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CONDUCT, LEARNING, AND SUBSTANCE USE DISORDERS IN AN
ADOLESCENT MALE: A CASE STUDY

by
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A Thesis

Submitted in partial fulfillment of the requirements of the Master of Arts Degree
of
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at
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Approved by _____
Professor

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ABSTRACT

Dana F. Wales

CONDUCT, LEARNING, AND SUBSTANCE USE DISORDERS IN AN ADOLESCENT MALE: A CASE STUDY

2004

Dr. Janet Cahill

Master of Arts in Applied Psychology and Mental Health Counseling

The purpose of this case study was to examine best practice interventions for an individual diagnosed with Conduct, Learning, and Substance Use Disorders. Empirically supported research was evaluated and compared to normative practices of the agency where the client resided. The intervention process included a psychosocial assessment, Differential Diagnosis as well as multiple levels of intervention. Outcome measures were used to assess depression, anxiety, and coping skills. However, a lack of cooperation and follow through by the client and his family invalidated these measures. Clinical observations and staff reports indicated that the overall intervention had mixed results with this client. Suggestions for improved treatment approaches were discussed.

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Chapter 1 - Psychosocial Assessment

Presenting Problem

Tony was a 16-year-old Caucasian male raised in a low socio-economic environment. He was admitted to a treatment facility after violating parole due to persistent aggressive and destructive behaviors (both to property and self) that occurred in his home setting.

Tony denied having any challenges with aggressive or destructive behaviors. Court records indicated that he had physical altercations with other adolescents and engaged in risk taking behaviors such as elopement from previous programs and from his home. Tony's mother reported that he also engaged in drinking alcohol, smoking marijuana and tobacco, abusing prescription medications, and violating curfew.

Tony's mother brought him to court most recently because he violated rules she had established for his behavior, after he eloped from a residential placement and came to stay with her. Specifically, Tony was not to drink, smoke or stay out past 10:00 P.M. curfew. He violated each rule put in place by his mother.

History of Presenting Problem

Tony had a lengthy history of impulsive behaviors. His mother reported that at three years old he was climbing and jumping "without fear" from trees, tables, beds, and stairs. She also reported that at age seven, Tony jumped from a second story window to escape punishment. Tony was taken to the emergency room where a psychiatric assessment was conducted. According to Tony and his mother, the behavior was

misinterpreted by the psychiatrist, as a suicide attempt. At age 9, Tony jumped from the roof of a garage. Both jumps required hospitalizations and psychiatric evaluations.

Tony also reported at the time of the initial assessment that, when he was five years old, he intentionally set fire to his biological father's sofa after his father physically assaulted him with a 2" by 4" board. Tony stated that he set the sofa on fire because he was angry with his father and did not care if the "whole house burned down". Tony also participated in setting fire to an abandoned house when he was 12 and set the wall in his bedroom on fire when he was 14 years old. Tony reported that he was drunk and thought that it would be "funny" to see how his mother would react.

Tony reported that he has bullied peers ever since he could remember, especially those that were intimidated by him. He would pick fights both verbally and physically without provocation.

He also reported that he has been drinking, smoking marijuana "blunts", and Black and Mild cigars since he was 12 years old. He considered himself to be an alcoholic. His mother concurred. Specific details of his substance use are provided in a subsequent section.

Prior to age seven the majority of his behaviors, according to his mother, appeared to be more impulsive than intentional. Obviously, the first fire-setting incident cannot be dismissed as impulsive. By age seven his behavior became more volitional and he expressed no sense of remorse for aggression and property destruction. Tony also reported self-injurious behavior (i.e. cutting and burning himself) by the age of 9. He stated that when he began injuring himself it was to manipulate others into getting his way. For example, Tony once cut his arm when he fell from a bicycle that he had stolen.

His mother punished him for stealing the bicycle by grounding him for two weeks. Tony reported that he continued to pick and scratch at the wound on his arm until it required a visit to the hospital. He stated that he knew that doing so would result in his “getting out of the house” and that his mother would discontinue the punishment.

Mother reported that Tony’s aberrant behaviors have always been present but have become more intense and less manageable as he has gotten older. She denied that there was a time, other than infancy, that Tony was not “a problem child.

Prior Efforts to Address the Problem

Tony’s mother reports no ongoing efforts to address his problems. She advised that when he was hospitalized for jumping from the second story window and garage roof, which resulted in psychiatric evaluations, that her interpretations of behavioral intent were “disregarded”. She acknowledged that he received special services throughout his school years and that she participated in the requisite meetings and conferences.

Current Family Relationships

Tony lived with his 46-year-old biological mother, 21-year-old biological sister and her two young male children, one who was three years old and the other who was 18 months. Tony has lived with his mother and sister since he was four years old. Prior to that, Tony’s father also resided in the home.

Family of Origin

Tony has lived with his mother and sister his entire life. His father lived in the home from Tony’s birth until he was approximately four years old. Tony’s mother evicted his father from the home when she came in to the living room and witnessed his

father beating him across the lower back and buttocks with a wooden cutting board. His father subsequently moved to Florida.

Tony visited his father several times when he was living in Florida. Each visit resulted in some form of physical abuse. Tony would not tell his mother about the beatings because he did not want to be kept from his father.

When Tony was six years old his father was incarcerated for attempted robbery and aggravated assault. He has not seen his father since. He received his first letter from his father during treatment just before his 16th birthday.

Tony's father was an active alcoholic and drug user. He was either drunk, high or both each time that he assaulted Tony. Tony's mother reported she stayed with him despite his alcoholism because he was still the "man of the house and brought in a paycheck." It was not until she realized that her children were at risk that she felt the need for him to leave. She reported that he was verbally abusive to her but that he would only threaten to hit her and that he never "laid a hand on their daughter." His sister denied any abuse by either parent.

A close relationship did not exist with members of Tony's extended family. Tony's maternal grandparents were deceased time of interview and paternal grandparents did not maintain contact. His maternal aunt and cousins lived in close proximity and they had a positive relationship.

Tony denied any physical or emotional abuse by his mother. He said that when he was growing up, he and his sister would argue. He stated that he would not get into physical altercations with her. She would hit him and he would get angry but leave the house. He said that he would never hit a girl.

Tony stated that his mother was the disciplinarian in the household, other than when his father abused him, which Tony interpreted as discipline. He said that when he did something wrong, such as breaking curfew, his mother would ground him for a week. When asked what would happen next he said that he would obey the rules for a few days and then sneak out. His mother would then ground him for two weeks. Tony would then obey into the second week and then go out again. When asked what would happen next, Tony said that his mother would ground him for three weeks and then he would obey the rules. When asked what was different, he stated that he knew that the next step could be family court or getting evicted from the home. Tony believed that the discipline was effective if not harsh. His mother did not agree that the interventions were either effective or harsh because she was unable to enforce the rules. She acknowledged her lack of ability to firmly enforce rules made those rules ineffective.

As previously noted, his father physically abused Tony. He was beaten when his father was drunk and high. His father told Tony that he was being “punished”, but Tony never knew what behavior was being punished. There were also times that beatings occurred without any explanation. When Tony set fire to the sofa after a beating, he could not recall what behavior provoked the beating. His father’s abusive pattern then, was not predicated on Tony’s behavior.

Drugs Alcohol and Addictive Behavior

Tony used alcohol, marijuana, prescription drugs and tobacco since the age of 12. He reported that he was an alcoholic. Prior to his present placement he was able to consume between five and ten, 40-ounce bottles of malt liquor in the course of a day. He denied dependence on marijuana but used it regularly. He denied dependence on

prescription drugs, stating that his use depended on availability not need. He acknowledged dependence on tobacco.

Tony's biological father was an alcoholic and dependent on cocaine, heroin and prescription drugs. He also had some history of criminal behavior. It was reported that when his father attempted to rob a woman at knife point, it was to get money to purchase drugs from a "friend of his."

Tony's mother reported that her biological father "had a drinking problem." She denied that he was an alcoholic but believed that he binged on alcohol and would consider him to have been an alcohol abuser. Tony's mother reported that Tony's paternal grandfather was an alcoholic and that was why they did not maintain contact. She was fearful that his grandfather would abuse Tony as his father did.

Tony's mother denied any chemical addictions and his sister did not use alcohol or drugs. She reported that she has had an "occasional drink" but could not "party" because of her responsibilities to her two children.

Early Development/ Neurological History

Tony's mother reported that that her unplanned pregnancy was unremarkable until delivery. She reported that Tony "got stuck" in the birth canal. An emergency C-section was performed at which time it was discovered that the umbilical cord was also wrapped around Tony's neck. He was hypoxic and reported by the delivering physician to have had "immature lungs". Tony spent two weeks in the Neonatal Intensive Care Unit (NICU). Tony's mother developed an infection at the surgical site and it progressed systemically. She remained in the hospital for four weeks and Tony was released to the care of his maternal grandmother after release from the NICU. Tony's mother reported a

sense of relief of not seeing Tony at the time because his initial prognosis was poor.

Tony's mother denied any use of alcohol, drugs or nicotine during her pregnancy. Tony's father actively used alcohol, cocaine, heroin, prescription drugs and tobacco pre and post conception.

In terms of developmental milestones, Tony's mother reported he was walking and running by the age of seven months. All other milestones seemed to have been met in a "normal" timeframe until he reached approximately two years old. When she was asked if she thought that this behavior could be attributed to the challenges presented by many two-years olds, she denied the concept of the "terrible two's". She stated that Tony became restless while awake and had poor sleeping patterns. She denied any true patterns of sleep. She stated that Tony was like the Energizer Bunny® and that she "practically had to tie him into his crib" to keep him safe. She also reported that he became more physically aggressive and had temper tantrums without provocation that included hitting her and throwing objects and breaking them.

Medical and Psychiatric History

Tony had a history of asthma and currently used an inhaler. He was hospitalized on several occasions as a result of severe asthma attacks. Notably, when he was 9-years old he was hospitalized because he stated that he "could not find his medicine". He was also hospitalized at ages 12 and 13, because he refused to use his medication. He was also diagnosed with Attention Deficit Hyperactivity Disorder and Conduct Disorder (first diagnosed upon current admission) for which Concerta and Depakote were prescribed. Benadryl was also prescribed for use each night to promote sleep.

Tony's mother stated that his father was diagnosed with depression as an adult. She stated that she was unaware of any medical treatment or psychiatric follow up. Given reports of aggression and criminal activity, it was also possible that his father had Antisocial Personality Disorder. She reported that her mother was also diagnosed with depression but that she never used any medication to treat it. Tony's sister was also prescribed medication for "her moods" and had a visual impairment however, a formal diagnosis was not provided by the mother. No other family members were reported to have any medical or psychiatric conditions.

Education and Job History

Tony attended preschool and was reported to have been compliant and pleasant in that environment. He attended Special Education classes since First-grade. Tony was evaluated by the Child Study Team (CST) prior to entering the First-grade because he performed poorly in Kindergarten. His mother reported that he did not make adequate academic progress and he was extremely hyperactive and aggressive with his classmates. The CST recommended Special Education placement for Tony. They classified him as ADHD. Tony attended these classes in public school until his placement at various facilities as a result of his behavioral challenges. He was provided with continued coursework within the settings.

He reported that he did not need Special Education. He said that the coursework was too easy and that he was smarter than his classmates. He said that this frustration would cause him to be aggressive, non-compliant and destructive in order to be dismissed from the classroom. This pattern of behavior continued while at his current placement. Staff in his current setting indicated a possible need to expel him if his aberrant behaviors

continued. Tony has been suspended from school for three days at a time on three separate occasions. He was unaffected by this and has not acknowledged the impact this behavior had on his overall programming and his ability to return home.

Tony's employment history consisted of working "under the table" cleaning up at construction sites with his uncle last summer. Tony wanted to get a job as soon as he returned home.

Social Supports and Patterns of Relationships

Tony reported that his relationships with his mother and sister were positive. He stated that he loved and respected both of them. They both concurred that Tony loved them, but they denied his respect. They each reported that Tony had stolen property from them on many occasions. Included in his theft were jewelry, music compact discs, and money. His sister also reported that he stole a video game player and game cassettes from his nephew and was likely to have sold them for money to buy beer. Initially Tony denied these statements and then later admitted that he did take them but could not state why. He denied having sold them but did not report what he had done with the items.

Tony reported that he had the same small circle of friends since grade school. He grew up in the same town to which he will return once discharged from the current facility. However, at age 12 he "hooked up" with an older crowd of males. It was then that he began drinking, using drugs and smoking. He reported that he wanted them to like him and that they thought that it was "cool" that such a young person could drink as much as they did. When asked why that was important to him, he reported it was to become friendly with them, he stated that friends his own age were not as much fun. Tony did note that one of his younger friends also started "hanging out" with him and the

older group. The older group was reported to be approximately 18 to 21 years old. They referred to Tony as “little man”.

Tony reported that he had a few girlfriends and was sexually active since he was 14 years old. He reported that he has “fooled around” with a lot of girls, most were about his age and one girl was 16 years old. He did not currently have a girlfriend. Tony reported no occurrences of sexually transmitted diseases or pregnancies. He stated that he never used protection in the past, but would in the future because he learned about sexually transmitted diseases while in the present placement and did not “want AIDS.”

He had one close female friend from his neighborhood since he was about six years old. He said that they were always able to share secrets and could discuss anything. He stated further that they had similar interests and that although she moved to a nearby town, he continued to remain friendly with her throughout his challenges. Tony stated that they were never romantically involved. He also reported that when he got passes to return home, his mother permitted this friend to come and visit and he was permitted to visit her.

Situational Stressors

Tony was influenced by his older male friends and was unable to function in environments that were either over stimulating or under stimulating, for example, in a school setting. He did poorly in unstructured settings in which he was expected to be independent. Tony exhibited poor frustration tolerance when it came to meeting the expectations of activities of daily living established by his mother. These activities included, maintaining a clean bedroom, completing household chores, and maintaining pro-social relationships with his mother and his sister. Tony’s father remained

incarcerated and inaccessible. Tony tried to maintain communications with his father and openly admitted that he longed to have his father in his life.

Coping Mechanisms and Strengths

Tony coped by either escaping or becoming aggressive or destructive. He attempted to “leave situations that I knew I’d get in trouble for but sometimes people wouldn’t let me leave.” This could be recognized as a positive coping skill when used judiciously or if planned for in advance. Often, however, Tony left home or classrooms without explaining his need to do so or without obtaining permission. Tony would also drink alcohol when he became anxious or uncomfortable and used drugs if available.

Tony also denied responsibility for his actions and blamed others for consequences. Tony would lie or provide elaborate stories to explain his actions. For instance, when Tony returned from a weekend home visit, he smelled of alcohol. When confronted, Tony denied that he had been drinking. First he explained that he and his uncle were working in a liquor store repairing equipment. Staff suggested to him that he would have needed to be “swimming” in alcohol to have smelled as strongly as he did. He then stated that he was in his yard cleaning a grill and his uncle spilled beer on him. Tony was asked if his kitchen had a back door exit leading to the backyard because his mother reported that he was acting strangely and that she thought it odd that he did not kiss her good-bye as usual. She thought that it might have been because he drank some of the alcohol that was in the kitchen. He said that was not the case. Tony finally admitted that he drank two beers the night before he returned to the facility. When he was told that it was unlikely that he would smell of beer the following evening, and that his behaviors from the night before was in question, he changed the subject to discuss how staff were

“stupid” and wanted to see him fail and that was why they reported him for drinking.

This attempt at refocusing the blame was not uncommon for Tony.

Tony presented as an affable young man. He was polite and engaging when he chose to be. He could be goal directed and worked well within highly structured environments. He was responsive to adult authority figures when consistent rules were enforced. He seemed to have been motivated by positive attention and made efforts to comply with rules as long as they “made sense” to him. He appeared genuine in his desire to change.

Other Agency Involvement

Currently the Division of Youth and Family Services (DYFS) and Probation were involved in Tony’s care. Previously, Tony was placed in emergency shelters. Counseling was to be provided for individual, family and group within these placements. Treatment for addictions and mental health issues were also part of the programs provided in these placements. He denied that these services were offered and acknowledged that had they been, he would have refused to participate at the time. His mother agreed that the services were not provided.

In his current placement he was required by court order to participate in drug and alcohol counseling, individual and family therapy and educational programming. Tony had participated because he wanted to return home.

Review of Prior Assessments

Psychiatric

The most recent Psychiatric Evaluation was completed when Tony was 14 years old at his educational placement, six months prior to admission to the current facility. According to the Mental Status report “Tony presented as a 14 year old boy who looked and acted his age. He had a neat and clean appearance and was dressed in a style appropriate to age and circumstance. He was reasonable cooperative and informative. His speech was understandable; his vocabulary and syntax were consistent with at least average intelligence. He was able to express emotion and discussed various topics appropriate to setting. There was normal reciprocity of verbal and non-verbal communication. There was no reported indication of underlying problems in terms of lack of awareness of social cues, contexts or boundaries. Tony was oriented to person, place, time, and purpose of meeting and his memory both recent and remote were intact.” Tony showed no signs of motor agitation, impulsivity, distractibility or shortened attention span. He reported that he became easily bored and frustrated in school and would rather be working earning money.

The report also indicated that Tony did not present with symptoms of anxiety or depression, but referred to frequent mood swings, particularly in response to frustration. There was nothing to suggest “grandiosity, sustained elation or euphoria.”

Specific problems with anger management were noted. The report also indicated a “fragile self-esteem and a preoccupation with doing what he wants to do and what makes him feel good.” Further, there was no evidence of thought disorder or any distortions of perception such as hallucinations or delusions. “His thinking was goal directed. “

The evaluating Psychiatrist diagnosed Tony with Intermittent Explosive Disorder, Bipolar Spectrum Disorder and significant problems with affective instability. He disagreed with the presenting diagnosis of ADHD since his behavior during the interview, along with reports from Tony and his mother were inconsistent with lack of control associated with ADHD. The evaluator also rejected any likelihood of neurologically based deficits. He recommended that Tony be removed from his home environment and placed in a treatment facility where Tony should receive intensive individual and family therapy. The evaluator made no recommendation for educational support. It was however suggested that Tony be classified as Emotionally Disturbed and placed in an appropriate program once psychiatrically stabilized.

Neuropsychological

Six months after admission to his current placement a Neuropsychological Evaluation was conducted, based on his presenting problems, as well as developmental and family history. This evaluation took place approximately one year after the aforementioned Psychiatric Evaluation. Neurological impairments were identified through testing which differed from the psychiatric assessment findings.

The following tests were administered; Comprehensive Tests of Nonverbal Intelligence (CTONI – CA), Woodstock-Werder-McGrew Mini battery of Achievement (MBA), Behavior Assessment Scale for Children (BASC- Parent Report), Children's Memory Scale (CMS), The Clock Drawing, Lateral Dominance Examination, Quick Neurological Screening Test (QNST), Stroop Color and Word Test, Bender Visual Motor Gestalt Test, Conners Continuous Performance Test (CPT-II), House-Tree-Person Test, Structured Clinical Interview, Review of Record and Three Wishes Test.

Data was not provided in report or available for review. However a summary of overall performance indicating specific measures was included.

Tony's general nonverbal cognitive ability was found to be within the "average" range of intellectual functioning. His overall thinking and nonverbal reasoning ability scores were also average.

Academically, when compared to others at his grade level, Tony's Basic Skills (a combined measure of reading, writing and mathematics skills) were in the low range. His performance was low average for Reading, and low for Writing and Mathematics. His performance was also low for Factual Knowledge. "The large difference between his cognitive abilities and academic performance suggest that he has a specific learning disability specifically Mathematics Disorder and Disorder of Written Expression".

Tony's ability to learn and remember new material was seen as "significantly impaired". According to the report, this impairment could be secondary to "diffuse higher cortical functioning or bilateral medial temporal lobe dysfunction".

An analysis of Tony's attention/ concentration index revealed that his poor memory was also impacted by deficits in attention. His verbal immediate index score was in the "extremely low" range. This was reported to be suggestive of a dysfunctional short-term memory system that selectively impaired his ability to process, organize and hold meaningful verbal material. These deficits were said, "to be often seen in individuals with specific learning disabilities as well as neurological disorders associated with the left hemisphere".

Tony also demonstrated deficits in his ability to process, organize, and hold more meaningful visual/ nonverbal material. The report suggested deficits in short-term

working memory that impacted his ability to effectively process, organize and hold visual/ nonverbal material. This was also noted in individuals with learning disabilities.

The report indicated that Tony's performance on sensory motor skill fell in the "suspicious" range. Additionally, it was noted that Tony demonstrated impulsivity, poor planning ability, poor decision making skills, limited complex reasoning skills and difficulty with shifting focus from one activity to the next. The evaluator suggested that many of his challenges were due to "developmental or neurological defects."

Chapter 2 – Differential Diagnosis

Multiaxial Assessment

Axis I

318.81 Conduct Disorder, Childhood-Onset Type, Severe

296.xx R/O Bipolar Spectrum Disorder

314.0 R/O ADHD, Predominantly Inattentive Type

307.22 R/O Chronic Vocal Tic Disorder

315.1 Mathematics Disorder

315.2 Disorder of Written Expression

303.9 Alcohol Dependence, Without Physiological Dependence, In a Controlled
Environment

305.20 Cannabis Abuse

305.1 Nicotine Dependence

Axis II

V 71.09

No diagnosis can be made on Axis II, as Tony is 16 years old.

Axis III

493.90 Asthma Disorder, Unspecified

Neuropsychological assessment findings suggested diffuse higher cortical functioning or bilateral medial temporal lobe dysfunction.

Axis IV

- *Problems with primary support group:* Tony's primary support group of his mother and sister was willing to assist him but there was ambivalence regarding his return to the home.
- *Problems related to social environment:* The individuals that Tony associated with remain in close proximity to his home/ anticipated discharge site and continued to engage in illegal and undesirable activities. Tony advised that he wanted to remain in contact with them.
- *Educational problems (learning and behavioral):* Tony attended a school program for individuals with challenging behaviors and was at risk of expulsion due to problem behaviors. His learning disorders presented additional difficulty because they increased frustration and thereby lead to behavioral outbursts previously described.
- *Problems with access to healthcare services:* Tony was insured by mother's modest insurance coverage. Obtaining access to state funded services has been a challenge.
- *Problems related to interaction with the legal system:* Tony had one more year on probation. Any infraction may have resulted in placement in a detention center.

Axis V

GAF Scale: 35 at the time of initial assessment.

Tony had severe impairments in social, educational and domestic environments at time of assessment. He associated with individuals that encouraged drinking, drug use and truancy. He was at risk of expulsion from school, his relationship with his mother and sister was strained and he stole from his preschool aged nephews, and was on

probation. Tony minimized all of this and blamed family, friends, social and legal systems for all of his indiscretions.

Differential Diagnosis

The evaluating psychiatrist diagnosed Tony with Intermittent Explosive Disorder that was ruled out by the existing diagnosis of Conduct Disorder, Childhood-Onset Type, Severe DSM-IV-TR (2002, p. 667).

The same psychiatrist diagnosed Tony with Bipolar Spectrum Disorder. Tony received Depakote for mood stabilization. A thorough review of Bipolar I and II Disorder criteria from the DSM-IV-TR (2002, pp. 357-68) was conducted. While Tony exhibited risk-taking behavior and presented with poor frustration tolerance, he did not clearly meet the criteria from the Bipolar Spectrum to qualify for this diagnosis. Prior records and mother's reports did not indicate that he experienced manic, depressed, or mixed episodes. A medication holiday from Depakote would be necessary to assess if Tony had a mood disorder. This was not an option at the time. The consulting psychiatrist at the facility did not prescribe Tony's medications. Tony's family doctor, whom he had not seen since before admission, continued to renew his prescriptions. As a result, the psychiatrist recommended a medication holiday upon discharge. The psychiatrist also recommended that Tony see a psychiatrist in the community for any follow up to ensure better monitoring of medication(s). Until this occurred, the diagnosis of Bipolar Spectrum Disorder was ruled out.

DSM-IV-TR (2002, p. 93) identified "the essential feature of Conduct Disorder is a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal rules or norms are violated." These behaviors are divided into

four groups that are further divided: aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules. In order for the criteria to be met for Conduct Disorder at least three criteria must be met within the past 12 months and a minimum of one criterion present in the past six months.

The specifiers, “Childhood-Onset Type” and “Severe” were used because onset of at least one of the criteria, fire setting, was present before age 10 years and Tony presented with 10 of the 17 criteria provided to qualify the diagnosis. Specifically, Tony: “(1) often bullies, threatens, or intimidates others, (2) often initiates physical fights, (8) has deliberately engaged in fire setting with intention of causing serious damage, (9) has deliberately destroyed others’ property (other than fire setting), (11) often lies to obtain goods or favors to avoid obligations (i.e., “cons” others), (12) has stolen items of nontrivial value without confronting victim, (13) often stays out at night despite parental prohibitions, beginning before age 13 years, (14) has run away from home overnight at least twice while living in parental or parental surrogate home, (15) is often truant from school, beginning before age 13 years, and (B) the disturbance causes clinically significant impairment in social, academic, or occupational settings.”

Conduct Disorder can only be diagnosed if the symptoms are present in a persistent pattern. Although Oppositional Defiant Disorder has features noted in Conduct Disorder, it does not include the persistent pattern of the more severe criteria such as violating persons’ basic rights or societal norms for those of a similar age.

ADHD, Predominantly Inattentive Type was ruled out. According to the DSM-IV-TR (2002, p.85) this disorder “is a persistent pattern of inattention and/ or hyperactivity-impulsivity that is more frequently displayed and more severe than is

typically observed in individuals at a comparable level of development.” Tony met the following six criteria listed for Inattentive specifier: “(b) often has difficulty sustaining attention in tasks or play activities, (d) often does not follow through on instructions and fails to finish school, work, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions), (e) often has difficulty organizing tasks and activities, (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework), (h) is often easily distracted by extraneous stimuli, (i) is often forgetful in daily activities).” Symptoms were reported to have been present prior to age seven years and symptoms were noted to be present across all settings, severity depended on level of structure within environments. There was also evidence of significant impairment in social and academic functioning. It should be noted, co-morbidity for Conduct Disorder and other Learning Disorders is not uncommon. It was unclear that Tony fully met criteria (d) regarding follow through with chores or schoolwork as a result of the disorder versus his mathematics and reading challenges. Reports from his mother and teachers indicated that Tony was unable to control this based on previous diagnoses of the disorder. However, at the time of the initial assessments this was not apparent.

Tony was diagnosed as ADHD at the age of five by the Child Study Team. According to school records and mother’s report, there was no testing at the time to assess for the presence of learning disabilities. As noted in his most recent neuropsychological examination at age 14 these may have contributed to Tony’s behavioral, educational and social challenges.

The differential diagnosis indicated that Tony met criteria for ADHD, Predominantly Inattentive Type. However, criterion b) often has difficulty sustaining attention in tasks or play activities and criterion d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions) DSM-IV-TR (2002, p. 92) were not met with confidence. Tony was oppositional and was diagnosed with specific learning disabilities (SLD). To confidently state that he met these criteria as a result of ADHD and not the aforementioned would require a medication holiday from Concerta. This was not an option at the time. As with Depakote, the consulting psychiatrist at the facility did not prescribe Tony's medications. Tony's family doctor, whom he had not seen since before admission, continued to renew his prescriptions. As a result, the psychiatrist recommended a medication holiday upon discharge. The psychiatrist also recommended that Tony see a psychiatrist in the community for any follow up to ensure better monitoring of medication(s). Until this occurred, the diagnosis of ADHD, Predominantly Inattentive Type was ruled out.

During assessment Tony presented with an unusual behavior of mouthing words, phrases and/ or sentences that he had just spoken. The DSM-IV-TR (2002, p. 109) references, "palilalia (repeating one's own words or sounds)" as an indicator of a Vocal Tic Disorder. It was not clear by definition that silent repetition would qualify as a true tic disorder. Tony did, however, meet other criteria in that he was seemingly unaware of the behavior, that occurrences may have been separated by absence of tic behavior from seconds to hours, and there was a noted increase when Tony was under pressure, (i.e., testing, therapy sessions, etc.). This was the first time that this diagnosis had been

considered and must receive further evaluation from a qualified professional to provide a clinical diagnosis. Therefore this disorder was ruled out pending a more thorough evaluation.

Tony met criteria A and B for Mathematics disorder, DSM-IV-TR (2002, p. 54). His mathematical ability, as measured by individually administered standardized tests fell substantially below that expected given his chronological age, measured intelligence, and age appropriate education, Criterion A: this disturbance significantly interferes with academic achievements or activities of daily living that require such ability, Criterion B: Tony was noted to have deficits in memory and nonverbal recognition and recollection skills that were reported to contribute to this diagnosis.

Criteria A and B were also met for Disorder of Written Expression DSM-IV-TR (p. 56). Criterion A states: writing skills, as measured by individually administered standardized tests (or functional assessments of writing skills) are substantially below those expected given the person's chronological age, measured intelligence, and age appropriate education. Criterion B states: the disturbance significantly interferes with academic achievements or activities of daily living that require such ability. Prior neuropsychological assessments indicated that memory impairments were likely to contribute to this diagnosis.

Tony met criteria for Alcohol Dependence, Without Physiological Dependence, In a Controlled Environment. The specific criteria met as defined in the DSM-IV-TR (2002, p. 197) were, for the tolerance qualifier," (a) a need for markedly increased amounts of the substance to achieve intoxication of the desired effect, (b) markedly diminished effect with continued use of the same amount of the substance, (3) the

substance is often take in larger amounts over a longer period of time than was intended, (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.” Tony did not present with physiological dependence at time of initial assessment since he was in placement for several months prior. Hence the specifier in a controlled environment.

Cannabis Abuse, DSM-IV-TR (2002, p. 236) was also met based on Tony’s previous use. He would smoke frequently and miss school or curfew as because he was intoxicated. Criteria for dependence have never been met. Tony’s substance of choice is alcohol, cannabis would be smoked if available and until gone.

Tony reported that he was nicotine dependent, DSM-IV-TR (2002, p.264). Although he had limited opportunities to smoke while in placement, he was convinced that he was dependent and would smoke as soon as he had an opportunity. When reminded of the fact that he had asthma, he minimized the effect smoking and stated that he was unable to control the urge to smoke.

An emergency caesarean section was required to deliver Tony. He was born Hypoxic and spent his first two weeks in an incubator in the NICU. His mother reported that Tony suffered asthma attacks from infancy to present. There have been fewer occurrences since he has been at the facility because he has received his medication regularly and has had limited opportunities to smoke.

Neurological impairments identified through neuropsychological assessments were also found. These impairments affected learning and memory specifically, which may have affected Tony’s performance in school and associated disruptive behaviors.

Chapter 3 - Literature Review

Treatment for Conduct Disorder

From a treatment perspective, Conduct Disorder represents an array of child, parent, family, and contextual conditions. These conditions, apart from the central symptoms of the disorder, may significantly influence the delivery and effectiveness of treatment (Kazdin, 2001). The four treatments that will be addressed have been shown to be effective in treating Conduct Disorder and are the most well established, empirically supported treatments.

Problem Solving Skills Therapy (PSST)

Individuals with Conduct Disorder have been shown to have distortions and deficits in various cognitive processes. A variety of cognitive processes have been studied, such as generating alternative solutions to interpersonal problems, identifying specific methods to obtain desired goals, consequences of one's own actions, understanding what motivates others to act, understanding how others feel, and how one's own actions impact the feelings and expectations of others (Shirk, 1988; Spivack & Shure, 1982). As a result, PSST has been developed to address these distortions/ deficits.

PSST has many variations but several characteristics are shared. First, there is an emphasis on how children approach interpersonal situations. In PSST, children are taught a step-by-step approach, using self-statements that guide them through each step of the problem and invent solutions to each of those steps. Second, behaviors that are selected (solutions) to the interpersonal problems are also important because they help establish a

repertoire of problem solving strategies. Modeling by the therapist is always part of the therapeutic process. Third, at the beginning of treatment, structured activities like games, homework and stories are used. As treatment continues there is greater application to real life scenarios. Finally, treatment involves combining different procedures, including modeling and practice, role-play, use of reinforcement and limited use of punishment (e.g., loss of tokens, points, earned items) contingencies. These are typically used from a least to most intrusive strategy as dictated by the children's progress (Kazdin, 1993).

Several clinical trials have been conducted with both younger (4-8 years) and older (10-17 years) children with Conduct Disorder. These studies have focused on aggressive and impulsive behaviors associated with the disorder. The populations studied were referred through both inpatient and outpatient programs. Demographics indicated that the majority of referrals came from lower socio-economic backgrounds and that most participants were white males (Baer & Nietzel, 1991; Durlak, Furman, & Lampman, 1991). The predominant design for these trials used no treatment and wait list as control and comparison conditions. PSST has been shown to significantly reduce symptoms of Conduct Disorder (specifically, aggression and impulsivity) at home, in school, and in other community settings) when compared to no treatment and wait list control groups. Of the 250 individuals in the combined studies, 70% showed improvement in aggression and impulsivity at treatment termination. Ten percent showed improvement on wait list and there was no improvement for any of the no treatment groups. There was post treatment follow up of an average of eight months across studies. While there was maintenance of improvement noted in 62% of the individuals, evidence suggested that

older children benefited more from treatment than younger children, perhaps due to levels of cognitive development (Durlak, et. al. 1991).

Parent Management Training (PMT)

PMT refers to procedures in which parents meet with a therapist or trainer who teaches them to use specific procedures to alter interactions with their child to promote pro-social behavior and to decrease aberrant behavior. Training is based on the general theory that problem behavior is inadvertently developed, reinforced, and maintained at home where there are maladaptive parent-child interactions. There are multiple facets of parent-child interactions that may promote aggressive and antisocial behaviors that have been associated with Conduct Disordered children. These patterns include directly reinforcing aberrant behavior, frequent, inconsistent, and ineffective use of commands, harsh punishment, and failing to reinforce pro-social behavior (Patterson, 1982; Patterson, Reed, & Dishion, 1992).

It is important to note that influences in parent-child relationships are bi-directional. In some cases children engage in aberrant behavior as a direct result of the parents reaction thereby creating a cyclical pattern of poor interactions (Bell & Harper, 1977; Lytton, 1990).

The general purpose of PMT is to alter the pattern of interchanges between parent and child so that pro-social, rather than coercive, behavior is directly reinforced and supported within the family. This requires establishing several different parenting behaviors such as, establishing rules, positively reinforcing pro-social behavior, modeling, incidental teaching, delivering mild forms of punishment, negotiation and compromise (Patterson, et al., 1992).

As with PSST there are many variations of PMT. However, several characteristics are shared. First, training is conducted with parent(s) who implement procedures in the home. Second, parents are trained to identify, define, and observe problem behaviors in new ways. This is essential for delivering reinforcement or punishment in a manner that achieves the desired outcome. Third, treatment sessions cover social learning principles and procedures that follow from them (e.g., earning social praise or points for desirable behaviors, or receiving time-outs for undesirable behaviors). Fourth, parents observe the therapists as role models prior to implementing interventions, as the immediate goal is to develop specific parenting skills. Finally, the child's performance at school is also incorporated into treatment. Children receiving positive reports from teachers, receive rewards at home to support generalization of pro-social behavior.

Over the years, a large number of empirical studies of PMT have been completed with children varying in age and degree of severity of dysfunction (Kazdin, 1993; McMahon & Wells, 1989; Patterson, Dishion, & Chamberlain, 1993). Treatment effects have been evident in marked improvements in child behavior on a wide range of measures, including, parent and teacher reports on aberrant behavior, direct observation of behavior at school and home, and institutional (e.g., school, police) records. The effects of treatment have also been shown to decrease problem behaviors into normative ranges when compared to their peers. Follow up assessment has shown that the benefits of treatment are maintained for one to three years post discharge (Gorman & Nathan, 1998).

Several treatment characteristics appear to contribute to outcomes. Duration of treatment appears to influence outcome. Brief and time limited treatments (e.g., less than

10 hours) are less likely to show benefits with clinical populations. More dramatic and long lasting effects have been noted with treatments that last up to 50-60 hours. (Kazdin, 1985). Additionally, in-depth and detailed education for parents about the value of social learning theory in the treatment process has demonstrated benefits and enhanced treatment effects (Gorman & Nathan, 1998). Kazdin (1985) suggested therapist's training and skill level were associated with magnitude of change in parents' ability to administer intervention. Finally, as with PSST, children of families that are dysfunctional are less likely to experience the same level of success for any length of time since their success relies so heavily on parental supports (Dadds & McHugh, 1992; Webster-Stratton, 1985).

Overall the benefits of PMT are derived from the fact that the principles underlying its use are well studied and known to be effective, there are many materials available for families to use such as manuals and video tapes (Sanders & Dadds, 1993; Webster-Stratton, 1994). Also important has been the development of self-administered videotapes of actual treatment sessions. Controlled studies have shown clinically significant changes at post treatment and follow up assessments with variations of viewing videotaped treatment.

Limitations of PMT are effected by level of functioning within families. This intervention requires families to be at a level of cognitive functioning that they can comprehend material, interpret it and incorporate into current family system. The greater challenge noted is that many children diagnosed with Conduct Disorder also have higher risk factors, which include deficits in precisely those areas that impede efficacy of treatment. Early intervention is key in this approach.

Functional Family Therapy (FFT)

FFT reflects an integrative approach to treatment that relies on systems, behavioral, and cognitive views of dysfunction (Alexander, Holtzworth-Monroe, & Jameson, 1994; Alexander & Parsons, 1982). Clinical problems are conceptualized from the perspective of the functions they serve in the family system, as well as with individual family members. Problem behavior evident in the child is defined as the way in which some interpersonal functions (e.g., intimacy, distancing, support) are met among family members. Maladaptive processes within the family are considered to preclude a direct means of fulfilling these functions. The goal of FFT is to alter the interaction and communication patterns in such a way as to promote improved functioning.

Nathan and Gorman (1998) found that FFT is also based on learning theory and focuses on specific stimuli and responses that may be used to produce change. Social learning procedures and concepts such as identifying specific behaviors for change, reinforcing adaptive ways of responding, and evaluating and monitoring change are included in this perspective. Cognitive processes are included, as with PSST and refer to attributions, attitudes, assumptions, expectations, and emotions of the family. For instance, family members may enter therapy with attributions that focus on blaming others or themselves (Alexander, Barton, Schiavro, & Parsons, 1976). The underlying rationale therefore emphasizes a family systems approach. Specific treatment strategies draw on findings that are similar to PMT. FFT, however, views interaction patterns from a broader systems approach that also focuses on communication patterns and their meaning.

Alexander, Holtzworth-Monroe, and Jameson (1994) noted that FFT requires families to see the clinical problem from the relational functions it serves within the family. The therapist points out interdependencies and contingencies among family members in their daily functioning, with specific reference to the problem that served as the reason for seeking treatment. Once the family sees alternative ways of seeing the problem, the incentive for interacting more constructively is increased.

The primary goals of FFT are to increase reciprocity and positive reinforcement among family members, to establish clear communication, to help specify behaviors that family members want from each other, to negotiate constructively, and to help identify solutions to interpersonal problems. In therapy, family members identify behaviors they would like others to perform. Responses are incorporated into a reinforcement system in the home to promote positive behavior in exchange for privileges. However, the main focus is within treatment sessions rather than the home to ensure availability of therapist support. During sessions, the therapist provides social reinforcement (verbal and non-verbal praise) for communications that suggest solution-oriented approaches to problems, that clarify problems, and provide feedback. In this form of therapy the family is the identified patient.

Available outcome studies have focused on populations that are difficult to treat (e.g., adjudicated delinquent adolescents and adolescents in residential placements) and have produced relatively clear effects (Alexander, Holtzworth-Monroe, & Jameson 1994). In controlled studies, FFT has led to greater change than other treatment techniques (e.g., client centered family groups or psychodynamic oriented family therapy) and various control conditions (e.g., group discussion and expression of feeling,

no treatment and wait list groups). Treatment outcome has been reflected in improved family communication and interactions. Lower rates of referral from, and contact with, the court system have also been noted. Additionally there have been gains reported in separate studies two years post treatment.

Research has also examined processes in therapy to identify in session behaviors of the therapist and how these influence responsiveness among family members (Newberry, Alexander, & Turner, 1991). For example, providing support, structure, and the ability to reframe influence family member responsiveness and blaming of others. This is important because reducing blaming of others across all family members enhances communication. The relations among family members are fostered through incidental observation and instructional training of the therapist. This process is critical to the efficacy of FFT. A treatment manual has been developed for use by both therapist and family (Alexander & Parsons, 1982) to facilitate further evaluation and extension of treatment.

There are some interesting points to be made about FFT. First the outcome studies indicate that FFT can alter conduct problems in children with varying degrees of severity and levels of experience with authorities. Second, evaluation of processes that contribute to family member responsiveness within sessions and home environment are more frequently seen compared to those previously discussed.

There are also limitations worth mentioning. First, the primary focus of treatment has been with delinquent samples. Research is needed to extend treatment to clinically referred youth, younger samples and those not yet involved in the legal system. In other words, using treatment as an early intervention technique has not been assessed with this

treatment. Second, the child, parent, and family characteristics that may influence outcome have not been well established. Families become part of treatment as a result of the child's referral from the court system or other legal entities. Finally, replication studies are needed beyond the originators of FFT to reduce chances of bias in empirical reviews. Although, one such study demonstrated delinquent youth who received FFT showed lower recidivism rates up to two years post treatment (Gordon, Arbuthnot, Gustafson, & McGreen, 1998).

Multi-systemic Therapy (MST)

MST is also an approach to treatment based on family systems (Henggeler & Borduin, 1990). Family approaches maintain that clinical problems of the child emerge within the context of the immediate family and focus treatment primarily on that level. However, MST expands on that view by considering the family as only one system. According to Henggeler and Borduin (1990) the child is embedded in multiple systems, including the family (immediate and extended family members), peers, schools, neighborhood, and community. Henggeler and Borduin (1990) also note that, within a given system different subsystems may be evident. For example, within the context of the family, an alliance between child and parent can create conflict between parents and parental relationships with other children, if applicable. Treatment may be required to address the efficacy of this alliance, the relationship between parental figures, relationship between parental figures and other siblings and the family system as a whole. Also, a child's functioning at school may involve poor peer relations due to symptoms associated with Conduct Disorder. Treatment may address this area as well. Finally, the

systems approach involves a focus on the child's individual behavior as it affects others. Individual treatment of child or parent or couples' treatment may also be included.

Central to MST is a family based treatment approach. Several family therapy techniques (e.g., joining, reframing, role playing, paradoxical intention, and assignments of specific tasks) are used to identify problems, increase communication, build cohesion, and alter how family members interact (Henggeler, 1994). The goals of treatment are to help the parents develop pro-social behaviors of the adolescent, to overcome marital conflicts that impede the parents' ability to function as a unit, to eliminate negative interactions between parent and child, and to develop or improve cohesion and emotional support among family members.

A number of outcome studies have evaluated MST, primarily with youth with arrest and incarceration histories. Results have shown MST to be superior in reducing delinquency and emotional and behavioral problems; in improving family functioning in comparison to other procedures (e.g., probation, court-ordered activities that are monitored, such as school attendance), individual counseling, and community based eclectic treatments (Borduin, et. al, 1995; Henggeler, et. al., 1986; Henggeler, Melton, & Smith, 1992). According to Henggeler (1994), follow up assessments up to two, four, and five years later, in separate samples, have shown that youths who participated in MST had lower arrest rates than those who received other services.

Research also indicated that treatment affects critical processes that are said to contribute to deviant behavior among Conduct Disordered youth (Mann, Borduin, Henggeler, & Blaske, 1990). Specifically parents and adolescents show a reduction in coalitions (e.g., less negative verbal interactions, conflict, and hostility) and increases in

support. Parental increases in positive verbal interactions and decreases in conflict are also noted. An important finding is that decreases in adolescent symptoms are positively correlated with increases in supportiveness and decreases in conflict between parents and family members as a whole.

While the benefits of MST outline the inclusion of multiple systems in which a child diagnosed with Conduct Disorder functions, one of the challenges is deciding which treatments, among the many interventions encompassed by MST, to use in any given case. Guidelines are available to direct the therapist, but they are somewhat general (e.g., focus on developing sequences of behaviors between systems such as parent and adolescent, evaluate interventions during treatment so that changes can be made; see Henggeler, 1994). Providing interventions “as needed” is very difficult, even among experienced professionals, without a consistent way to assess what is needed, given inherent limits of decision making and perception of clients. Multiple combinations may cause problems related to providing high quality treatment with reliability. However, there have been replications of MST beyond the original research that indicated generalization across settings and therapists (Henggeler, Schoenwald, & Pickrel, 1995).

Additionally, the use of MST may better provide assistance to families that present with higher risk factors previously mentioned. PSST, PMT and FFT work most effectively with families that are relatively intact and stable in all areas of functioning excluding the presence of the Conduct Disordered youth.

FAST Track Program

Family and Schools Together, or the FAST Track Program is an approach that focuses on prevention of Conduct Disorder. This is one of the more comprehensive clinical models utilized to prevent or minimize the effects of the disorder. The focus of FAST Track is preventative intervention for families with young children showing early aggression and peer difficulties (Conduct Problems Prevention Research Group, 1992).

Children entering kindergarten who demonstrate aggression and poor peer relations both at home and in school environments (preschool included) were chosen as participants in the FAST track program. There are five integrated intervention programs that provide the central components of the FAST Track model: (a) PMT; (b) home visiting case management; (c) social skills training; (d) academic tutoring; and (e) teacher-based, classroom intervention.

Two critical features of the FAST Track model are the involvement of parents in the “enrichment program” with home visiting case management and increased positive involvement with school personnel. Additionally parents are considered participants and not parents of identified cases. Parents are, considered by therapists, collaborators and experts regarding their children and the problems that their behaviors present in all settings.

The Conduct Problems Prevention Group (CPPRG, 1992) also acknowledged the need for a long-term approach to intervention, which includes integrating community resources into treatment as the child gets older and has more access to community resources.

The CPPRG (1996) evaluated outcomes of the first intensive period of intervention, during the transition at school entry in the first grade year. The results of the first year indicated strong and consistent evidence for better social skills development and more positive peer relations as a result of the intervention, with some indication of fewer conduct problems (CPPRG, 1996). Additionally, children receiving intervention demonstrated improved basic reading skills, better social and emotional coping skills when compared to control group children. The CPPRG (1996) study also noted that parents in the intervention groups demonstrated more positive involvement in their children's school programs, more effective discipline strategies, as well as improved parent-child relations.

The efficacy of PATHS (Promoting Alternative Thinking Strategies), a universal classroom component of FAST Track was examined (CPPRG, 1999). This randomized clinical trial involved 198 intervention and 180 comparison classrooms from neighborhoods with greater than average crime in four U.S. locations. According to CPPRG (1999), first grade teachers in the intervention schools provided a 57-lesson social competence intervention. The intervention focused on self-control, emotional awareness, peer relations, and problem solving. Results of the study indicated significant effects on peer ratings of aggression and disruptive behaviors in the classroom. Observer ratings of the intervention children and their effect on classroom environment indicated similar findings (CPPRG, 1999).

The FAST Track prevention trial was used to test hypotheses from the Early-Starter Model (ESM) of the development of chronic conduct problems (CPPRG, 2002). Random assignment of 891 high-risk first-grader boys and girls served as candidates to

receive the long-term FAST track prevention or serve as ESM control group. The CPPRG (2002) compared outcomes that were provided through teacher, parent, peer, and self-ratings of intervention children and compared those to the ESM control group. Findings revealed that the intervention group children improved in emotional and social coping skills, and demonstrated progress in basic reading skills. Parents of the intervention group also reported a greater sense of satisfaction with their parenting and overall self-efficacy.

There are several empirically supported treatment approaches for Conduct Disorder. Best practice should include a multi-modal approach such as MST or FAST Track. These approaches acknowledge that children with Conduct Disorder are affected by many systems including, but not limited to, the family. Treatments included in MST such as PMT, PSST and FFT are empirically supported approaches to support the family. Specifically, FAST Track attempts to treat the disorder prior to the child entering into the legal system by intervening with the child at an early age, although FAST Track is also used when a child has entered that legal system. Prevention of severe cases of Conduct Disorder is in need of additional research. The majority of research has addressed treatment for children already involved in the criminal justice system.

Treatment for Disorder of Written Expression (Dysgraphia) and Mathematics Disorder (Dyscalculia)

Youth with Conduct Disorder frequently exhibit concomitant problems such as substance abuse and academic failure (Horne, Glaser, & Calhoun, 1999). Learning disabilities are associated with Conduct Disorder, however, empirical research is unavailable for specific treatments of learning disorders in children and adolescents diagnosed with Conduct Disorder.

Graham, Harris and Larsen (2001) describe the design of a program designed to improve writing difficulties in children with learning disabilities. Implementing such a program is a challenge, since it is not limited to a single grade or instructor. Rather, it requires a coherent, coordinated, and extended effort. They recommend a program centering on the following principles:

- 1) Provide effective writing instruction;
- 2) Tailor writing instruction to meet the individual needs of children with learning disabilities;
- 3) Intervene early, provide a coherent and sustained effort to improve writing skills of children with learning disabilities;
- 4) Expect that a child will learn to write;
- 5) Identify and address academic and nonacademic roadblocks to writing and school success; and
- 6) Employ technological tools that improve writing performance.

These principles should be viewed as necessary, but not sufficient, components of an overall response to these students' writing needs for two reasons. First, the focus is on what school resources can provide not other supports such as family and community. Second, individual schools or school systems would need to develop other principles that are responsive to their unique situations (Graham, et. al., 2001). For these reasons, these principles may be effectively incorporated into MST for children with Conduct Disorder.

Another potential tool to be used in treating dysgraphia may be a handwriting club. One such plan combines the services of a teacher and an Occupational Therapist (OT) who incorporate sensory activities with handwriting into a three week program in

which students ranging from first through fourth grade participate for two hours twice a week (Keller, 2001). The philosophy of this approach revolves around the idea that there are seven sensory systems active in most individuals: tactile, vestibular, proprioceptive, olfactory, visual, auditory, and gustatory (Ayers, 1979).

Keller (2001) posits that handwriting is a very complex skill that requires many of these systems to work well together and describes the processes necessary for handwriting and established the typical session format:

Gross motor warm-up activities such as jumping jacks or chair push ups (5 minutes);

- 1) Fine motor warm-up activities such as rubbing palms together or squeezing tennis balls (5-10 minutes);
- 2) Letter introduction such as writing individual letters in the air and then on the desk top with index finger (2-3 minutes);
- 3) Guided practice activities such as “writing with” scented markers, Magna Doodle®, or shaving cream. Or “writing in” sand tray, salt tray or clay (10 minutes);
- 4) Semi-independent practice such as writing in a journal or individual notebook a topic of choice, with teacher supervision (5-10 minutes); and
- 5) Independent practice, which consists of homework and other purpose driven activities such as making holiday cards or thank you notes.

While these activities are underway, the OT evaluates good posture and adequate fit of chair to desk. External stimulants such as soft background music may also be incorporated.

Keller (2001) studied a sample of 50 students who participated in a handwriting club, aged 7-9 years. He found that 65 % improved writing skills, improved spelling and syntax use. Empirical research on handwriting clubs is preliminary.

While children with disorders in mathematics are specifically included under the definition of learning disabilities, seldom does dyscalculia cause children to be referred for evaluation. In many school systems, special education services are provided almost exclusively on the basis of children's reading disabilities (Badian, 1983).

According to Badian (1983) as with students' with reading disabilities, when math difficulties are present, they range from mild to severe. There is also evidence that individual children manifest different types of disabilities in math. Several curriculum materials offer specific methods to assist students with dyscalculia improve their skills (Fuchs & Fuchs, 2002). Suggestions from these approaches include:

- 1) Interactive and intensive practice with motivational materials such as games;
- 2) Distributed practice, meaning practice in small frequent intervals such as 2 to 15 minutes sessions per day;
- 3) Small numbers of facts per group to be mastered at once and then incorporated into distributed practice;
- 4) Emphasis on reversal of numbers such as $4 + 5$ and $5 + 4$ / 5×4 and 4×5 in vertical and horizontal presentations;
- 5) Student self-charting of progress such as a tracking sheet or symbols system of how many skills have been mastered and how many more are left;
- 6) Instruction not just practice.

These strategies incorporate memory building skills, problem solving strategies and motivational resources to encourage the child to participate and practice. Fuchs and Fuchs (2002) also recommend that family members participate in the process and to establish practice times at home.

Unlike most professions in which practitioners' tools are thoroughly field tested to ensure they are effective and reliable before they are implemented on a widespread basis, education has a long history of adopting new curricula and teaching methods with little or no empirical evidence of effectiveness (Heward, 2003). Therefore it may not be surprising that there were no empirical studies available to assess efficacy of strategies specific to dyscalculia and a limited number were available for dysgraphia. Further research would be required to assess efficacy of strategies in educational and home environment for both.

Treatment of Substance Use Disorders

Co-occurring mental health and substance abuse problems place unique demands on treatment programs. When co-occurring disorders involve youth referred by the justice system, the solutions become even more complex (Greenbaum, Foster-Johnson, & Petrelia, 1996).

It is critically important to conduct a thorough psychosocial assessment that takes into account all domains. Effective interventions must be related to school, peer and family systems where adolescents routinely socialize and receive reinforcement for their behavior. Treatment options that show the best evidence of effectiveness are behavioral therapies, case management, cognitive-behavioral skills training, family oriented

therapies such as PMT and FFT, and MST (McBride, VanderWaal, VanBuren, & Terry, 1997).

Recent research had shown that integrated treatment is superior to sequential treatment. In integrated treatment, mental health and substance abuse treatments are provided by the same clinician, or team of clinicians, in the same program to ensure coherent prescription for treatment rather than a contradictory set of messages from different providers (Drake, Mercer-McFadden, Mueser, McHugo, & Bond, 1998).

Since many people with dual, or multiple, disorders do not recognize their substance use as a problem, integrated treatment programs tend to provide more extensive efforts at engagement and motivation of the individual than do traditional mental health treatment programs. They also incorporate assertive outreach, intensive case management, individual counseling, and family interventions (Rounds-Bryant, Kristiansen, Hubbard, 1999).

Drake, Mercer-McFadden, Mueser, McHugo, & Bond (1998) mention MST specifically as an effective treatment for substance abuse in dually diagnosed clients because of its eclectic and systems oriented philosophy. Recent empirical evidence acknowledges that the interrelation of substance abuse and mental health disorders, when treated independent of one another, are not effective.

Chapter 4 - Normative Practice

The residential treatment facility in which Tony lived for approximately one year utilized an interdisciplinary team (IDT) approach to treatment. The IDT consisted of a consulting psychiatrist, consulting neuropsychologist, clinical director, individual/ family therapist, special education teacher, teacher aide, nurse and residential staff. In addition to the IDT, both standard protocols that included a level system of reinforcement and response cost and individualized treatment plans were provided.

The standard protocol applied to all residents regardless of the length of stay and was implemented primarily by residential staff, therapist and teacher. There were various domains of expectations, which included:

- 1) Following instructions of any staff member immediately;
- 2) Respectful communication with any member of the IDT and peers;
- 3) Vandalism would not be accepted
- 4) Clothing needed to be neat, clean, fitted to size, and no borrowing or lending;
- 5) Bedrooms and bathrooms needed to be well maintained and neat;
- 6) Money/ Personal belongings must be accounted for with residential staff and was not to be loaned or borrowed;
- 7) Proper hygiene must be maintained;
- 8) Medical care must be complied with;
- 9) Food was not to be kept in room and must be consumed in time allotted;
- 10) Dining room etiquette must be respectful and within social norms;

- 11) Group sessions were to be attended unless resident was deemed ill by medical staff;
- 12) Recreation required cooperation, adherence to rules and no horseplay;
- 13) Classroom attendance and participation was required in accordance with Individualized Education Plan (IEP); and
- 14) Residents were expected to remain seated, wear seatbelts, and have calm conversations while riding in program vehicles.

All of the above mentioned rules resulted in discipline if not adhered to.

Discipline could involve a five-minute time out procedure, activity restriction, or loss of level (to be explained). Residents were provided with a verbal prompt by the attending residential staff, therapist or other member of the IDT. The verbal prompt consisted of a reminder to comply with the rule and consequences for the behavior. If noncompliance was exhibited a five-minute time out would be instituted. If that was not effective then removal from the activity and room restriction would follow. There was also provision of an "A" or "B" violation. "A" violation resulted in automatic loss of a level and "B" violations could be rectified with a written or spoken apology and solution to avoid the behavior in the future.

Physical restraints and exclusionary techniques would only be implemented should the resident have posed a serious risk of physical harm to self or others.

The Level System consisted of a hierarchy of privileges. There were five levels: Freshman level, Sophomore level, Junior level, Senior level, and Graduate level. All residents entered the facility on Freshman level with basic expectations and minimal privileges.

Levels could be earned weekly. That is, it could take only four weeks to move from Freshman to Graduate Level. If a level was lost due to an “A” violation or multiple “B” violations, it would take a minimum of a week to earn the level again. If the resident was more than one level above Freshman and violated a rule that infringes upon the rights of others or could otherwise present risk or harm to self or others, she or he would “drop” to Freshman Level and have to work week by week to obtain each level again. Some residents would take weeks to obtain each level. Some residents would also have challenges maintaining their status at each level for any length of time. The expectations of each level provided additional substance for discussion in treatment planning and goal acquisition.

In addition to this information provided to resident and guardian at admission, preliminary individual treatment goals were established. These goals typically involved reason for admission. They may include: decreasing aggressive, destructive, or self-injurious behaviors, increasing compliance with rules, and discontinuing use of substance(s) of choice.

Within the first week a formal treatment plan was established that included IEP requirements, family expectations, clinical expectations, and personal goals.

In order to achieve these goals residents would participate in individual counseling sessions, family therapy sessions, peer group activities, educational activities, substance awareness meetings, and sessions with psychiatry, neuropsychology, and other ancillary services as deemed necessary to treatment.

The focus of Tony’s treatment involved a multidisciplinary approach. He was required to attend individual, family, group and substance awareness sessions. He was

also required to attend school daily at an off site private school that specialized in treating children with “behavioral challenges”.

Tony’s primary therapist utilized cognitive behavioral techniques, contingency management, and problem solving skills training during individual sessions. These techniques were also used in family sessions, in which Tony’s mother was a consistent, supportive, and active member. Tony’s sister would also participate when she was able to obtain childcare for her two young children. There was one session in which she brought her children, but it was rather disruptive and she opted not to repeat the practice. Individual therapy sessions were scheduled three times per week. Family sessions were scheduled once a week for one hour. Tony participated in approximately 80 individual sessions and 50 family sessions.

Group sessions were run in the presence of a therapist trained in conducting such sessions, however, the main focus of group sessions was to support and model positive social skills training. Graduate level residents would choose topics the previous week to be discussed the following week. Residents were given homework/ research assignments about the topics and were expected to share what they had learned. If they came unprepared or were unwilling to participate, their levels could be lost. However, Residential staff did not enforce this practice consistently. Often levels were maintained until discussed at weekly treatment meetings. Decisions to drop levels days after the infraction would be decided on a case- by- case basis by the team each Tuesday.

Substance awareness groups were required for all residents with concurrent diagnoses of substance use disorders and recommended for others.

Tony participated in all therapeutic areas. His treatment goals focused on improving anger management skills through contingency management and problem solving activities. Tony's greatest challenge at admission was following the standard rules of the program. He was opposed to following instructions and would become physically aggressive. He was physically restrained on several occasions early on. The primary therapist worked with Tony to assess his comprehension of consequences of both positive and negative behaviors. Tony acknowledged that he did not like "losing levels" and that he did like "earning privileges". So a great deal focus of treatment was based on Tony's motivation.

At the beginning of treatment Tony's behavior in the residential site was exemplary. He was unable, however, to earn beyond Freshman Level because of his behavior in the school setting. He refused to follow rules. He stated that what he did in school was not related to his performance at the facility. As a result of this session, therapists coordinated a meeting at the school to include his teacher, principal, mother, therapists, and Tony.

The meeting was successful because attendees were able to challenge Tony's beliefs of school being separate from "home". Tony became more actively engaged in the treatment process by establishing a contract. Tony created the guidelines of the contract with input from the team and adhered to the contract for the next three months until he was discharged. He signed the contract once and reviewed it at individual and family sessions.

Other than the introduction of this contract during Tony's stay, all other treatments were initiated at admission and continued until discharge, approximately one year from his admission.

There were no changes in medication during his stay as previously mentioned. He was admitted with Depakote, Concerta, and Benadryl. The consulting psychiatrist would not alter medications as the family physician continued writing prescriptions for Tony throughout his stay. The team requested that the consulting psychiatrist assess the efficacy of the medication regime without success. Since the placement was considered short-term for Tony the psychiatrist preferred to defer and advise further assessment in discharge recommendations.

Additionally, there were no outcome measures initiated with Tony to assess efficacy of treatment. The facility is not in the practice of objectively evaluating outcomes though use of standardized measures. Therefore, most outcome assessments are anecdotal. In other words, Tony was interviewed at discharge on his perceptions regarding the efficacy of his treatment. There was no formalized questionnaire presented; it was presented as a discharge session, and there was discussion of Tony's progress and future needs.

A meeting was held with all funding sources, community resources, family, school district representatives, and facility representatives where baseline rates of behaviors and treatment rates of behaviors were presented. The members at the meeting were pleased with the reduction in numbers and agreed that it was merely the beginning of a continuum for Tony. The team agreed that Tony would need continued educational services, in home "big brother" type of support, substance abuse counseling, and

continued family sessions. In carrying through with technique of contracting, the team agreed that if Tony would participate in school, family, and community activities for three consecutive months post-discharge, they would gather the resources to purchase a computer for him.

Chapter 5 - Outcomes

There were no formal outcome measures implemented by the facility. Tony reported feeling anxious and depressed in one session, 9 months into his stay. When questioned about what he was thinking about when he felt anxious or depressed, he stated that he “wasn’t sure”. He then stated, “it’s because I’m in this place.” Although he did not meet the criteria during initial assessment for either depression or an anxiety disorder, measures assessing both conditions, specifically the Beck Depression Inventory-I or BDI-I, (Beck, 1978) and the Sheehan Anxiety Scale or SAS, (Sheehan, 1983) were utilized to evaluate the need for treatment of either or both.

The Beck Depression Inventory-I (Beck, 1978) is a self-report measure designed to assess the severity of depression in adolescents and adults. The BDI consists of 21 items rated on 4-point scale ranging from 0 to 3 in terms of symptom severity, “3” being most severe. Clients are asked to check the statement which best describes the way they have been feeling for the past week including the day of assessment. The total score is obtained by adding up scores for each of 21 items. The results are interpreted by comparing the total score to the table “Levels of Depression,” which is presented below:

- 1-10 These ups and downs are considered normal
- 11-16 Mild mood disturbance
- 17-20 Borderline clinical depression
- 21-30 Moderate depression
- 31-40 Severe depression

Over 40 Extreme depression

Each item on the BDI-I measures specific symptoms of depression, as outlined below:

- | | |
|------------------------------|---------------------------|
| 1. Sadness | 11. Irritability |
| 2. Pessimism | 12. Social Withdrawal |
| 3. Sense of Failure | 13. Indecisiveness |
| 4. Dissatisfaction | 14. Change in Body Image |
| 5. Guilt | 15. Retardation |
| 6. Expectation of Punishment | 16. Insomnia |
| 7. Dislike of Self | 17. Fatigability |
| 8. Self Accusation | 18. Loss of Appetite |
| 9. Suicidal Ideation | 19. Loss of Weight |
| 10. Episodes of Crying | 20. Somatic Preoccupation |
| | 21. Low Level of Energy |

Items 1 through 13 comprise cognitive and somatic symptom, and items 14 through 21 comprise only somatic symptoms of depression.

The BDI-I (Beck, 1978) has high content validity. Its items are consistent with the symptoms of depression listed by DSM-IV-TR (2001).

The Sheehan Anxiety Scale (Sheehan, 1983) was used by the clinician to informally rate anxiety in order to assess the need to initiate development of additional treatment goals if indicated. The scale was adapted from a book by D. V. Sheehan called "The Anxiety Disease," 1983. No specific information could be found in a review of the

literature regarding the norms for this scale. Many of the items are similar to other standardized anxiety scales, such as the Beck Anxiety Inventory (Beck & Steer, 1993).

The test consists of 35 items, which the respondent is asked to rate from 0 “not at all” through 4 “extremely.” These include items such as #6 “Chest pain or pressure” for physical signs of anxiety and #30 “Tension and inability to relax,” which refers to a mental state of anxiety. The total score obtained by the respondent is compared to the scoring table presented below:

Score 6-30	mild endogenous anxiety
Score 31-50	moderate endogenous anxiety
Score 51-80	marked endogenous anxiety
Score 81-134	severe endogenous anxiety

Tony obtained a score of 0 after completion of both assessments, which indicated that he had not been experiencing depression or anxiety at the time of the protocols were administered. When Tony was asked what was different during the assessment versus his expressed depression and anxiety during the previous session, he stated, “that was then, I feel fine today”. Tony was also asked if feelings fluctuated often between feeling fine and feeling depressed. His response was that he was testing “to see what I could get away with” and that “I screw around with people like that all the time!” He was laughing as he made the statements. Tony was monitored for statements or signs of depression and/ or anxiety throughout the remainder of treatment. None were apparent.

Following that interaction, another measure was utilized, the Behavioral Assessment System for Children (Reynolds & Kamphus, 1992).

The Behavioral Assessment System for Children for Children (BASC) is an integrated system designed to facilitate the differential diagnosis and classification of a variety of emotional and behavioral disorders of children and to aid in the design of treatment plans (Clausen, 2003).

The BASC Self Report booklet contains sentences that “young people use to describe themselves.” The sentences are designed to assist the participant in describing thoughts, actions, and feelings. There are 186 sentences, some of which are presented in different terms but assess the same scale. The sentences are answered by circling a T for true and an F for false. Some examples are:

1. I like making new friends.
2. I can't seem to control what happens to me.
3. I don't like thinking about school.
4. I like who I am.
5. I like to argue.
65. I don't care about school.
83. Nothing goes my way.
117. I cannot control my thoughts; and so forth.

The BASC was administered to Tony to measure his level of coping ability within a variety of areas; school, residential, personal and interpersonal. Each area is further measured on these scales (details in results): anxiety, attitude toward school, attitude toward teachers, atypicality (e.g. question 11, someone wants to hurt me), depression, interpersonal relations, locus of control, relations with parents, self-esteem, self reliance, sensation seeking, sense of inadequacy, and social stress. Standardized T scores, normed

with a general population of adolescents aged 11 to 16 years found in the BASC manual (Reynolds & Kamphus, 1992) were used to evaluate Tony's results were as follows:

Clinical Scales

70+ Clinically significant

60-69 At-risk

41-59 Average

31-40 Low

↓30 Very Low

Adaptive Scales

70+ Clinically significant

60-70 At-risk

41-60 Average

31-41 Low

↓30 Very Low

Tony completed the report and a computer generated score sheet along with narrative was provided. As with the BDI-I and Sheehan Anxiety Scale (SAS), Tony scored within the average range on all scores. The results from the narratives are as follows:

Overview

"In the emotional symptom index, Tony's raw score yielded a T score of 43. This score was in the average range."

School Maladjustment Composite

“ In the school maladjustment composite, Tony’s raw score yields a T score of 52. This score was in the average range. School maladjustment scales and their ranges are as follows: Attitudes toward school – Average; Attitude toward teachers – Average; Sensation seeking – Average.”

Clinical Maladjustment Composite

“In the clinical maladjustment composite, Tony’s raw score yielded a T score of 39. This score was in the Low range. Clinical maladjustment scales and their ranges are as follows: Atypicality – Average; Locus of control – Average; Somatization – Low; Social stress – Low; Anxiety – Low.”

Additional Clinical Scales

“Additional clinical scales are those not included in any composite. These scales and their ranges are as follows; Sense of inadequacy – Average; Depression – Average.”

Personal Adjustment Composite

In the personal adjustment composite, Tony’s raw score yielded a T score of 52. This score was in the average range. Personal adjustment scores and their ranges are as follows: Relations with parents – Average; Interpersonal relations – Average; Self-esteem – Average; Self-reliance – Average.”

There are self- report and parent teacher rating versions of the BASC. Tony’s mother was given the BASC to complete upon his admission, but data was unavailable for review. She was also given the assessment to repeat when the BASC was initiated

with Tony during his course of treatment. She reported having lost the form and therefore did not complete for comparison at the time of computer calculation of results.

Results of the BASC were inconsistent with Tony's behavioral history.

Discussion with the Clinical and Thesis advisors indicated that Tony may be "test savvy."

A plan to post test was established. Tony was asked to repeat the BDI-I, SAS, and BASC on several occasions, each time he refused. His mother also "lost" the BASC measurement tools on three separate occasions.

Based on behavioral data, Tony's rates of aggression, self-injury, and property destruction decreased from a combined average of 10 per day to zero for eight weeks prior to discharge. His compliance increased on average across settings from 40% of requests to 95% of requests. The higher rate of noncompliance remained in the school environment but improvement was noted in both settings. His mother reported 100% compliance with requests on his last five home visits. All of these improvements are impressive given that Tony only received intervention for approximately 12 months. The challenge lies in the months and years to follow.

Since both Tony and his mother were resistant to accurately completing outcomes measures, it is difficult to use them as reliable outcome measures. While clinical impressions indicated that Tony made some improvements in some areas, there is no objective support for these conclusions.

Chapter 6 – Comparison of Best and Normative Practice

A great deal of research indicates that there is extreme difficulty in treating children, particularly adolescents with Conduct Disorder (Kazdin, 1999). Additionally, much of the research cited in this document addresses the need for early diagnosis and treatment of Conduct Disorder.

Recent advances in screening and assessments of social-emotional and behavioral problems as well as competencies have been paralleled by conceptualizing the emergence of early childhood psychopathology with respect to diagnosis and the potential for early intervention for disruptive behavior disorders (Carter, Briggs-Gowan, & Ornstein-Davis, 2004).

According to the DSM-IV-TR (2001, p. 97), “Oppositional Defiant disorder is a common precursor to the Childhood-Onset Type of Conduct Disorder...Early onset predicts a worse prognosis and increased risk in adult life for Antisocial Personality Disorder and Substance-Related Disorders.” Therefore early intervention is of extreme importance.

In addition to early diagnosis and intervention, best practice indicates that a multiple systems approach is most beneficial for children and families of children with Conduct Disorder. According to the DSM-IV-TR (2001, p. 96), “Conduct Disorder is often associated with early onset of sexual behavior, drinking, smoking...family dysfunction...Learning Disorders and Substance Related Disorders.” Therefore a variety of interventions and treatments that span the domains in which the individual functions

would be a preferred approach. Of the treatments found in the literature that were addressed in Chapter 3, MST is best practice for all of the reasons stated above.

Normative practice at the facility in which Tony stayed involved a multi-modal treatment approach. As discussed previously, the IDT consisted of a consulting psychiatrist, consulting neuropsychologist, clinical director, individual/ family therapist, special education teacher, teacher' s aid, nurse and residential staff. Tony also participated in substance awareness counseling. The primary therapist coordinated discharge planning and worked in conjunction with members of the school district, state youth agency, youth advocate group, his mother and Tony to establish services in the community upon discharge. This occurs with all residents of the facility no matter what their diagnosis. However, the program did not follow the specific and well-established research approaches previously identified in Chapter 3.

The challenge experienced by the facility in adhering to a strict model of intervention is two-fold: the willingness of the family to participate, and the ability for other systems to support the individuals financially. Often, the school systems that these children will return to are unable to support their needs. Tony attended a school that could meet his specific needs, this is not always the case.

The clinical director of the program is a proponent of MST and has a great deal of knowledge in both theory and practice. The individuals expected to provide services have varied levels of skills and expertise and were unable to identify the method of practice for programming at the facility. According to MST theory, the program provides multiple services that address the variety of systems from which the child came and to which she

or he will return. Therefore, additional training in the theory and practice of MST would be useful in improving the current approach to treatment.

Overall, however, the normative practice of the agency did not follow the specific protocols identified in the literature as best practice. It is possible that Tony would have shown more improvement if such a program were in place.

Chapter 7 – Summary and Conclusions

The purpose of this study was to evaluate effective treatments for an adolescent male with a rather complex Differential Diagnosis. Tony was 16 years old at the outset of the study. This was his first time in any formalized treatment environment. He was remanded to the facility as a result of interaction with the family court system.

History revealed that Tony's mother was unable to obtain assistance early in his development. It was not until he was ready to enter the first grade that any attention was given to Tony's aggressive and impulsive behaviors. At the time he received services, he was diagnosed with ADHD only and no other assessments occurred throughout his childhood, except when he jumped from his bedroom window at age seven and a garage roof at age 9. Both resulted in psychiatric evaluations, which addressed concerns for suicidal behavior. When Tony's mother discussed her observations, experiences, and behavioral concerns with the doctors, she was not supported and there was no change in diagnosis to reflect either position.

It was not until Tony was 14 years old that the diagnosis of ADHD was challenged and other comorbid diagnoses were presented. A full psychiatric evaluation indicated that perhaps Tony did not have ADHD but rather mood or impulse disorders. When Tony was admitted to the facility, he was given a full psychological evaluation and diagnosed with Conduct Disorder, Childhood-Onset Type. Unfortunately, the psychiatrist who consulted on Tony's case was reluctant to make changes to his medication regime since Tony's current family physician still wrote his current prescriptions, but had not

seen Tony in some time. In fact, his mother reported that it was longer than a couple of years. This was in part due to Tony's non-compliance to attend follow up appointments and his mother's insistence that he needed "something to keep him in line."

Additionally, when Tony was evaluated by the Child Study Team at age six, his medical history and birth complications were not factored in to the diagnosis. He therefore had his first neurological assessments conducted when he came to the facility at age 15 years. The battery of assessments revealed neurological impairments. It is important to note that his non-verbal intelligence fell within average range. However, he presented with deficits in written language skills and mathematical skills. This could be another reason that Tony had challenges in the school environment and was non-compliant with tasks and avoidance motivated during in seat and chalkboard activities.

It is unfortunate for Tony that these areas went unacknowledged by professionals for so long. It is likely, based on the body of existing research that he would have had greater success of improvement had he received services early in his development. His psychosocial assessment clearly indicated a need for intervention much earlier than he received services. This is not to say that he is destined to go on to develop Antisocial Personality Disorder in early adulthood, but as stated in the DSM-IV-TR (p. 97, 2001), the prognosis is poor.

The fact that he received multi-modal services in treatment through which he also received intensive individual and family counseling is indicative of potential to improve. His mother and sister were strong, willing, and active participants in his treatment. Upon discharge they agreed to continue efforts with supports in place.

While in treatment at the facility, it would have been beneficial to use more empirical outcome measures in assessing Tony's success. There were no initial assessments conducted other than the psychiatric and neuropsychological batteries to diagnose his condition. Thereafter, the BDI-I, SAS, and BASC were the only measures used. Post-test measures were not completed by Tony refused to comply. The BASC was not completed by his mother other than during the neuropsychological phase of assessment for Tony. She did not refuse directly, however, she repeatedly misplaced or "lost" the measures. Therefore, there is no formal assessment of outcomes beyond clinical impressions. Additionally, upon discharge, there was no formalized survey used by the facility to assess satisfaction with services. The facility does not conduct post discharge surveys.

Recommendations to improve upon a study such as this one would be to utilize outcome measures immediately and periodically throughout the individual's course of treatment. This would better serve to evaluate efficacy of intervention. It is important to note that the facility did not use an empirically derived treatment method, but did use protocols established by empirically derived treatment models. Additionally, not all members used interventions consistently as required. Direct care staff was not well trained in behavior plans or the importance of consistent implementation. This can present a challenge since Tony was well skilled in manipulation tactics and in his words, "can work the system."

The greatest challenge in treating children with Conduct Disorder is sustaining long-term positive outcomes and there was little in research to assess efficacy. It is likely that Tony will need the same level of intense intervention upon his return to the

community. Systems were put in place to provide him with the opportunity, but in the less restrictive home environment, it is plausible that he would return to greater levels of noncompliance to treatment. His mother stated in the final session prior to discharge, "I give it three months before he falls back into his old ways, it's not that I think what you all did wasn't helpful, but I can't be with him twenty-four seven, and I'm afraid it's only a matter of time."

Attempts were made to follow up with Tony and his mother three months following discharge but the phone number was disconnected.

References

- Alexander, J. F., Barton, C., Schiavo, R. S., & Parsons, B. V. (1976). Systems-behavioral intervention with families of delinquents: Therapist characteristics, family behavior, and outcome. *Journal of Consulting and Clinical Psychology, 44*, 656-664.
- Alexander, J. F. & Parsons, B. V., (1982). *Functional family therapy*. Monterey, CA: Brooks/ Cole.
- Alexander, J. F., Holtzworth-Monroe, A., & Jameson, P. B. (1994). The process and outcome of marital and family therapy research: Review and evaluation. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change* (4th ed., pp. 595-630). New York, NY: John Wiley & Sons.
- American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. (2000). Washington, DC: American Psychological Association.
- Ayers, A. J., (1979). *Sensory integration and the child*. Los Angeles, CA: Western Psychological Services.
- Badian, N. A. (1983). Arithmetic and nonverbal learning. In H. R. Mykelbust (Ed.), *Progress in learning disabilities*, (pp. 30-37). New York, NY: Grunt and Stratton.
- Baer, R. A., & Nietzel, M. T. (1991). Cognitive and behavioral treatment of impulsivity in children: A meta-analytic review of the outcome literature. *Journal of Clinical Child Psychology, 20*, 400-412.

- Beck, A. T. (1978). *Beck Depression Inventory-I*. Philadelphia, PA: Center for Cognitive Therapy.
- Beck, A.T., & Steer, R.A. (1993). *Beck Anxiety Inventory: Manual*. San Antonio: The Psychological Corporation.
- Bell, R. Q., & Harper, L. (1977). *Child effects on adults*. New York, NY: John Wiley & Sons.
- Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W. , Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology*, 63, 569-578.
- Carter, A. S., Briggs-Gowan, M. J., & Ornstein-Davis, N. (2004). Assessment of young children's social-emotional development and psychopathology and recommendations for practice. *Journal of Child Psychology and Psychiatry*, 45(1), 109-134.
- Clausen, H. H. (2003). Book Review of Cecil R. Reynolds and Randy W. Kamphus (2002): The clinicians guide to the behavior assessment system for children. *Child Neuropsychology*, 9(3), 234-236.
- Conduct Problems Prevention Research Group (1992). A developmental and clinical model for the prevention of conduct disorder: The FAST track program. *Development and Psychopathology*, 4, 509-527.

- Conduct Problems Prevention Research Group (1996). An initial evaluation of the fast track program. In J.A. Linney (Ed.), *Proceedings of the fifth national prevention research conference*, (pp. 54-56). Washington, D.C.: National Institute of Mental Health.
- Conduct Problems Prevention Research Group (1999). Initial impact of the fast track prevention trial for conduct problems: II classroom effects. *Journal of Consulting Psychology*, 67, 648-657.
- Conduct Problems Prevention Research Group (2002). Using the fast track randomized prevention trial to test the early-starter model of the development of serious conduct problems. *Development and Psychology*, 14, 924-943.
- Dadds, M. R. & McHugh, T. A. (1992). Social support and treatment outcome in behavioral family therapy for child conduct problems. *Journal of Consulting Clinical Psychology*, 60, 252-259.
- Drake, R., Mercer-McFadden, C., Mueser, K., McHugo, G., & Bond, G. (1998). Review of integrated mental health and substance use treatment for patients with dual disorders. *Schizophrenia Bulletin*, 24(4).
- Dumas, J. E., & Wahler, R. G. (1983). Predictors of treatment outcome in parent training: Mother insularity and socioeconomic disadvantage. *Behavioral Assessment*, 5, 301-313.
- Durlak, J. A., Fuhrman, T., & Lampman, C. (1991). Effectiveness of cognitive behavioral therapy for maladapting children: A meta-analysis. *Psychological Bulletin*, 110, 204-214.

- Fuchs, S. F., & Fuchs, D. (2002). Mathematical problem solving profiles of students with and without comorbid reading disabilities. *Journal of Learning Disabilities, 35*(6), 563-573.
- Gordon, D. A., Arbuthnot, J., Gustafson, K. E., & McGreen, P. (1988). Home-based behavioral-systems family therapy with disadvantaged juvenile offenders. *American Journal of Family Therapy, 16*3, 243-255.
- Gorman, J. M., & Nathan, P. E. (1998). *A guide to treatments that work*. New, NY: Oxford University Press.
- Graham, S., Harris, K. R., & Larsen, L. (2001). Prevention and intervention of writing difficulties for students with learning disabilities. *Learning Disabilities and Practice, 16*(2), 74-84.
- Greenbaum, P., Foster-Johnson, L., & Petrelia, A. (1996). Co-occurring addictive and mental disorders among adolescents: Prevalence research and future directions. *American Journal of Orthopsychiatry, 66*, 55-63.
- Heward, W. L. (2003). Ten faulty notions about teaching and learning that hinder the effectiveness of special education (Electronic version). *Journal of Special Education, Winter 2003*.
- Henggeler, S. W. (1994). *Treatment manual for family preservation using multisystemic therapy*. Charleston, S.C., Medical University of South Carolina, South Carolina Health and Human Services Finance Commission.
- Henggeler, S. W., & Borduin, C. M. (1990). *Family therapy and beyond: A multisystemic approach to teaching the behavior problems of children and adolescents*. Pacific Grove, CA: Brooks/ Cole.

- Henggeler, S. W., Melton, G. B., & Smith, L.A., (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology*, 60, 953-961.
- Henggeler, S. W., Rodick, J. D., Borduin, C. M. , Hanson, C. L., Watson, S. M., & Urey J. R. (1986). Multisystemic treatment of juvenile offenders : Effects on adolescent behavior and family interaction. *Developmental Psychology*, 22, 132-141.
- Henggeler, S. W., Schoewald, S. K., & Pickrel, S. A. (1995). Mulitsystemic therapy: Bridging the gap between university and community based treatment. *Journal of Consulting and Clinical Psychology*, 63, 709-717.
- Horne, A., M., Glaser, B. A., & Calhoun, G. B. (1999). Conduct disorders. In R. T. Ammerman, M. Herson, & C. G. Last (Eds.), *Handbook of prescriptive treatment for children and adolescents*. (pp. 84-101). Needham Heights, MA: Allyn & Bacon.
- Kazdin, A. E. (1985). *Treatment of antisocial behavior in children and adolescents*. Homewood, IL: Dorsey Press.
- Kazdin, A. E. (1993). Treatment of conduct disorder: Progress and directions in psychotherapy research. *Development and Psychopathology*, 5, 277-310.
- Kazdin, A. E. (1999). Barriers to treatment participation and therapeutic change among children referred for conduct disorder. *Journal of Clinical Child Psychology*, 28(2), 160-173.
- Kazdin, A.E. (2001). Treatment of conduct disorders. In J. Hill. & B. Maughan, (Eds.), *Conduct Disorders in Childhood and Adolescence*. (pp. 408-448). New York, NY: Cambridge University Press.

- Keller, M. (2001). Handwriting club: Using sensory integration strategies to improve handwriting. *Intervention in School and Clinic, 37*(1), 9-12.
- Lytton, H. (1990). Child and parent effects on boys' conduct disorder: A reinterpretation. *Developmental Psychology, 26*, 683-697.
- Mann, B. J., Borduin, C. M., Henggeler, S. W., & Blaske, D. M. (1990). An investigation of systemic conceptualizations of parent-child coalitions and symptom change. *Journal of Consulting and Clinical Psychology, 58*, 336-344.
- McBride, D., VanderWaal, C. VanBuren, H., & Terry, Y. (1997). Breaking the cycle of drug use among juvenile offenders. Manuscript submitted for publication.
- McMahon, R. J., & Wells, K. C. (1989). Conduct disorders. In E. J. Marsh & R. A. Barkley (Eds.), *Treatment of childhood disorders* (pp. 73-132). New York, NY: Guilford.
- Newberry, A. M., Alexander, J. F., & Turner, C. W. (1991). Gender as a process variable in family therapy. *Journal of Family Psychology, 5*, 158-175.
- Patterson, G. R. (1982). *Coercive family processing*. Eugene, OR: Castalia.
- Patterson, G. R., Dishion, T. J., & Chamberlain, P. (1993). Outcomes and methodological issues relating to treatment of antisocial children. In T. R. Giles (Ed), *Handbook of effective psychotherapy*, (pp. 43-87). New York, NY: Plenum.
- Patterson, G. R., Reid, J. B., Dishion, T. J. (1992). *Antisocial boys*. Eugene, OR: Castalia.
- Reynolds, C. R., & Kamphus, R. W. (1992). *BASC: Self Report*. Circle Pines, MN : American Guidance Service, Inc.

- Rounds-Bryant, J. L., Kristiansen, P. L., & Hubbard, R. L. (1999). Drug abuse treatment outcome study of adolescents: A comparison of client characteristics and pretreatment behavior in three treatment modalities [Electronic version]. *American Journal of Drug and Alcohol Abuse*, 25(4), 573-591.
- Sanders, M. R., & Dadds, M. R. (1993). *Behavioral family intervention*. Needham Heights, MA: Allyn & Bacon.
- Sheehan, D.V. (1983). *The anxiety disease*. [Detailed reference unavailable]
- Shirk, S. R. (1988). *Cognitive development and child psychotherapy*. New York, NY: Plenum.
- Spivak, G., & Shure, M. B. (1982). The cognition of social adjustment: Interpersonal cognitive problem solving thinking. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in clinical child psychology*. Vol. 5, (pp. 323-372). New York, NY: Plenum.
- Webster-Stratton, C. (1985). Predictors of treatment outcome in parent training for conduct disordered children. *Behavior Therapy*, 16, 223-243.
- Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. *Journal of Consulting and Clinical Psychology*, 62, 583-593.