SECTION II

COLLECTION OF EVIDENCE-BASED TREATMENT MODALITIES FOR CHILDREN AND ADOLESCENTS WITH MENTAL HEALTH TREATMENT NEEDS

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OPPOSITIONAL DEFIANT & CONDUCT DISORDERS

Introduction
Oppositional Defiant Disorder (ODD)
Conduct Disorder (CD)
Relationship Between ODD and CD
Etiology
Comorbidity
Diagnosis
Treatments
Evidence-based Treatments
Unproven Treatments

Introduction

Although it is normal for both children and adolescents to exhibit some type of oppositional behavior as they mature, some children and adolescents may exhibit behaviors that are significantly disruptive to the point where they may impair functioning. Such troublesome and provoking behaviors comprise a host of syndromes and typically are behaviors exhibited by children that are diagnosed with attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and conduct disorder (CD).

Typically, children who suffer from these mental health disorders display behavior that is disturbing, potentially dangerous as well as disruptive (Boesky, 2002). However, this section will specifically address ODD and CD since these two disorder are often referred to as the "disruptive disorders" (Boesky).

Disruptive disorders are complex and may lead to long-term adverse consequences affecting academic performance, as well as difficulties in social and emotional development. Children with CD and ODD are also at high risk for criminality and antisocial personality disorders in adulthood (Rutter, 1997).

According to the *Diagnostic and Statistical Manual, 4th Edition, (DSM-IV),* as cited by Loeber (2002), the essential features of ODD are recurrent pattern of negativistic, defiant, disobedient, and hostile behavior toward authority figures, which leads to impairment. The primary features of CD are a repetitive and persistent pattern of behavior in which the basic rights of others and major age-appropriate societal norms or rules are violated (Loeber, 2002).

There has been much debate on the degree that ODD and CD relate to and how they are distinguished from one another. The majority of empirical evidence supports a distinction between the two disorders and ADHD. (Cohen et al., as cited by Loeber, 2000). Table 1 outlines the prevalence rates of both ODD and CD.

Table 1

Key Facts for Disruptive Behaviors

<u>Behavior disorders as a category are, by far, the most common reason for referrals to mental health services for children and adolescents.</u>

Oppositional Defiant Disorder (ODD)

- ODD is reported to affect between 2 and 16 percent of children (Medical Center Online, 2002).
- ODD is more common in boys than in girls before puberty (U.S. Department of Health and Human Services, 1999).
- After puberty the rates in both genders are equal. (U.S. Department of Health and Human Services).

Conduct Disorder (CD)

- Approximately 6 percent of children have CD.
- CD is more common in boys than in girls by a 4:1 ratio.
- CD is believed to be more prevalent in urban than in rural settings.
- Children with CD often have other psychiatric problems.
- The prevalence of CD has increased over recent decades.
- Aggressive behavior is the reason for one-third to one-half of the referrals made to child and adolescent mental health services.

Source: The Mental Health Online, 2002.

Oppositional Defiant Disorder (ODD)

ODD is relatively new diagnosis that describes children with behavior problems that do not meet the criteria for full-blown CD (Murphy et al., 2001). ODD is typically considered a mental disorder where the child exhibits noncompliance toward authority figures (Boesky, 2002). According to Chandler (2002), ODD is a psychiatric disorder that is characterized by two different sets of problems: aggressiveness and a tendency to purposefully bother and irritate others. It is an enduring pattern of uncooperative, defiant and hostile behavior to authority figures that does not involve major antisocial violations (Christophersen & Mortweet, 2002).

ODD often occurs before conduct disorder and may be an early sign of conduct disorder (U.S. Department of Health and Human Services, 1999). ODD is diagnosed when a child's behavior is hostile and defiant for six months or longer and is thought to start in the preschool years, whereas conduct disorder generally appears when children are somewhat older (Lavigne, 2001). ODD is not diagnosed if conduct disorder is present (SAMHSA, 1998). The diagnostic criteria for ODD are listed in Table 2.

Table 2

***DSM-IV* Criteria for Oppositional Defiant Disorder**

A. A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which four (or more) of the following are present:
1.often loses temper;
2. often argues with adults;
3. often actively defies or refuses to comply with adults' requests or rules;
4. often deliberately annoys people;
5. often blames others for his or her mistakes or misbehavior;
6. is often touchy or easily annoyed by others;
7. is often angry and resentful; or
8. is often spiteful or vindictive.

Note: Consider a criterion met only if the behavior occurs more frequently than is typically observed in individuals of comparable age and developmental level.

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder.

D. Criteria are not met for Conduct Disorder. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Source: Christophersen & Mortweet, 2002.

Conduct Disorder (CD)

Children with CD exhibit persistent and critical patterns of misbehavior. These children may indulge in frequent temper-tantrums like children with ODD; however, they also violate the rights of others (Center for the Advancement of Children's Mental Health at Columbia University, 2000). Behaviors exhibited by children with CD include aggression towards people or animals, destruction of property, deceitfulness, theft or serious violation of rules (Murphy et al., 2001).

According to research compiled by Christophersen & Mortweet (2002), the diagnosis of CD is usually based on the persistence and the repetition of the behavior. Furthermore, CD may first occur in childhood or in adolescence and may have mild, moderate or severe classifications. The lack of specific subtypying may result in CD being over inclusive and also associated with other mental disorders.

Children diagnosed with CD have more difficulty in areas of academic achievement, interpersonal relationships and drugs and alcohol use (Boesky, 2002). They also are exposed to the juvenile justice system because of their delinquent or disorderly behaviors.

For example, Ferguson and Horwood, as cited in Boesky, found that 90 percent of children with three or more CD symptoms at age 15 were self-reported frequent offenders a year later, compared with 17 percent of children with no CD symptoms. Also, according to Murphy (2001), 25 to 40 percent of children with CD have adult antisocial personality disorder later in life. Table 3 lists the criteria for CD as classified in the *DSM-IV*.

Table 3

***DSM-IV* Criteria for Conduct Disorder**

A. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

Aggression to people and animals:

1. often bullies, threatens, or intimidates others;
2. often initiates physical fights;
3. has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun);
4. has been physically cruel to people;
5. has been physically cruel to animals;
6. has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery);
7. has forced someone into sexual activity.

Destruction of property:

8. has deliberately engaged in fire setting with the intention of causing serious damage;
9. has deliberately destroyed others' property (other than by fire setting).

Deceitfulness or theft:

10. has broken into someone else's house, building, or car;
11. often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others);
12. has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering, forgery);

Serious violations of rules:

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 (or once without returning for a lengthy period);
15. is often truant from school, beginning before age 13 years.

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

Source: Christophersen & Mortweet, 2002.

Relationship Between ODD and CD

ODD and CD are characterized by antisocial behavior and, accordingly, are considered a group of behaviors rather than actual impairments (U.S. Department of Health and Human Services, 1999). The linkage between ODD and CD has been examined in several studies (Biederman et al., Frick et al., Lahey et al., Loeber et al., as cited in Lavigne, 2001). These studies indicate that ODD is usually present as a forerunner to childhood-onset CD, but most children with ODD do not develop CD.

According to Boesky (2002), a subset of children diagnosed with ODD may ultimately develop CD. Moreover, because ODD is seen as a disorder of noncompliance and CD involves the violation of another's rights, it is helpful to view these mental health disorders as two points on a continuum versus two separate mental health disorders. Most children with CD begin with ODD-like behaviors (Kazdin, as cited in Boesky). Although children with ODD may develop CD, many do

not. Although the precise relationship between ODD and CD is not explicit, it is known that early intervention and treatment of ODD may avert the development of CD.

Etiology

According to the Center for the Advancement of Children's Mental Health at Columbia University (2000), research is needed to pinpoint the exact causes of both ODD and CD. It is surmised that a genetic vulnerability combined with environmental factors may influence the disorder, as well as the disruptive behaviors. Some of these environmental factors include family histories of disruptive behavior disorder, antisocial personality disorder, mood disorders, or substance abuse; permissive, neglectful, harsh or inconsistent parenting; and poverty. However, there is no one attributable cause or influencing factor. Frequently, the problem behaviors exhibited by children with ODD and CD may be indicative of underlying psychiatric, neurological or learning problems (National Alliance for Mental Health Wisconsin, 2002). Conversely, other times, coexisting conditions have been found to exacerbate behavioral problems.

The symptoms for CD and ODD can be variegated (Boesky, 2002). Not every child reacts the same way to these various influencing factors. Moreover, viewing both CD and ODD as mental disorders without factoring risk factors causing the disorders is misleading.

Comorbidity

ODD and CD are frequently found in children who suffer from ADHD, another disruptive disorder, which is discussed separately in this report (Center for Advancement of Children's Mental Health, 2002). Children who develop CD often show signs of these disorders at an earlier age.

There is evidence of developmental ties between ODD and ADHD (Lavigne, 2001). Also, the onset of CD is occurs earlier in boys diagnosed with ADHD (Loeber, 2000). Studies have determined that, in 92 percent of boys referred with ADHD who developed CD, the onset of CD occurred prior to age 12 (Biederman et al., Hinshaw et al. as cited in Loeber).

According to analysis compiled by Lavigne, ODD may precede the development of anxiety and mood disorders. Some children may develop comorbidity of ODD with another disorder in the grammar school age range. Such comorbidity may develop with ADHD and some young children with ODD may later develop anxiety or depressive disorders comorbid with ODD. This study found that a shift from ODD in the preschool years to either anxiety or depression without any comorbidity in the grammar school years is uncommon. Several studies have documented a strong association between CD and substance use (Whitmore et al., Windle, as cited in Loeber) with CD as the psychiatric disorder most strongly associated with substance abuse.

Loeber (2000) conducted a literature review of the comorbidity of CD and found that comorbid conditions in girls with CD are relatively predictable. He asserted that in general, adolescent girls, compared with boys, are more at risk for anxiety and depression. Accordingly, there is an increased risk for such disorders in girls with CD. Thus, gender and age are crucial indicators in determining and diagnosing comorbid conditions with CD.

Diagnosis

The accurate diagnosis of disruptive disorders requires a multimethod assessment involving the consideration of conclusions reached by two different assessment methods (Christophersen &

Mortweet, 2001). Also, such an assessment may help detect patterns of co-occurring disorders. Assessments may include interviews on family history and child-rearing practices, as well as behavior rating scales.

Treatments

According to analysis compiled by Burns et al. (1999), disruptive disorders are considered very difficult to treat. Various treatment modalities are utilized for treating these disorders as well as the comorbid disorders which accompany ODD and CD.

The Center for the Advancement of Children's Mental Health (2000) maintains that for some children with CD, behavior therapy can be used to teach new ways to resolve conflict through role playing and rehearsal. Furthermore, family functioning and the child's prognosis may be improved by parental management training. Parental management training helps parents to better understand the disorder and learn strategies for dealing with their child. Further research has found that among these two behavioral disorders, ODD has shown the best response to psychotherapy. Academic and social rehabilitation are also beneficial, as is certain forms of group therapy that uses behavioral therapy techniques.

Murphy (2001) states that treatment for ODD and CD usually involves individual and family therapy. Frequently, some children may need to be removed from the home and placed in foster care. Also necessary to consider are the other comorbid disorders that accompany CD that also require treatment such as ADHD, developmental disabilities, substance abuse disorder, anxiety disorders and mood disorders. CD requires early intervention, extensive treatment in multiple domains and long-term follow-up (Offord & Bennett, as cited in Children's Mental Health Ontario, 2001). Parents who retain custody of a child with conduct disorder are taught limit setting, consistency and other behavioral techniques. Medication is only used to treat comorbid ADHD or moods disorder but not for CD itself. Furthermore, early diagnosis and intervention is the key to improved prognosis in the outcome of CD. However, there is no single effective treatment for this disorder. If conduct disorder is diagnosed along with another disorder, the other disorder is treated first (Center for the Advancement of Children's Mental Health at Columbia University, 2000).

Evidence-based Treatments

According to the U.S. Department of Health and Human Services (1999) and Burns et al. (1999), there are several psychosocial interventions which can effectively reduce antisocial behavior in disruptive disorders. After more than 80 studies were performed, two treatments met criteria for well-established treatments and 10 for probably efficacious treatment. These psychosocial interventions are also proven effective and have had positive results in the treatment of boys (Technical Assistance Partnership, 2002).

Parent Management Training Techniques

The following treatments are discussed by the U.S. Department of Health and Human Services (1999) and Burns et al. (1999) as being well-established. There are two treatments that are directed at training parents and have been proven successful in reducing problem behaviors and are particularly effective with children diagnosed with ODD. One of these treatments is a parent training program based on the manual *Living with Children* (Bernal et al., as cited in Burns, and the U.S. Department of Health and Human Services) The other is a videotape modeling parent training

(Spaccarelli et al., as cited in Burns and the U.S. Department of Health and Human Services). The following is a description of these two techniques:

> *Living With Children* – According to the U.S. Department of Health and Human Services, this treatment teaches parents to reward desirable behaviors and ignore or punish deviant behaviors, based on principles of operant conditioning. Parents are instructed to read parts of these training manuals and therapists use the manuals as a guide for conducting the interventions. The parent training consisted of 8 to 10 clinic sessions in which a parent is taught to pay attention to and reward appropriate behavior and to ignore inappropriate behavior. The parents are then instructed on issuing commands and using reinforcement for compliance and time-out for noncompliance. Teaching procedures involved didactic instruction, modeling, role play, interaction with the child in the clinic and structured times to practice skills in the home.
>
> This type of parent training and social learning intervention has been found to be an effective method for decreasing deviant behavior. Furthermore additional review has shown that such parent training has been as carefully documented and empirically supported.
>
> *Videotape modeling parent training* – As stated by the U.S. Department of Health and Human Services, this form of treatment provides a series of videotapes covering parent-training lessons, after which a therapist leads a group discussion of the videotape lessons.

The following treatments discussed are efficacious in that they have been successful in treating children, particularly in clinical trials. These treatments are discussed by Burns and outlined in the Technical Assistance Partnership for Child and Family Mental Health, 2002.

Cognitive Behavioral Approaches

According to the Technical Assistance Partnership for Child and Family Mental Health (2002), there are several behavioral approaches for treating CD and ODD. These approaches include Multisystemic Therapy by Scott Hengyeler; Anger Coping Therapy by Lochman and Lochman; Assertiveness Training by Huey and Rank; Delinquency Prevention Program by Tremblay and Vitaro; Rational Emotive Therapy by Block; Videotape Modeling Parent Training by Webster-Stratton; and Parent-Child Interaction Therapy by Eyberg and McNeil.

Pharmacological Treatment

As found by Boesky (2002), there is no one type of medication usually prescribed for ODD and CD because there has been no one class of medication found to be beneficial. Psychostimulants may be prescribed for concurrent problems with impulsivity and hyperactivity and antidepressants may also be prescribed to youth experience feeling of depression or mood disorders. Medication may also help with co-occurring mental health disorders, making it more likely the child will be able to participate and benefit from intervention strategies.

According to the U.S. Department of Health and Human Services (1999) no drugs haven been found to be consistently effective in treating CD, although four drugs have been tested. Lithium and methylphenidate have been found to effectively reduce aggressiveness in children with CD (Campbell et al., Klein et al., as cited by the U.S. Department of Health and Human Services); however other studies could not find where lithium was effective. In other studies, methylphenidate was superior to lithium and carbamazepine was found to be effective but multiple side effects were

also reported Kafantaris et al., as cited by the U.S. Department of Health and Human Services). Clonidine, was studied and patients showed a significant decrease in aggressive behavior but also exhibited significant side effects that would require monitoring of cardiovascular and blood pressure parameters (Kemph et al., as cited by the U.S. Department of Health and Human Services).

As stated by Christophersen & Mortweet (2002), there is limited support for pharmaceutical treatments for ODD. Studies have shown that such a treatment approach is not effective for children with ODD. However, children with ADHD and ODD may benefit from stimulants or tricyclic antidepressants. Pharmacotherapy should not be utilized as the sole treatment for a child with ODD or CD with comorbid disorders. Medications must only be prescribed in conjunction with psychological interventions such as parent training.

Unproven Treatments

Research indicates that therapy for disruptive disorders should involve treatments that are delivered with enough frequency and duration in order to produce the desired treatment outcomes (Children's Mental Health Ontario, 2001). There is little research supportive of single-session or brief interventions or for approaches such as boot camps, psychiatric hospitalization, medication trials, or a brief course of cognitive-behavioral therapy (Cowles, et. al. as cited in Children's Mental Health Ontario).

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Additional Resources:
Child, Adolescent and Family Branch Center for Mental Health Services
5600 Fishers Lane, Room 18-49, Bethesda, Md. 20857
Phone: (301) 443-1333 or (800) 789-2647.

MALADAPTIVE BEHAVIORS

SEXUAL OFFENDING

Introduction
Characteristics of Juvenile Sexual Offending
Comorbidity
Promising Treatments
Multisystemic Therapy
Residential Sex Offender Treatment
Controversial Treatments
Promising Approaches to Intervention
Coordination between the Criminal Justice System and Treatment Providers
Supervision
Role of Supervision Officers
Assessment
Clinical Assessment
Assessment of the Juvenile's Home
Clinical Programming

Introduction

Sex offenses perpetrated by juveniles are a serious problem. Each year in the United States, an estimated one-fifth of the rapes are committed by juveniles. One-half of the child molestations are committed by juveniles (Hunter, 2000). Sexual offending is not a disorder per se, but is rather a behavioral problem that can have some disorders linked to it.

Juveniles who perpetrate sex offenses are defined as those who commit any sexual act against the victim's will, without consent, or in an aggressive, exploitive, or threatening manner (Matthews, 1997). They are usually between 12 and 17 years of age and are mostly male, although some studies have found a number of females and prepubescent perpetrators (Hunter, 2000). Sexually abusive behaviors can vary from non-contact offenses to acts of penetration [Office of Juvenile Justice and Delinquency Prevention (OJJDP), 2001].

There are two types of juvenile sex offenders: those who target children and those who offend against their peers or adults (Hunter, 2000). The type of offense is based on factors such as the age and sex of the victim, the relationship between the victim and the offender, and the amount of force used (OJJDP, 2001). Juvenile sexual offending is not more prevalent in any one race or culture.

Characteristics of Juvenile Sexual Offending

Sexual and physical abuse, child neglect, and exposure to family/domestic violence are associated with juvenile sex offending (Center for Sex Offender Management, 1999). Exposure to pornography has also been cited, but studies examining whether pornography exposure leads to juvenile sex offending have been inconclusive (OJJDP, 2001). Likewise, the association between substance abuse and juvenile sex offending has not been fully established (Center for Sex Offender Management).

Table 1

Characteristics of Sexually Abusive Juveniles

Typically adolescents, age 13 to 17.
Mostly male perpetrators.
Difficulties with impulse control and judgment.
Up to 80% have a diagnosable psychiatric disorder.
30-60% exhibit learning disabilities and academic dysfunction.
20-50% have histories of physical abuse.
40-80% have histories of sexual abuse.

Source: Center for Sex Offender Management, December 1999.

Comorbidity

Sexually abusive juveniles share other common characteristics, including:

- high rates of learning disabilities and academic dysfunction;
- the presence of other behavioral problems and conduct disorders; and
- difficulties with impulse control and judgment.

Treatment

Funding problems and ethical issues have made it difficult to conduct controlled outcome studies on the treatment of juvenile sex offenders. However, a number of encouraging clinical reports have been published. While these studies are not definitive, they support the belief that the majority of sexually abusive juveniles are open to, and can benefit from, treatment (Center for Sex Offender Management, 1999).

Promising sex offender treatment programs often combine an intensive, multi-modal approach with early intervention. Comprehensive cognitive-behavior programs often focus on taking responsibility for one's sexual behavior, developing victim empathy, and developing skills to prevent future offending. Approaches to the treatment of juvenile sex offenders can vary from biochemical treatment to group therapy to cognitive behavioral therapy (Juvenile Justice Evaluation Center, 2002).

Multisystemic Therapy

Multisystemic therapy (MST) is an intensive family and community-based treatment that addresses the multiple factors of serious antisocial behavior in juvenile abusers. Treatment can involve any combination of the individual, family, and extra familial (e.g., peer, school, or neighborhood) factors. MST promotes behavior change in the juvenile's natural environment, using the strengths of the juvenile's family, peers, school, and neighborhood to facilitate change (Center for Sex Offender Management, 1999).

In perhaps the best controlled study to date, MST was compared to individual therapy in the outpatient treatment of 16 adolescent sex offenders. Using re-arrest records as a measure of recidivism (sexual and non-sexual), the two groups were compared at a three-year follow-up interval. Results revealed that juveniles receiving MST had recidivism rates of 12.5 percent for sexual offenses and 25 percent for non-sexual offenses, while those juveniles receiving individual therapy had recidivism rates of 75 percent for sexual offenses and 50 percent for non-sexual offenses (Hunter, 2000).

Residential Sex Offender Treatment

Juveniles who have significant offending histories and/or are deemed to be at a high risk to sexually reoffend are appropriate for residential sex offender treatment. Residential treatment ensures public and community safety, and simultaneously provides juveniles with intensive treatment that addresses both sexual and non-sexual behaviors. Residential programs provide intensive milieu treatment that is delivered by trained staff in a highly structured setting. The key to a successful residential programming is individualizing treatment which allows each juvenile to address the unique and specific issues that are relevant to gaining control over their sexual and nonsexual behaviors. As a result, the length of time a juvenile remains in the program varies because it is contingent upon the severity of the juvenile's problematic behaviors and motivation in treatment.

In one recent study of 808 juveniles participating in residential sex offender programs within Virginia's juvenile correctional centers, the recidivism rate based on re-arrests for sexual offenses was 4 percent (with an average time post-release of 4½ years). The projected recidivism rate for sexual offenses was 7.7 percent, when based on all juveniles reaching the 10-year post-release mark (Waite et al., 2002). Successful integration of juveniles from a residential program is based on continued services in the community. Juveniles who successfully complete a residential program respond best when they are provided a gradual reduction in supervision and treatment services which are based on their compliance with parole rules and application of material they learned in treatment.

Controversial Treatments

Some areas of practice are considered ethically and legally controversial and may create special problems for juvenile sex offending practitioners (Center for Sex Offender Management, 1999). These include pre-adjudication evaluations, sexual offense risk assessments, phallometric assessments, and polygraphs. At issue are these treatments' lack of overall effectiveness and validity within a juvenile population.

Promising Approaches to Intervention

The following is a review of issues essential to the development of successful community-based and residential treatment programming for sexually abusive juvenile.

Coordination between the Criminal Justice System and Treatment Providers

Most treatment specialists believe that successful programming for sexually abusive juveniles requires a coordinated effort between the juvenile justice system staff and treatment providers. As supported by clinical experience, effective motivators for treatment include suspending a low-risk juvenile's sentence contingent upon his or her successful completion of a community-based treatment program, and making the high-risk juvenile's release contingent upon successful completion of a residential program.

Supervision

To date, no studies have clearly identified which supervision strategies are most effective with juveniles who commit sexual offenses. Research on adult sex offender supervision utilizes these management strategies: intensive supervision and sex offense specific treatment; interagency collaboration, multidisciplinary teams, and the specialization of supervision and treatment staff; the use of the polygraph to monitor therapy and compliance with supervision conditions; and program monitoring and evaluation. However, too little is yet known about young perpetrators to apply adult standards to them.

Role of Supervision Officers

In many programs, parole and probation officers play an integral role in assisting treatment providers by addressing critical issues and supervising juveniles' activities in the home and community and being aware of the juveniles' behavior and progress in residential treatment programs. Parole and probation officers are a key element in helping juveniles transition from a residential to community-based treatment program. While there is little agreement among the treatment community about the proper role of supervision officers in the treatment of young sexual abusers, supervision officers should, at a minimum, communicate and collaborate with treatment providers (Center for Sex Offender Management, 1999).

Assessment

Careful screening is critical to match the juvenile's needs to the type and level of treatment, which can range from community-based programming to intensive residential treatment. Ideally, this assessment reflects the careful consideration of the danger that the perpetrator presents to the community, the severity of psychiatric and psychosexual problems, and the juvenile's amenability to treatment. Community-based programs should not compromise community safety by admitting juveniles who are more aggressive and violent.

Clinical Assessment

Professional evaluation of juveniles and their appropriateness for placement should be conducted post-adjudication and prior to court sentencing. Clinical assessments should be comprehensive and include careful record review, clinical interviewing, and screening for co-occurring psychiatric disorders.

Assessment of the Juvenile's Home

Assessments of the juvenile's appropriateness for community-based programming should include a thorough review of his living arrangements, as well as a determination of whether the parents are capable of providing supervision. It is essential that the community and other children are protected from potential harm, both physical and psychological.

Clinical Programming

Clinical programming for sexually abusive juveniles typically includes a combination of individual, group, and family therapies. In addition, many programs offer supportive educational groups to families of these juveniles. Juveniles who display more extensive psychiatric or behavioral problems, such as substance abuse, may require additional treatment, including drug and alcohol rehabilitation and psychiatric care. All therapies provided to sexually abusive juveniles should be carefully coordinated within the treatment agency and with external agencies providing case management and oversight.

Providers have established the following as essential components of the treatment process for juveniles who commit sex offenses:

- Gaining control of behavior;
- Teaching the impulse control and coping skills needed to successfully manage sexual and aggressive impulses;
- Teaching assertiveness skills and conflict resolution skills to manage anger and resolve interpersonal disputes;
- Enhancing social skills to promote greater self-confidence and social competency;
- Programming designed to enhance empathy and promote a greater appreciation for the negative impact of sexual abuse on victims and their families;
- Provisions for relapse prevention. This includes teaching juveniles to understand the cycle of thoughts, feelings, and events that are antecedent to the sexual acting-out, identify environmental circumstances and thinking patterns that should be avoided because of increased risk of reoffending, and identify and practice coping and self-control skills necessary for successful behavior management;
- Establishing positive self-esteem and pride in one's cultural heritage;
- Teaching and clarifying values related to respect for self and others, and a commitment to stop interpersonal violence. The most effective programs promote a sense of healthy identity, mutual respect in male-female relationships, and a respect for cultural diversity; and
- Providing sex education to give an understanding of healthy sexual behavior and to correct distorted or erroneous beliefs about sexual behavior.

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EATING DISORDERS

Introduction
Precipitating Factors
Diagnosis
Comorbidity
General Treatment Principles
Anorexia Nervosa
Treatment Methods
Evidence-based Treatments
Unproven Treatments
Contraindicated Medications
Bulimia Nervosa
Treatment Methods
Evidence-based Treatments
Unproven Treatments
Contraindicated Medications
Binge Eating Disorder
Treatment Methods
Unproven Treatments
Cultural Considerations

Introduction

Eating disorders are a significant problem among adolescents in the United States. Currently, more than 5 million Americans are diagnosed with some form of eating disorder and, of that number, more than 85 percent had the onset of symptoms during adolescence [American Dietetic Association (ADA), 2001].

The prevalence of eating disorders has grown at an alarming rate during the last three decades, particularly among adolescent females (ADA, 2001). The American Psychiatric Association (APA) (2000) has reported that eating disorders are now the third most common form of chronic illness in the adolescent female population, with an incidence of up to five percent. Their study indicates that these disorders are far less likely to occur in males — estimates of the male-female prevalence ratio range from 1:6 to 1:10. However, males represent 19 percent to 30 percent of the younger patient populations with anorexia nervosa, suggesting that young men are becoming increasingly vulnerable to these disorders.

Studies have also noted high prevalence rates of eating disorders among groups such as athletes, models, dancers, and performers, as well as young people who must limit food consumption due to the existence of diseases such as diabetes mellitus (ADA, 2001). This suggests that the risk of developing such a disorder increases under circumstances in which dietary restraint or control of body weight assumes great importance.

Precipitating Factors

It is often difficult to isolate the causal factors that precipitate development of eating disorders. In many cases, the symptoms are brought on by a combination of psychological, physical, emotional and cultural pressures (ADA, 2001). Psychological factors related to the disorder include low self-esteem, feelings of helplessness, and intense dissatisfaction with appearance[American Psychological Association (APA) HelpCenter, 1998]. Furthermore, the presence of perfectionistic or impulsive traits and rigid cognitive styles have been more frequently observed in these populations (APA, 2000). In addition, factors such as dysfunctional families and relationships have been highly correlated to eating disorders (APA HelpCenter).

The American Psychiatric Association has indicated that genetics may play a role in the development of maladaptive eating behaviors. Specifically, first-degree female relatives and identical twin siblings of patients with anorexia or bulimia nervosa have higher rates of eating disorder diagnosis than the general population, suggesting the existence of a biological predisposition (APA, 2000). Other researchers have found that abnormal serotonin metabolism may play a greater role in patients with bulimia than those with anorexia, suggesting biological differences in individuals with these two diagnoses (Murphy & Cowan, 2001).

Individuals diagnosed with eating disorders are also more likely than the general population to have a history of abuse or trauma (ADA, 2001). Specifically, sexual abuse has been reported in 20 to 50 percent of patients with anorexia and bulimia nervosa. In addition, women with eating disorders who have suffered from sexual abuse also demonstrate higher rates of comorbid psychiatric conditions, which suggests that abuse may precipitate any number of psychological difficulties, especially those related to self-esteem (APA, 2000).

Table 1

Characteristics of Eating Disorders

- **ANOREXIA NERVOSA** – a disorder characterized by a distorted body image that causes individuals to see themselves as overweight even when they are dangerously thin. They often refuse to eat and exercise compulsively. They lose large amounts of weight and often suffer from extreme malnutrition.
- **BULIMIA NERVOSA** – a pattern of behavior in which the individual eats excessive quantities of food and then purges the body by using laxatives, enemas, or diuretics, vomiting, and/or exercising. They often act in secrecy and feel disgusted and ashamed as they binge, yet once their stomachs are empty again feel relieved of tension.
- **BINGE EATING DISORDER** – a disorder in which individuals experience frequent episodes of out-of-control eating. However, unlike those with bulimia, they do not purge their bodies of excess calories.

Sources: American Psychological Association HelpCenter (2001) and Murphy & Cowan, 2001.

Diagnosis

Eating disorders are characterized by abnormal eating habits and cognitive distortions related to food and weight. The major characteristic of all eating disorders is weight preoccupation and

excessive self-evaluation (APA, 2000). There is a relentless obsession with food that is accompanied by an intense fear of weight gain (ADA, 2001). Over a lifetime, an individual may meet the criteria for more than one of the disorders, which suggests a continuum of disturbed eating habits and body image (ADA).

The onset of most eating disorders typically occurs during adolescence or early adulthood (APA, 2000). However, symptoms have been observed in patients as young as seven years of age. These young patients frequently display obsessional behaviors and depression and are far more frequently diagnosed with anorexia than bulimia.

Although the *DSM-IV* criteria call for the diagnosis of a specific eating disorder, the symptoms typically occur along a continuum between those of anorexia nervosa and bulimia nervosa, with many patients demonstrating a mixture of both disorders (APA, 2000). Consequently, as many as 50 percent of patients are diagnosed with eating disorders not otherwise specified (EDNOS) (ADA, 2001). The diagnosis of EDNOS appears to be particularly prevalent in adolescents. The classification encompasses individuals with symptoms of anorexia and bulimia nervosa who do not meet the threshold for official diagnosis, as well as individuals with binge eating disorder (ADA).

Clinicians should recognize, however, that the diagnostic criteria for eating disorders may not be entirely applicable to adolescents, due to the wide variability in rate, timing, and magnitude of height and weight gain during puberty (ADA, 2001). Furthermore, the absence of menses, one of the diagnostic criteria for females with anorexia nervosa, is difficult to ascertain during early puberty due to the unpredictability of menstrual periods at this age (ADA). It is also important for clinicians to keep in mind that other medical disorders may account for the low body weight observed in young patients (Murphy et al., 2001). A complete medical assessment should be conducted to rule out any potential underlying medical conditions.

While eating disorders are considered to be psychiatric in nature, they are distinct in the fact that the nutrition and medical-related problems can be life-threatening (ADA, 2001). As noted by the National Institute of Mental Health (NIMH) (2001), of particular concern is the increased mortality rate of individuals having the diagnosis, particularly among those with anorexia nervosa. Specifically, the mortality rate for anorexics has been estimated at 0.56 percent per year, which is about 12 times higher than the annual death rate for all causes of death among females ages 15-24 in the general population. According to NIMH, the most common causes of death in anorexics are complications of the disorder, such as starvation, cardiac arrest, electrolyte imbalance, and suicide.

Comorbidity

Common comorbid disorders, as listed in Table 2, include mood disorders (i.e. depression), anxiety disorders (i.e. obsessive-compulsive disorder), personality disorders (i.e. borderline personality disorder), and substance abuse disorders (ADA, 2001). Researchers have yet to determine whether these comorbid problems develop because of the isolation, stigma, and physiological changes brought on by eating disorders, or whether these conditions existed prior to the development of unhealthy eating habits (APA HelpCenter, 1998).

Table 2

Common Comorbid Disorders

- **Major depression or dysthymia** – diagnosed in 50 to 75% of patients with anorexia and bulimia nervosa
- **Obsessive-compulsive disorder** – as high as 25% in anorexia nervosa patients
- **Personality disorders** – occur in 42 to 75% of individuals diagnosed with eating disorders
- **Substance abuse disorders** – present in as many as 30 to 37% of bulimia patients and 12 to 18% of anorexics

Source: APA HelpCenter, 1998.

General Treatment Principles

Individuals with eating disorders are among the least likely to seek treatment (APA HelpCenter, 1998). However, once professional help is sought, these disorders can be successfully treated by an interdisciplinary team consisting of professionals from the medical, nutritional, and mental health disciplines (APA HelpCenter). It is important to recognize, however, that no single professional or discipline can provide all the necessary care that will improve the patient's chances of recovery (ADA, 2001). Rather, a comprehensive treatment plan should include medical care and monitoring, psychosocial interventions, nutritional counseling, and, when appropriate, medication management (National Institute of Mental Health, 2001).

The APA (2000) reports in its findings that treatment locations range from intensive inpatient settings, in which general medical consultation is readily available through partial hospital and residential programs, to varying levels of outpatient care. The weight, cardiac, and metabolic status of the patient are the most important physical parameters for determining the choice of setting. Patients who weigh less than 85 percent of their individually estimated healthy weights are likely to require a highly structured program, and possibly 24-hour hospitalization. Hospitalization should occur before the onset of medical instability as demonstrated by severely abnormal vital signs, and should be based on psychiatric and behavioral grounds. Specifically, once a patient begins to display a rapid decline in food intake and a dramatic loss of weight despite other treatments, treatment providers should strongly consider hospitalization. Furthermore, the presence of external stressors or comorbid psychiatric problems may have a significant impact on this decision.

Research has found that the sooner the disorder is recognized and treatment begins, the better the long-term outcome (NIMH, 2001). In general, adolescents have been found to have better outcomes than adults, with younger adolescents showing the most significant improvement (APA, 2000). It is important to note, however, that many patients display a limited response to treatment and will require long-term monitoring and intervention (U.S. Department of Health and Human Services, 2001). Patients with anorexia may be particularly difficult to treat because they are highly resistant to weight gain (Murphy et al., 2001). They are likely to exhibit a fear of losing control, and therefore are likely to resist all nutritional rehabilitation efforts (Murphy et al.). Thus, ethical considerations may arise during the course of treatment, and involuntary hospitalization may be the necessary course.

The following present current research for each of the three eating disorders: anorexia nervosa; bulimia nervosa; and binge eating.

Anorexia Nervosa

Approximately 0.5 to 3.7 percent of females suffer from anorexia nervosa in their lifetime (NIMH, 2001).

Table 3

Symptoms of Anorexia Nervosa

- Resistance to maintaining body weight at or above a minimally normal weight for age and height
- Intense fear of gaining weight or becoming fat, even when underweight
- Disturbance in perceptions of personal body weight, undue influence of body weight and shape in self-evaluation, or denial of the seriousness of the current low body weight
- Infrequent or absent menstrual periods in females who have reached puberty

Source: NIMH, 2001.

Treatment Methods for Anorexia Nervosa

The treatment of anorexia nervosa generally occurs in three primary phases: (1) restoring the weight lost by severe dieting and purging; (2) treating psychological disturbances such as distorted self-perception, low self-esteem, and interpersonal issues; and (3) achieving long-term, full recovery (NIMH, 2001).

Evidence-based Treatments

According to the APA (2000), the following treatment methods are most commonly utilized for anorexia patients:

- *Nutritional rehabilitation* – Considerable evidence suggests that nutritional monitoring is effective in helping patients return to a healthy weight, as long as it is conducted in the proper setting to meet the particular patient's needs. For severely underweight patients, inpatient treatment has been found to be most effective. Clinicians have reported that as weight is restored, other eating disorder symptoms diminish; however, they often do not disappear completely.
- *Family psychotherapy* –The goal of family therapy is to involve family members in symptom reduction and to deal with family relational problems that may contribute to the anorexia. Some studies have found that family therapy may actually have greater long-term benefits than individual psychotherapy. However, these findings are limited to generalizations due to the fact that the patients in these studies often were not assigned to receive both family and individual treatment, which commonly occurs in practice.
- *Inpatient behavioral programs* – These programs commonly provide a combination of nonpunitive reinforcers, such as privileges linked to weight goals and desired behaviors. They have been shown to produce good short-term therapeutic effects.
- *Pharmacological treatments* – Medications are used most frequently after weight has been restored in order to maintain weight and normal eating behaviors and to treat psychiatric symptoms. The most typical medications prescribed are antidepressants; however, they should

not be used in the acute phase of treatment for severely malnourished patients. Selective serotonin reuptake inhibitors (SSRIs) are frequently used for patients whose depressive, obsessive, or compulsive symptoms persist in spite of or in the absence of weight gain.

Unproven Treatments

Unproven treatments for anorexia patients cited by the APA (2000) include:

- *Individual psychotherapy* – The efficacy of this form of treatment remains uncertain. No controlled studies have reported whether cognitive behavioral psychotherapy or other specific psychotherapeutic interventions are effective for nutritional recovery. Clinicians generally agree that psychotherapy is almost always beneficial during acute refeeding; however, in starving patients, who are often negative, obsessional, or mildly cognitively impaired, this form of treatment may often be ineffective. Psychotherapy may, however, be a useful method in treating any co-occurring disorders.
- *Group psychotherapy* – Practitioners have found that group psychotherapy programs conducted during an acute phase among patients with anorexia may be ineffective and can sometimes have negative therapeutic effects, as patients may compete for who can be thinnest or exchange countertherapeutic techniques on simulating weight gain or hiding food.
- *12-Step Programs* – No data regarding the short- or long-term effectiveness of this form of treatment is available. However, use of addiction-based programs in isolation is discouraged, as patients will deprive themselves of the benefits of conventional treatments and may also be exposed to misinformation by well-meaning individuals in these groups.
- *Somatic treatments* – Vitamin and hormone treatments, electroconvulsive therapy, and other somatic treatments have been tried in uncontrolled studies. However, none has shown to have any significant therapeutic value to anorexic patients.

Contraindicated Medications

Tricyclic antidepressants should be avoided in underweight patients and in patients who are at risk for suicide (APA, 2000).

Bulimia Nervosa

An estimated 1.1 to 4.2 percent of females have bulimia nervosa in their lifetime (NIMH, 2001). There are two subtypes of bulimia: purging and non-purging (exercise and restrictive food intake). Table 4 lists the symptoms of the disorder.

Treatment Methods for Bulimia Nervosa

The primary goal of treatment with bulimic patients is to reduce or eliminate binge eating and purging behavior. According to NIMH (2001) nutritional rehabilitation, psychosocial intervention, and medication management strategies are therefore often used. Specifically, treatment includes the establishment of regular, non-binge meals, improvement of attitudes related to the disorder, encouragement of healthy but not excessive exercise, and resolution of any co-occurring disorders such as anxiety or mood disorders.

Table 4

Symptoms of Bulimia Nervosa

- Recurrent episodes of binge eating, characterized by consumption of excessive amounts of food within a discrete period of time and lack of control over eating during the episode.
- Recurrent inappropriate responses to binges in order to prevent weight gain, such as self-induced vomiting or misuse of laxatives and other medications (often referred to as purging), fasting, or excessive exercise.
- The binge eating and compensatory behaviors both occur, on average, at least twice a week for three months.
- Self-evaluation is unduly influenced by body shape and weight.

Source: NIMH, 2001.

Evidence-based Treatments

The following treatments are most commonly utilized in bulimic patients:

- *Cognitive behavioral psychotherapy* – This form of individual psychotherapy, when specifically directed at the eating disorder symptoms and underlying cognitions, is the intervention for which there is the most evidence of efficacy. It has been found to lead to significant reductions in binge eating, vomiting, and laxative abuse (APA, 2000).
- *Pharmacological treatments* – Psychotropic medications, primarily antidepressants such as the selective serotonin reuptake inhibitors (SSRIs), have been found to be helpful in treating bulimia. These medications are intended to reduce the frequency of disturbed eating behaviors, as well as to alleviate symptoms of comorbid disorders. Studies have found the use of antidepressants to be effective in reducing binge/purge behavior by a range of 50 to 75 percent. Most clinicians recommend continuing antidepressant therapy for a minimum of 6 months and preferably for a year (APA). Pharmacotherapy has been found to be especially effective for patients with symptoms of depression or anxiety for those who have not responded well to psychotherapy alone. It may also help to prevent relapse (NIMH, 2001).
- *Combined treatments* – Patients generally respond better to cognitive behavioral therapy than pharmacotherapy; however, the combination of these two methods has been found to be superior to either alone (APA).
- *Group psychotherapy* – Research indicates that this form of therapy has been found to have moderate efficacy. Many clinicians favor use of this in conjunction with individual psychotherapy (APA).

Unproven Treatments

- *Individual psychotherapy* (interpersonal, psychodynamic, and psychoanalytic approaches) – While there is support for these approaches in case studies and reports, the efficacy of these methods has not been supported by scientific data. When directly compared to cognitive behavioral therapy, most have been found in short-term trials to be less effective (APA, 2000).
- *Behavioral therapy* – Evidence regarding the efficacy of this form of treatment is conflicting. Specifically, exposure treatment has not been found to have additive benefits over a foundation of cognitive behavioral therapy (APA).

- *12-Step Programs* – Addiction-based programs are not recommended as the sole treatment approach for patients with bulimia nervosa, as they do not attend to nutritional considerations or behavioral deficits (APA).

Contraindicated Medications

- Bupropion has been associated with seizures in purging bulimic patients, and therefore should not be used in this population (APA, 2000).
- Monoamine oxidase inhibitors (MAOIs) are also potentially dangerous in patients with chaotic binging and purging; therefore their use should be limited (APA).

Binge Eating Disorder

Between two to five percent of Americans experience binge-eating disorder in a 6-month period (NIMH, 2001).

Table 5

Symptoms of Binge Eating Disorder

- Recurrent episodes of binge eating, characterized by consuming excessive amounts of food within discrete periods of time and a sense of lack of control.
- Marked distress about the binge-eating behavior.
- The binge eating occurs, on average, at least two days a week for six months.
- The binge-eating is not associated with regular use of inappropriate compensatory behaviors, such as purging, fasting, or excessive exercise.

Source: NIMH, 2001.

Binge eating disorder, while listed separately in the appendix of the *DSM-IV*, has not yet been recognized as an official psychiatric diagnosis. Researchers have found that the disorder is relatively rare in the community, but is common among patients seeking treatment for obesity (APA, 2000). It occurs much more frequently in adults than adolescents (APA).

Treatment Methods for Binge Eating Disorder

The treatment goals and strategies for binge eating disorder are similar to those for bulimia nervosa. The primary difference in the two disorders is that patients with binge eating disorder present difficulties associated with being overweight, rather than being malnourished. Thus, they suffer from different medical ailments that are frequently associated with overweight populations, such as high blood pressure, high blood cholesterol levels, diabetes, and heart disease (APA, 2000). Consequently, the treatment strategies tend to diverge only in the nature of medical interventions.

Because binge eating disorder has only recently been recognized, little research exists on effective treatment strategies (NIMH, 2001). The creation of a diagnostic classification will allow this group of patients to be studied further from a clinical research perspective, and thus will allow them to receive more accessible and appropriate treatment (Brewerton, 1997). NIMH reports that studies are currently evaluating the effectiveness of various interventions. Their research has shown that treatments which disrupt the binge-eating cycle and establish a structured pattern of eating allow the patient to experience less hunger, deprivation, and negative feelings about food and

eating. Additionally, the two factors that increase the likelihood of bingeing—hunger and negative feelings—are reduced, decreasing the frequency of binges.

Unproven Treatments

Unproven treatments for binge eating disorder patients cited by the APA (2000) include:

- *Nutritional rehabilitation and counseling* – Restrictive diets employed with group behavioral weight control programs have been associated with substantial initial weight loss, but are often less effective during or following the refeeding stage. Weight is commonly regained during this period.
- *Psychotherapy* – Behavior therapy, cognitive behavioral therapy, and interpersonal therapy have all been associated with binge frequency reduction rates. However, deterioration follows during the follow-up period for each of these types of therapy.
- *Addiction-based and self-help organization programs* – No systematic outcome studies of these programs are available.
- *Pharmacological treatments* – Antidepressants are typically used in binge eating disorder and related syndromes. However, there is a very high placebo response rate (around 70 percent), and patients tend to relapse after medication is discontinued.
- *Combined psychosocial and medication treatments* – The combination of medication with psychotherapy has been associated with significantly more weight loss than psychotherapy alone.

Cultural Considerations

A wide range of demographics has been observed in eating disorder patients (ADA, 2001). The disorders appear to be more common among Native Americans, while equally prevalent in Hispanic and Caucasian populations and less common among Asians and African-Americans (APA, 2000). Researchers have also found that black women are more likely to develop bulimia nervosa than anorexia and are more likely to purge with laxatives than by vomiting (APA).

Because values concerning weight and shape vary among different cultures, clinicians must be mindful of patients' specific views on beauty, acceptance, and what it means to be "perfect" in the modern world (APA, 2000). Patients who are minorities or are from non-Western or other cultural backgrounds are likely to display different weight and shape concerns.

It is also important to note that anorexia nervosa is detectable in all social classes. Thus, higher socioeconomic status does not appear to be a major factor in the incidence of these disorders, as once was surmised by clinicians (ADA, 2001).

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Additional Resources/Organizations

Harvard Eating Disorders Center - http://www.hedc.org.

National Association of Anorexia Nervosa and Associated Disorders - http://www.anad.org.

National Eating Disorders Association - http://www.nationaleatingdisorders.org.

National Institute of Mental Health (NIMH) - http://www.nimh.nih.gov.

JUVENILE FIRESETTING

Introduction
Etiology
Profile of a Firesetter
Environmental Issues
Comorbidity
Elements of Effective Treatments
Promising Treatment Approaches
Cognitive Behavioral Therapy and Fire Safety Education
Treatment Settings
Treatment in a Residential Facility
Foster Care
Inpatient Hospitalization
Ineffective Treatments
Conclusion

Introduction

When juvenile delinquency is mentioned, arson is not usually the first type of offense that comes to mind. However, juveniles are arrested for a greater share of this crime than any other age group (Office of Juvenile Justice and Delinquency Prevention (OJJDP), 1997). All forms of arson cause hundreds of millions of dollars in damages annually and thousands of needless injuries and deaths.

Juvenile firesetters are typically defined as children or adolescents who engage in firesetting (Slavkin, 2000). Historically, juvenile firesetting has been viewed as a problem particular to "curious kids" (USFA/FEMA, 1997). Fires set by children playing with matches and lighters tend to be categorized as "accidental" or "children playing." However, juvenile firesetting includes the deliberate destruction of property by juveniles through fire, which sometimes results in casualties (USFA/FEMA).

Federal Bureau of Investigation statistics for 1995 show that juveniles accounted for 52 percent of arson arrests (OJJDP, 1997). Although legal definitions of arson vary from state to state, if an evaluation reveals that there is sufficient evidence of malicious and willful firesetting, the juvenile may be charged with arson (OJJDP).

Table 1

Facts on Juvenile Firesetting
• Juveniles account for half of all people arrested for arson. • In 1997, juvenile firesetting accounted for more than 280 deaths and 2,400 injuries annually • The annual property loss, as well as the cost of providing protection from these fires easily reached more than $250 million.

Source: National Association of State Fire Marshals, 2001

Etiology

At this point in time, specific information is not available about juvenile firesetting. Most attention to firesetting has been included within broader categories of delinquency and aggression in children (Kazdin, as cited in Slavkin, 2000). However, no separate review of firesetting from a developmental framework has been performed and it is believed that juvenile firesetting, much like other forms of delinquency and aggression in juveniles, can be explained as examples of problem behaviors. To explain a problem behavior as complex as firesetting, both individual and environmental predictors must be examined simultaneously (Magnusson & Endler, as cited in Slavkin).

Researchers are attempting to gather data about the children and their families that are firesetters, the factors driving their behavior, and the number of firesetting incidents associated with a child or adolescent who is being screened for firesetting behavior—even if a fire department has never responded to one of these fires (Wilcox, 2000). Further systematic study of this behavior is necessary in order to both understand this behavior and in order to design effective interventions for this behavior.

According to the United States Fire Administration, there is a general consensus as to what motivates children to become involved with fire. Curiosity motivates a significant portion of fire involvement. Developmental studies report that 40 percent of all children have engaged in fire play. These children are by nature risk takers and learn by doing. This trait combined with ready access to matches and lighters, the belief that parents would not punish them, a poor understanding of fire, and lapses in supervision, accounts for many thousands of fires every year (USFA/FEMA, 1997).

Profile of a Firesetter

According to Slavkin, while only 10 percent of juveniles who are arrested are juvenile firesetters, juvenile firesetters are more likely to be involved in a greater proportion of arrests overall when compared to other arrested juveniles. Firesetters also engage in property destruction and crimes of physical aggression, such as forcible rape (11 percent), nonviolent sexual offenses (18 percent), vandalism (19 percent), and arson (35 percent) (Williams, as cited in Slavkin, 2000). Furthermore, adolescent firesetters have higher levels of antisocial behaviors, higher levels of aggression, and are more likely to connect their deviance with covert, aggressive expressions when compared with other firesetters (Slavkin).

In all juvenile arson cases, the intensity and enormity of the fire tends to escalate with age, with the "bigger the child, the bigger the fire" (Little, 1998). The average age of the firesetter is 11 (Little, 1998). The majority (80 percent) of juvenile firesetters are males with the majority of juvenile arsons being committed by middle class Caucasian males (Little). The most common factor among all juvenile firesetters is a severely disturbed home environment with only one or no biological parents present in the home (Little). However, the strongest predictor of recidivism is the juvenile being in a home with a significant number of family problems (USFA/FEMA, 1997). A pattern or history of multiple problems exists with firesetters. True juvenile arson is committed by a child who escalates to this stage of destructiveness then a sequence of firesetting begins (Little).

Another feature many juvenile firesetters exhibit is that of poor school work performance. Depending upon the age group, they may also have a history of truancy, disruptive behavior or

hyperactivity (Little, 1998). Poor relationships with peers and the inability to form close friendships is another common feature among juvenile firesetters. They tend to be social misfits. They lack assertiveness and can be easily manipulated and vulnerable to others. Some statistics show sexual abuse in both males and females is another common pattern for the juvenile arsonist. But the statistics to support this belief are limited, as until recently few questions were ever put to juvenile male firesetters regarding sexual abuse.

Environmental Issues

Further consideration should be given to the environmental characteristics that relate to juvenile firesetting. Variability in problem behaviors stems largely from differences in perceptions of environmental characteristics (Slavkin, 2000). Family, school and peer problems are major influences that may promote firesetting and the continuation of patterns of firesetting (Kolko & Kazdin, as cited in Slavkin). Moderate youth firesetting has been associated with limited family sociability, whereas recidivism has been associated with lax discipline, family conflict, limited parental acceptance, and family affiliation (Kolko & Kazdin, as cited in Slavkin). Parental influences such as limited supervision and monitoring, early learning experiences and cues with fire, parental distance and uninvolvement, and parental pathology have been identified as predictors of juvenile firesetting (Kolko & Kazdin, as cited in Slavkin).

Comorbidity

Clinical studies that have examined juvenile firesetters find that many of these children have conduct and aggression problems. Kolko, as cited by Slavkin (2000), found that early childhood firesetters can be characterized as having multiple behavior problems with few internalizing behaviors, such as depression, but many externalizing behaviors, such as rule breaking, aggression, and destruction. Some children are diagnosed as having attention deficit-hyperactivity disorder (USFA/FEMA, 1997). In a sample of hospitalized firesetters, Dr. David Kolko at the University of Pittsburgh, Medical Center performed a study and found a higher level of delinquency, aggressiveness, and hyperactivity compared to hospitalized children with no history of firesetting (USFA/FEMA). Moreover, these children were less socially skilled, more aggressive, and presented with learning disabilities (USFA/FEMA).

Elements of Effective Treatments

Seven components common to effective juvenile firesetter programs have been identified and are described below (OJJDP, 1997).

1. A program management component to make key decisions, coordinate interagency efforts, and foster interagency support.
2. A screening and evaluation component to identify and evaluate children who have been involved in firesetting.
3. An intervention services component to provide primary prevention, early intervention, and/or treatment for juveniles, especially those who have already set fires or shown an unusual interest in fire.
4. A referral component to link the program with the full range of agencies that might help identify juvenile firesetters or provide services to them and their families.
5. A publicity and outreach component to raise public awareness of the program and encourage early identification of juvenile firesetters.

6. A monitoring component to track the program's identification and treatment of juvenile firesetters.
7. A juvenile justice system component to forge relationships with juvenile justice agencies that often handle juvenile firesetters.

Promising Treatment Approaches

There is no single identified treatment that is effective for treating this behavior. However, many treatments utilized have proven beneficial in the management of this behavior. Many of these treatments are appropriately applied to firesetters with consideration for their age (Slavkin, 2000).

Cognitive Behavioral Therapy and Fire Safety Education

Cognitive behavioral therapy and fire safety education were found to significantly curtail firesetting and match play behaviors up to a year after intervention (Mental Health Weekly, 2001). Structured treatments designed to intervene with children who set fires were also found to have great effect in the long-term than a brief visit from a firefighter (Mental Health Weekly). Both cognitive behavioral therapy and fire safety education were also shown to be effective at reducing other activities associated with firesetting, such as playing with matches and being seen with matches or lighters (Mental Health Weekly).

Irrespective of the seriousness of an incident or the child's motive in starting a fire, education regarding fire should be part of the intervention strategy. Such education should include information about the nature of fire, how rapidly it spreads, and its potential for destructiveness (USFA/FEMA, 1997). Information about how to maintain a fire safe environment, utilizing escape plans and practice, and the appropriate use of fire have been shown to be effective parts of comprehensive arson intervention programs, at least for younger juveniles (USFA/FEMA).

Treatment Settings

Sometimes it is determined that the juvenile should be confined to a secure facility, residential treatment center, or hospital, although treatment for firesetting usually occurs in the least restrictive environment, depending on the seriousness of the offense and based on the needs of the child, (USFA/FEMA, 1997). Although many juvenile firesetters can be maintained in the community with appropriate supervision, careful assessment is crucial in order to provide the appropriate level of care (USFA/FEMA). Such an assessment must consider the child, family, environment, facts about the fire and other fire history, as well as the child's reaction to the fire and sense of accountability (USFA/FEMA). In addition, consideration should be given to ensure that the juvenile does not pose a risk to others and the public safety is protected.

Treatment in a Residential Facility

Many programs will not admit a juvenile with a history of firesetting for fear that the child will burn the facility (USFA/FEMA, 1997). However, residential treatment can provide a safe and comprehensive setting for providing treatment to firesetters and provide treatment for any other co-occurring or familial issues.

Foster Care

There is a strong link between neglect and abuse and firesetting, so placing a child in a safe, supervised family setting can be very effective. When firesetting occurs as a result of neglect or abuse, the removal of the outside stressors can often cause the firesetting behavior to cease

(USFA/FEMA, 1997). Certain foster homes can be classified as "intensive" foster homes to allow for these difficult types of placements (USFA/FEMA). Considerable attention is placed on fire safety practices and the foster parents receive in depth training in working with difficult adolescents. Such training includes communication and problem solving skills, supervision and restraint, behavior management and fire safety education for prevention and intervention (USFA/FEMA). The children in foster care receive counseling, additional support services and the firesetter's parents are included as a component in the treatment plan (USFA/FEMA).

It is very important that the risk be acknowledged in this and any other community based treatment intervention. Emphasis is placed on training and making the firesetter aware of the potential dangers of firesetting (USFA/FEMA, 1997).

Inpatient Hospitalization

Although inpatient facilities may also be reluctant to accept children with a history of firesetting, inpatient treatment is effective in treating these children when an effective treatment protocol is in place (USFA/FEMA, 1997).

Dr. David Kolko at the University of Pittsburgh Medical Center has successfully treated firesetters in an inpatient treatment setting (USFA/FEMA, 1997). Intensive individual, group, and family counseling with a cognitive treatment approach is utilized. This treatment approach challenges the child's rationalizations behind the firesetting behavior. A skills based approach is employed with particular emphasis placed on providing interpersonal and problem solving skills (USFA/FEMA).

Ineffective Treatments

It is important to acknowledge that while simple curiosity of fire is normal, firesetting is not and that this behavior can be deadly. Leaving the child untreated, as recent studies have shown, is not beneficial as children usually do not outgrow this behavior (Waupaca Area Fire District, Juvenile Fire Setting, 2002). Accordingly, the problems must be dealt with to prevent the fires from increasing in number and intensity. Also, past notions of burning the child to make them cease the undesired behavior is unfounded and shown to have no benefit (Waupaca Area Fire District, Juvenile Fire Setting).

Conclusion

In conclusion, current theories suggest that juvenile firesetting stems from the most obvious possible cause, a childhood environment filled with multiple and overwhelmingly negative factors. Furthermore, firesetting behaviors appear to differ as a result of both individual and environmental circumstances. The unique circumstances and characteristics of individual fire setters requires extensive evaluation to determine the best course of treatment. An appropriate review of firesetting should include an examination of the firesetter's history; such as with prior fire learning experiences, cognitive and behavioral reviews, and parent and family influences and stressors (Slavkin, 2000).

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For further information, see the following sources:
International Association of Arson Investigators. http://www.fire-investigators.orginterFIRE VR www.interfire.com.

National Juvenile Firesetter/Arson Control and Prevention Program publications, contact OJJDP's Juvenile Justice Clearinghouse at 800–638–8736.

FEMA's Fax-On-Demand at 202–646–FEMA; or consult the U.S. Fire Administration's home page on the World Wide Web at http://www.usfa.fema.gov/.
Office of Juvenile Justice and Delinquency Prevention U.S. Department of Justice Juvenile Justice Clearinghouse 800-638-8736

U.S. Fire Administration Federal Emergency Management Agency http://www.usfa.fema.gov.

<u>USFA/FEMA RESOURCE LIST</u>
Primary Prevention School Curriculum and Programs

CTW'S Fire Safety Project
Sesame Street Fire Safety Resource Book
Contact: Children's Television Workshop
1 Lincoln Plaza
New York, NY 10023
(212) 595-3456

Learn Not to Burn

The Juvenile Crime Prevention Curriculum
Contact: Public Relations Department
The St. Paul Companies
385 Washington Street
St. Paul, MN 55102

Follow the Footsteps to Fire Safety
Contact: City of St, Paul

Contact: National Fire Protection Assn.
1 Batterymarch Park, P.O. Box 9101
Quincy, MA 02269
(617) 770-3000

Knowing About Fire
Contact: Paul Schwartzman
National Fire Service Support Systems
20 North Main Street
Pittsford, NY 14534
(716) 264-0840

Fire Safety Skills Curriculum
Contact: Judy Okulitch
Program Manager
Office of the State Fire Marshal
3000 Market Street, NE, #534
Salem, OR 97310
(503) 378-3475

Department of Fire and Safety Services
Fire Prevention Division
100 East Eleventh Street
St. Paul, MN 55101
(612) 228-6203

Project Open House
Contact: Richard A. Marinucci
Farmington Hills Fire Department
28711 Drake Road
Farmington Hills, MI 4833l-2525
(313) 553-0740
Kid 's Safe Program
Contact: Fire Safety Education Curriculum
for Preschool Children
Oklahoma City Fire Department Public
Education
820 N.W. 5th
Oklahoma City, OK 73106
(405) 297-3314

SELF INJURY

Introduction
Etiology
Invalidating Environment
Physical Causes
Comorbidity
Treatment
Promising Treatment Approaches
Therapy Principles
Pharmacological Treatment
Hospitalization

Introduction

Self injury (SI), also called self mutilation or cutting, is a highly stigmatized emotional disorder. According to Focus Adolescent Services (FAS) (2001), approximately one percent of Americans suffer from SI. While SI can occur in people regardless of age, gender, ethnicity, or socioeconomic status (FAS), much of the discourse is centered on adolescents, as this behavior tends to begin during adolescence (Boesky, 2002). However, groups at risk for SI have been defined as those with borderline personality disorder (particularly females age 16 to 25), those who are in a psychotic state (mainly young adult males), children who are emotionally disturbed and/or battered, children who are mentally retarded or autistic, those with a history of self injury, and those with a history of physical, emotional or sexual abuse (Mosby, 1994, as quoted in Martinson).

SI is the repetitive, deliberate infliction of harm to one's own body. Injuries are severe enough to cause tissue damage and include cutting, carving, scratching, burning, bruising, biting, hitting, bone-breaking, skin picking, hair pulling, branding, and marking (Martinson, 1998; Boesky, 2002). SI is thought to be a maladaptive coping mechanism that is utilized when the self injuring youth experiences highly stressful or emotionally overwhelming circumstances. Many youth who engage in SI describe an immediate relief from psychological and physiological tension as the act is completed (Martinson, Boesky). For some, the production of pain is a component of the tension relief, while for others the blood-letting is what becomes necessary to gain a sense of relief.

Table 1

Risk Factors for Self Injury

- Being a member of an at-risk group
- Inability to cope with increased psychological/physiological tension in a healthy manner
- Feelings of depression, rejection, isolation, self-hatred, separation anxiety, guilt and depersonalization
- Command hallucinations
- Need for sensory stimuli
- Dysfunctional family

Source: Mosby, 1994, as quoted in Martinson.

Research has shown that SI is seldom an attempt at suicide. While some believe it to be in the spectrum of suicidal behavior, there is growing recognition that SI represents a different pattern of interpersonal dynamics that is distinct from clear suicidal intent. Favazza, as quoted in Martinson in 1998, states, "…a person who truly attempts suicide seeks to end all feelings, whereas a person who self-mutilates seeks to feel better." Additionally, SI is generally not associated with sexual gratification, body decoration (piercing and tattooing), cultural rituals that induce spiritual enlightenment, or trying to be cool or fit in (FAS). There are, however, clusters of peer group acceptance of this behavior.

Etiology

Studies have shown that physical or sexual abuse and trauma are commonly associated with SI. A 1991 study found that exposure to sexual or physical abuse, emotional or physical neglect, and chaotic family conditions during childhood, latency, and adolescence strongly predicts the number and severity of cutting incidents (Van der Kolk et al., 1991, as cited in Martinson). However, some self injurers never suffered childhood abuse. A 1994 study by Zweig-Frank et al. found no association among abuse, dissociation, and SI among patients diagnosed with borderline personality disorder (Martinson, 1998).

Invalidating Environment

Abuse aside, it has been suggested that growing up in a chronically invalidating home environment may be a chief factor for SI. Linehan (1993, as cited by Martinson) defines an invalidating environment as one in which the communication of private feelings is met by erratic, inappropriate, or extreme responses. That is, expressing one's private emotions (painful or otherwise) is not validated, but is instead constantly punished or trivialized, thus dismissing the child's interpretation of his own actions or behaviors, as well as his behaviors' intentions and motivations. Such persistent invalidation, Linehan concluded, can lead to subconscious self-invalidation and self-distrust and feelings of "I never mattered."

Physical Causes

Studies have shown that low serotonin levels in the brain are associated with SI in some cases. Researchers have found that self injurers have fewer platelet imipramine binding sites, which is a marker of serotonin activity. Studies done by Stoff et al. (1987), Birmaher et al. (1990) and others link low numbers of platelet imipramine binding sites to impulsive behavior and aggression (Martinson, 1998). Thus, it appears that SI may have similarities to other impulse control disorders such as kleptomania or compulsive gambling.

Comorbidity

Children with autism or mental retardation often exhibit self injuring behavior. Other conditions with which SI is seen include Borderline Personality Disorder, Mood Disorders, Eating Disorders, Obsessive-Compulsive Disorder, Post-Traumatic Stress Disorder, Dissociative Disorders, Anxiety and/or Panic Disorder, and Impulse Control Disorder Not Otherwise Specified. However, it is important to note that, while many self injurers may be labeled as or diagnosed with one or more of these conditions, not all self injurers meet the criteria for these conditions. Clinical studies examining the link between SI and some of these conditions have yet to be done (Martinson, 1998).

Treatment

In treating SI, understanding the dynamics of the disorder and providing structure, safety, and consistency are crucial. The key to helping an adolescent stop engaging in SI as a coping mechanism or stress reliever is to understand why the youth self injures. Self injuring youth should have access to non-judgmental, compassionate medical care for their self inflicted wounds that does not take away their dignity or autonomy (Dallam, 1997 as cited in Martinson). Current approaches to the successful treatment of SI relies heavily on teaching children and adolescents new ways of coping with stressors so that underlying painful feelings can be dealt with (Martinson). Also, it is helpful for the mental health provider to assess whether there are any comorbid disorders and ascertain any implications this would have on treatment.

There are neither proven treatments for SI nor certainty about which forms of psychosocial and physical treatments are most effective. To date, studies have been inconclusive due to the insufficient number of patients in trials (Hawton, 2002). There is a need for further study in order to ascertain evidence-based treatments that have proven effectiveness. Efficacy of treatment interventions for SI has been measured by the rate of repeated suicidal behavior, but other measures, such as compliance with treatment, depression, hopelessness, and reduced rates of repetition of deliberate self-harm, need to be examined (Hawton).

Promising Treatment Approaches

Treatment for SI may depend on the combination of dangerous behaviors which the child displays. Treatments shown to have promising results include the following:

> *Cognitive Behavioral Therapy* - Cognitive behavioral therapy can be used to help combat the cognitive distortions and the belief that SI is an acceptable way to manage feelings (Beck, 1995, as cited in Jones, 2001).
>
> *Behavior Modification* - Behavior modification may be used to eliminate some behaviors while establishing others (Jones). Psychodynamic therapy may be used to identify the lack of attachment (Hughes, 1998, as cited in Jones).
>
> *Addictions Model* - An addictions model may be useful in very chronic cases. The addictions model is used to help the child or adolescent develop a sense of control over their life in other, more realistic ways. This model emphasizes techniques that help in building time between having the urges and acting on those urges (Alderman, 1997, as cited in Jones).

Therapy Principles

Therapy focuses on helping the self injuring youth to:

- tolerate greater intensities without resorting to self-harm;
- develop the ability to articulate emotions and needs; and
- learn alternative, healthy means for discharging these feelings, such as problem-solving, conflict resolution, anger management, and assertiveness training (Rosen, Suyemoto & MacDonald, 1995, as cited by the Suicide Information & Education Centre, 2001).

Pharmacological Treatment

Medications such as Selective Serotonin Reuptake Inhibitors (SSRIs) and opiate antagonists have been studied to control SI, but evidence of the effectiveness of pharmacological treatment of

this behavior is inconclusive (Martinson, 1998). However, it appears that so far the most promising treatments are high-dose SSRIs and, in some cases, atypical neuroleptics (Martinson). For many individuals, a trial of medication may be a part of the treatment. There is virtually no situation in which medication alone would be appropriate treatment.

Hospitalization

Hospitalization is usually used as a last resort in the treatment of SI. Self injuring youth are hospitalized in order to prevent them from hurting themselves, and intensive individual and group therapy, as well as medications, are readily available (Clarke, 1999, as cited in SIEC). However, hospitals are "artificially safe" environments, and it is more important to understand the feelings behind the self injuring behavior and to teach better coping mechanisms that can be practiced in the real world (Martinson, 1998).

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TOURETTE'S DISORDER

Introduction
Diagnosis
Etiology
Comorbidity
Promising Treatments
Behavior Treatments
Pharmacological Treatment
Unproven Treatments
Other Important Treatment Elements
Cultural Considerations

Introduction

Tourette's disorder is an inherited neurological disorder characterized by repeated involuntary motor and vocal tics (Murphy et al., 2001). A tic is defined as a sudden, quick recurrent, nonrhythmic motor movement or vocalization (Murphy et al.). The diagnosis of Tourette's disorder is generally made before the child's 18th birthday. However, the symptoms of Tourette's disorder generally appear between 5 and 10 years of age, and usually begin with mild, simple tics involving the face, head, or arms (The Medical Center Online, 2002). With time, tics become more frequent and increase in variety, involving more body parts such as the trunk or legs, and often become more disruptive to activities of daily living (The Medical Center Online).

In all patients diagnosed with Tourette's disorder, sudden, explosive outbursts of behavior are reported in approximately 25 percent of patients, but with such outbursts occurring more frequently in children than adults (Budman et al., 2000). Such volatile outbursts in children with Tourette's disorder are usually accompanied by feelings of mounting tension and spontaneous activation (Budman et al.).

Table 1

Facts about Tourette's Disorder

- Tourette's disorder is a tic disorder.
- It is rare and more commonly found in males by a ratio of 3:1.
- When diagnosing Tourette's disorder, Wilson's and Huntington's diseases must be ruled out.
- It is treated with patient/family support and maybe high-potency neuroleptics.

Source: Murphy et al., 2001.

Usually, facial tics such as rapid eye blinking or twitches of the mouth are the first indication to parents that their child may have Tourette's disorder (NAMI, 2002). In other children, tics of the limbs or involuntary sounds, such as throat clearing and sniffing, may be initial signs. Furthermore, vocal tic activity usually involves loud grunting, but may also include word shouting, with the

words sometimes being obscenities. This type of activity is called coprolalia (Murphy et al., 2001). However, only 15 percent of all patients diagnosed with Tourette's disorder manifest this symptom (Tourette Syndrome Association, 2002). The natural course of Tourette's disorder varies and although Tourette's disorder symptoms can be very mild or quite severe, the majority of cases fall in the mild category (The National Institute of Neurological Disorders and Stroke, 1999).

Diagnosis

An evaluation of the child's family history, along with general observation of the symptoms, is the most common method for diagnosing Tourette's disorder. However, before a diagnosis of Tourette's disorder is made, both motor and phonic tics must have been present for at least one year (The National Institute of Neurological Disorders and Stroke of the National Institutes of Health, 1995). Neuroimaging studies may be used to rule out other conditions that might be confused with Tourette's disorder, but there are no specific laboratory tests that definitively diagnose the disorder (The National Institute of Neurological Disorders and Stroke).

Etiology

Tourette's disorder is highly hereditary, with evidence supportive of genetic transmission (Murphy et al., 2001). However, no clinical studies have been performed to link the gene.

Further studies have shown that Tourette's disorder is an autosomal dominant disorder. This means that both males and females are affected, and one copy of the gene is necessary to have the condition (The Medical Center Online, 2002). A parent has a 50 percent chance of passing the gene to a child (NAMI, 2002). However, complications of pregnancy, low birth weight, head trauma, carbon monoxide poisoning, and encephalitis are thought to be associated with the onset of non-genetic Tourette's disorder (The Medical Center Online).

Table 2

Categories of Tics

Simple

Motor—Eye blinking, head jerking, shoulder shrugging and facial grimacing

Vocal—Throat clearing, yelping and other noises, sniffing and tongue clicking

Complex

Motor—Jumping, touching other people or things, smelling, twirling about, and only rarely, self-injurious actions including hitting or biting oneself

Vocal—Uttering words or phrases out of context and coprolalia (vocalizing socially unacceptable words)

Source: Tourette Syndrome Association, Inc., 2002.

Comorbidity

According to the National Alliance for the Mentally Ill (NAMI) 40 percent of children and adolescents who have Tourette's disorder also have attention problems. Thirty percent have academic difficulties. In fact, it is thought that approximately 50 percent of children with Tourette's disorder meet criteria for attention deficit hyperactivity disorder (ADHD). However, most have a

normal intelligence and do not usually have primary learning disabilities. Some—25 to 30 percent—also experience symptoms of obsessive-compulsive disorder or have other forms of anxiety. Learning disabilities are common as well as developmental stuttering. Social discomfort, self-consciousness and depressed mood frequently occur, especially as children reach adolescence.

Promising Treatments

There is no standard treatment modality for Tourette's disorder (Christophersen & Mortweet, 2001). Because manifestations of Tourette's disorder can be quite variable, children should be evaluated with great care in order to determine which aspects of the disorder are most disabling. For most children, this can serve as a guide to specifically target treatment interventions.

The development of a child diagnosed with Tourette's disorder may proceed normally and there may be no need for treatment (The Medical Center Online, 2002). However, if tics interfere with functioning or school performance or other disorders also present treatment may be necessary. Children with Tourette's disorder can generally function well at home and in school. If they have accompanying emotional or learning problems, they may require special classes, psychotherapy, and/or medication (The Medical Center Online).

When symptoms interfere with functioning, medication can effectively improve attention span, decrease impulsivity, hyperactivity, tics, and obsessive-compulsive symptom. However, behavioral interventions may also be useful for tics and symptoms associated with any co-occurring disorders (NAMI, 2002).

Behavior Treatments

Positive reinforcement programs appear to be most helpful in the management of tic disorders (Bagheri, 1999). Goals for target behaviors may be categorized into two groups: (1) skill deficiencies, or areas that initially require concentration to build social and academic skills; and (2) behavior excesses, in which the goal is to help the patient decrease the frequency of these behaviors (Bagheri). It is imperative that caution is employed in the management of behavior excesses, since some children who undergo behavior modification to target the Tourette's syndrome symptoms have an exacerbation of symptoms (Bagheri).

Habit covariance - refers to behaviors which, although different, frequently occur together. When one behavior changes, the other will as well. In children with Tourette's disorder, behavior treatments can prove effective for eliminating problem behaviors. However, all behaviors must be evaluated in term of age-appropriateness and properly assessed as not being appropriate for the child's age and relating to the disorder. Treating habit disorders must be implemented by a service provider with adequate training in order to be effective.

Habit reversal – may be effective in treating symptoms associated with Tourette's disorder. Habit reversal focuses on awareness, motivation, correction and prevention. Treating habit disorders must be implemented by a service provider with adequate training in order to be effective.

Source: Christophersen & Mortweet, 2001.

Pharmacological Treatment

Medication therapy can be utilized if the symptoms of Tourette's disorder are not amenable to non-drug interventions. Medication should be chosen based on the specific symptoms as well as potential side effects of the medication. For example, in one patient, treatment of the tic may be the goal, while treatment of obsessive-compulsive features may take precedence in another (Kurlin, 2002). Dosages should be adjusted to the lowest appropriate level.

Most children with Tourette's syndrome require medication for up to one to two years, with 15 percent requiring long-term medication for tic control (Bagheri, 1999). When tics appear to be controlled for a long period, a slow and gradual reduction in medication should follow (Bagheri).

As noted by Bagheri (1999), many patients with Tourette's syndrome have comorbid conditions and treatment for these conditions may be necessary. Treatment of comorbid ADHD has been controversial because of reports that stimulants hasten the onset or increase the severity of tics in some patients. However, stimulants alone may not substantially worsen the severity of the disorder and it may prove necessary to treat both the ADHD and the Tourette's syndrome with a stimulant in combination with either clonidine or guanfacine, or with a neuroleptic agent. However, according to Bagheri, the use of several drugs or medicines together in the treatment of Tourette's disorder should be minimized, especially in children (Bagheri). Table 3 shows different pharmacotherapy used with symptoms associated with Tourette's disorder.

Table 3

Pharmacotherapy of Tourette's Disorder

Tics	
Neuroleptics	Clonidine
Haloperidol	Other Drugs
Pimozide	Botulinum Toxin*
Fluphenazine	
Others	
Obsessive-Compulsive Disorder	
Clomipramine	Sertraline
Fluoxetine	
Attention Deficit Hyperactivity Disorder	
Clonidine	Stimulants
Tricyclic antidepressants	Methylphenidate
	Pemoline
	Dextroamphetamine

*Recent research has shown that for a small number of patients who prove resistant to the motor medications, injections of botulinum toxin might be helpful.

Source: Kurlan, R., 2002.

Furthermore, according to Bagheri (1999), the treatment of the co-occurring obsessive-compulsive disorder with selective serotonin reuptake inhibitors (SSRIs) may prove effective. However, there is often a delay between commencement of medication and the intended

pharmacological response. Moreover, this response may take as long as four to six weeks (Bagheri). Behavior therapy may also be used in treating the co-occurring disorder of obsessive-compulsive disorder.

Unproven Treatments

Research has shown the lack of evidence to support several treatments for Tourette's disorder. One such treatment is plasma exchange or intravenous immunoglobulin (IVIG), treatment. In fact, the National Institute of Mental Health (NIMH) has advised that there is no evidence of their efficacy in children with Tourette's disorder and both treatments carry a potential for significant adverse reactions (NIMH, 2000).

Other Important Treatment Elements

It is important to realize that simple inattention or hyperactivity by itself is not sufficient for diagnosis.

Cultural Considerations

In other countries, the prevalence of Tourette's disorder is similar to that seen elsewhere. However, the understanding of the disorder varies significantly in that tic symptoms are not considered to be a problem and are not usually mentioned to physicians (Mathews, 2001). Families consider the tics to be bad habits, and health care professionals, when consulted, often feel likewise. In Latin America countries such as Costa Rica, tics and obsessive symptoms presented by children with Tourette's disorder may be considered to be annoying and perhaps unattractive but not otherwise noticed (Mathews). Tics may even be thought to be voluntary in nature.

For example, symptoms that would be reported as causing significant impairment in children from the United States were often reported as having little or no impact, primarily because the needs and expectations of these cultures were different (Mathews, 2001). Studies reveal that, because concepts such as impairment can be culturally defined, DSM-IV and similar diagnostic criteria are not always adequate for purposes of identifying Tourette's disorder as a true mental health disorder. Such views certainly impact diagnosis and treatment.

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www.aafp.org/afp/990415ap/990415f.html.

Children and Adults with Attention Deficit/Hyperactivity Disorders (CHADD):
8181 Professional Place, Suite 201, Landover, MD 20785
CHADD National Call Center (800) 233- 4050 - Business (301) 306-7070
FAX (301) 306-7090
www.chadd.org

Information about obsessive-compulsive disorder is available from the Obsessive-Compulsive Foundation, Inc. (OCF)
90 Depot St., P.O. Box 70 - Milford, CT 06460-0070 - telephone: 203-878-5669

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