The individual should be assessed in a natural life setting, but can also take place in a simulated life role situation, or a situation that is unrelated to life roles. It can be used in an inpatient, outpatient, or a community or work setting. The ACIS does not assess for the cause of lack of skill, it only assesses whether the skill is present and how this affects the social action. The ACIS addresses the components of the MOHO including volition, habituation, and performance capacity within the natural environment.

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1919 West Taylor Street
Chicago, IL 60612-7250
Fax: 321-413-0256

Forsyth, K.(1998). *A user's guide to the assessment of communication and interaction skills (ACIS)* (version 4.0). Chicago, IL: The Model of Human Occupation Clearinghouse, University of Illinois at Chicago.

Comprehensive Occupational Therapy Evaluation (COTE)

Developed by Brayman, Kirby, Misenheimer, and Short, the COTE is an observational assessment which evaluates client factors, performance skills and patterns that impact engagement in occupation. This assessment focuses on three main areas; general behaviors, interpersonal behaviors and task behaviors. General behaviors include appearance, non-productive behavior, activity level, expression, responsibility, attendance, reality orientation and conceptualization. Interpersonal skills are comprised of independence, cooperation, self-assertion, sociability, attention-getting behaviors and negative responses from others. The third area, task behaviors consists of engagement, concentration/attention, coordination, following directions, activity neatness, attention to detail, problem solving, complexity and organization of tasks, initial learning, interest in activity, interest in accomplishment, decision making and frustration tolerance. All of these behaviors are rated utilizing a checklist and a 5 point scale.

The COTE is recommended for use in either a psychiatric inpatient OT setting or community-based facilities. Administration takes approximately 30-60 minutes to complete depending on the tolerance of the client. This assessment addresses aspects of the Model of Human Occupation such as habituation and performance capacity to obtain information regarding the client's current patterns and routines as well as performance in occupations.

Brayman, S. J., Kirby, T. F., Misenheimer, A. M., & Short, M. J. (1976). Comprehensive occupational therapy evaluation scale. *American Journal of Occupational Therapy*, 30(2), 94-100.

Brayman, S. J. (2008). The comprehensive occupational therapy evaluation (COTE). In Barbara J. Hemphill-Pearson's *Assessments in occupational therapy mental health: An integrative approach* (2nd ed.). Thorofare, NJ: SLACK, Inc.

Model of Human Occupation Screening Tool (MOHOST)

The MOHOST was developed by Parkinson, Forsyth and Kielhofner and is a screening tool to assess the need for further evaluation. This assessment utilizes informal observation in open settings or a formal observation in a 1:1 setting and group settings. The purpose of this assessment is to measure the occupational participation and support received from the environment. The MOHOST is beneficial to utilize in the initial stages of treatment and again later to evaluate and document change over time, especially when referring the client to a new setting during the discharge planning stage.

The therapist observes the client and assesses 24 items which are split into four main categories; volition, habituation, communication and interaction skills, process skill, motor skills and environment. The MOHOST is beneficial when utilized in combination with the OCAIRS, OPHI-II and OSA. This assessment can be utilized with any diagnoses and across settings. In an acute care setting, this assessment can be utilized for quick assessment in order to create meaningful goals and within a long term care setting, it can be used to evaluate change over time either positive or negative. The MOHOST utilizes aspects from the MOHO such as volition, habituation and performance capacity to assess the client's participation in a variety of daily occupations.

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Fax: 321-413-0256

Parkinson, S., Forsyth, K., & Kielhofner, G. (2006). *A user's manual for the model of human occupation screening tool (MOHOST)* (version 2.0). Chicago, IL: The Model of Human Occupation Clearinghouse, University of Illinois at Chicago.

Volitional Questionnaire

The Volitional Questionnaire was developed by de las Hera, Geist, Kielhofner and Li and is an observational assessment to evaluate the client's motivation and observation is completed within the person's natural environment to observe how the client reacts and interacts with the environment. The questionnaire gives insight about inner motives and information on how the environment impacts the individual's motivation. This is appropriate for all individuals regardless of the cognitive, verbal and physical limitations.

This assessment is beneficial for children older than 8, adolescents, adults and the elderly. This questionnaire is useful for a variety of diagnoses from mild to significant physical and cognitive limitations. For children between the ages of 2 and 7, there is another version of this questionnaire named the Pediatric Volitional Questionnaire. Not only can this questionnaire be utilized with a variety of diagnoses, but it can also be beneficial across settings. Administration time is between 5-30 minutes depending on the amount of information obtained. This addresses the MOHO components of volition specifically personal causation, values and interests.

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de las Heras, C. G., Geist, R., Kielhofner, G., & Li, Y. (1998). *A user's manual for the volitional questionnaire* (version 4.1). Chicago, IL: The Model of Human Occupation Clearinghouse, University of Illinois at Chicago.

The Occupational Therapy Task Observation Scale

The Occupational Therapy Task Observation Scale (OTTOS) was developed by Margolis, Harrison, Robinson, and Jayaram to address the task performance of the individual. The therapist rates the individual on a scale from dysfunction to function while making observations. By addressing task performance it facilitates communication between the members of the interdisciplinary psychiatric team. The OTTOS is compatible with and uses the language of the MOHO, but is not MOHO tested. This assessment is appropriate for psychiatric patients specifically in an inpatient setting, but can be used in other settings. There are two parts to the OTTOS, task behavior and general behavior. The OTTOS can be used as criterion data to measure outcomes of the individual.

Margolis, R. L., Harrison, S. A., Robinson, H. J., & Jayaram, G. (1996). Occupational therapy task observation scale (OTTOS): A rapid method for rating task group function of psychiatric patients. *The American Journal of Occupational Therapy*, 50(5), 380-385.

Interventions

After reviewing professional literature, Cognitive Behavioral Therapy (CBT), Motivational Interviewing (MI), Brief Interventions, and 12-step programs were the prominent treatment options for health care professionals. These interventions are evidenced-based and widely accepted methods of treatment. The interventions of CBT, MI, Brief Interventions, and the 12-step program are described in the following section.

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) assists the individual in reducing the risk for relapse by emphasizing development of coping skills which allows the individual to modify thought patterns and actions during high-risk situations (Stoffel & Moyers, 2004). Although it was developed by psychotherapists, other health care professionals also use CBT as a treatment intervention. CBT includes three levels of cognition addressing 1) core beliefs, which are permanent in the individual's cognitive system and are created during development; 2) intermediate thoughts, which are formed from core beliefs and determine how a person thinks about life situations or circumstances; which in turn influence 3) automatic thoughts which occur in response to triggers from intermediate thoughts. Each step in the levels has the potential to be adaptive or maladaptive (Kielhofner, 2009).

Intervention activities include role playing exercises, increasing social support, increasing meaningful occupations, and coping with high-risk situations potentially causing relapse (Mason & Posner, 2009). Interventions may also focus on coping with stress, symptom management, and problem solving (Kielhofner, 2009). Individuals are instructed on how to identify errors in thinking and then correct thinking. It is important to identify if the individual has distorted thinking patterns or preoccupied thinking patterns or both. In individuals with both thinking patterns, it is beneficial to assist the individual to distinguish between thoughts that are reality based or unrealistic. Distorted thoughts occur when an individual has illogical thoughts that do not reflect reality, which are deemed errors in thinking. Whereas, preoccupied thoughts occur when an individual ruminates on negative cognitive thoughts which impair performance of daily occupations.

One way to correct distorted thoughts is through cognitive restructuring. Cognitive restructuring assists the individual in identifying maladaptive automatic thoughts and then modifying the response to them (Kielhofner, 2009).

Along with the cognitive aspects of treatment, behavioral aspects are also important to address. Behavioral strategies include systematic desensitization, meditation and relaxation techniques, and activity modification. Systematic desensitization can be used to overcome a fearful thought or behavior related to a trigger (Kielhofner, 2009). For example, a person with substance abuse who drinks while in a group, systematic desensitization can be used in steps such as, getting together with one peer and engaging in a healthy occupation. The next step could be engaging in activities with two to three peers, and gradually increasing the size of the group while encouraging healthy occupations and interactions. In this way, the individual would no longer associate being a part of a group with substance use. According to Kielhofner (2009) meditation and relaxation techniques are beneficial when establishing healthy coping strategies for symptom management. Activity modification occurs when the individual chooses healthy occupations to engage instead of maladaptive activities (Kielhofner, 2009).

CBT addresses components of the MOHO such as volition, habituation, and performance capacity. CBT intervention would benefit individuals with psychiatric disorders, substance related disorders, and any diagnoses with maladaptive thought patterns. CBT can be adapted for treatment of adolescents with substance use disorders by modifying the activities to meet the needs of the population.

Occupational therapists can utilize the concepts of CBT when developing the intervention plan. Through the use of CBT, intervention activities should be focused on

modifying maladaptive cognition and behavior patterns. Occupational therapists can challenge distorted thinking and thought patterns through reality testing and assisting the adolescent to become more self-aware. Once the adolescent has increased self-awareness with thought patterns, he or she can increase self-awareness with behavior, which in turn can be modified.

Motivational Interviewing

Motivational interviewing (MI) is also a type of brief intervention that is utilized to increase an individual's motivation to reduce substance use (Deas, 2008). It can be used to identify triggers and aspects that perpetuate substance use by the individual. The main focus of MI is targeting high-risk behaviors in which the individual engages. The occupational therapist who is conducting treatment with adolescents with substance abuse must be empathetic, listen and reflect, work with individuals who are resistant, avoid arguments, and support self-efficacy (Deas, 2008).

Motivational Interviewing, also referred to as motivational enhancement therapy (MET), is effective in treating individuals with substance use and related disorders through building rapport, facilitating motivation and providing personalized feedback to the individual (Mason & Posner, 2009). MET is beneficial to establish realistic meaningful goals, introduce functional analysis procedure and prepare the individual for group settings. MET has been proven to be effective when it is combined with CBT and positive outcomes are observed in regards to engagement in substance related behaviors (Mason & Posner, 2009).

According to Mason and Posner (2009), when CBT and MET are used in combination it facilitates a reduction in alcohol use and increased abstinence. MET/CBT is a brief approach that consists of two MET sessions followed by three CBT sessions completed in a group setting. The initial MET sessions are intended to identify the adolescents own motivation for the recovery process and introduced the adolescent to the concept of functional analysis and triggers. The CBT sessions that follow the MET

sessions consist of developing skills to utilize in order to reduce and or stop substance use (Mason & Posner, 2009).

Motivational interviewing correlates with the MOHO components of volition and performance capacity through increasing the adolescents' motivation and identifying triggers. By using the components of volition and performance capacity of the MOHO, the occupational therapist can incorporate meaningful activities that facilitate a reduction or cessation in substance use. Interventions can be focused on rapport building, goal setting, and providing feedback (Mason & Posner, 2009). Performance capacity can be addressed through interventions that require the adolescent to rate his or her perceived performance.

Brief Interventions

Brief interventions utilize five steps (Barry, 1999). The first is introducing the issue, the second is the evaluation process, including screening and assessment, the third is providing feedback, the fourth is discussing change and goal setting, and the finally summarizing the session. The therapist may or may not utilize all five of the steps in the intervention process. The overall goal for brief interventions is a reduction in negative consequences related to continued substance use. Focus on immediate success in the recovery process is important, as it allows the individual to become motivated when he or she can see progress. Examples of immediate successes include completing homework, attending meetings, and decreasing use (Barry, 1999).

Barry (1999) found that benefits individuals may receive from brief interventions include increased self-responsibility, engagement in treatment, completion of homework, group participation, and medication compliance. Brief interventions also assist the individual to reduce aggression, isolation, violence, dropout rates. The sessions may be from five minutes to one hour in length and focus on examining the problem and motivating the individual to engage in the recovery process. The interventions may include feedback, educating individual about the risks of substance abuse, benefits of reducing substance use, and advising the individual (Barry, 1999).

Brief interventions can occur on an individual basis, through phone calls, and/or the therapist can use a workbook to facilitate treatment (Stoffel & Moyers, 2004). Stoffel and Moyers (2004) indicate that through the use of the workbook, individuals learn triggers for their own substance use; the workbook includes a no substance use agreement, as well as a diary to keep track of substance use. According to Barry (1999)

the workbook also contains identifying future goals, how the individual's substance use patterns relate to norms, identifying advantages and disadvantages of substance use, consequences, coping skills, rationale for reducing or quitting substance use, and strategies to achieve these goals. Brief interventions can be beneficial when used before, during, and after substance use. With this intervention, specific client behaviors and problem areas can be addressed which otherwise would be difficult to treat using standardized interventions (Barry, 1999).

Occupational therapists can utilize brief interventions by incorporating components of the MOHO including increasing volition, establishing habituation, encouraging performance capacity, and considering the environment. By assisting the individual to achieve immediate success through the just right challenge, the individual will experience an increase in volition. Through utilization of the workbook, the individual will learn positive coping strategies in order to establish healthy habits and routines encompassing habituation. By engaging in healthy occupations and reducing substance related activities, the individual will be provided with opportunities to broaden performance capacity. The environment must be considered when planning interventions as well as contexts where substance related issues occur.

12-Step Programs

The principles of 12-step programs are consistent with the principles of Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) by promoting recovery and encouraging abstinence (Stoffel & Moyers, 2004). Identification of the recovering addict, peer support, spirituality, and experiencing life as it comes are the focus of AA/NA. The goal of attendance for 12-step programs is not only to become abstinent, but also to connect with others experiencing similar situations and finding a person who can be a sponsor (Stoffel & Moyers, 2004).

Occupational therapists can encourage adolescents to become involved in AA/NA in order to increase success and reduce the risk of relapse. Kelly, Dow, Yeterian, & Kahler (2010) found that encouragement to attend AA/NA by health care providers had greater influence than parental thoughts about AA/NA. The results show adolescents who have a greater severity of substance use benefit more from AA/NA compared to their less severe counterparts. AA/NA treatment may be appropriate for those individuals whom have found standard outpatient therapy to be insufficient because of the severity of substance use (Kelly, et al., 2010). During the recovery process of adolescents with substance abuse, the occupational therapist can incorporate the initial five steps of the 12-step program in order to increase self-awareness. For the last steps the adolescent can be referred to a 12-step program to maintain his or her sobriety.

By using aspects of the 12-step program, occupational therapists can facilitate self-awareness within the MOHO components of volition, habituation, and performance capacity. Self-awareness interventions are focused on the adolescent rating his or her

performance and identifying substance abuse patterns that negatively affect performance in occupations.

Intervention Activities

The interventions are described in detail in the following paragraphs and address the MOHO components of volition, habituation, performance capacity, and environment are provided. The intervention options are organized into categories denoting the components addressed by the MOHO. Although the interventions may address multiple components of the MOHO, they are arranged according to the predominant component. The professional literature includes interventions primarily for adults and considerations should be made for adapting and tailoring the interventions to the adolescent population. Considerations should include the ability of the adolescent to use abstract thinking, brain development, maturity level, and the occupations and environments he or she is engaging in. The interventions provided were created with the adolescent in mind.

The MOHO Component of Volition

Coping Mechanisms

This worksheet can assist the adolescent in determining what unhealthy coping mechanisms were used, and what healthy coping mechanisms can be used instead. It also addresses support systems. The ideas should be as detailed as possible, including names and phone numbers. It can be completed individually or in a group and then discussed. Each individual should be provided with a copy upon completion. This coping mechanism worksheet would address the MOHO components of habituation and volition.

Thoughts/Feelings/Triggers

- 1.
- 2.
- 3.

Unhealthy Coping Mechanisms

- 1.
- 2.
- 3.
- 4.
- 5.

Healthy Coping Mechanisms

- 1.
- 2.
- 3.
- 4.
- 5.

Healthy Support Systems

Plan of Action

When I feel _____, I know I can call _____
(*thoughts/feelings/triggers*) (support system)

and we can _____.
(*healthy coping mechanism*)

When I feel _____, I can _____
(*thoughts/feelings/triggers*) (*healthy coping mechanism*)
instead.

Created by Cassandra Leach and Kori Le Blanc

Create a List of Healthy Leisure Activities

This can be completed as a group or individually. It should include activities that do not involve substance use of any kind. This can be used in conjunction with CBT components by promoting healthy habits and routines. This will also address the MOHO components of volition and performance capacity.

In a group setting:

Individuals should first write down his or her own thoughts. Then a discussion can occur bringing together the group's ideas, as well as brain storming. Based on the group list created, each individual should identify the activities he or she would most likely engage in. Each individual should be provided with a list of ideas upon completion.

Individually:

The occupational therapist can use coaching and verbal prompts with the individual in order to create a tailored list. The individual should be able to take the list and use it as an alternative when presented with situations that may potentially involve substance use.

Some examples may include the following, but the individual or group should brainstorm their own ideas.

Play cards	Fishing	Go to the movie	Go for a walk
Ride bike	Go for a run	Call a friend	Play a game
Volunteer	Listen to music	Join a sport	Crocheting
Join an afterschool or summer program	Word search	Sudoku	Walk a dog (play with pets)

Many of these activities can be completed in a group or individually. For example, playing cards, riding bikes, fishing, going for a run, playing with pets, going for a walk, or listening to music can be a group or a solitary activity. Sports or after school activities aside from having a focus on remaining healthy and staying active, also have a social aspect to them. Volunteering may also be considered having a social objective depending on the place the person is volunteering. Crocheting, completing a Sudoku puzzle, or doing a word search are usually solitary activities. The adolescents should brainstorm ideas for both solitary activities and group activities that they can employ.

Stages of Change

This can be used as an initial activity to build rapport within a group or individually. This activity will assist the adolescent to identify the stages he or she has gone through in the path from substance use to recovery. This can be completed individually or in a group. This activity utilizes similar concepts to Brief Intervention in that the adolescent is challenged to determine how to reduce and abstain from using substances. The worksheet also addresses concepts from the 12-Step program. The first steps in the 12-step program are about admitting that there is a problem with substances and becoming aware of the pivotal moments in the change process. This activity addresses the MOHO component of volition.

What was your motivation for using substances?

How did you know when you hit “rock bottom” and wanted to change?

If you do not think that you need to change, why and what are the consequences for that action?

What will your motivation be for staying sober?

Out with the Bad and In with the Good

In this intervention the individual will be asked to identify negative people, places, and things where he or she engages in substance related activities. From this list the individual will discuss positive people, places, or things that do not promote substance use. The individual will be asked to create a list of meaningful occupations that can serve as alternatives for substance use. This activity will address the MOHO components of volition and habituation.

<i>People</i>	<i>Places</i>	<i>Things</i>
<i>Alternatives</i>	<i>Alternatives</i>	<i>Alternatives</i>

Adapted from Butler, C. A. (2001). *100 interactive activities for mental health and substance abuse recovery*. Woodbury, NY: Wellness Reproductions & Publishing.

The MOHO Component of Habituation

Be Honest with Yourself

This activity can be completed within a group or individual setting. Utilizing a social interaction concept the adolescent will discuss negative aspects relating to substance use. This activity addresses the components of the MOHO such as habituation and performance capacity through having the adolescent provide honest answers and critically think about his or her actions and behaviors. This utilizes the aspects of brief interventions since this worksheet can be provided as homework as well as CBT where the individual has to think about his or her actions, the consequences and ways to better his or her life. A worksheet is included below; additional questions may be added to meet the needs of the adolescent.

Objectives:

- Provide the adolescent with a worksheet and allow him or her time to fill it out. This can also be give as homework and discussion can occur at the next schedule OT session.
- Review the answers with the adolescent.
- Brainstorm the consequences to the response listed on the paper.
- Discuss how substance use has impacted his or her life and what steps need to be taken in order to reduce or eliminate substance use.

Name: _____

1. Tell about a time where you denied engagement in substance related activities to yourself, friend or family member.
 - a. How did it make you feel?
 - b. What were the consequences?
 - c. How can you admit substance use to yourself and others in order to obtain help?
2. Has a family member or friend ever denied your substance use to another person?
 - a. If so, how did it make you feel?
 - b. Why do you think people deny substance related disorders to others?
3. Tell about a time where you became angry with yourself or your substance use disorder.
 - a. How did you feel?
 - b. What actions did you take?
4. Tell about a time you were depressed because of your substance use disorder?
 - a. Did you ask anyone for help?
 - b. Did you consider asking for help?
 - c. What emotions were you feeling?
5. Have you accepted your substance use disorder?
 - a. If so, how does it make you feel to accept this?
 - b. How does this affect your recovery process?
 - c. What are the benefits of being abstinent?

Adapted from: Butler, C. A. (2001). *100 interactive activities for mental health and substance abuse recovery*. Woodbury, NY: Wellness Reproductions & Publishing.

Roles

This activity can be completed within a group or individual setting. For this activity ask the adolescent to list all the roles that he or she engages in throughout the day.

Objectives:

1. Ask the individual to list all the current roles
2. Ask adolescent to list positive and negative aspects of the role
3. Discuss the importance of the role and if the role could be changed
4. Modify or adapt the role to represent positive aspects and encourage the individual to practice positive role behaviors

Examples of Roles:

- Sister, Brother, daughter, son, friend, employee, niece, nephew, cousin, student, volunteer, employee, etc.

This activity addresses the MOHO components of habituation and performance capacity by assessing what an individual typically engages in on a daily basis. After obtaining this information the OT can analyze the data to discover healthy roles and negative roles in order to create an intervention plan to meet the needs of the adolescent. This utilizes the idea of brief interventions in which homework and a workbook is provided to assist the individual with establishing healthy habits and routines. It also utilizes components from motivational interviewing in order to discover the meaning and motivation for continuing engagement in specific roles. An example of a chart is included below.

Current Roles	Positive	Negative	Importance
Sister	Supportive family	Brothers pick on me	Extremely important to have a supportive family
Daughter	Loving parents	None	Extremely important to have parents who care about me and want the best for me
Friend	Someone to hang out with; someone other than family to have fun with	Some of my friends drink	Important to have non-using friends in order to build healthy roles and habits
Employee	I can make money	Other employees drink	Important to be independent and work to earn money; do not need my using co-workers

Created by Cassandra Leach and Kori Le Blanc

The Ohm Effect

The Ohm Effect will teach adolescents how to deal with stressful situations and make relaxation a daily part of their lives. By teaching relaxation techniques, it will assist the adolescent to remain abstinent because many times adolescents use substances to escape a stressful or potentially stressful situation. This activity uses the concepts of brief intervention in that homework and feedback are provided, along with the opportunity to discuss change. It also has a component of CBT because it addresses coping skills. This will address the MOHO component of habituation.

Objectives

1. Assist the adolescent to know when to use relaxation techniques
2. Assist the adolescent to choose relaxation techniques instead of using substances
3. Provide the adolescent with relaxation tools

The therapist will first facilitate a discussion utilizing the following questions:

1. When do you use substances? What are you feeling when you use substances?
2. Does anyone use relaxation techniques? If so, which ones?
3. Why would it be beneficial to use relaxation techniques instead of using substances?
4. When is an appropriate time to use relaxation techniques?

The therapist should then lead the group or individual in practicing some relaxation techniques. The therapist can use the techniques provided, have the group/individual brainstorm ideas, or use a combination of both.

Assignment:

Choose one or two relaxation techniques that you liked best and practice using that technique whenever you are feeling the way you did before you used substances. At the next session discuss how it went and complete any possible modifications needed. At the next session the adolescent can be challenged to try a different relaxation technique, until he or she feels that enough relaxation techniques are available for the situations encountered.

Some relaxation techniques can include:

Deep breathing	Exercise
Stretching	Talk with a supportive friend
Meditate	Write things down
Press your palms together	Listen to music
Take a time out	Play with a pet
Yoga or Tai Chi	Walk away

Created by Cassandra Leach and Kori Le Blanc

Assume the Role

This activity allows the adolescent to evaluate the roles he or she assumes in life and understanding how those roles affect peers, family members, and others. This activity can be completed individually or in a group. If completing the activity in a group, the adolescents should be given the opportunity to complete the worksheet first and then discuss with others their ideas. The activity has components of CBT because the therapist is facilitating modification of thought patterns and behaviors. It also correlates to step 4 in the 12-Step program that prompts the individual to make a moral inventory (Alcoholics Anonymous World Services, Inc., 1991). This activity addresses the MOHO components of habituation and volition.

Circle the roles that you play in your life...

Harmonizer	Scapegoat	Encourager	Opinion Giver	Initiator
Listener	Advice Giver	Energizer	Aggressor	Clown
Instigator	Pessimist	Optimist	Questioner	Mascot
Deserter	Sympathizer	Empathizer	Leader	Follower

For each role circled, indicate what you do as a part of that role. (for example, if you think you are a listener, why?)

What roles would you like to change? Which ones would you like to keep?

What steps can you take to make these positive roles a part of your everyday life?

Adapted from: Butler, C. A. (2001). *100 interactive activities for mental health and substance abuse recovery*. Woodbury, NY: Wellness Reproductions & Publishing.

The MOHO Component of Performance Capacity

Personal Journal

Through occupational therapy intervention, the individual will have the opportunity to engage in a variety of healthy coping techniques.

Objectives:

1. Create a list of coping techniques meaningful to the adolescent.
2. Establish meaningful goals related to a reduction in substance use.
3. Have the individual create a list of meaningful occupations he or she could engage in when feeling the urge to use substances.
4. Throughout the week have the adolescent journal on coping techniques utilized, the stressful situation and the effectiveness of that technique.
5. Have the individual record each day he or she went without engaging in substance related activities.
6. To increase motivation, have the individual write the number of days he or she has been abstinent from substance use at the top of each page.

The personal journal will address the MOHO components of performance capacity and volition. This activity will utilize components of brief interventions where the individual is provided with homework to complete throughout the week. Once a week at the OT session, discussion should occur regarding how the journal is impacting the individual's daily life and what coping techniques are effective.

Action Plan

This intervention activity focuses on setting realistic goal areas and listing the steps that allow an adolescent to achieve his or her goal areas. The action plan looks at changing negative thoughts relating to that individual and establishes a plan for the individual to follow in order to positively impact his or her quality of life. This addresses components of the MOHO such as performance capacity and volition by allowing the individual to implement the identified steps in order to reach his or her goal areas. An example worksheet is listed below.

I want to be _____ (i.e. happy, friendly, sober, smart)

Act _____ (i.e. happy, friendly, sober, smart) by doing the following.

- 1.
- 2.
- 3.

Completed example:

I want to be friendly

Act friendly by doing the following.

1. Share a honest thought or feeling
2. Introduce myself to 2 new peers a week
3. Treat others as I would like to be treated

Adapted from: Butler, C. A. (2001). *100 interactive activities for mental health and substance abuse recovery*. Woodbury, NY: Wellness Reproductions & Publishing.

Thought Record

Through the completion of a thought record the individual is able to recognize and respond appropriately to automatic thoughts. Included in this thought record are CBT inspired questions requiring the individual to reflect on and adapt thought patterns in order to develop alternative emotional, physical, and behavioral patterns. Through this intervention the MOHO components of performance capacity, volition and habituation can be addressed. The following example can be adapted for the needs of the population.

Thought Record

Date:	Triggering Event	Automatic Thoughts	Feelings Experienced	Your Response to Thoughts	Results of Actions or Thoughts
	What triggered your emotional response?	What thoughts are going through your mind?	For example: sad, angry, lonely, frustrated, hurt, worried, numb...	What action did you take? How did you behave?	What were the positive or negative consequences or results?

Adapted from: Price, P. (2004). *The cyclothymia workbook*. Oakland, CA: New Harbinger Publications, Inc.

The MOHO Component of Environment

Create of List of Healthy Environments

By creating a list of healthy environments in which the adolescent can engage in activities, it is addressing the MOHO component of environment. Once the individual has identified activities that do not involve substance use, it is important to also identify places that do not involve substance use. This intervention can be used in conjunction with “Creating a list of healthy leisure activities worksheet”.

In a group setting:

Individuals should first write down his or her own thoughts. Then a discussion can occur bringing together the group’s ideas, as well as brain storming. Based on the group list created, each individual should identify the activities he or she would most likely engage in. Each individual should be provided with a list of ideas upon completion.

Individually:

The occupational therapist can use coaching and verbal prompts with the individual in order to create a tailored list. The individual should be able to take the list and use it as an alternative when presented with situations that may potentially involve substance use.

Some examples may include the following, but the individual or group should brainstorm their own ideas.

A friend’s house (who does not engage in substance use)	The beach	Church	The park
School	Community center	YMCA	Wellness centers
Gyms	Relative’s house	The mall	The library

Context Clues

By using this worksheet during intervention, the adolescent can become aware of the contexts in which he or she was using substances, and how the use of substances effected his or her occupations. This can be completed on an individual level or within a group. It addresses the MOHO component of environment and performance capacity.

Environment	How were your occupations affected by substances?
School	
Work	
Virtual (On-line)	
Family	
Social Situations	
Other:	

Looking back at the negative effects of substance abuse, how did it make you feel at the time it was happening and how does it make you feel now?

What can you do in these same environments when faced with the desire to use substances or associate with other who use substances?

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Created by Cassandra Leach and Kori Le Blanc

The On-Line Solution

Adolescents are spending an ever increasing amount of time plugged in and logged on. The internet can be a healthy environment for participation or it can be maladaptive for adolescents. This activity can be completed in a group, if multiple computers are available, or individually. Assist the adolescent in finding supportive websites for abstinence from substance abuse. This will address the MOHO components of environment, specifically the virtual environment, and volition.

Objectives

By the end of this activity the adolescents will be able to:

1. Explore websites provided to them by the therapist
2. Identify positive websites to utilize in order to maintain sobriety
3. Identify healthy alternatives using substances

Procedures:

In a group or individually, the adolescent will be given website addresses in order to explore positive organizations that he or she can become a part of that do not condone substance use. The list of resources at the end of the guide can give the therapist some ideas of positive websites. The therapist can also challenge the adolescents to find websites that are supportive by making it a game. There can be a reward for most found, most supportive, best fit for the individual, and so forth. At the end of the activity, a discussion can include when to use the websites, how to get more involved with a specific organization found, or how the information from the website can be useful when internet access is not available.

Discharge Planning

As the discharge date approaches, assessments such as the POSIT, COPM, the OCAIRS, MOHOST, and the Role Checklist can be used as outcomes measures. These assessments have a component relating to how the individual perceives his or her occupational performance. It is important to utilize a holistic approach and consider the individual's abilities and skills in regards to maintaining abstinence. Through use of a holistic approach and evaluation of the MOHO components, family counseling may be necessary in order to improve the quality of life for the adolescent and family. Family counseling will provide an opportunity to continue to develop healthy relationships within the family and promote healthy environments.

Outcome measures are evaluated through participation in occupations, health and wellness, quality of life, role competence, self-advocacy, and occupational performance (American Occupational Therapy Association (AOTA), 2008). Health and wellness will be enhanced through incorporating healthy habits and routines into daily life. Through participation in healthy meaningful activities, the adolescent will have the opportunity to define his or her roles, thus achieving role competency. By participating in the intervention process, the adolescent will gain confidence and skills for self-advocacy to utilize after discharge. Through intervention outcomes, the adolescent's quality of life will be positively impacted.

On discharge, adolescents would benefit from referral to a 12-step program. Participating in a 12-step program provides cost effective treatment and extends the benefits received from previous therapy including remaining abstinent from substances (Gossop, Stewart, & Marsden, 2007; Kelly, et al., 2010). 12-step programs can assist the adolescent with remaining abstinent by providing community support and sponsorship.

The first five steps of the 12-step program can be addressed in occupational therapy, but the last five steps must be completed once the adolescent has obtained skills for self-advocacy.

The occupational therapist should collaborate with the social worker to determine the least restrictive discharge environment. In the ideal, adolescents should be discharged to a supportive environment promoting abstinence. If this is not possible, the adolescent should be referred for other services, such as residential treatment or foster care. This decision should be in collaboration with the interdisciplinary team, as well as the adolescent and the family.

Resources for Occupational Therapists

Websites

www.naturalhigh.org: Natural High is a nonprofit organization with the goal of assisting kids to reject drugs and other substances and find meaningful activities that give them their natural high in life. The website can be used by educators, therapists, and parents. Natural High includes testimonials from kids who have been through the program, provides education materials, such as DVDs, for adults to utilize, and much more.

www.samhsa.gov: The Substance Abuse and Mental Health Services Administration (SAMHSA) is a federally directed organization. The mission of the organization is to decrease the affects substance abuse and mental illnesses have on American communities. SAMHSA provides current news about substance abuse prevention, tools, other resources, and current statistics, but also supports grants.

www.med.unc.edu/alcohol/prevention/: This website is sponsored by the Bowles Center for Alcohol Studies, at the University of North Carolina at Chapel Hill. The website is aimed at students and provides information about alcohol and drug abuse, how to avoid substance abuse, and where to get help. The information is generalized in order to help people around the country. The website helps students to understand the effects of substance abuse, the problem signs, healthy choices that can be made instead, and even gives recipes for non-alcoholic drinks. There is also a quiz to test individual's knowledge of alcohol.

<http://www.whitehousedrugpolicy.gov/>: This website is sponsored by the Office of National Drug Control Policy (ONDCP). The website has information on prevention (including programs and initiatives), treatment, recovery, drug facts (including extensive lists of street names for drugs), resources by state, and information on drug control efforts on an international level. The ONDCP has ties with SAMHSA.

<http://teens.drugabuse.gov/>: This website is presented by the National Institute on Drug Abuse (NIDA), and is a component of the National Institute of Health (NIH). NIDA is aimed at adolescents ages 11-15 years, as well as parents and teachers, and focuses on the science of drug abuse. The goal is to provide individuals with fact-based information on how substances affect the brain and the body. There is a link provided of real stories from adolescents who have taken drugs and the effect it has had on their bodies and their lives. The website utilizes illustrations, games, and quizzes to help educate.

<http://www.drugfree.org/>: The Partnership at Drug Free.org is directed at parents. Advice is offered on how to prevent teens from using substances and how to intervene if their teen is already using substances. The website helps parents to find treatment for their teen, and also assists in the recovery process, including information on relapse. The organization provides science-based resources and raises awareness through campaigns. Images of common drugs are also provided.

Books

100 Interactive Activities for Mental Health and Substance Abuse Recovery

Butler presents activities that can be reproduced for use in clinical settings. A legend is provided indicating the difficulty rating, ages the activity is appropriate for, and the number of pages for each activity. The age levels to choose from are, all (8 years through adult), young people (8-17 years), teens (13-17 years), adults and teens (13 years through adult), and adult (18 years and older). The topics covered range from anger management to problem solving to self-reflection, and stress management.

Source:

Butler, C. A. (2001). *100 Interactive Activities for Mental Health and Substance Abuse Recovery*. Woodbury, NY: Wellness Reproductions & Publishing.

Quick Reference to Occupational Therapy

This book is a reference for occupational therapists and includes a plethora of diagnoses information across the life span. Although it is not necessarily directed at adolescents, the information may be applicable. With each diagnosis, there is a description, causes, appropriate assessments to utilize, common deficits observed, treatment interventions, precautions, and the prognosis and outcomes. The author includes psychosocial aspects, cognitive aspects, and environmental factors. Because this reference book provides information on a variety of diagnoses, it will be beneficial to utilize when treating co-morbidities associated with substance use, abuse, and/or dependence in the adolescent.

Source:

Reed, K. L. (2001). *Quick reference to occupational therapy* (2nd ed.). Austin, TX: PRO-ED, Inc.

Occupational Therapy Assessment Tools: An Annotated Index

This is a comprehensive collection of assessments for use by the occupational therapist that can be utilized across all settings and diagnoses. The book contains assessments to evaluate performance in areas of occupation, performance skills, client factors, performance patterns, and contexts. For each assessment the following information is provided: title, author(s), format, purpose, population, administration time, setting or position, materials needed, description, interpretation, reliability and validity, source, additional references, cost, sample, and comments.

Source:

Asher, I. E. (2007). *Occupational therapy assessment tools: An annotated index* (3rd ed.). Bethesda, MD: The American Occupational Therapy Association, Inc.

Group Exercises for Adolescents: A Manual for Therapists

This book will give the therapist intervention ideas when treating adolescents. It is not wholly directed at adolescents with substance abuse, but one chapter is provided on the topic. The other chapters address social skill building, sexuality, family relationships, accepting one's own identity, and dealing with emotions. These topics pertain to the adolescent life, and interventions may be adapted to address substance abuse.

Source:

Carrel, S. (2000). *Group exercises for adolescents: A manual for therapists* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

References

- Alcoholics Anonymous World Services, Inc. (2010). *The 12-steps illustrated*. Retrieved from http://www.aa.org/pdf/products/p-55_twelvestepsillustrated.pdf.
- American Occupational Therapy Association (2008). Occupational therapy practice framework: Domain and process (2nd ed.). *American Journal of Occupational Therapy*, 62, 625-683.
- Asher, I. E. (2007). *Occupational therapy assessment tools: An annotated index* (3rd ed.). Bethesda, MD: The American Occupational Therapy Association, Inc.
- Barry, K. L. (1999). *Brief interventions and brief therapies for substance abuse*. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration.
- Bowles Center for Alcohol Studies, University of North Carolina at Chapel Hill (n.d.). *Alcohol & drug abuse prevention*. Retrieved from <http://www.med.unc.edu/alcohol/prevention/>.
- Butler, C. A. (2001). *100 Interactive Activities for Mental Health and Substance Abuse Recovery*. Woodbury, NY: Wellness Reproductions & Publishing.
- Carrel, S. (2000). *Group exercises for adolescents: A manual for therapists* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Deas, D. (2008). Evidenced-based treatments for alcohol use disorders in adolescents. *Pediatrics*, 121(supplemental 4), S348-S354. doi: 10.1542/peds.2007-2243G.
- Gossop, M., Stewart, D., & Marsden, J. (2007). Attendance at narcotics anonymous and alcoholics anonymous meetings, frequency of attendance and substance use

- outcomes after residential treatment for drug dependence: A 5-year follow-up study. *Addiction*, *103*, 119-125. doi: 10.1111/j.1360-0443.2007.02050.x.
- Kelly, J. F., Dow, S. J., Yeterian, J. D., & Kahler, C. W. (2010). Can 12-step group participation strengthen and extend the benefits of adolescent addiction treatment? A prospective analysis. *Drug and Alcohol Dependence*, *110*(1-2), 117-125. doi: 10.1016/j.drugsalcdep.2010.02.019.
- Kielhofner, G. (2008). *Model of human occupation: Theory and application* (4th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Kielhofner, G. (2009). *Conceptual foundations of occupational therapy practice* (4th ed.). Philadelphia, PA: F. A. Davis Company.
- Mason, M. J. & Posner, M. A. (2009). Brief substance abuse treatment with urban adolescents: A translational research study. *Journal of Child & Adolescent Substance Abuse*, *18*(2), 193-206. doi: 10.1080/10678280902724184.
- National Institute on Drug Abuse (n.d.). *NIDA for teens: The science behind drug abuse*. Retrieved from <http://teens.drugabuse.gov/index.php>.
- Natural High (2010). *Welcome to natural high*. Retrieved from <http://naturalhigh.org/>.
- Office of National Drug Control Policy (n.d.) *The office of national drug control policy*. Retrieved from <http://www.whitehousedrugpolicy.gov/index.html>.
- Partnership at Drug Free.org (2010). *The partnership at drug free.org*. Retrieved from <http://www.drugfree.org/>.
- Price, P. (2004). *The cyclothymia workbook*. Oakland, CA: New Harbinger Publications, Inc.

Reed, K. L. (2001). *Quick reference to occupational therapy* (2nd ed.). Austin, TX: PRO-ED, Inc.

Stoffel, V. C. & Moyers, P. A. (2004). An evidenced-based and occupational perspective of interventions for persons with substance-use disorders. *American Journal of Occupational Therapy*, 58(5), 570-586.

Substance Abuse and Mental Health Services Administration (2010). *A life in the community for everyone*. Retrieved from <http://www.samhsa.gov/>.

Chapter V

Summary

The purpose of this scholarly project was to describe the occupational therapists role during the recovery process of adolescents with substance related disorders through the development of a guide to assist in the assessment, intervention and discharge planning processes. A review of the professional literature showed the majority of interventions, across disciplines, were directed toward the treatment of adults. Therefore, adaptations needed to be made throughout the project to meet the needs of the adolescent population.

According to the U. S. Department of Health and Human Services (2009), adolescent's engagement in substance related activities is increasing. Youths between the ages of 12 to 17 years have increased their engagement in illicit drug use from 9.3% in 2008 to 10% in 2009. More specifically, approximately 10.4 million persons (27%), ages 12-20 years reported drinking alcohol within the last month in 2009.

Martin, et al. (2008) state substance use impairs self-esteem, quality of life and occupational performance within daily occupations including social participation, habituation, leisure participation and engagement in employment opportunities. Occupational therapists can utilize evidence-based interventions including brief intervention, cognitive behavioral therapy, motivational interviewing and concepts of 12-steps treatment programs to enhance the quality of life and promote performance within healthy occupations (Stoffel & Moyers, 2004).

Limitations

The scholarly project resulted in the development of a guide for practicing occupational therapists working in recovery programs for adolescents with substance related disorders. The guide presents assessments, interventions and discharge planning options created for adolescents with substance related disorders. Although, the guide incorporates currently recognized evidence-based interventions commonly employed in treatment of substance disorders, the assessments, intervention and discharge planning recommendation have not been clinically tested for effectiveness in occupational therapy practice.

Recommendations

To be implemented as a treatment protocol, the guide created for the scholarly project will need to be further developed to include additional interventions and discharge planning options. Research to test the clinical significance of the guide and refine the role of occupational therapy in treatment of adolescents with substance related disorders needs to be conducted. Outcome data measuring goal attainment, change (particularly engagement in occupation), relapse rates and client satisfaction need to be collected to demonstrate utility and establish credibility.

Conclusions

Occupational therapists strive to provide individuals with client-centered care utilizing a client-centered, occupation based, and evidence-based approach. The Model of Human Occupation (MOHO) serves as a guide for therapists to implement the treatment process using volition, habituation, performance capacity and environment as the basis for interventions. Application of the MOHO to evidence-based practices in treatment of

substance disorders enables the occupational therapist to focus on client-centered, holistic care of adolescents with substance disorders.

References

- Alcoholics Anonymous World Services, Inc. (2010). *The 12-steps illustrated*. Retrieved from http://www.aa.org/pdf/products/p-55_twelvestepsillustrated.pdf.
- American Occupational Therapy Association. (2008). Occupational therapy practice framework: Domain and process (2nd ed.). *American Journal of Occupational Therapy*, 62, 625-683.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders*. (Revised 4th ed.). Washington, DC: American Psychiatric Association.
- Asher, I. E. (2007). *Occupational therapy assessment tools: An annotated index* (3rd ed.). Bethesda, MD: The American Occupational Therapy Association, Inc.
- Barry, K. L. (1999). *Brief interventions and brief therapies for substance abuse*. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration.
- Bowles Center for Alcohol Studies, University of North Carolina at Chapel Hill (n.d.). *Alcohol & drug abuse prevention*. Retrieved from <http://www.med.unc.edu/alcohol/prevention/>.
- Bukstein, O. G. (2000). Adolescent substance abuse. In B. S. Sadock & V. A. Sadock (Eds.) *Kaplan & Sadock's comprehensive textbook of psychiatry* (Vol. 2, 7th ed.). (pp. 2932-2938). Philadelphia, PA: Lippincott Williams & Wilkins.

- Butler, C. A. (2001). *100 Interactive Activities for Mental Health and Substance Abuse Recovery*. Woodbury, NY: Wellness Reproductions & Publishing.
- Carrel, S. (2000). *Group exercises for adolescents: A manual for therapists* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Ciesla, J. R. (2010). Evaluating the risk of relapse for adolescents treated for substance abuse. *Addiction Disorders and their Treatment*, 9(2), 87-92.
- Clancy, C., Oyefeso, A., & Ghodse, H. (2006). Role development and career stages in addiction nursing: An exploratory study. *Journal of Advanced Nursing* 57(2), 161-171. doi: 10.1111/j.1365-2648.2006.04088.x.
- Committee on Substance Abuse. (2010). Alcohol use by youth and adolescents: A pediatric concern. *Pediatrics*, 125(5), 1078-1087. doi: 10.1542/peds.2010-0438.
- Cotton, N. S. (2000). Normal Adolescence. In B. S. Sadock & V. A. Sadock (Eds.) *Kaplan & Sadock's comprehensive textbook of psychiatry* (Vol. 2, 7th ed.). (pp. 2550-2557). Philadelphia, PA: Lippincott Williams & Wilkins.
- Deas, D. (2008). Evidenced-based treatments for alcohol use disorders in adolescents. *Pediatrics*, 121(Supplemental 4), S348-S354. doi: 10.1542/peds.2007-2243G.
- Deas, D., Riggs, P., Langenbucher, J., Goldman, M., & Brown, S. (2000). Adolescents are not adults: Developmental consideration in alcohol users. *Alcoholism: Clinical and Experimental Research*, 24(2), 232-237.
- Dunn, M. G. & Mezzich, A. C. (2007). Development in childhood and adolescence: Implications for prevention research and practice. In P. Tolen, J. Szapocznik, & S. Sambrano (Eds.), *Preventing youth substance abuse: Science-based programs for children and adolescents* (pp. 21-40). Washington DC: American Psychological

Association.

- Fagan, R. (2010). Counseling and treating adolescents with alcohol and other substance use problems and their families. *The Family Journal, 14*(4), 326-333. doi: 10.1177/1066480706289651.
- Feldstein, S. W. & Miller, W. R. (2006). Substance use and risk-taking among adolescents. *Journal of Mental Health, 15*(6), 633-643. doi: 10.1080/09638230600998896.
- Gossop, M., Stewart, D., & Marsden, J. (2007). Attendance at narcotics anonymous and alcoholics anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: A 5-year follow-up study. *Addiction, 103*, 119-125. doi: 10.1111/j.1360-0443.2007.02050.x
- Haertlein Sells, C., Stoffel, V. C., & Plach, H. (2011). Substance-related disorders. In C. Brown, V. C. Stoffel, & J. P. Munoz (Eds.), *Occupational therapy in mental health: A vision for participation* (pp. 192-210). Philadelphia, PA: F. A. Davis Company.
- Henderson, C. E., Dakof, G. A., Greenbaum, P. E., & Liddle, H. A. (2010). Effectiveness of multidimensional family therapy with higher severity substance-abusing adolescents: Report from two randomized controlled trials. *Journal of Consulting and Clinical Psychology, 78*(6), 885-897. doi: 10.1037/a0020620.
- Kelly, J. F., Dow, S. J., Yeterian, J. D., & Kahler, C. W. (2010). Can 12-step group participation strengthen and extend the benefits of adolescent addiction treatment? A prospective analysis. *Drug and Alcohol Dependence, 110*(1-2), 117-125. doi: 10.1016/j.drugsalcdep.2010.02.019.

- Kielhofner, G. (2008). *Model of human occupation: Theory and application* (4th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Kielhofner, G. (2009). *Conceptual foundations of occupational therapy practice* (4th ed.). Philadelphia, PA: F. A. Davis Company.
- Kulig, J. W. & The Committee on Substance Abuse (2005). Tobacco, alcohol, and other drugs: The role of the pediatrician in prevention, identification, and management of substance abuse. *Pediatrics*, *115*(3), 816-821. doi: 10.1542/peds.2004-2841.
- Martin, L. M., Bliven, M., & Boisvert, R. (2008). Occupational performance, self-esteem, and quality of life in substance addictions recovery. *OTJR: Occupation, Participation, and Health*, *28*(2), 81-88.
- Mason, M. J. & Posner, M. A. (2009). Brief substance abuse treatment with urban adolescents: A traditional research study. *Journal of Child and Adolescent Substance Abuse*, *18*(2), 193-206. doi: 10.1080/10678280902724184.
- McHugh, R. K., Hearon, B. A., & Otto, M. W. (2010). Cognitive behavioral therapy for substance use disorders. *Psychiatric Clinics of North America*, *33*, 511-525. doi: 10.1016/j.psc.2010.04.012.
- Moyers, P. A. (1992). *Substance abuse: A multi-dimensional assessment and treatment approach*. Thorofare, NJ: SLACK Incorporated.
- National Association of Social Workers (2010). *Substance abuse*. Retrieved from <http://www.socialworkers.org/research/naswResearch/substanceAbuse/default.asp>.
- National Institute on Drug Abuse (n.d.). *NIDA for teens: The science behind drug abuse*. Retrieved from <http://teens.drugabuse.gov/index.php>.

- Natural High (2010). *Welcome to natural high*. Retrieved from <http://naturalhigh.org/>.
- Office of National Drug Control Policy (n.d.) *The office of national drug control policy*. Retrieved from <http://www.whitehousedrugpolicy.gov/index.html>.
- Park, S., Kim, H., & Kim, H. (2009). Relationships between parental alcohol abuse and social support, peer substance abuse risk and social support, and substance abuse risk among South Korean adolescents. *Adolescence*, 44(173), 87-99.
- Partnership at Drug Free.org (2010). *The partnership at drug free.org*. Retrieved from <http://www.drugfree.org/>.
- Piat, M., Sabetti, J., & Bloom, D. (2009). The importance of medication in consumer definitions of recovery from serious mental illness: A qualitative study. *Issues in Mental Health Nursing*, 30, 482-490. doi: 10.1080/01612840802509452.
- Price, P. (2004). *The cyclothymia workbook*. Oakland, CA: New Harbinger Publications, Inc.
- Priskanen M., Pietilä, A., & Halonen, E. (2006). School health nurses and substance use among adolescents- towards individual identification and early intervention. *Scandinavian Journal of Caring Sciences* 20, 439-447.
- Reed, K. L. (2001). *Quick reference to occupational therapy* (2nd ed.). Austin, TX: PRO-ED, Inc.
- Rogers, N., Lubman, D. I., & Allen, N. B. (2008). Therapeutic alliance and change in psychiatric symptoms in adolescents and young adults receiving drug treatment. *Journal of Substance Use*, 13(5), 325-339. doi: 10.1080/14659890802092063.
- Soresi, S., Nota, L., & Ferrari, L. (2005). Counseling for adolescents and children at-risk in Italy. *Journal of Mental Health Counseling*, 27(3), 249-265.

- Spaeth, M., Weichold, K., & Silbereisen, R. K. (2010). Examining the differential effectiveness of a life skills program (IPSY) on alcohol use trajectories in early adolescence. *Journal of Consulting and Clinical Psychology, 78*(3), 334-348. doi: 10.1037/a0019550.
- Steenrod, S. A. (2009). The interface between community-based and specialty substance abuse treatment sectors: Navigating the terrain in social work. *Journal of Social Work Practice in the Addictions, 9*(1), 4-20. doi: 10.1080/15332560802533448.
- Stoffel, V. C. & Moyers, P. A. (2004). An evidenced-based and occupational perspective of interventions for person with substance-use disorders. *The American Journal of Occupational Therapy, 58*(5), 570-586.
- Substance Abuse and Mental Health Services Administration (2010). *A life in the community for everyone*. Retrieved from <http://www.samhsa.gov/>.
- Valente, T.W., Ritt-Olson, A., Stacy, A., Unger, J. B., Okamoto, J., & Sussman, S. (2007). Peer acceleration: Effects of a social network tailored substance abuse prevention program among high-risk adolescents. *Addiction, 102*, 1804-1815. doi: 10.1111/j.1360-0443.2007.01992.x.
- Van Hook, et al. (2007). The “six t’s”: Barriers to screening teens for substance abuse in primary care. *Journal of Adolescent Health, 40*, 456-461. doi: 10.1016/j.jadohealth.2006.12.2007.
- U. S. Department of Health and Human Services (2009). *Results from the 2009 national survey on drug use and health: Volume I. Summary of national findings*. Retrieved from <http://www.oas.samhsa.gov/NSDUH/2k9NSDUH/2k9ResultsP.pdf>

Appendix

Criteria for Substance Dependence

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. tolerance, as defined by either of the following:
 - a. a need for markedly increased amounts of the substance to achieve intoxication or desired effect
 - b. markedly diminished effect with continued use of the same amount of the substance
2. withdrawal, as manifested by either of the following:
 - a. the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)
 - b. the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
3. the substance is often taken in larger amounts or over a longer period than was intended
4. there is a persistent desire or unsuccessful efforts to cut down or control substance use
5. a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects
6. important social, occupational, or recreational activities are given up or reduced because of substance use
7. the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

American Psychiatric Association [APA], 2000, p.197.

Criteria for Substance Abuse

- A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:
1. recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
 2. recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
 3. recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
 4. continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)
- B. The symptoms have never met the criteria for Substance Dependence for this class of substance.

APA, 2000, p. 199