

CONCEPTUALIZATION OF CHILDREN AND ADOLESCENTS WITH TOURETTE
SYNDROME AND A COMPLEX PRESENTATION OF COMORBIDITY

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ABSTRACT

Tourette Syndrome (TS) is a disorder that begins in childhood. Children and adolescents with TS are commonly affected by a complex picture of comorbid disorders.

Psychological conceptualization and treatment of children and adolescents with TS is a challenge for many clinicians. In response to this challenge, this project serves as a Conceptualization Guide for mental health clinicians who are working with children and adolescents with TS. The Guide is intended to aid the psychological treatment of individuals with TS by providing detailed instructions on how to conceptualize a TS case. To do so, the Guide provides information that is intended to foster an understanding of the etiological and maintaining factors of reported problems. Also, the Guide describes a structured approach to assessing, formulating, and treatment planning for a TS case. This approach includes the administration of a detailed assessment questionnaire that consists of a General Questionnaire and five Modules that are administered based on clinical judgment of necessity. The General Questionnaire consists of questions that help the clinician to gain a comprehensive picture of the history and current functioning of the child with TS. The five modules address the following comorbidities: ADHD, OCD, Anxiety Disorders, Depression and Behavioral Problems. Lastly, the Guide discusses how the assessment questionnaire forms can be used in conjunction with a computer database to track individual client data on the various targeted problems as a means to measure treatment progress and results.

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CHAPTER I

INTRODUCTION

Consider the child with Tourette Syndrome (TS) and their family. They have come in for the first time to a therapist's office for treatment. In an extreme case, the expression of tics is a minor concern compared to the myriad of other problems that are being reported. The child presents with some combination of TS, Obsessive Compulsive Disorder (OCD), Attention Deficit Hyperactivity Disorder (ADHD), behavioral problems, rage attacks, social skills deficits, learning disabilities, anxiety issues, and/or depression. The child is suffering. The family, also suffering, diligently seeks a solution, but is facing a growing doubt as to whether their child can be helped. Past attempts for psychological intervention have failed. Medication has, at best, provided an inconsistent speculated reduction in the problems and, at worst, has led to further disruptions due to side effects with no alleviation of the targeted symptoms. The family system exists in a seemingly perpetual state of exhausted crisis. At this point, the motive for seeking help stems less from hope and more from desperation. They simply do not know what else to do. This is an extreme case of a child with TS, but it is not an uncommon one.

Consider the clinician that is providing treatment to this child with TS and to their family. The clinician hopes to provide relief for a complex array of intertwined problems by meeting once a week for about an hour. This is a formidable task. The cognitive behavioral clinician comes armed with treatment manuals and research literature that elucidate the steps involved in treating each particular problem. There is exposure

therapy for OCD or anxiety. There is social skills work and parent training for ADHD or for social skills deficits. There are intervention plans for rage or behavioral problems. There is psychoeducation and habit reversal for the TS. There are manuals and workbooks that describe treatment strategies for a whole array of other possible problems. In short, there are many different solutions to many different specific problems.

While there is literature that informs the conceptualization of complex clinical presentations, (e.g. Levine & Sandeen, 1985; Nezu, Nezu, & Lombardo, 2004; Persons, 1989), the solutions offered do not seem to adequately meet the treatment needs of an individual with TS. There are no specific guidelines as to which treatments to employ or as to the priority of the problems to target in the conceptualization of a TS case. The literature provides little information about the challenges that arise from the interaction of the various comorbid disorders and associated problems occurring in many individuals with TS. Likewise, there is little research on the differences in the presentation of well-known clinical problems as they manifest in individuals with TS. Furthermore, there is no single source to guide the conceptualization of a complex TS case. This Conceptualization Guide has been created as a comprehensive guidebook for the conceptualization of complex TS cases. While the Guide will be utilized by the Tourette Syndrome Program at Rutgers University, the Guide is generally intended for the use of any clinician faced with a complex TS case.

The Tourette Syndrome Program is a university-based program located at the Graduate School of Applied and Professional Psychology (GSAPP), Rutgers University that has partnered with the New Jersey Center for Tourette Syndrome, Inc (NJCTS). The partnership was established due to the recognition that TS families in the state of New Jersey had great difficulties in finding adequate psychological services for the specific needs that come with the disorder. The Tourette Syndrome Program is unique in that it is the only clinic in the country that exists for the primary purpose of training clinical psychologists in the treatment of individuals with TS and their families. Doctoral candidates in clinical and school psychology serve as clinicians in this training clinic that operates under the supervision of a doctoral-level licensed psychologist who has an expertise in the use of Cognitive Behavioral Therapy (CBT) for the assessment and treatment of TS and its associated disorders. The TS Program is intended to serve as a model for creation of university-centered training clinics that seek to accomplish the wider dissemination of efficacious CBT strategies that can be used in the treatment of TS cases.

Over the past several years, the TS Program has grown to become the premier psychological service provider for families who have a child or adolescent with TS in Northern and Central New Jersey. The growth in the program coincides with a change in leadership that occurred in September of 2005. At this time, the new clinical director, Lori Rockmore, PsyD, began to utilize a cognitive-behavioral therapy (CBT) modality to train the student clinicians as they offer psychotherapy to individuals with TS and their families. Since the time of these changes, the TS Program has served over 200 families.

Statement of Problem

There are various potential challenges in the treatment of an individual with TS. Oftentimes, TS clinicians are not treating TS, but are treating a spectrum of symptoms that can be described within a number of disorders. The complexity of an individual with TS who has a number of other conditions has not received a lot of professional attention despite its high penetrance in the population. Though TS is thought of as a childhood disorder (American Psychological Association, DSM-IV-TR, 2000), it often leads to problems in later life (e.g., Elstner, Selai, Trimble, & Robertson, 2001; Leckman, Bloch, Scahill, & King, 2006; Shady, Broder, Staley, Furer, & Papadolpolos, 1995). Unfortunately, the various problems that often come with a diagnosis of TS can be difficult to treat. As a result, the disorder is not well received clinically and families often struggle to find adequate services.

The best hope for psychological treatment of TS arguably comes out of the evidence-based approaches that are most notoriously associated with the CBT modality for treatment. While a CBT modality can serve as a general guide to conceptualization, the CBT literature offers little specific information about the treatment of individuals with TS. Despite a growing knowledge on the various comorbidities that often affect an individual with TS (e.g., Coffey & Park, 1997; Wodrich, Benjamin, & Lachar, 1997), there is little scientific literature that describes the challenge in attempting to link specific emotional or behavioral problems to specific comorbid disorders or to the TS itself. The challenge is problematic because empirically-based treatments approaches tend to be centered around specifically diagnosable disorders with different treatment strategies

offered based upon the disorder being treated (e.g., Barlow, 2007). Therefore, the difficulty in linking identified problems to specific disorders leads to a difficulty in selecting the appropriate treatment.

Unfortunately, there is currently no resource within the TS literature that considers how to conceptualize cases in a way that can maximize treatment success. There is no guidance on how to conduct an initial interview that screens for the various problems that have been uncovered in the research. There is no standardized package of psychological measures that would assess the severity of the various problems that are identified in the initial interview. There is no systematic way to use assessment information to prioritize treatment goals. There is no formula with which to select the empirically-based treatments that would be most likely to work. Further, lacking these tools of conceptualization prevents the development of uniform methods for tracking clinical interventions in a way that would promote research on the treatment of complex TS cases. This Conceptualization Guide is intended to organize the conceptualization of TS cases in a way that will allow for better clinical results and that will pave the way for future research opportunities.

CHAPTER II
LITERATURE REVIEW
Tourette Syndrome

Characteristics

Tourette Syndrome (TS) is a neuropsychiatric condition that most prominently defined by the presence of tics. The DSM-IV-TR (2000) defines tics as “sudden, rapid, recurrent, nonrhythmic, stereotyped motor movements or vocalizations.” They are divided into motor or vocal tics and into simple or complex tics. Simple motor tics are extremely brief (usually less than a second) and involve movement from only a few muscles. Common examples are eye blinking, facial grimacing, neck jerks, shoulder shrugs and abdominal tensing. Complex motor tics are longer in duration, often involve multiple groups of muscles and often resemble intentionally directed activity, but with a lack of purpose. Examples include twirling, jumping, hand gestures, touching and repeated smelling. Simple vocal tics are repetitive meaningless sounds. Common examples are grunting, throat clearing, sniffing, shrieking and chirping. Complex vocal tics are defined by the presence of speech or more complex animal noises. They are demonstrated by the spontaneous expression of words or phrases that are often banal but that also come in the forms of echolalia (repeating the last thing that was heard) and coprolalia (obscene or unacceptable words or phrases) (Leckman & Cohen, 1999).

In the DSM-IV-TR (2000), Tourette's Disorder represents the most severe diagnosis in the category of Tic Disorders. A diagnosis of Tourette's Disorder requires

the childhood onset of multiple motor tics and one or more vocal tics that occur many times per day with the presence of tics lasting for more than one year and with no consecutive tic-free period lasting longer than 3 months. The other tic disorders exist for cases that do not meet these criteria. Transient Tic Disorder is diagnosed when motor or vocal tics have been present for at least 4 weeks but for less than 12 consecutive months. Chronic Motor or Vocal Tic Disorder is diagnosed when one or more either motor or vocal tics (but not both) have been present for more than 12 consecutive months. Tic Disorder Not Otherwise Specified is diagnosed when tics have been present for less than four weeks, when the age of onset is greater than 18 or when an individual has had only one motor and one vocal tic. The clinical phenomenon of Tourette's Disorder has more recently been referred to as Tourette Syndrome within the research literature (e.g., Leckman & Cohen, 1999). Using the word “syndrome” in reference to TS has greater technical accuracy following the DSM-IV-TR (2000) elimination of the requirement of impairment that had been necessary for a diagnosis of Tourette's Disorder in past versions of the DSM (Olson, Singer, Goodman, & Maria, 2006).

In school-aged populations, tics are relatively common, with transient tics effecting up to 25% of children at some point in time (Leckman & Cohen, 1999). While in most children, the tics remit, about 1.1% of children develop a case of TS. From these children, only a small subset receive an official diagnosis (Kadesjo & Gillberg, 2000). TS is more common in males than females with an approximate 4:1 male to female sex ratio (Comings & Comings, 1987a; Leckman et al., 1998).

Phenomenology

While the outward appearance of tic behaviors characterizes TS and allows for diagnosis, the personal experience of an individual with TS is more complicated. Researchers have argued that the sensory experience that precedes the overt symptoms is more important than the tics themselves (e.g., Pringsheim & Lang, 2005). The term *premonitory urge* describes an internal feeling of an escalating need to perform a specific tic that is temporarily relieved once the tic has occurred (Fahn, 2005). Research reports that 92-93% of individuals diagnosed with TS have reported that they experience urges (Kwak, Dat Vuong, & Jankovic, 2003; Leckman, Walker, & Cohen, 1994). One study, (Leckman et al., 1994) found that the severity of tics was not a factor in the presence of urges. A majority of subjects described tics as a voluntary response to an involuntary behavior (67% for motor tics in Leckman et al., 1994 and 92% labeled tics either partially or fully as a response to premonitory urges in Kwak et al., 2003). Therefore, the presence and study of premonitory urges becomes meaningful due to a potential implication that tics are in some ways under the control of individuals with TS. As opposed to tics being considered involuntary, the term “unvoluntary” has been employed to suggest that many individuals can suppress tics temporarily, but that the tic will eventually have to be released (Fahn, 2005; Robertson, 2000). There is some evidence that when a TS individual intentionally suppresses their tic behaviors, that there is an increase in their urge to tic (Himle, Woods, Conelea, Bauer, & Rice, 2007).

Course

The mean age of onset of TS is 6.4 years (Freeman, et al., 2000). Following onset, there is a predictable course of TS in regards to the severity of symptoms. Numerous studies have reported on the tendency for tics to wax and wane over time (e.g., Woods, Piacentini, & Walkup, 2007). There is speculation that there is a “fractal” occurrence of tics that occur in bouts regardless of the time scale studied (Leckman et al., 1998). In other words, tics occur in bouts, which are periods of tic behavior consisting of one or more tics that are separated by periods of non-tic behavior that can last anywhere from a few seconds to several hours (DSM-IV-TR, 2000). Multiple bout of tics are thought to occur in bouts. These bouts-of-bouts occur in bouts as well, leading to a larger time scale concept of bouts-of-bouts-of-bouts-of-bouts of tics (Leckman et al., 2006). In its “bout” fashion, the disorder has been found to follow a predictable course where tic severity increases from age of onset into pre-adolescence or early adolescence. The worst-ever tic severity tends to occur between 7 to 15 years of age (usually between 10 and 11) and is followed by a steady decline in tic severity over the remainder of the lifetime (Bloch et al., 2006; Leckman et al., 1998).

Outcome

A literature review of the course of TS has found that the syndrome has a remitting course in a sizable number of individuals with TS with tics tending to decline in both frequency and severity between childhood and adolescence (Coffey, Biederman, Geller, Frazier et al., 2000). By adulthood only 22% report to continue to experience

similar or greater tic symptoms than before. 33% report a complete remission (Bloch et al., 2006).

Studies that base their measure on the course of tic severity on parent/child reports have been found to differ from studies that take laboratory observations of tics. These latter studies find that subjective ratings of tics in adulthood show greater improvements than objective ratings (Leckman et al., 2006). In other words, TS adults judge themselves to have less tics (or no tics) than would be observed in real life or video observation. The majority of adults show the presence of a persistence of some tics into adulthood, but seem to have a declining awareness of their tics along with an actual decline in tic behaviors. Coffey et al., (2004) indeed found that while tics tend to persist over time, the level of impairment was found to decline, suggesting that the persistence of tics was not associated with a functional impairment.

Still, despite evidence of improvements, longitudinal evidence suggests that children of TS have an impairment in their global functioning that persists into adulthood (Leckman et al., 2006). Individuals with TS have been found to have higher than national rates of both unemployment and job dissatisfaction (Shady et al., 1995). This finding was confirmed by Elstner et al., (2001) who also found that individuals with TS scored significantly lower on a Quality of Life measure. In several studies, the measured functional and/or emotional impairments were found to be independent or only weakly correlated with tic severity (e.g. Coffey, Biederman, Geller, Spencer, et al., 2000). Instead, the presence or absence of TS regardless of severity, was attributed to various

difficulties in the individual with TS (see upcoming section on co-morbid disorders for more specifics).

In studies of school and social functioning, children with TS and no co-morbid disorders have been found to have significantly higher scores on withdrawal scales when compared to normal children (Bawden, Stokes, Camfield, Camfield, & Salisbury, 1998; Stokes, Bawden, & Camfield, 1991). With this group, it has been hypothesized that the presence of tics leads to negative appraisals by peers who are not educated about TS. Findings from studies on peer attitudes and on the effects of educational interventions, however have shown mixed results (Friedrich, Morgan, & Devine, 1996; Woods, Koch, & Miltenberger, 2003; Woods & Marcks, 2005).

Etiology – Genetics and Neuropsychology

The various findings that demonstrate the numerous impairments that can result from TS have encouraged research into the etiology of the disorder. Keen-Kim and Freimer (2006) give a current update of the epidemiology and genetic research in the area of TS. The authors state that the morbidity risk among relatives of individuals with TS range from 10-15%. Monozygotic concordance rates of 50-70% suggest that TS has a strong genetic component, but that there is also a substantial role for environmental factors. The authors go on to describe the types of genetic studies that are underway for TS, identifying four approaches to genetic studies: One, *chromosomal rearrangements* involve either a disruption of the sequence of important genes or an insertion or deletion of DNA near an important gene, which serves to alter gene function or regulation. Two, the *candidate gene approach* is used when there is an understanding of the biology of a

disorder. Certain genes can be selected and compared in patients and controls. Three, *genome-wide linkage analysis* looks at families with multiple affected individuals to find highly penetrant mutant alleles. Though such mutations would be rare in the general population, studying them can give important clues to the biological process of the disorder (“sib-pair studies” are an example of this approach). Currently, such studies have not found strong evidence for linkage. Four, *genetic-wide association analyses* involves generating a large database of the complete genome from family members with affected individuals and looking for commonalities and/or abnormalities across the genome. Past technical hurdles in utilizing this method have more recently been removed. The authors conclude, that the continuing use of these genetic research methods in the area of TS will likely allow researchers over the next few years to identify genes and sequent variables within TS in a much more substantial way than has been possible in the past.

Along with the current genetics research in TS, there is also a thrust to better understand the neurology of TS. Early studies have stated various theories about how the limbic system operates to cause tics themselves and the host of other problems that accompany TS (Comings, 1987). Osmon and Smerz (2005) describe how the complexity of the presentation of TS and comorbidity can be explained by the interaction of many areas of the brain. The authors speak specifically about theories and research that suggest that TS falls along a spectrum of developmental basal ganglia disorders that include TS and many of the most commonly comorbid disorders. In addition, the common link of various dysfunctions in the fronto-striatal pathways has been hypothesized to lead to both

TS and to different comorbid disorders. A review of neuroimaging studies by Frey and Albin (2006) discusses various techniques that have identified changes in midbrain, striatum and associated limbic and frontal cerebral cortical regions. Though such studies have shown mixed results, more consistent findings link TS to abnormalities of the striatum and its dopaminergic neurochemistry. Evidence that TS is caused at least in part by dopaminergic abnormalities (that has prompted various dopamine models for TS) derives from both imaging studies and from the success of neuroleptics in the treatment of TS (Harris and Singer, 2006). Overall, the genetic and biological understanding of TS is in the early stages with the ultimate goal of developing a cure for TS remaining a distant possibility.

Treatment of TS

Although there are no known cures for TS, there are many different intervention strategies that attempt to treat the symptoms. From an evidence-based perspective, there are three primary treatment options in regards to tics: 1) medical treatment, 2) behavioral intervention and 3) supportive psychotherapy. Though these treatment approaches will be described separately, they are more often used in conjunction (e.g., Gilbert, 2006; Peterson & Cohen, 1998).

Medical Treatment

Singer (2005) brings together current thinking on the issue of medication for TS when he notes that, “There is no cure for tics and all pharmacotherapy must be regarded as symptomatic therapy. If a tic-suppressing drug is indicated, a two-tiered approach is recommended: first, non-neuroleptic drugs for mild tics, and second, typical or atypical

neuroleptics for more severe tics. The goal of treatment is not complete suppression of all motor and phonic tics, but to reduce them such that they no longer cause substantial psychosocial disturbance” (p.154). Operating under a similar premise as Singer, Gilbert (2006) offers an algorithm for medical tic suppression. When the decision has been made that medication for tics is indicated, the first-line treatments are adrenergic agonists such as Clonidine and Guanfacine. The main side effects of these medications are sedation, lightheadedness and irritability. Gilbert lists neuroleptics as the third-line treatment for tics. Although neuroleptic medications such as Halperidol and Risperidone have the highest efficacy in decreasing tics, they also come with the burden of the most severe side effects.

With the high risk of side effects for medications that are shown only to reduce, not to eliminate tics altogether, choices around medication should be made with caution. Oftentimes, families and psychiatrists fall victim to a tendency to increase medications at moments when tics have become really bad. Due to the waxing and waning nature of the disorder, it can become difficult to judge whether the medications are responsible for changes in tic behaviors. This can lead to an unnecessary upward creep of the dosage levels and a corresponding increase in undesired side effects (Peterson & Cohen, 1998).

On the other hand, in some cases of extreme debilitating tic behaviors, even high-dose medical interventions may fail. In such cases, surgical approaches, specifically, deep brain stimulation (DBS), are a potential option. DBS is a surgical procedure involving the implantation of a medical device that sends electric impulses to specific areas in the brain as a means to interfere with the neural activity in these areas. In the

case of TS, the procedure is performed in attempts to interfere with the neural activity that causes tic behaviors. Despite only a small handful of successful single patient trials, it is not unlikely that DBS would eventually become an accepted therapy for the treatment of patients with severe refractory TS (Neimat & Lozano, 2006).

Behavioral Intervention.

Behavioral treatments for tics seek to decrease tic symptoms without the burdensome side effects that often come with medical options. There have been several different behavioral approaches. One such intervention involves identifying potential antecedents to tic behavior. In one study subjects and parents were asked to rate decreases or increases in tic behaviors based on 29 environmental factors. Only a minority of subjects rated any factors responsible for decreasing tics and only one factor, “being upset or anxious,” was strongly implicated in increasing tics (Silva, Munoz, Barickman, & Friedhoff, 1995). Beyond this study, there are only a small number of case studies that attempt to look at environmental change as a means of decreasing tics (e.g., Carr, Sidener, Sidener, & Cummings, 2005; Roane, Piazza, Cercone, & Grados, 2002).

As an alternative to attempting environmental change as a means to reduce tics, several behavioral techniques work directly with the tic behaviors. One technique, *massed practice*, involves doing the tic intentionally over discrete planned time periods as a potential means of reducing overall tic behavior (e.g., Teichman & Eliahu, 1986). Another technique, *differential reinforcement*, rewards subjects for successfully suppressing their tics during discrete time periods. One within subjects repeated measures design study found that rewarding tic suppression led to significant reductions

in tic behaviors during reward intervals compared to a condition where subjects were instructed to suppress tics, but offered no reward (Woods & Himle, 2004). A third technique, exposure and response prevention (ERP) has been shown to successfully reduce tic behaviors in handful of small studies (e.g., Verdellen, Keijsers, Cath, & Hoogduin, 2004; Wetterneck & Woods, 2006).

Currently, the most well researched behavioral technique for reducing tic behavior is Comprehensive Behavioral Intervention for Tics (CBIT), which was until recently known as Habit Reversal (Woods & Miltenberger, 2001). The treatment involves training an individual to recognize the premonitory urges that precede tics and to employ a competitive response that is incompatible with the tic itself. Ideally, the competitive response is initiated when there is an urge but before the tic has occurred. A number of small studies (e.g., Carr et al., 2005; Watson, Dufrene, Weaver, Butler, & Meeks, 2005; Woods, Twohig, Flessner, & Roloff, 2003) have shown consistent decreases in tics following the initiation of CBIT. A small, randomized controlled trial also showed significant decrease in tics and maintenance of gains in a CBIT group compared to no decrease in tics in a supportive psychotherapy group (Deckerbach, Rauch, Buhlmann, & Wilhelm, 2006). Both groups ultimately showed similar significant improvements in life satisfaction though the CBIT group showed earlier improvement. The authors speculated different causal factors for the improvement in life satisfaction with the CBIT group improving due to a decrease in tics and the psychotherapy group improving due to acceptance and changes in self-esteem. In another medium-sized crossover design study, CBIT and ERP were found to be similarly significantly efficacious in treating TS

(Verdellen et al., 2004). While the treatments were similar, CBIT focused on subjects not performing specific tics and instead performing a competitive response and ERP focused on increasing the amounts of time where subjects focused on their urge to tic in general while suppressing all tics without utilizing a competitive response.

Currently, no large-scale studies have been published on CBIT. Carr & Chong (2005) reviewed the literature of 29 studies of habit reversal and deemed that two randomized studies and nine within subject studies were suitable for further analysis. While both of these sets of studies meet the 1995 APA treatment guidelines for a “well-established” treatment, the authors point out many methodological problems that cause even the “probably efficacious” ruling to be generous. From the twelve studies, there were 114 subjects, 95% of whom apparently benefited from CBIT. The authors suggested more rigorous studies to gain the “well-established” treatment criteria for CBIT. A large multi-site study on the efficacy of CBIT is scheduled to be published later this year.

Supportive Psychotherapy

Unlike medication and behavioral interventions for TS, supportive psychotherapy makes no attempts to lower tic behaviors. Instead, individuals are given psychoeducation and support that is intended to decrease difficulties with social and emotional functioning that often come along with TS (Elstner et al., 2001). Supportive psychotherapy may be indicated when the tics are not causing the significant problems in functioning or when other problems are more impairing. Gilbert (2006) presents a medical algorithm for considerations of treating tics where he states that problematic comorbid disorders are

often more impairing than the tics themselves and should be considered for treatment prior to the treatment of the tics themselves. Aside from the comorbidity issue, tics are indicated for medical intervention only where the tics cause significant interference, impairment or pain. Peterson and Cohen (1998) note that tic symptoms and severity serve as poor predictors of adaptive functioning. A child with severe tics can function quite well while a different child with mild tics can have an array of emotional and interpersonal difficulties. They suggest that an assessment “considers the total child and the child’s environment, including functional impairment produced by the tics and associated comorbid conditions, the universal and idiosyncratic challenges of particular developmental stages, the child’s unique adaptive capacities, family and school supports, and the natural history of the disorder, all considered in the context of the potential risks and benefits of the available therapeutic interventions” (p. 67). The earlier mentioned study by Deckerbach et al., (2006) found that supportive psychotherapy resulted in similar life satisfaction as did CBIT. The main difference was that the change in life satisfaction in the psychotherapy group was not contingent on the presence or absence of tics. As such, supportive psychotherapy should in the least be considered a viable treatment option.

General Comorbidity

Oftentimes, the presence of disorders that are comorbid with TS are a greater treatment priority than the TS itself. Numerous studies have discussed the high level of a variety of comorbid disorders that are associated with a diagnosis of TS. For example, Coffey & Park (1997) found that up to 50% of patients diagnosed with TS meet the

criteria for a comorbid disorder. Comings & Comings (1987d, 1987f, 1987g) found that individuals with TS from a large sample had higher rates of simple phobia, panic, depression, mania, sleep disorders and obsessive compulsive disorder (OCD).

Individuals with TS have also been found to have higher levels of behavioral dysfunction (de Groot, Janus, & Bronstein, 1995) and higher levels of pervasive developmental disorders (Kadesjo & Gillberg, 2000; Marriage, Miles, Stokes, & Davey, 1993). Another study has noted the tendency for overall higher levels of psychopathology, but most notably raised scores on anxiety and depression (Wodrich et al., 1997).

In terms of anxiety, there have been many reports of increased rates of phobias, panic attacks, generalized anxiety and separation anxiety within the TS population (Robertson, 2000; Robertson, Banerjee, Hiley, & Tannock, 1997; Robertson, Channon, Baker, & Flynn, 1993). One study found that subjects with severe TS had significantly higher pathology in panic, agoraphobia, overanxious disorder and separation anxiety compared to subjects with mild or moderate TS (Coffey, Biederman, Smoller, et al., 2000). Although there has been no controlled research on the matter, it is further generally agreed that the presence of anxiety can increase tic symptoms (Scahill, Sukhodolsky, & King, 2007). Furthermore, it has been reported that parents of children with TS also frequently suffer from significant anxiety and in some cases from specific anxiety disorders (Coffey, 1993). With tics themselves as a potential factor for increased anxiety in both children with TS and their families, more research would be needed to better understand the overlap between TS and anxiety disorders.

In terms of depression, there have been links to TS in both major depressive disorder and bipolar disorder. Gaze, Hayden, and Walkup, (2006) reviewed studies where children with TS were found to have increased depressive symptoms (see also Coffey, Biederman, Smoller, et al., 2000c). The authors argued, however, that a useful distinction could be made here between major depression and “demoralization.” In the case of a demoralization the maintained sadness of the child is linked to their actual circumstances, the characteristic features of a depressive episode are lacking and the child demonstrates an improved mood in positive, supportive environment. This distinction is important for the child with TS who may suffer a more negative environment as a direct consequence of their tics or other comorbid symptoms. In the case of bipolar disorder, several studies have found evidence of a higher incidence of manic episodes within TS populations (Coffey, Biederman, Smoller et al., 2000; Coffey, Biederman, Geller, Spencer, et al., 2000; Kerbeshain, Burd, & Klug, 1995; Spencer et al., 2001), but there has been little in the way speculation of the relevance of the link between these two disorders.

Learning problems are another potential area of comorbid dysfunction within the TS population (Channon, Crawford, Vakili, & Robertson, 2001; Freeman et al., 2000). Specifically, TS has been implicated with problems in inhibition and sustained attention (Carter et al., 2000). Other studies have suggested that it is the comorbid disorders and not TS itself that are associated with the learning problems and particularly with deficits in executive functioning (e.g. Channon, Pratt, & Robertson, 2001; Ozonoff, Strayer, McMahon, & Filloux, 1998). More recent expert argument has suggested that

associations between learning problems and TS as defined by the school systems (a difference between performance and IQ) has not held up (L. Scahill, personal communication, April 5th, 2008). Even without specific learning problems, there is some evidence that the tics themselves often lead to some degree of interference in academic functioning due to the disruptions that motor tics have on reading and writing abilities and that vocal tics cause to active participation (Packer, 2005).

The comorbid disorders that come with TS are especially a concern due to their potential effects on the course of the disorder. There is some evidence that the presence of comorbid disorders lead to poorer functional and emotional outcomes than the presence of TS alone (Elstner et al., 2001; Sukholdolsky et al., 2003; Thibert, Day, & Sandor, 1995). Moreover, Wilkenson et al. (2001) found that the existence of comorbid disorders in an individual with TS lead to declines in family functioning. The treatment implication of this is that it is often the comorbid disorders and not the tics themselves that should be considered for treatment (Peterson & Cohen, 1998; Woods et al., 2007). Unfortunately, treatment considerations for many of the common comorbid disorders such as anxiety disorders and depression have not been addressed in the research literature on TS. Three exceptions that have received a lot of research attention, the comorbidities of ADHD, OCD and rage attacks will be considered in the upcoming section.

ADHD, OCD and Rage Attacks

Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder (ADHD) is characterized by chronic problems with hyperactivity, impulsivity and distractibility that are developmentally inappropriate and not due to some other condition (DSM-IV-TR, 2000). There is a much greater likelihood for a child with TS to have ADHD (35-65%) compared to a non-TS 3-5% child (e.g., Kadesjo & Gillberg, 2000; Kurlan et al., 2002). Likewise, individuals with ADHD are more likely to have comorbid tic disorders compared to non-ADHD individuals in both children (34% vs. 6%) (Spencer et al., 1999) and adults (12% vs. 4%) (Spencer et al., 2001). Researchers speculate that the high comorbidity between these two disorders can be attributed to neuroanatomical dysfunctional similarities (Osmon & Smerz, 2005).

The presence of comorbid ADHD in individuals with TS leads to a whole host of difficulties. On a standard measure of overall functioning, children with TS+ADHD have been found to have higher scores in anxiety/depression, thought problems, attention problems, delinquent behaviors and somatic complaints compared to children with TS alone (Pierre, Nolan, Gadow, Sverd, & Sprafkin, 1999). In addition to confirming these results, another study found that children with TS+ADHD showed higher levels of school problems and a lack of competence in socialization compared to groups with TS alone and to controls (Carter et al., 2000). Also, children with TS+ADHD have been found to have higher ratings on aggression and withdrawal measures and lower ratings on likeability and overall peer relationship problems compared to children with TS alone and

to control children (Bawden et al., 1998). In the area of intellectual and academic functioning, one study found that while children with TS both with or without ADHD have been found to have significant weaknesses in mental and written arithmetic and socialization skills and relative strengths in reading achievement and abstract logical thinking, children with TS+ADHD were found to have significantly lower performance IQ scores and overall IQ scores than children with TS alone (Dykens et al., 1990). Some studies have found individuals with TS alone to have enhanced motor speed and higher IQs compared to population means on both measures (Denckla, 2006). Lastly, problems in the functioning of families with an individual with TS has been found to be uniquely associated with ADHD comorbidity (Sukhodolsky et al., 2005).

The high percentage of individuals with TS who have comorbid ADHD and the greater dysfunction associated with these individuals could suggest that much of the general dysfunction that has been associated with TS is actually due to the comorbid ADHD. Indeed, one study found that 81% of a psychiatric-referred TS sample had comorbid ADHD (Spencer et al., 1998). Furthermore, both children and adults with ADHD, with or without tics, had similar rates of impairment in global functioning and similar scores on most measures of psychopathology, the exceptions being higher rates in OCD and bipolar disorder in the group with tics (Spencer et al., 1999, 2001).

Sukhodolsky et al., (2003) compared four groups TS only, ADHD only, TS+ADHD and normal controls. As a general trend, the TS only group looked like the control group and TS+ADHD group looked like the ADHD only group. The notable exception to this trend was that the TS only group looked more like the ADHD groups on many of the social

scales. These mentioned studies along with studies in the medical literature have led to speculation that children with TS+ADHD are anatomically and neurobehaviorally different than children with TS alone. In the light of this hypothesis, it has been suggested that children with TS+ADHD resemble and should be treated the same as “garden-variety” ADHD cases (Denckla, 2006). On the other hand, it should be noted that inattentiveness and hyperactivity that are caused by the tics (and other comorbid disorders) could lead to the appearance of ADHD symptoms when the true disorder is not actually present (Leckman, Walker, Goodman, Pauls, et al., 1994).

Considering the potential negative impact of diagnosis of comorbid ADHD, the treatment of ADHD is an important factor in addressing the needs of an individual with TS. There are various medication and psychological treatments for ADHD (e.g., Barkley, 2006). The most extensive study (N=579) of the treatment of children with ADHD was a 14-month multi-site randomized clinical trial of both behavioral and medication treatment of ADHD conducted by the MTA Cooperative Group (1999a). The study looked at four conditions: medication management (using methylphenidate, which is considered to be the most effective drug for ADHD), behavioral treatment, combined treatment and community care. All of the controlled treatments involved extensive intervention that sought to provide optimal services for the condition offered. While the majority of children in the community care group received medication, the dose and specific drug used were generally not carefully managed as in the medication management group. The results showed that all of the groups made significant improvements, in particular on the ADHD measures, but also on many other areas of functioning. For the levels of

improvement on ADHD measures, community care looked like the behavioral treatment group, both of which were significantly less improved than the equivalent medication and combined groups. The combined group further separated from the other three groups in improvements on measures of ODD, internalizing symptoms, social skills and parent/child relations and were stabilized on significantly lower doses of medication. In a further analysis for mediators and moderators in treatment response in the same sample, it was found that in an “anxious” subset of children, the behavioral treatment group had an equivalent response in ADHD as the medication and the combined groups (MTA Cooperative Group, 1999b).

The MTA Cooperative Group ADHD study was able to conduct a multi-site study with a sample size that was much larger than has been accomplished in TS treatment studies. Still, from the aforementioned study, it remains unclear as to whether the treatment effects of the large ADHD study would generalize to children with TS+ADHD. In particular, the MTA demonstrated that stimulant medication is in many ways the treatment of choice for ADHD children. In the TS community, there is a history of concern that stimulant medications increase tic behaviors. In some cases, there has even been suspicion that stimulant medications actually caused tics in a child who did not have tics to begin with (e.g., Bressman, 2002). In response to this concern, a number of more recent studies have shown that there are no meaningful associations between stimulants and tics (Gadow, Nolan, Sprafkin, & Schwartz, 2002; Law & Schachar, 1999; Spencer et al., 2001), that stimulants had limited effects on the course of tics (Spencer et al., 1999)

or that the gains from medication for ADHD outweigh the disadvantage for a potential increase in tic behavior (Castellano et al., 1997).

In a multi-site randomized control trial of medication treatment of ADHD in children with tics, the Tourette's Syndrome Study Group, (2002) compared the effects of Methylphenidate, Clonidine, a combination of both and a placebo. The study used a 4-week titration to achieve an optimal dose of the medications used, where they defined optimal dose to mean that the subject would "reach a level of school functioning considered good, with no further room for improvement, with an acceptable level of side effects and representing a meaningful clinical change from baseline" (p. 529). The study found significant improvements both in ADHD and in tics in all of the treatment groups with the greatest improvements found in the combined group. Observations that tic frequency had worsened were similar in all groups and occurred in 20-26% of the cases. The worst side effect was sedation to Clonidine (28% within Clonidine groups reported moderate to severe sedation).

When all of the studies are taken together, they suggest that there is no evidence to support the claim that stimulant medications increase tic behaviors. A more likely explanation is that the natural waxing and waning of tics can cause the appearance that medication might have increased tics in some cases. Moreover, the expected appearance of symptoms of ADHD are characteristically seen a couple years prior to the expected onset of visible symptoms of TS. Claims that stimulant medications actually can cause tic behavior in an otherwise tic-free child could be explained as a coincidental correlation

between the time when ADHD would likely be medicated (as a child begins school) and the time when tics are likely to appear (Bressman, 2002).

Obsessive Compulsive Disorder

Obsessive Compulsive Disorder (OCD) is characterized by recurrent and persistent thoughts, impulses or images that are experienced as intrusive, inappropriate and distressing and that are followed by repetitive behaviors or mental rituals that are aimed at preventing or reducing stress (DSM-IV-TR, 2000). Early studies found a higher level of OCD symptoms in individuals with TS (e.g., Comings & Comings, 1987e; Grad, Pelcovitz, Olson, Matthews, & Grad, 1987; Pitman et al., 1987). More recently the rate of OCD symptoms in individuals with TS has been estimated to be around 50% (Goodman, Storch, Geffken, & Murphy, 2006), but this percentage has ranged from 11% to 80% depending on the study (Eapen, Yakeley, & Robertson, 2005). Most individuals with TS have reported an onset of OCD symptoms in late childhood or early adolescence with a time of worst symptoms two years later than the time of worst tic symptoms (Bloch et al., 2006).

Despite the evidence for the comorbidity of TS and OCD, Shapiro & Shapiro (1992) argue that there is not an association between the two disorders. They claim instead that studies that have found such an association were suffering from a “bandwagon effect” and misconstruing sensory tics, impulses (i.e. urge to do things such as touch or tap an object repeatedly until a feeling of satisfaction is achieved), symmetry behaviors or even just habits or mannerisms with actual OCD symptoms. They attributed differences in rates of OCD found in various studies to the way that OCD

symptoms were defined. Though the authors express a minority viewpoint from the perspective of the literature, their argument does bring out the potential difficulties distinguishing between TS behaviors and OCD behaviors. One fundamental way that is used to attempt to make this distinction is to identify a sensory component that precedes a TS behavior and to identify a cognitive component that precedes an OCD behavior (Woods, Hook, Spellman, & Friman, 2000). Indeed, patients with OCD and no tics unanimously reported that they had cognitions, but no sensory phenomenon that preceded their repetitive movements while patients with TS and no OCD reported that they had sensory phenomenon, but no cognitions (with the exception of 2 out of 12 patients) that preceded their repetitive movements (Miguel et al., 1995).

Still, there is growing evidence that some of the OCD symptoms of individuals with TS are different from the OCD symptoms of individuals without TS. Coffey et al., (1998) compared adults in three groups: TS alone, OCD alone and TS+OCD along a number of measures for TS, OCD, ADHD and for general psychopathology. The authors found evidence that the TS+OCD group was etiologically more similar to the TS group. Most notably, the TS alone and the TS+OCD group had similar rates of ADHD (about 39%) compared to OCD alone (5%). In addition, compared to the other two groups, the TS+OCD group had significantly higher rates of Bipolar Disorder, Body Dysmorphic Disorder, trichotillomania, substance abuse and social phobia, indicating that TS+OCD is a more severe phenotype than TS alone and OCD alone. Another study found that the compulsions of ordering, hoarding and washing were significantly more common in a non-tic OCD group compared to a tics + OCD group (Hanna et al., 2002). As opposed to

common specific fears that are characteristic of an OCD diagnosis, individuals with TS+OCD commonly experience the “just right” phenomenon (in 81% of cases). This “just right” feeling is described by most subjects (Leckman, Walker, Goodman, Pauls, & Cohen, 1994) as an urge (usually mental) or need to perform a compulsion until a certain feeling of satisfaction or completion was attained. Beyond specific OCD symptoms, the presence of OCD in children with TS has been found to be associated with many measures of functional and emotional impairment, specifically social functioning, school problems, self-reported anxiety and impairments in daily living skills (Sukhodolsky et al., 2005).

In response to these and other findings in the TS+OCD literature, Mansueto & Keuler (2005) argued that many individuals who have TS and OCD have what they call a “Tourettic OCD” that could be seen as a phenomenologically different disorder than common OCD. The authors characterized this tic-related OCD as one that has an earlier age of onset, is overrepresented in males, has symptomatology that tends to include touching, tapping, rubbing, more violent and aggressive intrusive thoughts and concerns about symmetry and exactness. They characterize this OCD as one that does not focus on the dire consequences of potential thoughts and actions but more often has a general feeling of discomfort involved in not performing specific compulsions.

Even with the potential differences in OCD symptoms in individuals with TS and individuals without TS, the same treatment approach is currently recommended (Woods et al., 2007). The first line therapy for pediatric OCD in children with tics is exposure and response prevention (ERP), which has been found to produce a similar response as

the main medical treatment, SSRI medications (Goodman et al., 2006). ERP is a CBT technique where a patient evokes their obsession either in their imagination or in real life while being prevented from performing the compulsion that would reduce their anxiety. After a period of heightened and often increasing anxiety, their anxiety habituates without the performance of the usual ritual. A number of similar treatment approaches for children with OCD use ERP as the crucial component of treatment (see e.g., March & Mulle, 1998; Piacentini & Langley, 2004; Wagner, 2003).

A further treatment consideration for children with OCD involves the effects of OCD symptoms on the larger family structure. Cooper (1996) notes, “What distinguishes OCD families from other families of the mentally ill is the inextricable way that they are brought into the illness. OCD symptoms are all encompassing and the compulsions involve family members and the home itself” (p. 298). Waters and Barrett (2000) also discuss the role that families play in a child’s OCD symptoms. They conceptualize “OCD families” along a continuum from accommodating to antagonizing where accommodating family members become involved in rituals to try to reduce their child’s distress (e.g. through verbal reassurance) and antagonizing family members are critical and hostile towards the child’s symptoms. Either stance involves family members’ enmeshment with the disorder and both can serve to increase OCD symptoms. The tendency for families to be highly involved in the OCD symptoms is a potential indicator for involving the entire family in the treatment of childhood OCD.

Despite the high percentage of OCD in the TS population and despite alleged differences in the OCD in a child with TS compared to the OCD in the non-TS

population, there has been little research into the treatment of OCD in children with tics. Miguel, Shavitt, Ferrao, Brotto, and Diniz, (2003) discusses the treatment of OCD in patients with TS but focuses primarily on treatment with medication, discussing findings that SSRIs are a less effective treatment in a TS subgroup and that there is some indication that augmentation of a neuroleptic for these cases may be indicated. On the matter of behavioral treatments, the authors simply note that habit-reversal training may be more indicated in cases where repetitive behaviors are triggered more from sensory phenomena. With little empirical data for a treatment response in patients with TS+OCD, it is inconclusive as to whether there should be further treatment considerations. Still it has been hypothesized that treatment for the patient with TS+OCD will often be more difficult, longer and take more thoughtfulness in approach, with patients often having to practice a lot of uncomfortable movements that are contrary to their compulsions (Mansueto & Keuler, 2005).

Behavioral Problems and Rage Attacks

The behavioral problems associated with individuals with TS have been conceptualized as conduct problems, oppositional defiance, meltdowns, temper tantrums or by the DSM diagnosis of Intermittent Explosive Disorder (DSM-IV-TR, 2000). For the purposes of this Conceptualization Guide, many of these labels will fall under the term “rage attack.” A rage attack is well characterized by Budman, Bruun, Park, Lesser, & Olson (2000) as an “abrupt onset of unpredictable and primitive displays of physical and/or verbal aggression that are grossly out of proportion to any provoking stimuli, often threatening serious self-injury or harm to others” (p.1270). In contrast to much of the

recent scientific literature on comorbid TS and ADHD, parent surveys have identified rage attacks as the most impairing symptom in individuals with TS (Dooley, Brna, & Gordon, 1999). This is not surprising considering that rage attacks usually happen within the home environment, occurring towards a family member, and are much less frequent in other settings (Budman, Bruun, Park, & Olson, 1998). Budman et al. (2000) points to a number of features of rage. First, rage attacks seem to occur in the absence of situational triggers, are preceded by feelings of increased tension and followed by a sense of relief or remorse. Second, there is a clear distinction between the caring empathic baseline child and the same child in a rage state. Third, though states of rage may happen frequently throughout the day (giving the impression that the child sustains this state), they are found to be clearly demarcated into episodes. Lastly, the onset of rage often leads to a deterioration in home functioning, severe demoralization, poor self-esteem, and school problems.

A number of studies have pointed to the higher incident of aggression and/or behavioral problems in children with TS (e.g., Comings & Comings, 1987c; Kadesjo & Gillberg, 2000). Several studies have implicated measures of tic severity with behavioral problems. In one study of a school setting, though the presence of tics was not correlated with behavioral problems, students with persistent tics (suggesting TS versus transient tics) were found to have more behavioral comorbidity (Snider et al., 2002). Another study found a strong correlation between total tic severity and behavioral dysfunction in both child and adolescent subgroups (de Groot et al., 1995). More specifically, another study found a significant linear relationship that existed especially in the mid-range of tic

severity. Though the relationship was significant overall, the study found that the measure of r-squared was lowered by subsets of subjects in the severe tic range who were not prone to behavioral problems and subjects in the mild tic range who were more vulnerable to behavioral problems (Rosenberg, Brown, & Singer, 1995). Other studies have found that the severity of tics did not affect the presence of behavioral problems. In these studies, the presence of comorbid ADHD and OCD was implicated with the increased risk of aggression and/or behavioral problems that showed a low incidence in TS-only groups (Budman et al., 2000; Freeman et al., 2000; Stephans & Sandor, 1999). Taken together, while the research does suggest a correlation between aggression/behavioral problems, it should be noted that many of the studies do not offer a clear definition of behavioral problems or aggression and do not talk specifically about the phenomenon of rage.

There has been little offered in the way of specific behavioral treatment approaches in the TS population with rage or behavioral problems. There are general approaches to the problem of anger (e.g., Berkowitz 1990; Deffenbacher et al., 1996) and specific approaches to children and adolescents with conduct disorder (e.g., Brestan & Eyberg, 1998). More recently, Scahill et al. (2006) conducted the first randomized trial of parent management training for a small sample of children with tic disorders and moderate to severe levels of oppositional defiant behaviors. The parent management group showed significantly more improvement on a measure of disruptive behavior compared to the treatment as usual group (51% decline compared to 19% decline). This effect was similar to improvements found in studies for the parent management

curriculum with children with similar behavioral issues but no tics, indicating that disruptive behaviors may be similar in both populations. Still, the authors concluded that a larger study would be necessary to substantiate the results.

Concluding Remarks on Literature Review

This literature review focused on the body of available information deemed pertinent for the psychological treatment of a child with TS. The empirical and theoretical knowledge contained within the cited studies is intended to be useful as a means to understand the specific nature of TS and the breadth of potential psychopathology that the disorder entails. The perspective of the review of this complex disorder comes with two notable limitations. First, the literature review came from the perspective of clinical psychology, a perspective that focuses more primarily on behavioral and emotional manifestations and treatment. As such, there was only cursory coverage of the biological, genetic and medical literature despite the abundance of information on these matters. Second, the literature review came from the perspective of Tourette syndrome and selected primarily studies that intentionally included and generally focused on subjects with TS. Yet, as is clear from the review, much of the psychopathology observed in individuals with TS can be credited, at least in part, to comorbid disorders. Unfortunately, the thorough review of the treatment literature in the areas of the most pertinent comorbid disorders (e.g. OCD and ADHD) was deemed to be out of the scope of the current review. As such, there was only some mention of the abundant literature that exists on these disorders that is independent of the literature on TS. This second limitation parallels the fundamental challenge of the clinician that

proper treatment of the disorder would call for a wide range of expertise on a host of comorbid disorders that are common in TS. Indeed, the primary goal of this Guide is to provide direction for conceptualization within this complex sea of clinical problems.

Dissertation Objective

The aim of the project is to create a living document, the Conceptualization Guide, that could serve as a guide to mental health clinicians who are working with individuals with TS. The Guide is intended to aid the psychological treatment of individuals with TS by providing detailed instructions on how to conceptualize a TS case. To do so, the Guide provides information that is intended to foster an understanding of the etiological and maintaining factors of reported problems. Also, the Guide describes a structured approach to assessing, formulating, and creating a treatment plan for a TS case. Lastly, the Guide discusses how to gather tracking data on the various targeted problems as a means to measure treatment progress and results.

CHAPTER III

METHODS

Participants and IRB Approval

The project presents new clinical material based upon a review of the research literature and upon clinical expertise. As the project is not a research study it will not require any participants. The potential to test the efficacy of the methods contained within this document are not being utilized as a part of this particular project. Thus, it was not necessary to gain IRB approval. Appendix A provides note has been obtained by an individual who is qualified to deem that IRB approval is unnecessary.

Procedure

The primary goal is the creation of a document that informs and structures the conceptualization of TS cases. To this end, the research literature has been used to demonstrate and document the various comorbidities, most notably, OCD, ADHD, behavioral problems, rage attacks, learning disabilities, anxiety and depression. An assessment model has been developed that screens for all of the potential comorbid disorders to TS and that determines their severity. This model is structured after the problem identification and decision making models that have been elucidated by previous authors, specifically, the models approach of Levine & Sandeen (1985) and the case formulation approach of Persons (1989) and more generally by other cognitive-behavioral writers on this topic (e.g., Craske & Barlow, 2007; Nezu, et al., 2004).

The general assessment model is packaged into a Conceptualization Guide. Based on the research literature, the Guide describes common problems that arise in a TS case.

Further, it describes how to conduct a psychological intake that comprehensively measures for the existence of any of the common problems experienced by an individual with TS. To this end, Questionnaire Forms have been created to structure assessments (see Appendix B). As information is gathered using the Questionnaire Forms, the Guide indicates what assessment instruments should be used. To a large degree, these assessment measures are intended to work in conjunction with the Questionnaire Forms in providing a quantifiable description of the severity of the many potential comorbid symptoms that could exist as separate DSM-IV-TR (2000) diagnoses or as subthreshold variants of these diagnoses.

In addition to gathering information from the individual with TS and their family, the Guide has a number of “clinical judgment points” where clinicians are asked to determine whether treatment would be useful within the particular area of questioning. There are a total of 35 clinical judgment points, one for each area of potential treatment. Following the completion of a psychological intake, the clinician uses the accumulation of potential treatment areas in designing a treatment plan. The Conceptualization Guide provides suggestions on how to prioritize treatment goals based on the quantifiable scores, the data from assessment instruments and the clinical judgment points.

For each of the 35 potential treatment areas, the Guide suggests specific evidenced-based treatment approaches to the various identified goals. The Guide draws upon the TS literature and the gathered expertise of clinicians and researchers both within and outside of TS Program as a means to inform treatment strategies for problems that are unique to TS individuals. The necessity to include TS-specific treatment strategies is

motivated by claims that common clinical diagnoses often have different manifestations and different treatment implications when they are seen in individuals with TS (e.g., Budman et al., 2000; Coffey et al., 1998; Pierre et al., 1999). As described thus far, the manual should assist the TS clinician in writing a comprehensive evaluation report and treatment plan that is specifically oriented towards the TS population (see Appendix E for a sample report).

In addition to informing and structuring the conceptualization of TS cases, the Guide instructs TS clinicians on a comprehensive system for tracking data that will assess both progress and outcomes based upon the targeted problems for treatment. The Guide instructs the clinician on the use of Coding Forms (see Appendix C) within targeted treatment areas that are filled out by the clinician following the intake. During the active treatment phase, parents will complete the Coding Form that corresponds to the selected treatment area during each session. By entering weekly data into the data tracking system, the clinician can assess the progress towards their current treatment goal. Additionally, as the Guide is used for multiple cases over time, the accumulation of data from the tracking measures can be used to as a means to look at treatment outcomes across multiple patients. Further, as baselines for the efficacy of specific treatments are established, future clinicians would be able to discover and propose new treatment ideas that if found to be efficacious, could be incorporated into the manual.

CHAPTER IV

THE ASSESSMENT INTERVIEW PROCESS

The goal of the Conceptualization Guide is not only to be useful, but to be used. While previous sections of this document have established the necessity of a conceptualization procedure to better understand and treat cases of TS with complex comorbidity, some attention should be brought to the topic of dissemination as a primary concern. To this end, consideration is warranted around the implications of real world clinics that prioritize clinical services and clinical training over clinical research. Clinics that focus on clinical research typically design rigorous assessment procedures that are intended to gather data that is comprehensive, often using numerous lengthy measures that have met the standards of the research community. Gathering such thorough clinical data is both time consuming and burdensome for clients and clinicians alike. In real world practice, time and resources are a luxury. To provide optimal treatment in the real world, a clinician strives to quickly gather the most pertinent information with which to make treatment decisions. Hospitals, community clinics, training clinics, and other locations that prioritize clinical care over research face a fundamental challenge in giving clinicians the tools for ongoing assessment in a manner that balances brevity with utility.

Creating the balance between brevity and utility is the goal of this Conceptualization Guide. In terms of brevity, both using the Guide and learning to use the Guide is intended to be easy for a clinician with basic clinical skills and judgment. The Guide was earlier referred to as a “living document” in that it is a document that can

be altered over time. As the “document” itself was created, it became less of a document and more of a procedure. Instead of a long instruction manual that describes how assessment should be done, the primary documentation consists of a series of Questionnaire Forms that contain information that will be gathered in a semistructured interview format. The Forms themselves are intended to be the training tools that gather the information that has been deemed most useful to gather for an individual client with TS. The upcoming sections in the Guide, explain the rationale each item on the Form. A clinician can refer to the explanation if they are interested in knowing what information is important to gather within any item and why that information is important. As clinicians practice the procedure through their TS cases, it is expected that they will develop greater ease of administration and greater understanding of the critical information to gather in a complex TS case through their utilization of the Conceptualization Guide. Neither the completion of the Forms themselves nor the process of learning the Forms is intended to be a time consuming or burdensome process.

Considering the wide scope of psychopathology addressed, this Guide is relatively short, especially compared to the rigorous assessment procedures used by research clinics. The information in the Guide has been carefully selected to allow for an adequately comprehensive conceptualization of the TS-specific child and adolescent population. Extensive research and clinical expertise went into the selection of what information would best be gathered. Also, the Guide's status as a living document allows for the adjustment of the Guide over time to include relevant inquiries that were left out and to exclude those questions that are later deemed unnecessary. The next section will

describe the forms that have been created and speak some for the rationale of the questions that were asked.

Questionnaire Forms and Instruments

The Questionnaire Forms are used during assessment periods with the child and their guardians in attendance. Also, there are a number of instruments that are used during and outside of the assessment. Detailed discussion of the selected instruments is contained within the upcoming subsections on the Questionnaire Forms. The next subsection will provide a list of all of the possible instruments.

List of Instruments

The selected instruments are used because they generally provide reliable, valid measures of different potential problem areas for children with TS. Most of the instruments are only administered if indicated following initial screening questions. The two exceptions are the instruments from the Achenbach System of Empirically Based Assessment and the Yale Global Tic Severity Scale. Both instruments are administered to all families. Descriptions of the instruments will be provided within the subsection that discusses the relevant Questionnaire Form. Here is a list of all of the selected instruments:

Achenbach System of Empirically Based Assessment - Child Behavior Checklist
 Achenbach System of Empirically Based Assessment - Teacher's Report Form
 Achenbach System of Empirically Based Assessment - Youth Self Report
 Children's Depressive Inventory
 Children's Yale-Brown Obsessive Compulsive Scale
 Conners 3 Rating Scales

Multidimensional Anxiety Scale for Children
 Rage Attacks Screen Questionnaire
 Suicide Risk Assessment
 UCLA PTSD Reaction Index
 Wechsler Intelligence Scale for Children – Fourth Edition
 Yale Global Tic Severity Scale

The Questionnaire Forms

The Questionnaire Forms are used by the clinician during initial and ongoing assessment of an individual with TS. The forms themselves consist of the General Questionnaire, that is administered for all clients during the intake and five Modules, that are administered as needed based on the information that is initially gathered from the General Questionnaire. Appendix B contains the Questionnaire Forms. Within the General Questionnaire and each of the Modules, there are 35 “clinical judgment points” where the clinician makes a choice about the need for a future treatment intervention. These points have instructions that are written in block parentheses “[*text*]” and are denoted by a checkbox “” in the left margin of the form. When the clinician reaches a clinical judgment point, they are asked to either check the box or to provide a rating of treatment need. The clinical judgment points will be mentioned briefly in the description of the Questionnaire Forms and discussed more thoroughly in the chapter on conceptualization and treatment planning.

Much of the information on the Questionnaire Forms is solicited from the parent or guardian of the client. When the information pertains to a school setting, the clinician should also seek to get further information from a knowledgeable source at school. Ideally, as much as possible, the clinician should take opportunities to get information from multiple reporters. Clinical judgment should be used to determine whether it is best

to gather information with the client and parent present or with just the parent present. In some cases, it may be ideal to gather much of the information from the client themselves. The age of the client can be used as one determining factor as to how much the client should be involved in giving information for the Questionnaire Forms. As a rule of thumb, younger clients should be less involved. Adolescents should be more involved and older adolescents may be able to give much information that would otherwise be sought from the parent. As the ability of different clients to give accurate information is likely to differ independent of age, clinical judgment will remain the main determining factor for how much to include the identified client in the assessment. That said, the Questionnaire Forms themselves were mostly written from the perspective of the clinician speaking primarily to the parent. This decision was made based on the demographics of past clientele within the TS program where a great number of clients are children or pre-adolescents. In the upcoming section, the forms are discussed primarily as if they are being administered to the parents. In reality, many of the questions may be asked instead to certain clients or to the parent and client together. Also, the identified client is most often referred as the child with TS. The Questionnaire Forms are designed to gather information about any individual with TS that lives under the care of parents or guardians. That said, this theoretical “child with TS” could be any age from a young child to an older adolescent.

At the beginning of the General Questionnaire Form, the clinician is prompted to handout copies of the Child Behavior Checklist, the Teacher's Report Form, and the Youth Self Report (Achenbach & Edelbroch, 1991). If possible, the clinician is

recommended to have distributed these forms by mail following the initial phone screening. That way, the family may be entering into the assessment with these time-consuming self-report forms already completed. The CBCL and related forms (described below) can be completed by parents, teachers and by children 11 or older. The forms provide a broad general picture of the child's functioning in many areas. The clinician should attempt to have the forms completed by multiple individuals as a way of gaining a more complete picture of the child's functioning at the time of intake. The clinician should consider giving the forms at the end of treatment to measure any change in functioning that may have occurred. The instrument itself is described next:

Child Behavior Checklist and Related Forms

The Child Behavior Checklist (CBCL; Achenbach & Edelbroch, 1991) is part of a system of assessment instruments called the Achenbach System of Empirically Based Assessment (ASEBA). Within this system of assessment instruments, there are three similar instruments that are used within this Conceptualization Guide. There is a 113-item CBCL, which is completed by parents. There is a 113-item Teacher's Report Form (TRF), which is completed by teachers or appropriate staff members within the child's school. There is a 112-item Youth Self Report (YSR), which is completed by the identified youth from ages 11-18. All three measures are similar with an initial two pages of general questions followed by a list of items. The items consist of sentences that are ranked on a three point scale where "0 = not true", "1 = somewhat or sometimes true" and "2 = very true are often true." The items are generally similar between the different forms. For example, item 33 on the CBCL and TRF reads, "Feels or complains that no

one loves him/her.” Item 33 on the YSR reads, “I feel that no one loves me.” The responses on the items generate scores along 8 behavioral problem scales, including Withdrawn/Depressed, Anxious/Depressed, Somatic Complaints, Thought Problems, Attention Problems, Social Problems, Aggressive Behavior, and Rule-Breaking Behavior. Specific scales are then added to provide scores for internalizing symptoms, externalizing symptoms, and a sum of all of the scores. Scores equal to or above the 98th percentile (T score = 70) from large normative samples (e.g. approx 5,000 children for CBCL) are considered to be in the clinically significant range. There has been extensive research into the reliability, validity and generalizability of the three instruments (e.g. Ivanova et al., 2007a, 2007b, 2007c). For example, on the CBCL, studies have found a test-retest values range from 0.95 to 1.00, inter-rater reliability ranges from 0.93 to 0.96 and internal consistency ranges from 0.78 to 0.97 (Achenbach & Edelbroch, 1991). On the TRF, studies have found a test-retest values range from 0.62 to 0.96, inter-rater reliability of 0.60 and internal consistency ranges from 0.72 to 0.95 (Achenbach & Edelbroch, 1991). On the YSR, studies have found a test-retest values range from 0.47 to 0.79, and internal consistency ranges from 0.71 to 0.95 (Achenbach & Edelbroch, 1991).

General Questionnaire Form

The General Questionnaire Form provides a structure to the initial intake interview by requiring the clinician to fill in information in specific areas of clinical relevance. There are eight sections to the General Questionnaire. Mostly, the eight sections are intended to gather important information about the child that would be stable over time. In addition, one section of the General Questionnaire contains basic screening

questions that if endorsed will prompt the administration of corresponding Modules. Also, one section of the General Questionnaire calls for the administration of the Yale Global Tic Severity Scale (Leckman et al., 1989). Two other sections suggest the use of screening instruments contingent upon the information gathered. Each section, as well as the rationale for each section will now be described in more detail, including a discussion of the screening instruments:

Section 1: Basic information about child.

Section 1 allows the clinician to learn information about a client that is unrelated to areas of psychopathology. It asks for a general description of the child including interests, activities, talents and pets and gives the clinician an opportunity to develop an initial impression of the child separate from the symptoms that brought the child to the clinic. Following this line of inquiry is the question of what brought the family into the clinic. Section 1 also contains clinical judgment point 1, asking the clinician to make a check mark if the child's lack of interests of activities seem problematic.

Section 2: Basic family information.

Section 2 allows the clinician to learn information about the family system that surrounds the identified client. First, it asks for the name, age, education, occupation history and history of psychological conditions / substance abuse for each of the parents. These areas were selected as common indicators used by psychologists to get a basic picture of overall life functioning of individuals. Understanding the functionality of the parents should create a context for the identified problems in the client and help the clinician to better speculate as to how much the client's malfunctions might be based on

environmental factors versus biological factors. Also regarding the parents, section 2 inquires about the percentage of child care responsibilities of each of the parents. The limited information asked about the parents should not diminish the importance of this area of inquiry. Many of the treatments used view behavioral change in the parents as an important if not necessary component in a successful treatment outcome. A clinician should use the knowledge of the parents' overall functioning and the parents' specific functioning around the identified problems in selecting and administering treatment. Any information that might be useful towards this decision should be included under the "Other Important Information About [Parent]:" prompts.

Following the questions about the parents, the General Questionnaire asks for the history of psychopathology on both the mother's and the father's side of the family. These questions are primarily asked to establish the genetic causality of the TS and other psychopathology. While speculation around etiology is not directly useful in the treatment of TS, it could be helpful in many ways. First, it can indicate the potential for specific risk factors or co-morbid disorders such as suicidality or schizophrenia. Second, it can alert the clinician to potential guilt or blaming that can come with the knowledge that the disorder came from one parent or another. Third, it can identify the resource of a relative that might relate to the client's difficulties.

Section 2 further asks about any other significant non-peer individuals in the client's life. This line of questioning is intended to further complete the picture of the client's interpersonal world. First, the section asks about other adults who have a major role the child's life or upbringing. Next, it asks about siblings, charting the name, age,

grade level, psychopathology of each of the siblings. Also, the questionnaire asks about how well the identified client gets along with each of their siblings asking for specific details around any fighting. The clinician's role is to get detailed information about any fighting and use clinical judgment independent of parental impressions to determine whether the fighting is normal sibling rivalry versus problematic. Section 2 also contains clinical judgment point 2, which asks the clinician to make a check mark if sibling interaction seems problematic.

Section 3: Information about tics.

This section helps clinicians to begin to understand the client's tic behaviors and the responses of the client and family members to the existence of TS. First, the section asks for the age of the first tics and then prompts for a description of the tics over time. Also, the section asks about the worst tic period ever. As the manifestation and progression of tics can vary widely between individuals with TS, these questions are geared towards developing a unique understanding of a particular client's tic symptoms. Likewise, the feelings and responses to tic behaviors can vary within TS families and between them. The section asks about family reactions and child reactions to the tics and also about how open the family has been about sharing the diagnosis with others. Also, the parent being interviewed is asked to rate their concern about the child's tics. All of these questions are intended to help the clinician decide how much psychoeducation might be warranted about TS. The clinician also asks if any methods have been used to attempt to reduce tics. This question might further indicate whether parents are pathologizing the tics and hence feel it would be useful to reduce them or if the tics have

been severely impairing to the point where it would actually be useful to attempt to reduce them. Also, this question will help clinicians discover whether or not medication or behavioral interventions have already been employed in an attempt to reduce tics. Knowing this can help to inform the clinician's own judgment as to the potential usefulness of either intervention. Section 3 also contains clinical judgment points 3, 4 and 5. Point 3 asks the clinician to make a check mark if Comprehensive Behavioral Intervention for Tics (CBIT) treatment would be useful. Point 4 asks the clinician to make a check mark if the child could benefit from supportive psychotherapy around tics. Point 5 asks the clinician to make a check mark if family members could benefit from psychoeducation or emotional support around TS related issues.

Yale Global Tic Severity Scale.

In addition to the mentioned questions, section 3 of the questionnaire asks for scores from the Yale Global Tic Severity Scale (YGTSS; Leckman, et al., 1989). The YGTSS is a clinician administered measure that takes separate ratings for motor and vocal tics along the dimensions of number, frequency, intensity, complexity and interference for the past week. In addition, an independent score is taken on the overall impairment from the disorder in terms of self-esteem, family life, social acceptance or school or occupational functioning over the past week. The scores for motor and vocal tics are added for a total tic score. The impairment rating is then added in for a global severity score. The score on the YGTSS can be used as a quantifiable measure of the severity of the TS at the time of intake and at subsequent points during the treatment. Inter-rater reliability was found to be 0.78 for the total motor score, 0.91 for the total

phonic score, 0.84 for the total tic score, 0.80 for the overall impairment score, and 0.85 for the global severity score.

Section 4: Problem areas.

Section 4 is primarily used as a way for the clinician to screen for potential psychopathology in areas that are commonly comorbid with TS. There is an initial prompt for parents to describe the child's personality. This question is intended to get a parents sense of their child prior to asking them about a lot of potential problem areas that might subsequently flavor their viewpoint. Following this question are a series of 18 questions that ask about potential problem areas for a child with TS. Each question corresponds to one of the five aforementioned modules. The answers given will help to determine which modules need to be administered following the administration of the General Questionnaire. The ADHD Module screening questions ask about general inattentive, impulsive and and disorganized behavior. The OCD Module screening questions ask about inability to control thoughts, strange rules or rituals, idiosyncratic worries and perfectionism. In addition, there is a screening question for hallucinations that is attached to the OCD Module as that module has an extension that screens for schizophrenic behaviors. The Anxiety Module and the Depression Module would be administered together (i.e. in the initial screening if one is administered, so is the other). The Anxiety Module screening questions ask about worries, reassurance needs and difficulties with separation from parents. The Depression Module screening questions ask about sad or upset feelings, low self esteem and suicidality. The Behavioral Module screening questions ask about quickness to anger, tendency to tantrum and

argumentativeness. Following the administration of the 18 screening questions, the clinician tallies up the “yes” and the “past” answers within each module category. For any “yes” answer, the clinician will know to administer the corresponding module. For any “past” answer, the clinician should use their judgment to determine whether the module should be administered. Section 4 also contains clinical judgment points 6, 7, 8 and 9 where clinician is asked to make a check mark for any of the four modules that they are planning to administer.

Section 5: Trauma and loss history.

Section 5 allows the clinician to learn if the child has suffered from any extreme life events. The screen begins with the open-ended question of what is the worst thing that has ever happened to the child. Following this are five yes-or-no questions that ask about serious loss, accident or injury, sexual abuse, physical abuse and traumatic witnessing. If the interviewee gives a “yes” response to any of these questions, they are asked to provide more details. Serious past or current loss, trauma or abuse is a complicating factor in the conceptualization of the case. Endorsed items should be considered as a potential contributor to the cause, maintenance or exacerbation of symptoms. If the clinician suspects that the client has suffered from trauma, they are instructed to administer the UCLA PTSD Reaction Index (Steinberg et al., 1998). Section 5 also contains clinical judgment points 10, 11 and 12. Point 10 asks the clinician to make a check mark if the child may benefit from further treatment for issues surrounding loss. Point 11 asks the clinician to make a check mark if there are concerns

that the child is at risk for abuse. Point 12 asks the clinician to make a check mark if the child could benefit from treatment to address issues of trauma.

UCLA PTSD Reaction Index.

The PTSD Reaction Index (Steinberg et al., 1998) is a brief screening self-report instrument that screens for PTSD based on the DSM-IV criteria, with different questions serving to establish different criterion. There are versions for child, adolescent and parent with the parent version asking about the child's symptomatology. There are three short sections to the measure. The first section describes various "scary" situations and has the interviewee check "yes" or "no." The second section has "yes" or "no" questions to various emotional responses to the situation that most bothers the child. The third section uses a 5-point Likert scale to rate how often the child experiences various DSM described PTSD symptoms. The measure takes about 20-30 minutes to complete and takes around 5-10 minutes to score. The instrument has a high internal consistency with alpha of 0.92, test-retest reliability of 0.84. In terms of validity, the instrument has found to have sensitivity of 0.93 and a specificity of 0.87 (Steinberg, et al., 2007).

Section 6: Medication history.

Section 6 consists solely of a chart with the following columns: Medication Name, Date Started, Date Ended, Purpose of Medication and Effect of Medication. As stated earlier in this paper, many children with TS try medication for various symptoms and with various degrees of success. As the clinician may be in the role of recommending that the family pursues psychiatric solutions, it is helpful to establish what medications are currently being used and what has been tried in the past. Section 6 also

contains clinical judgment point 13, which asks the clinician to make a check mark if the child or family could benefit from support around issues of medication. The clinician is further asked to describe what support might be useful.

Section 7: School information.

Section 7 allows the clinician to gather basic information about the child's school performance and cognitive abilities. In the area of school performance, first the clinician asks for an open-ended description of how the child does in school. This is followed up by the clinician asking about grades and the child's best and worst subject. In the area of cognitive abilities, the clinician asks about learning disabilities, school accommodations and if there has ever been suspicion that the child may be on the autism spectrum. Also, the parent is asked if there has been any IQ or achievement testing. The section asks for an estimated IQ of the child. With these questions, the clinician should be able to establish whether the client's school performance is matching expectations. If it is not, the clinician might pursue further inquiry or speculation as to why. The clinician may recommend that the school does more testing. The clinician may speculate that the child's psychopathology is interfering with school abilities. If the clinician does not have a clear picture of the client's intellectual abilities, this section recommends that the clinician should consider administering the Wechsler Intelligence Scale for Children (Wechsler, 2003; see below).

Section 7 further asks a few questions regarding the client's interpersonal functioning at school. First, parents are asked if their child has ever gotten into trouble at school and what was the worst trouble. Then, parents are asked to imagine what their

child does at recess or break. These questions seek to establish how the client is functioning at school outside of their academics. If the child is having difficulties, the clinician may want to consider doing an intervention at the school or in the least casually monitoring school functioning as to see if it improves as treatment successes occur. Finally, parents are asked about the level of communication with the school around the child's diagnosis of TS and related conditions. If there has been little in the way of communication with the school around symptoms, the clinician should seek to understand why this is the case. If the clinician and family agrees that it would be helpful, the clinician could consider offering a faculty inservice at the school about how TS and its associated conditions can affect school life. Section 7 also contains clinical judgment point 14, which asks the clinician to make a check mark if a school intervention would be warranted. The clinician is asked to describe the needed intervention.

Wechsler Intelligence Scale for Children – Fourth Edition.

The Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV) is an intelligence test that has been developed for children aged 6-16 (Wechsler, 2003). It consists of 15 subtests (10 core subtests and 5 supplemental subtests) that generate an IQ score along with four index scores for Verbal Comprehension, Perceptual Reasoning, Processing Speed and Working Memory. In addition to giving an IQ score, scores on the WISC can suggest ADHD and learning disabilities. The WISC-IV is a widely used and well-established measure for calculating IQ scores in children. A review of reliability and validity by Kaufman et al., (2006), found an internal consistency range of 0.78 to 0.88,

test-retest reliability range of 0.80 to 0.90. In addition, the full scale IQ score had a strong relationship (0.80) with the Total Achievement score on the WIAT-II.

Section 8: Social information.

Section 8 allows the clinician to gain an understanding of the child within their peer relationships. First, it prompts the interviewee for an open-ended description of the child's relationship with peers. Next, it asks for the number of friends, if there is a best friend and the types of peers that the child spends time with. These questions are all intended to establish whether or not the child has positive peer relationships. A lack of positive peer relationships could suggest that the child lacks social skills, that they have social anxiety (possibly around tic symptoms), that they are developmentally behind their peers, or some other factor. As peer relations is an important component in overall development, the clinician may want to seek and understand any problems in this area.

Section 8 further asks about teasing and bullying, about substance abuse and about any other problems. In the area of bullying and teasing, the parent is asked if the child has ever been a victim or perpetrator of either. The parent is asked to provide the details of when teasing or bullying occurs and of how adults respond. If the child is a victim, the parent is further asked to describe the child's reaction. As teasing and bullying can have a significant impact on a child, the situation should be well understood and psychoeducation or intervention should be considered. The next question asks if the child has ever drunk or used any substances. If substance use is endorsed, the parent is asked what substances and how often they are being used. Substance use in a child should be considered a serious concern, so the clinician should seek to fully understand

what is leading to and/or maintaining such behavior in the client. Lastly, the parent is asked if there are any other major concerns that have not been talked about. This question allows for important areas that were not mentioned in the General Questionnaire to be discussed. Section 8 also contains clinical judgment points 15, 16, 17 and 18. Point 15 asks the clinician to make a check mark if the child could benefit from social skills training. Point 16 asks the clinician to make a check mark if the child could benefit from support around issues of teasing or bullying. Point 17 asks the clinician to make a check mark if the child could benefit from intervention around substance use. Point 18 asks the clinician to make a check mark if there are other clinical concerns that were not addressed within the questionnaire or modules. The clinician is asked to describe the concerns.

The Modules

There are five modules. Each module is only administered when one of the screening questions in Section 4 of the General Questionnaire receives a “yes” answer or when one of the screening questions receives a “past” answer and the clinician judges that the module would be useful to administer. Each module corresponds to a specific area of child or adolescent psychopathology that is commonly comorbid with TS. The five modules are: the ADHD Module, the OCD Module, the Anxiety Module, the Depression Module and the Behavioral Problems Module. Each will be discussed in turn.

The ADHD Module

As stated in the directions of the module, the goal of the ADHD Module is not only to gather independent evidence that a diagnosis of ADHD would be appropriate, but to further understand the functional symptoms of the particular client's ADHD. A large portion of this module consists of a table that provides a list of ADHD symptoms. The list is taken directly from the DSM-IV-TR, (APA, 2001) and includes the entire DSM primary criterion for ADHD. While the DSM asks about the presence or absence of the symptoms during the past six months, the ADHD Module asks only about the past one week period of time. In addition to asking about presence or absence of symptoms, parents are asked to rate the level of the problem and the child's distress based on their observations over the past week. Ratings are given on a 1-10 scale with "1" being an extremely low level of problem or distress and with "10" being the worst imaginable level of problem or distress. As will be discussed later, scores from this table will be used to track symptoms over time when ADHD is a targeted problem of treatment.

Following the symptom list table, the ADHD Module asks a couple of follow-up questions that are intended to offer evidence of an ADHD diagnosis. First, the module asks if the endorsed behaviors have existed for at least the past six months. Then, the module asks for an initial age at which impairment began from the identified symptoms. These two questions are intended to ascertain whether a diagnosis of ADHD is appropriate based on DSM criteria. Specifically, a diagnosis of ADHD is suggested if the three following criteria are met: First, six or more symptoms are present from either the inattention or the hyperactivity/impulsivity sections of the table. Second, the symptoms must have been present for at least six months. Third, some of the symptoms must have

caused impairment before the child was seven years old. There are two criteria that are necessary for an official diagnosis of ADHD that are not mentioned in the module. First, there must be clear evidence of impairment. Second, the symptoms should not occur exclusively during the course of other disorders. The clinician should consider these two criteria if they are considering making an ADHD diagnosis. Further, the clinician may suggest that the child see a medical doctor such as a neurologist, psychiatrist or a pediatrician to support or confirm the diagnosis.

A diagnosis of ADHD can have one of three subtypes. Evidence for the subtype of ADHD is found based upon where symptoms are clustered on the table within the ADHD module. If six or more symptoms are endorsed in only the “inattention” section of the table, then the ADHD would be the Predominately Inattentive Type. If six or more symptoms are endorsed in the “hyperactivity/impulsivity” section of the table, then the ADHD would be the Predominately Hyperactive-Impulsive Type. If six or symptoms were endorsed within each of both sections of the table, then the ADHD would be the Combined Type.

Following the diagnostic questions, the ADHD Module asks a short series of questions that seek to specify situations where the ADHD symptoms cause problems. First, parents are asked if ADHD behaviors have caused problems in specific situations: at home, in school, at daycare/with babysitters and in community activities. Second, parents are asked if ADHD behaviors have caused problems in either the area of social relationships or the area of academic performance. These questions are intended to give

the clinician more information about where an intervention may be focused if behavioral interventions seem warranted.

The ADHD Module contains clinical judgment points 19 and 20. Point 19 asks the clinician to provide a rating of treatment necessity. The clinician uses a 1-10 scale to judge the level of treatment need regarding ADHD symptoms as they affect overall functioning. Point 20 asks the clinician to make a check mark if family members could benefit from psychoeducation around ADHD related symptoms or medication issues.

The ADHD Module further asks the clinician to ask parents, teachers and the child to complete their respective forms of the Conners 3 (Conners, 2008) as appropriate. This self-report measure should give further information about ADHD and some common comorbid problems.

Conners 3 rating scales.

The Conners' 3 Rating Scales assess ADHD along with related learning and emotional difficulties (Conners, 2008). There are versions for the parent (110 items), for the teacher (115 items) and for the self-report of the child (59 items). The instrument is generally completed without clinician guidance. Almost all items use a Likert 4-point scale to determine how often a sentence is true about the identified child. For example, item 43 on the parent version states, "Blurts out answers before the question has been completed." The instrument creates scores on the following scales: Inattention, Hyperactivity/Impulsivity, Learning Problems, Executive Functioning, Aggression, Peer Relations, Conners 3 Global Index Total, DSM-IV-TR ADHD Inattentive, DSM-IV-TR ADHD Hyperactive-Impulsive, DSM-IV-TR Conduct Disorder, and DSM-IV-TR

Oppositional Defiant Disorder. In addition, the instrument screens for problems with anxiety, depression and severe conduct problems. The Conners' 3 takes about 20 minutes to complete and it takes a clinician about 20 minutes to score. The scores are normed to a large standardization sample. The past versions of the Conners' Rating Scales have been established for their reliability, validity effective discriminatory power (Conners, et. al., 1997). For current version of the Conners, internal consistency coefficients range from 0.77 to 0.97, test-retest reliability coefficients range from 0.71 to 0.98, and inter-rater reliability coefficients range from 0.52 to 0.94. For the purposes of the module, the Conners 3 provides confirmatory information around ADHD symptoms from multiple sources.

OCD Module

The goal of the OCD Module is to uncover and track different areas where OCD symptoms may exist. The module begins by providing the clinician with a brief description of OCD that they can provide to the parent. It is important that the parent and the child are on the same page with the clinician around how to identify potential OCD areas. Otherwise, there could be areas of OCD that remain unreported by the parent and/or the child. Once the parent appears to understand the definition of OCD, the clinician begins by asking them if they are aware of any potential obsessions or compulsions and to describe them. These open-ended prompts allow the parent to identify OCD areas based on what they know about OCD.

Following the general symptom questions is a structured list of potential OCD symptom areas. The symptom list is somewhat unique in that it combines common OCD

symptoms with OCD symptoms that are somewhat unique to children with TS. The specific OCD symptom list within this module may be especially useful when symptoms are mostly or entirely limited to this latter category as has often been the situation within the TS Program. For any area where OCD is reported, the clinician will ask the parent to rate both the level of the problem and the child's distress on a 1-10 scale.

The clinician will ask about 18 specific symptoms areas. Of these, 7 were put into the list because they seem to be uniquely common in the TS population: Number one, "Need for reassurance" describes children who are perpetually asking caregivers for confirmation that things are okay, that they are doing a good job, that they are loved or that they are doing the right thing. Number two, "Idiosyncratic rules about how things need to be or to be done" describes children who become extremely rigid in how they carry out certain day-to-day activities. For example, they may have to do insignificant tasks in a certain order or they may demand that superfluous elements of the environment are arranged in particular ways. Oftentimes, these compulsions of rigidity are unaccompanied by a particular obsession. Instead, the child may have a general feeling of discomfort or a rigid inability to cope if the idiosyncratic rules are broken. Number three, "Family members need to do things in a certain way" is much like number two, only that the child recruits family members to perform the rituals or organize the environment. As an example, the child may attempt to require that a parent opens and closes the drapes three times before they will enter their bedroom. Number four, "Urge to touch or tap things" describes a mental urge where the child has to touch certain objects or people. For example, a child may have the urge to touch each corner of any

table in a rotating counterclockwise direction. Number five: “Items must be organized in certain ways,” is similar to common OCD arranging compulsions. It is noted here because it is common in TS populations. In individuals with non-TS OCD, there is often a specific idiosyncratic reason why items must be arranged in certain ways. In individuals with comorbid TS and OCD, there may only be a feeling of general discomfort when items are not arranged “correctly.” Number six: “Sensory sensitivities” describes an intolerance whereby typically banal stimuli can overload the senses of an individual with TS. Common manifestations of sensory sensitivities involve clothing. A child may not be able to tolerate tags or seams on clothes and may refuse to wear certain clothes (or in some cases most of their wardrobe) due to worries around sensory sensitivities. Outside of clothing, a child with TS may be sensitive to numerous other tactile sensations, noises, smells or other types of sensory stimulation. Number seven: “Need for things to feel 'just right'” describes a common sensation in individuals with TS where something feels inexplicably uncomfortable. Environmental manipulation is required until a “just right” feeling is achieved. This phenomenon could occur in a wide variety of settings. For example, an individual may have to pull out and put back different cups in the cupboard until they know that they have the right cup. They would not be able to offer any meaningful explanation of why the cup was the correct one. As another example, an individual could have to walk through a door, time and time again, until they feel that they have done it the correct way. This OCD phenomenon can be differentiated from many of the above rule based compulsions in that there is no specific

rule to follow. Instead there are repeated trials until the “just right” feeling spontaneously emerges.

Within the seven TS-specific OCD symptom areas, the trend of cognitive inflexibility is notable in the way that it separates TS-specific symptoms from general OCD symptoms. In common OCD symptoms, there tends to be describable obsessions that motivate compulsions. In TS-specific OCD symptoms, compulsions are more often motivated by rigid thinking patterns and feelings of discomfort. Cognitive rigidity and feelings of discomfort are much more vague and harder to understand than well-defined obsessions. This often complicates both conceptualization and treatment of OCD in children with TS. These difficulties may extend into the understanding of even the module's 11 general OCD symptoms. For example, an individual with OCD and no TS may be overly moralistic because they have religious obsessions around themselves or others going to hell for even slight moral infractions. An individual with OCD and TS may be similarly overly moralistic, but because they have trouble accepting actions that violate their rigid ideas of right and wrong. A CBT clinician addressing the former case could exploit the obsessions of hell as a primary component of the exposure treatment. When the anxiety around the obsession had habituated, the clinician would hypothesize that the moralistic upset and resulting compulsions would decline. A CBT clinician addressing the latter case has no overarching obsession to work with and may be stuck attempting to design many exposures around various perceived moral infractions. As the occurrence of “moral infractions” could be unpredictable, this “whack-a-mole” approach to OCD treatment is likely to be much more challenging. The TS clinician should be

well-aware of these potential challenges as they learn about the OCD symptomatology of any specific case.

At this point, 10 symptom areas have not been described. They are common OCD areas that are well understood within the OCD literature. They include rituals around bedtime, excessive worries about strange/idiosyncratic topics, perfectionism about performance, unpleasant thoughts or images stuck in mind, excessive checking of safety, irrational avoidance of objects or places, skin or hair picking, excessive hoarding or collecting items, and worries about harming self or others. In the event that a child has OCD symptoms that are not well described in the OCD Module symptom list, there is space for three other potential OCD symptoms areas that can be filled in by the clinician. Following this, the module asks a short series of questions that are designed to offer a further understanding of the child's OCD. First, parents are asked if there are particular environments or times that the symptoms occur. Then, parents are asked when they first noticed symptoms and when symptoms have been at their worst. These three questions are intended to establish how long and how invasive OCD problems have been. Next, parents are asked how different family members have responded to OCD symptoms and then what solutions have been tried to reduce symptoms. It can be important to understand how different family members have reacted to the child's OCD. Family members may benefit from general psychoeducation about OCD and may need some instructions around how to remain best supportive to their child in the light of their symptoms and during treatment.

The OCD Module contains clinical judgment points 21 and 22. Point 21 asks the clinician to provide a rating of treatment necessity. The clinician uses a 1-10 scale to judge the level of treatment need regarding OCD problems as they affect overall functioning. Point 22 asks the clinician to make a check mark if family members could benefit from psychoeducation around OCD related issues.

In addition to the described questions in the OCD module, the module asks that clinicians complete the Children's Yale-Brown Obsessive Compulsive Scale and further asks a screening question that can lead to the administration of the Psychosis Module. The scale and the module are described below:

Children's Yale-Brown Obsessive Compulsive Scale.

The Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS) is a 19-item, semistructured instrument that is designed to measure the severity of obsessive and compulsive symptoms over a one week period of time (Goodman, et al., 1989). The instrument is divided into two sections, one for obsessions and one for compulsions. Within each section, the clinician asks about the presence of symptoms within a number of categories. Following the symptoms checklist, the clinician asks questions around symptom severity. Based on the answers, the clinician determines ratings on a 5-point Likert scale. These ratings provide a CY-BOCS score that can range from 0-40. The instrument takes 20-50 minutes to administer and about 5 minutes to score. The CY-BOCS is a widely used and well established measure for the assessment of OCD symptoms with an internal consistency of 0.87 and an inter-rater reliability of 0.84

(Scahill, 1997). However, the symptom lists provide poor descriptions for some of the OCD symptoms that are common in a child with TS.

Psychosis module.

The Psychosis Module is administered conditionally based on the information gathered during the administration of the General Questionnaire and the OCD Module. At the end of the OCD Module, the clinician is asked to rate the delusional nature of the child's OCD thoughts on a 1-10 scale where a 1 would denote pure obsessions and where a 10 would denote fully delusional thoughts. As is stated at the end of the OCD Module, there is sometimes a tricky distinction to be made between thoughts that are purely obsessional versus obsessional thoughts that have taken on a delusional quality. Obsessive delusional thinking occurs when a child believes something that is clearly false to be true. For example, if the child has airplane obsessions and strongly believes that they are a Junior Fighter Pilot, the clinician would give a high rating because the child's thinking is more delusional. However, if a child believes that harm will befall their parent if they do not repeat a phrase or action, the clinician would give lower rating because the child's thinking is more purely obsessional. Harm befalling a parent is not an impossibility even if it seems highly unrealistic. There is a good chance that the child is responding to the obsessive worry that harm *might* occur to a parent even if they know that the chances of harm are small. In this case, the child is more concerned with managing their worry through compulsions than they are concerned with the likelihood of harm. However, if the child is more concerned that actual harm may occur, this is starting to look more delusional but less delusional than if the child thinks that they are a

Junior Fighter Pilot. The clinician's task is to rate the child's reported potentially delusional thoughts on a spectrum between purely obsessional thoughts and more delusional thoughts.

If the clinician suspects that the child may have delusional thinking or any other potentially psychotic symptoms, the clinician continues with the Psychosis Module. The goal of the module is to determine if the child has any sort of psychotic symptoms that could indicate a prodromal schizophrenia, a childhood schizophrenia or some other psychotic or delusional disorder. The questions in the module were taken with only minor adaptation from a clinician's interview guide created by Zimmerman (1994). The section taken from the guide is entitled "Assessing Delusions and Hallucinations." Permission was granted from the author to use his material for the purposes of this project as a part of the Tourette Syndrome Program. Appendix C contains the author's letter granting permission along with the letter requesting permission.

The Psychosis Module contains clinical judgment points 23 and 24. Point 23 asks the clinician to make a check mark if family members could benefit from psychoeducation around issues related to psychosis. Point 24 asks the clinician to provide a rating of treatment necessity. The clinician uses a 1-10 scale to judge the level of treatment need regarding psychotic processes as they affect overall functioning.

Anxiety Module

During the initial assessment of a client, the Anxiety Module would be administered along with the Depression Module. Manifestations of anxiety and depression are both considered internalizing symptoms. The modules are administered

together so the clinician can uncover any potential interaction between problems with anxiety and problems with depression. The Depression Module will be discussed in the next section. This section will discuss the Anxiety Module and the Multidimensional Anxiety Scale for Children (March, 1999) that is administered with the module.

In the Anxiety Module, the clinician explains to the parent that they are going to ask some questions about their child's fears and worries. From here, the module is divided up into five different sections with each section covering a particular anxiety disorder. Each section follows a pattern where the clinician asks an initial screening question. If the screening question is endorsed, the clinician proceeds with that section. When proceeding, the clinician will ask questions to better understand what is happening with the child in that particular area of anxiety. Then, clinician takes ratings on a 1-10 scale around the anxiety in three areas: the child's distress level, the level of disruption to the child and the level of the parent's concern. These ratings are used to create simple quantifiable measures of the child's anxiety that can be monitored over the treatment within each anxiety area and within all areas together. Next, the clinician asks how long the symptoms have been occurring within each anxiety area. Each section also contains one clinical judgment point, including points 25, 26, 27, 28 and 29. Each point asks the clinician to provide a rating of treatment necessity. The clinician uses a 1-10 scale to judge the level of treatment need for the identified anxiety area as it affects overall functioning. If the screening question is not endorsed, the clinician moves on to the screening question of the next section. The five sections cover simple phobias, separation anxiety, social phobia, generalized anxiety disorder and panic disorder.

Simple phobias.

The Simple Phobias section asks about excessive fear reactions towards particular objects or circumstances. The screening question asks if the child has fears that seem excessive in reaction to the presence or anticipation of a specific object or situation. If this question is endorsed, the parent is asked to describe what the child is fearful of and how the child reacts to the feared stimuli. Next, the clinician asks how the fears affect where the child goes or what activities the child engages in. These three questions are intended to gain an understanding of both the fear and the effect of the fear on the child. Following these questions, the clinician takes the three ratings and then asks how long the symptoms have been occurring. The section concludes with the clinical judgment point rating treatment necessity.

Separation anxiety.

The Separation Anxiety section measures anxiety when the child is anticipating or enduring an insignificant separation from a parent. The screening question asks if the child reacts emotionally when they must be separated from the parent and further specifies by asking about common areas where children experience separation anxiety. The specified areas are instances where the parent has to leave home, when the child has to leave for school or other places, or when the child has to sleep in a separate room. If the screening question is endorsed, the parents are asked to describe the areas where the child reacts emotionally and what the reaction looks like. When the parent has given their description of what happens the clinician asks four yes/no questions that match some of the DSM criteria for Separation Anxiety Disorder. These questions ask about

worry that the parent will be harmed or that the child will be unexpectedly separated from them. Also, they ask about nightmares around separation and somatic complaints in the anticipation of separation. The clinician would be able to use the information from the open-ended questions and from the yes/no questions if they wanted to make an official diagnosis of Separation Anxiety Disorder. Following these questions, the clinician takes the three ratings and then asks how long the symptoms have been occurring. The section concludes with the clinical judgment point rating treatment necessity.

Social phobia.

The Social Phobia section gathers information around excessive fears that the child exhibits in social situations. There are two screening questions of which one needs to be endorsed to continue the section. The first question asks if the child has excessive anxiety during or in anticipation of social or performance situations that involve unfamiliar people or possible evaluation. The second question asks if the child has excessive fears that they will act in an embarrassing manner or that their anxiety actually does cause them to act in an embarrassing manner. These screening questions were selected as the defining features of social phobia. If one of the questions is endorsed the clinician asks questions that are intended to better establish the nature of the child's symptoms. First, the clinician asks for a description of the particular social situations where the child has anxiety and for the child's reaction to those situations. Then, the clinician asks if the child has somatic symptoms during or in anticipation of social events. Also, the clinician asks how the fears affect where the child goes or what activities they do. Following these questions, the clinician takes the three ratings and then asks how

long the symptoms have been occurring. The section concludes with the clinical judgment point rating treatment necessity.

Generalized anxiety.

The Generalized Anxiety Disorder (GAD) section gathers information regarding excessive worries that the child experiences about presently occurring circumstances or about upcoming situations. The screening question asks if the child worries more than other children their age. If the screening question is endorsed, the clinician asks about particular recent worries, what the child does when they are worried and if the worries affect the child's activities. These questions are intended to better understand the child's worry symptoms and how they affect the child's functioning. The section also has the clinician complete a table of somatic complaints that help establish a GAD diagnosis. Parents are asked if their child complains of any of the following symptoms: nausea, sweating, diarrhea, exaggerated startle response, dizziness, shortness of breath or fast heart rate. While the first four symptoms are common in GAD, the latter three symptoms are more often found with panic attacks that may co-exist or serve as a differential diagnosis for GAD. Following these questions, the clinician takes the three ratings and then asks how long the symptoms have been occurring. The section concludes with the clinical judgment point rating treatment necessity.

Panic attacks and disorder.

The Panic Disorder section establishes whether the child has panic attacks and then gathers information around the attacks themselves and around the potentially impairing nature of the anticipation of attacks. Prior to the screening section, the

clinician will describe what panic attacks are. The screening question asks if the child has panic attacks. If the question is endorsed, the clinician continues the section by inquiring about the attacks themselves. The clinician begins by filling out a table that lists the common autonomic accompaniments to panic attacks with four or more symptoms required to meet the DSM criteria for a Panic Attack. Next, the section asks how long typical attacks last and how many have occurred in the past week. The latter question can be asked every week to monitor if the number panic attacks changes during the treatment stage.

The panic section takes ratings that are slightly altered compared to the other sections of the Anxiety Module. First, the parent is asked to rate the child's concern that they will have an additional attack. Next, the parent is asked to rate the child's worry about the danger that an attack will cause them to lose control, have a heart attack, go crazy or endure some other negative consequence. Beyond their general tracking function, the establishment of these worries would be an indication that the child suffers from Panic Disorder, as opposed to suffering panic attacks without Panic Disorder. To further specify a diagnosis of Panic Disorder, the section asks if the child worries about having attacks in specific places or situations and if they avoid any of the places or situations. Endorsement of the latter question would be an indication that the child had Panic Disorder with Agoraphobia. Lastly, the parents are asked to rate their concern about the panic symptoms. The section concludes with the clinical judgment point rating treatment necessity.

Multidimensional Anxiety Scale for Children (MASC).

The MASC is a 39-item self-report instrument that assesses anxiety symptoms in children and adolescents ages 8 to 19 (March, 1999). The measure is completed by the child. On each item, the child uses a 4-level Likert scale to rate sentences that relate to various symptoms of anxiety. For example item 22 states, "I worry about what other people think of me." The responses add up to a MASC total score and to scores on three scales. The three scales are: physical symptoms, harm avoidance and social anxiety. The total score and the score on each scale generate t-scores based on a normative sample. Chronbach alpha was found to be 0.85 for the physical symptoms factor, 0.82 for the social anxiety factor, 0.74 for the social anxiety factor, and 0.75 for the separation anxiety factor (March, et al., 1997). The MASC takes about 10-15 minutes to complete and a few minutes to score.

Depression Module

The Depression Module consists of two sections. In the first section, the module asks about major depressive symptoms. In the second section, the module asks about manic symptoms. The two sections serve somewhat different functions. The major depressive section establishes the presence of current symptoms of depression, while the mania section focuses on the presence of manic symptoms at any point in the child's life. The choice to focus on different time frames makes sense both diagnostically and from a treatment perspective. Diagnostically, with major depression, the current picture is of the utmost concern. Treatment decisions should be strongly based upon the depressive symptoms that are present at the time of evaluation. Diagnostically, the presence of a

manic episode at any point is sufficient to make a diagnosis of bipolar disorder even in the event that there has not been a major depressive episode (DSM-IV-TR, 2000). From a treatment perspective, medication intervention is indicated for bipolar disorder even if the child is not currently displaying manic symptoms. Considering the differences in diagnosis and treatment of depression and of mania, the depression section of the module is setup to track depressive symptoms over time. As there are not specific psychological interventions (other than CBT for medication compliance) that targets manic symptoms (Kronenberger & Meyer, 2001), the mania section of the module is not setup to track manic symptoms over time.

Major depression.

The section on Major Depressive Disorder consists primarily of a symptom list table. The table is followed by a couple of follow-up questions. Also, the clinician provides or helps to administer the Children's Depression Inventory (Kovacs, 1992). If there is any endorsement or suspicion of suicidality, the clinician is instructed to administer the Suicide Risk Assessment (Kalafat, unpublished). The two instruments will be discussed below.

At the start of the section, the parent is informed that they will be asked questions about the child's mood from a list of mood symptoms. The clinician explains that they will ask about the presence or absence of each symptom. For present symptoms, the parents will be asked to rate the frequency and the severity of the symptom on a 1-10 scale. The symptom list table asks about 17 symptoms of childhood depression. The symptoms were gathered from several sources, including the DSM-IV-TR (2001),

Barkley and Murphy (2006) and Kronenberger and Meyer (2001). The table consists of three symptom groups. Symptom Group A asks about feelings of sadness or irritability. One of these two symptoms should be present to diagnose childhood depression. Symptom Group B presents core features that tend to be specifically indicative of childhood depression. These are: sleep difficulties, eating irregularities, low energy or fatigue, low self-esteem, poor concentration or difficulties making decisions, feelings of hopelessness, and suicidal thinking. As it is unlikely that depression is a problem without some of these symptoms being present, the Depression Section is only continued if at least two of the symptoms are endorsed from the two groups. Symptom Group C talks about behavioral manifestations of childhood depression. These are: difficulties with schoolwork, slowed body movements, difficulties having fun, excessive guilt, social withdrawal, limited facial expressions, slowed monotone speech and physical complaints. The symptoms listed in this group could be caused by various factors other than depression, but can be attributed to depression when items in group A and B are endorsed.

Following the table, the section asks when the child shows the symptoms that are endorsed on the table. If the child was suffering from a depressive episode, the symptoms would likely be pervasive. If the symptoms are only present in limited environments, the clinician might further speculate what about the environment might bring about depressive symptoms. The section next asks how long the symptoms have been present and for the parent to describe any past period where the symptoms were

present. The symptoms would need to have been present for at least two weeks for the child to meet the criteria for a Major Depressive Episode.

If the child has shown depressive symptoms for more than six months or at some point in the past, the parent is asked to distinguish between one of three different possible manifestations of depressive symptoms. The clinician checks whether the child has shown periods of depression followed by periods of normal mood, ongoing depression from the time of first symptoms or periods of more extreme depression followed by periods where symptoms were less severe. This brief checklist is intended to distinguish whether the child has shown a single episode of major depression, recurrent episodes of major depression, or recurrent episodes of major depression followed by periods of dysthymia. If none of the described symptom patterns fit, the parents explain the pattern under “other.”

The Major Depression section also contains clinical judgment points 30, 31 and 32. Point 30 and 31 each ask the clinician to provide a rating of treatment necessity. For point 30, the clinician uses a 1-10 scale to judge the level of treatment need regarding depressive symptoms as they effect overall functioning. For point 31, the clinician uses the 1-10 scale to judge the need to address demoralizing situations that are bringing about depressive symptoms. Point 32 asks the clinician to make a check mark if family members could benefit from psychoeducation around issues related to having a depressed family member.

Children's Depression Inventory.

The Children's Depression Inventory (CDI) is a 27-item self-report measure that assesses depression in children and adolescents from ages 6 to 17 (Kovacs, 1992). On each item the child is asked to consider the past two weeks and select the sentence that best describes them from a list of three sentences. Each item pertains to an area that is related to depression with choices moving from one extreme to another. For example, item 4 presents the sentences, "I have fun in many things." / "I have fun in some things." / "Nothing is fun at all." The responses add up to a total CDI score and to scores on five scales. The five scales are: negative mood, interpersonal problems, ineffectiveness, anhedonia, and negative self-esteem. The total score and the score on each scale generate t-scores based on a normative sample. The measure is well established and has been demonstrated to have good internal consistency and discriminate and concurrent validity (Faubert et al., 1986). Cronbach's alpha for the total score was found to equal 0.86. Alpha coefficients for the five factor scores were 0.62 for negative mood, 0.59 for interpersonal problems, 0.63 for ineffectiveness, 0.66 for anhedonia, and 0.68 for negative self-esteem (Kovacs, 1992). The CDI takes about 5-10 minutes to complete and a few minutes to score.

Suicide Risk Assessment.

The Suicide Risk Assessment is a 28-item self report instrument that screens for the presence and overall risk of suicidality (Kalafat, unpublished). In the screening section, multiple choice questions ask about suicidal ideation, plans/means/availability, previous attempts and intent to die. Next, intent to carry out thoughts or plans,

psychological pain, hopelessness, stressors, agitation, self-regard and overall suicide risk are measured on a 5-point scale. Finally, thoughts of suicide, seriousness of suicidal plans, control over suicidal thoughts, and impulses for suicidal behavior are measured on a 4-point scale. The measure takes 5-10 minutes to complete. It gives a clear picture of the different areas of concern surrounding suicidality. While the instrument has not been subject to rigorous research, the measure has been widely used in the clinics at Rutgers University.

Manic episode.

The Manic Episode section looks to establish if there has been any past incident of a manic episode in order to distinguish major depressive symptoms from bipolar symptoms. There are three screening questions for the section. All three ask if the child has experienced a particular mood state for one week or more at any point in their life. Question 1 asks about an ongoing, abnormally elevated mood where the child appeared excessively happy or giddy. Question 2 asks about an ongoing, abnormally goal-oriented mood where the child believed that they could accomplish anything or had they had near unlimited abilities. Question 3 asks about an ongoing, abnormal irritated mood where the child was unusually quick to anger or extreme annoyance. If the parent answers “yes” to any of the questions the clinician is instructed to continue the module. If the parent answers “no” to all of the questions, the clinician is instructed to conclude the module. The three screening questions are a paraphrased version of the first criteria of the DSM-IV-TR (2001) for a Manic Episode.

Following the screening questions is a symptom list table where the parent is asked to rate the level of various mood symptoms as they occurred during the identified week or more where symptoms were pronounced. The list is taken directly from the DSM-IV-TR (2001) criteria for a Manic Episode . Three or more mood symptoms would need to be present for a diagnosis if the parent had endorsed the first or second screening question. Four or more mood symptoms would need to be present for a diagnosis if the parent had endorsed only the third screening question (involving only an irritable mood). Following the symptom list, the parent is asked to rate the level of disruption that the symptoms caused to the child's academic performance, social life or other activities. If there is a noted disruption and enough criteria were met on the symptom list, the clinician would be able to diagnose bipolar disorder (ruling out a substance induced manic episode or a mixed episode) based on the DSM criteria.

Following the diagnosis questions, the Mania Section asks a few follow up questions that are intended to get a better picture of the symptoms. First, the parent is asked if the child's mood state resulted in hospitalization. Then, the parent is asked if there were hallucinations, strange ideas or paranoia accompanying the mood symptoms. These questions ask about more extreme potential results of a manic episode and would be notably concerning especially if the child was not currently taking a mood stabilizing medication. Last, the parent is asked to describe the time frame when any of the mood states occurred. They are asked how many times the states have occurred, how old was the child and for how long did the mood states last. It is important that the clinician is able to establish discrete periods where the mood was abnormally different than the

child's regular mood. Considering the high comorbidity with behaviorally overactive disorders, such as ADHD and rage episodes, and considering that the primary treatment of bipolar disorder is side-effect laden medications, a diagnosis of childhood bipolar disorder should be made extremely cautiously.

The Mania Section contains clinical judgment points 33 and 34. Point 33 asks the clinician to provide a rating of treatment necessity. The clinician uses a 1-10 scale to judge the level of treatment need for manic symptoms for the potential of future episodes of mania. Point 34 asks the clinician to make a check mark if family members could benefit from psychoeducation or emotional support around issues related to manic symptoms or bipolar disorder.

Behavioral Problems Module

The Behavioral Problems Module looks to identify environments and situations where problematic behaviors occur. Within these areas, the module attempts to identify potential triggers that cause behaviors, the nature of the behavioral problems and the reactions of parents and others to the behaviors. The module has several components. First, there is a table that asks about different situations where problematic behaviors could occur. Next, there are several questions that ask about antecedents, behaviors and consequences. Also, parents are asked to complete the Rage Attacks Screen Questionnaire (Rockmore, 2001).

The module begins with a table that lists 22 situations/environments where behavioral problems are likely to occur. For each situation, the parent is asked to look back over the past week. If behavioral problems have occurred, the parent will give three

ratings on a 1-10 scale: Frequency, Average Severity and Worst Severity. “Frequency” is an estimate of how often problematic behaviors were occurring when the child was in the particular setting with 1 being almost never and 10 being always present. “Average Severity” is an estimate of how severe the behavior was overall on a 1-10 scale with 1 being mild and 10 being the most severe conceivable. Using the same 1-10 scale, “Worst Severity” is an estimate of the severity of the worst incident in that setting over the past week of time. The situations were selected from the clinical literature on child and adolescent behavioral problems (e.g., McMahon & Forehand, 2003; Feindler & Ecton, 1994; Barkley & Murphy, 2006) and from the reported clinical case experiences of TS clinicians. The following situations are used on the table: Getting ready for school, Mealtimes, Washing and bathing, About to leave the house, When watching television, On the computer/video games, Getting dressed, Bedtime, In the car, Public places, When visiting someone's home, When asked to do homework, When asked to do chores, When on the telephone, When you don't follow the child's command, When father is home, When visitors are over, When the babysitter is over, When playing with other children, When playing alone, When interacting with siblings, When at school.

Following the table, the module moves into a section on antecedents, behaviors and consequences. This section consists of a series of questions that gather information about what happens before, during and after the behavioral problems. First, the parents are asked to describe anything that they have noticed about what happens directly before the problematic behavior begins within any of the situations. With this prompt, the clinician can discover if the parent is able to describe antecedent behaviors, which would

be an ideal place to target behavioral interventions. Next, the parent is asked to describe the child's repertoire of behaviors when problems are occurring. They are asked about verbal, physical and refusal behaviors and encouraged to provide as specific details as possible. The clinician can use this initial list of problem behaviors as they make decisions about what behaviors to target during treatment.

After the parent has fully described the behaviors themselves, they are asked what happens right after the problem behaviors, if there are specific consequences to specific problem behaviors and what has worked and not worked in trying to reduce problem behaviors. These three questions will help the clinician understand the consequence phase by learning about what the child and the parents do following problem behaviors. Gathering detailed information about the parent response to the child's behaviors can be particularly important in making treatment decisions. There are several well established treatments that vary quite widely in their approach to resolving behavioral problems. Different approaches might be more or less successful in different children and in different family systems. More will be said on this matter in the upcoming chapter on conceptualization and treatment planning.

Following the questions on consequences, the section asks about how the child's behavioral problems affect their relationship with various family members and significant figures. This question will help inform the consideration as to whether more psychoeducation or emotional support is needed for individuals who have to deal with the child's behavioral problems. Finally, the section asks what specific behavior is considered the worst problem. This question may be useful in naming the initial behavior

to target in treatment. The Behavioral Module also contains clinical judgment point 35 which asks for a rating of treatment necessity. The clinician uses a 1-10 scale to judge the level of treatment need regarding behavioral problems as they affect overall functioning.

Rage Attacks Screen Questionnaire.

The Rage Attacks Screen Questionnaire is a 22-item parent-report instrument (Rockmore, 2001). The initial four items of the measure screen for the presence or absence of rage attacks. Completion of the remaining items is contingent upon the presence of rage as demonstrated by “yes” answers on items 1-4. The remaining items ask mainly multiple choice questions that describe the factors involved in rage behaviors, the rages themselves and the experience directly following the rages. The measure takes 5-10 minutes to complete. It is unique as a measure that gathers information about rage attacks in children with TS. While the instrument has not been subject to rigorous research, the usefulness of the measure is described by Rockmore (2001).

The Completed Questionnaire

All sections of the General Questionnaire and the five Modules along with the various assessment instruments have now been described. Completed properly, the clinician should come out of the intake with a large amount of information that can be used to aid conceptualization and treatment planning. Ideally, the process of completing the questionnaire forms is a useful endeavor that allows the clinician to have a comprehensive picture of the child, the family, the problem areas and the interaction between all three. Just as the entire questionnaire provides a comprehensive picture, the

35 clinical judgment points provide a structure for describing specific clinical problems. Each point should correspond to a specific problem area with the intent being that all major potential problem areas have been addressed within the points. For any point that has been endorsed by the clinician, there is at least one general possible solution. The next chapter of this Guide will discuss each point and the corresponding recommended treatment directions. It will also talk about how to use the clinical judgment points and the larger questionnaire to prioritize treatment focus.

In addition to guiding the conceptualization and the direction of treatment, some of the information from the questionnaire forms is codeable. Once coded, the information gathered during the initial assessment can be used to store and track individual client data in a way that both aids in treatment decisions and creates baseline data that will allow the clinician to track clinical progress and outcomes. Following the chapter on conceptualization and treatment planning, next chapter of this Guide will describe the process of using the Questionnaire Forms to track treatment progress and outcomes.

CHAPTER V

CONCEPTUALIZATION AND TREATMENT PLANNING

The intention of the Conceptualization Guide is not to usurp the clinician's wisdom or intuition. Instead, it is intended to optimize the clinician's ability to use their knowledge and judgment by providing comprehensive information. During the assessment, the Questionnaire Forms prompt the clinician to make decisions about what might be needed based on the information that they are gathering in that moment. These *clinical judgment points* can be used to identify areas that the clinician recognizes as potential targets for intervention. Within major areas of intervention, the clinical judgment points ask for a clinician rating of treatment necessity. These 1-10 scale ratings are made within all of the major areas of treatment. When the clinician is faced with the task of prioritizing what major area to treat first, they can look at their ratings and consider selecting the rating that is the highest on the 1-10 scale. However, the ordering of treatment priorities is ultimately in the hands of the clinician, who holds information not only contained within the questionnaire, but within their sense of the family and the family needs. To gain a further sense of how to bring the assessment information together, an example of a case write-up is provided as Appendix D to this Guide.

Clinical Judgment Points – Treatment Implications

Each clinical judgment point and the corresponding suggested directions for treatment will now be discussed. Special consideration of the TS population will inform this discussion.

Clinical Judgment Points Within the General Questionnaire

Point 1 is in the Basic Information About Child section of the General Questionnaire. It is endorsed if the clinician believes that the child's lack of interests or activities is problematic. At the beginning of the interview, the clinician attempts to get a positive view of the child by learning about what they like and by learning about their activities and interests. Learning about these positive areas allows the clinician to learn about the child outside of their TS and their comorbid disorders and to help the family externalize the disorders. It is concerning if the parent and the child are unable to represent the child in terms of interests and activities. It suggests that either the child lacks interests and activities or that the parent has difficulties viewing their child in terms of these positive areas. In either case, the clinician might pursue the goal of creating a view of the child that is independent of disorders and related to activities that the child enjoys. If the child actually lacks interests or activities, the clinician should work with the child and the parents in identifying meaningful pursuits and then planning how to get the child involved.

Point 2 is in the Basic Family Information section of the General Questionnaire and pertains to the sibling subsection. It is endorsed if the clinician believes that the child's sibling interactions seem problematic. In families with siblings, rivalry is normal and expected. A rule of thumb for problematic sibling interactions is if the parent is frequently having to intervene in the children's disputes. The recommended treatment for sibling problems is from Elaine A. Blechman's "Solving Child Behavior Problems at Home and at School" (1985). Her short module on how to manage fights between

siblings defines when a fight is occurring and gives the parents a consistent intervention strategy that is intended to encourage siblings to resolve their disputes quietly, nonviolently and without involving the parents. As a brief summary of her intervention, fights are occurring when the parent can hear the conflict from the next room, when one child complains that they are being targeted by another, or when the parent observes physical aggression between two children. In each case, the parent implements a timeout strategy to all involved. The parent makes no efforts to investigate the details of the dispute, but simply interrupts the dispute with a timeout.

Point 3, 4 and 5 are in the Information About Tics section of the General Questionnaire. Point 3 is endorsed if the clinician believes that the child could benefit from Comprehensive Behavioral Intervention for Tics (CBIT) that is described in “Managing Tourette Syndrome: A Behavioral Intervention for Children and Adults Therapist Guide” (Woods, et al., 2008). The CBIT treatment directly targets motor and vocal tics with behavioral interventions that are intended to reduce or eliminate specific tic behaviors. As a brief summary, CBIT uses “awareness training” to teach the child to identify the premonitory urge that precedes their performance of a tic. The clinician teaches the child a “competitive response” that is incompatible with the behavior of the tic. When the child feels the urge to tic, they are instructed to perform the response for at least a minute or until the urge to tic dissipates. For example, if the treatment was targeting a head jerking tic, the child might be instructed to hold their chin down against the top of their chest whenever they felt the urge to tic. The idea of the CBIT technique is that as the child learns to tolerate the urge of a particular tic and not perform the tic, the

urge itself will actually decrease. Resisting the urge to tic is difficult and requires a lot of motivation and vigilance from the child. Hence, the child's attention and motivation should be assessed in determining if CBIT should be initiated.

Point 4 is endorsed if the child could benefit from supportive psychotherapy around tics. Supportive psychotherapy would be indicated if the child showed emotional distress or unnecessary avoidance behaviors due to their perception of their tic symptoms. Supportive psychotherapy does not make any direct efforts to change tic behaviors. Instead, the clinician works with the affect and behaviors that stem from the child's diagnosis and their perceived and actual display of tic symptoms. General clinical skills are used to help the child to express how TS affects them. The clinician takes a general stance of empathic acceptance and works with the child on strategies that allow them to feel more comfortable with the reality of their tic symptoms. This can be done in a couple of ways. First, the clinician may work to externalize the TS symptoms as something that is only a small component of the child's overall view of themselves. Here the clinician will emphasize the non-TS aspects of the child as a large and important component of their overall personality. Second, the clinician may suggest to the child that they become comfortable sharing their experience of TS with others. The clinician and the child can work together to determine who the child may want to talk to about TS. They may role play conversations where the child shares their TS experiences. While there is not a particular expectation to have around how much a child shares about their TS, it is notable that many children embrace their tic symptoms as a valued component of their personality that is openly expressed around others. When possible, the clinician can

arrange for the child to meet other children who also have TS as a way of normalizing their experience.

Point 5 is endorsed if the clinician believes that family members could benefit from psychoeducation or emotional support around TS related issues. Many families dealing with a TS child seek clinical services with this goal in mind. They may have little information about TS and they may be adjusting to a new diagnosis. When this is the case, the TS clinician should oblige family members with information about potential implications of having a child with TS. When a child has difficult problems, parents can benefit from emotional support. The clinician's role here is to give the parent's a space to express their frustration of their situation. Some parents can benefit from grieving the loss of the perfect child they had imagined. Other parents have felt that they or their child has been stigmatized by the disorder. Others have endured many disappointments in their interactions within the medical community. Still others are struggling to cope with the level of problems that their child is suffering. The clinician's role for any parental frustration is a balance of empathy and wisdom. When possible, a clinician can further help the parent to seek out avenues where they could interact with other parents who face the challenge of raising a TS child.

Points 6, 7, 8 and 9 are in the Problem Areas section of the General Questionnaire. Each point is endorsed when the clinician decides that they should administer one of the four modules categories, the ADHD Module, the OCD Module, the Anxiety and Depression Modules, and the Behavioral Problems Module. These clinical judgment points are different than the others in that they do not directly lead to treatment

decisions, beyond the decision to extend the assessment. The modules themselves contain clinical judgment points (discussed below) that will help form treatment decisions.

Points 10, 11 and 12 are in the Trauma and Loss History section of the General Questionnaire. Point 10 is endorsed when the clinician believes that the child may benefit from further treatment for issues surrounding loss. There are not treatment for childhood loss that are specifically useful to a child with TS. Depending on the severity of the situation and the clinician's knowledge in the area of loss, the clinician may consider referring the child to a clinician who specializes in issues of bereavement.

Point 11 is endorsed if the clinician believes that the child is currently at risk for abuse. If this were the case, the clinician would be obligated to take steps to protect the child from the risk of future abuse. In doing so, the clinician may need to involve safe family members in recognizing the concern for risk and in taking steps to protect the child. If the child has been the victim of unreported past abuse the clinician may have an obligation to report the abuse. While the specific criteria for reporting abuse is outside of the scope of this Guide, one immediate intervention would be for the clinician to report the situation to their immediate supervisor who could help the clinician in implementing the proper response.

Point 12 is endorsed if the clinician believes that the child could benefit from treatment to address issues of trauma. Issues of trauma are not known to be specifically comorbid with TS and should generally be dealt with as a separate issue. Clinicians looking for information regarding treatment for childhood trauma should refer to Cohen,

et al. (2009) for a book chapter on “CBT for Children and Adolescents,” within “Effective Treatment for PTSD,” edited by Foa, et al., for a comprehensive view of the various components involved in providing CBT treatment for PTSD in children.

Point 13 is in the Medication History section of the General Questionnaire Form. It is endorsed when the clinician believes that the child or family could benefit from support or education around issues of medication. Parent may be struggling with the decision as to whether to medicate their child for TS symptoms or for symptoms of any of the various co-morbid disorders. The clinician should offer both emotional support and wisdom for parents around this difficult decision. Some parents may consider medication to be the primary symptom reduction solution. Other parents may be entirely opposed to medication. In advising parents, the clinician may want to take a middle ground by suggesting that parents gain as much knowledge as possible so that they may make choices that support their long term goals for raising their child. In general, parents should be encouraged to err on the side of giving their child as little medication as possible. That said, medications have the potential to significantly raise the quality of life for a suffering child. In the case where a child is suffering and where other solutions have not been successful (or are known not to be successful), medication becomes a good option, even when there is the potential for side effects. Obviously, the issue of medication is complex. In stating the above position, the clinician is hoping to encourage the parent to consider all sides in making the best decision for their child. The clinician's further roles could involve providing emotional support for whatever decision the parent makes. Lastly, the clinician can be helpful in referring the family to a psychiatrist,

neurologist or pediatrician who has particular expertise in prescribing medication for children with TS.

Point 14 is in the School Information Section of the General Questionnaire. It is endorsed when the clinician believes that a school intervention would be useful. A school intervention could take many forms. At the most basic level, the clinician could be supporting the parent and offering guidance around how the parent might best communicate with the school around issues related to TS. Some parents can benefit from basic support on how to let the school know that their child has a neurological disorder. These parents can benefit from psychoeducation and emotional support around what information should be provided to schools and general coaching around how to communicate with various school personnel. Other parents are hoping to get disability services or accommodations for their child. The clinician can be useful in helping the parents to understand their rights and to initiate a plan of action. Extensive resources and knowledge is available on this matter from the Tourette Syndrome Association. Some information can be viewed on their website: <http://www.tsa-usa.org/>. It may further be useful for the clinician to interface with the school directly. The clinician may want to contact various school officials to get a better picture of particular problems and may even attempt to help the school in implementing a behavioral intervention plan. The clinician may refer to Blechman (1985), "Solving Child Behavior Problems at Home and at School" for further information about interventions for specific school problems.

As another avenue of intervention, the clinician can schedule an inservice at the school. An inservice involves giving a talk or a training to subsets of the school

population. Inservices could be done for overall school staff, for particular teachers that have contact with the child, for the student population of the school or for a particular classroom that has a child with TS. Some state chapters of the Tourette Syndrome Association can provide specific assistance in scheduling and/or delivering inservices to school staff and to students. From the psychological perspective, the most useful function of an inservice is that it promotes greater understanding and acceptance of the child with TS. Ideally, the change of perspective in the population of the school will lead to more optimal functioning for the child with TS.

Points 15, 16, 17 and 18 are in the Social Information section of the General Questionnaire. Point 15 is endorsed when the clinician believes that the child could benefit from social skills training. The clinician is likely to suspect that social skills are a problem if the child has a lack of friends or does not report to spend time with peers at school or outside of school. There could also be a social skills problem if the child interacts only with younger or older kids, but has problems relating to same aged peers. As evidence of peer-related deficits, the child may get into fights with peers, may act in ways that cause peers to keep their distance (perhaps due to impulsive, hyperactive or immature behaviors) or may be excessively shy, anxious and/or avoidant around same age peers. Many times parents will report directly that social skills are a problem and may have even made the appointment in pursuit of social skills training for their child. During the interview, the clinician can assess how the child performs socially by monitoring if the child has appropriate eye contact, if the child has age appropriate skills for introductions and goodbyes, if the child has age appropriate conversational or

interaction skills, and if the child is able to use words to communicate their emotions. The primary recommendation for social skills problems is that the child enters into the social skills groups. When available, the clinician should refer the child into a TS specific social skills group. Within these groups, the child has the opportunity to work with other children with TS as they follow a curriculum where they practice basic social skills and receive education and support around their diagnosis of TS. The child could receive many similar benefits within social skills groups that are not specific to TS children.

Point 16 is endorsed if the child could benefit from support around issues of teasing or bullying. Ideally, problems of bullying and teasing are dealt with systemically. Particularly if the child is a victim of teasing or bullying, the clinician should be aware that changing the child's behavior may not be enough to stop them from being targeted. If the child is more often in the role of perpetrator, the responsibility should fall on the parent (and the school if the problems are limited to school) to intervene in a way that discourages the child's assault on others. The clinician should refer to Olweus (1993), "Bullying at School" for a comprehensive systemic approach to bullying. Further resources are available at the following web address: <http://www.njbullying.org/>. If the child exists in a system that has a poor response to bullying or teasing behaviors, it may be a significant challenge to stop the negative acts. The clinician might instead choose to offer emotional support to the child and to parents who might feel helpless to protect their child.

Point 17 is endorsed if the child could benefit from intervention around substance use. If substance use is endorsed, the clinician should use the assessment procedure to understand as much information as possible as to the substance use habits of the child. It may be the case that the child is abusing substances due to distress brought on by other symptoms as a way of self-medicating. Still, if there is a serious problem that warrants immediate intervention, the clinician should refer the family to a clinic that has expertise in childhood substance abuse. Treatment may need to be delayed until the substance use problem is resolved. If the child is an older adolescent with minor recreational or self medicating substance use, the clinician may consider pursuing a treatment around other identified problems. The clinician could attempt to monitor the substance use behaviors with the hopes that treatment will lower the adolescent's stress level or provide the adolescent with alternative coping strategies to using.

Point 18 is endorsed if the clinician has uncovered other clinical concerns that were not addressed within the questionnaire or modules. As this is a broad topic, there is nothing in the way of specific recommendations to make for point 18. If a specific clinical concern is noted for many children under point 18, it may be useful to revise the questionnaire to include the concern.

Clinical Judgment Points Within the ADHD Module

Points 19 and 20 are in the ADHD Module. Point 19 asks the clinician to provide a rating of treatment necessity on a 1-10 scale. The clinician should consider the amount

of impact that the current ADHD symptoms have on the client's overall functioning in coming up with their rating. Point 20 is endorsed when the clinician believes that family members could benefit from psychoeducation around ADHD related symptoms or around medication issues involving ADHD. Points 19 and 20 will be talked about together because they are highly related.

The most effective intervention for ADHD is medication. If medication has not been tried or if medication is not currently being used, the clinician may consider getting the child to take medication as a primary treatment goal. The clinician should work to develop a thorough understanding of why medication is not being used. One potentially good reason to not use medication is that the child is functioning well without medication and has, at most, minor difficulties from ADHD symptoms. Other reasons for not pursuing medication likely reflect a need for psychoeducation, emotional support and/or motivational interviewing around issues of medication. If medication has been unsuccessful in the past, it is likely that it was administered in a haphazard way, a common phenomenon within psychiatric treatment of ADHD (refer to MTA Cooperative Group, 1999a for a more thorough discussion of how to find optimal medication and dose for ADHD). The reason for the clinician to take a strong stance in support of medication for ADHD is that the child is unlikely to benefit from psychological treatments that intend to decrease specific ADHD symptoms if medication is not also being used concurrently (MTA Cooperative Group, 1999a).

Outside of recommending medication for ADHD, the clinician can be useful in teaching the child and the family strategies that allow for better functioning by

systematically accommodating the disorder. For ADHD children between the ages of 4 and 12, the clinician should refer to the “Parent Training Program,” (Anastopoulos et al., 2006) in Chapter 12: “Counseling and Training Parents” of “Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment,” by Russell A. Barkley. In brief summary, the program begins by giving parents psychoeducation around ADHD. Next, it works to improve parents relationship with the child by teaching parents “positive attending skills” and then using these skills to increase the child's compliance. Then, the program establishes a home point system followed by a timeout procedure. Lastly, the program teaches the parents strategies for extending the techniques into public and school settings.

For ADHD adolescents ages 13 and older, the clinician should refer to the intervention program based on the biobehavioral-family system model of ADHD (Robin, 2006) in Chapter 14: “Training Families with Adolescents with ADHD” of “Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment,” by Russell A. Barkley. In brief summary, the intervention approach has four goals. First, it provides parents and adolescents with psychoeducation about ADHD. Second, it seeks to improve the adolescent's cognitive functioning by motivating the adolescent to take stimulant medication. Third, it works with the adolescent to use both internal and external compensatory strategies in ADHD problem areas. Fourth, it works with both the adolescent and the parents to restructure the physical and social environment in a way that maximizes functioning. The treatment approaches for either age group of ADHD are

intended as a supplement to medication that will help to both improve the functioning of the child and to provide education and support for the family members.

Clinical Judgment Points Within the OCD Module

Points 21 and 22 are in the OCD Module. Point 21 asks the clinician to provide a rating of treatment necessity on a 1-10 scale. The clinician should consider the amount of impact that the current OCD symptoms have on the child's overall functioning or the child's sense of well-being in coming up with their rating. In OCD, it is possible that the child would be highly disrupted by OCD symptoms, but not distressed by them. In this case, the symptoms take up a large percentage of the child's time, yet the child reports that they like or are not bothered by their OCD habits. For example, a child who had to have everything ordered in an idiosyncratic way, may report that they enjoy the ongoing task of moving their possessions around. On the other hand, it is possible that the child is maintaining high achievement despite the distressing nature of their OCD symptoms. For example, a child could be functioning well in school and completing all of their chores at home while being continually tormented by images of death.

The recommended treatment for OCD is from Aureen Wagner (2003), "Treatment of OCD in Children and Adolescents: A Cognitive-Behavioral Therapy." In brief summary, the treatment manual addresses OCD in four phases. Phase I offers the clinician the tools and techniques for assessment and treatment planning. Phase II involves the child in planning their treatment as they learn about their OCD and about strategies to manage their symptoms. The treatment places a strong emphasis on this "treatment readiness" phase, arguing that a premature start to active treatment often lead

to treatment failure. Phase III is the active treatment phase and utilizes the strategy of exposure and ritual prevention (ERP) to combat OCD symptoms. The manual uses a child friendly metaphor where doing the ERP is compared to a child riding up a big hill on their bicycle and getting to coast down the opposite side. Phase IV covers relapse prevention by preparing the child to manage their own OCD symptoms and their anxiety following treatment. An alternative, but similar treatment for OCD is from John Piacentini, Audra Langley, and Tami Roblek (2007), "Cognitive Behavioral Treatment of Childhood OCD: It's Only a False Alarm."

Point 22 is endorsed if the clinician believes that family members could benefit from psychoeducation or emotional support around OCD related issues. Parents often lack a sophisticated understanding of their child's OCD symptoms. Oftentimes, the symptoms can assert control over the entire family system as the child begins placing demands for family members to comply with the child's OCD world. Also, with a child with a complex array of co-morbidities, parents often struggle at distinguishing OCD behaviors from tics, ADHD symptoms, behavioral problems or normal child functioning. The clinician's task involves helping the parents to develop a more sophisticated understanding of OCD symptoms. Parents should learn which of their child's behaviors and emotions stem directly from OCD. As treatment proceeds, parents can be coached on how to respond to their child's OCD symptoms in a supportive but non-enabling way. Specifically, as parents begin to understand their child's OCD, the clinician should encourage that the parents are empathic about their child's lack of control over their

behaviors. Some parents can benefit from processing through the guilt around past anger and punitive responses to their child's OCD.

The clinician should teach parents the difference between being supportive and being enabling. Many parents have learned to accommodate their child's OCD symptoms by helping their child to avoid stressful situations and by performing OCD rituals on behalf of their child. Both these tendencies enable the child's OCD. While the child may feel supported, the long term effect of enabling is reinforcing distressing and/or disruptive OCD symptoms. Other parents have a punitive response to OCD symptoms. They become angry with their child. They make demands that the child does not perform their rituals or argue with their child over the absurdity of the child's obsessive thoughts. Unfortunately, the child has little control over their OCD behaviors. The resulting stress from the punitive response is likely to increase OCD symptoms.

Parents often feel stuck between the enabling stance and the punitive stance. In many families, one parent takes each stance creating tension and upset for all. The clinician can coach the parents on a third option: the supportive stance. The supportive stance supports the child, but not the child's OCD. Parents learn to validate their child's distress over OCD without engaging in enabling behaviors. Parents can say things like, "I know that your OCD is making you nervous right now, but it is okay to feel nervous. I know you can handle it." Parents should avoid arguing with their child about why the OCD thoughts or behaviors are not rational. The supportive stance works well in combination with OCD treatment. As different OCD areas are targeted in treatment,

parents can use the supportive stance to support the child's behavior changes within the targeted areas.

Points 22 and 23 are in the Psychosis Module that is attached to the OCD Module. Point 22 is endorsed when the clinician believes that the family members could benefit from psychoeducation or emotional support around issues related to psychosis. Point 23 asks the clinician to provide a rating of treatment necessity on a 1-10 scale. The clinician should consider the amount of impact that the current psychotic symptoms have on the client's overall functioning in coming up with their rating. If psychotic symptoms are a primary concern, the clinician should strongly consider referring the child to a psychiatric setting with specific expertise in the treatment of childhood psychotic disorders.

The clinician may not be in a position to offer psychoeducation or emotional support to the parent around issues of severe psychopathology. That said, there is a unique role that can be played by a TS clinician when faced with a child who has psychotic symptoms. As an expert on TS, OCD, ADHD, rage behaviors and other phenomenon that are commonly associated with TS, the clinician can provide insight to parents that help them to better understand the complex presentation of behaviors displayed by their child. Moreover, the TS clinician is in a good position to offer insight and intervention for the non-psychotic symptoms in cases where there are some psychotic symptoms, but psychosis is not the primary concern.

Clinical Judgment Points Within the Anxiety Module

Points 24, 25, 26, 27 and 28 are in the Anxiety Module. Each point asks for the clinician to provide a rating of clinical necessity within a different area of anxiety as covered by the five sections of the anxiety module. In order, there is the potential for the clinician to provide a rating for simple phobias, separation anxiety, social phobia, generalized anxiety and panic disorder. Within each anxiety area, the clinician is asked to use a 1-10 scale to rate the level of treatment need. The clinician assesses the treatment need by considering how much the specific area of anxiety affects the child's functioning and/or how much the specific area of anxiety is causing the child distress. Each area has a different source of anxiety. For simple phobias, the anxiety source is the thoughts or encounters with feared objects or situations. For separation, the anxiety source is the anticipation or reality of insignificant separation from caregivers. For social phobia, the anxiety source is the anticipation or reality of specific social situations. For generalized anxiety, the anxiety source is the pervasive tendency to have unrealistic worry about current or upcoming events. For panic, the anxiety source is the fear that a panic attack will occur.

The treatment recommendations are similar across the five anxiety areas. Overall, treatment involves educating the child about anxiety, teaching the child skills for managing their anxiety and exposing the child to their feared stimuli. The recommended treatment is the Coping Cat Program. The child version of the program is from Philip Kendall and Kristina Hedtke (2006), "Cognitive-Behavioral Therapy for Anxious Children: Therapist Manual." The adolescent version of the program is from Philip Kendall et al. (2002), "The C.A.T. Project' Manual: For the Cognitive Behavioral

Treatment of Anxious Adolescents.” The Coping Cat Program involves six components: psychoeducation, somatic management, cognitive restructuring, problem solving, exposure, and relapse prevention. During psychoeducation, the child and the family learn how the child's problematic anxiety has been learned and maintained and how the child's anxiety will be treated. During somatic management, the child is taught relaxation techniques that can be used during periods of heightened anxiety. During cognitive restructuring, the child learns to identify and then challenge anxiety provoking thoughts. The child creates a “Fear Plan” based on the FEAR acronym where F = feeling frightened, E = expecting bad things to happen, A = attitudes and actions, and R = results and rewards. During problem solving, the child learns to identify real life problems and then to brainstorm and evaluation solutions for resolving various specific problems. During exposure, the child learns to confront specific feared situations without engaging in escape behaviors. The exposures are done in a graduated fashion where the child confronts greater levels of anxiety over time. For example, a child who is afraid of bees may start by viewing photographs of bees and move slowly towards situations where the child remains in an area where there are a lot of actual bees. During relapse prevention, the child learns strategies to maintain treatment gains. Booster sessions are used as a part of the overall maintenance plan.

Clinical Judgment Points Within the Depression Module

Points 30, 31 and 32 are in the Depressive Symptoms section of the Depression Module. Point 30 asks the clinician to provide a rating of treatment necessity for depressive symptoms on a 1-10 scale. The clinician should consider the amount of

impact that the current depressive symptoms have on the client's overall functioning or the client's sense of well-being in coming up with their rating. Also, it is important that the clinician considers the pervasive nature of the depressive symptoms. In other words, the clinician should give a higher rating if the symptoms seem relatively independent on changes in the environment. The upcoming discussion of Point 31 will discuss the implications of non-pervasive symptoms.

The recommended treatment for childhood depression is the “Taking ACTION” protocol that was developed by Keven Stark and Philip C. Kendall (1996). The program is presented to be run in a group format, but can be easily modified for individual children suffering from depression. There are 18 sessions to the protocol. There are four components to treatment, including affective education, problem-solving skills, coping skills, and cognitive interventions. The affective education component teaches the child to learn about emotions, identify their internal experiences of emotions, and to make links between thinking and feeling. The problem-solving skills component focuses on having the child to identify and verbalize problems before coming up with a list of potential plans for a solution. The child is then taught to choose the best plan and given a process of trying out the plan and evaluating if it was effective. The coping skills component helps the child to identify pleasant events and then to generate plans to increase engagement in these events. Also, the child determines coping plans to use with identified unpleasant events. The cognitive interventions component teaches the child to identify thoughts and images that coincide with emotions. The child learns strategies to challenge and reconstruct thoughts that in a way that will counter negative emotions.

Following each session, the child is given a homework assignment that incorporates the skills learned in session into the outside environment.

Point 31 asks the clinician to provide a rating of treatment necessity for demoralizing situations that are bringing about depressive symptoms on a 1-10 scale. In other words, the clinician should consider the amount of impact that situations that are upsetting to the child have on the child's overall functioning or the child's sense of well-being. In considering this rating, there is an important distinction that could be made between a child who feels demoralized versus a child who has a genuine depression. The demoralized child only displays depressive symptoms when the upsetting situations are occurring. For example, a child with TS may be upset by their feeling of stigma brought on by tic symptoms. In this case, the child would show more depressive symptoms at times when they were around others and at times when their tic symptoms were more severe. On the other hand, the child could show little or no depressive symptoms during periods when they had only minor tics or when they were not around people who invoked feelings of stigma. If it were the case that the child frequently had more severe tics and was frequently around others who invoked feelings of stigma, they may appear upset all the time without actually being in a genuine episode of depression.

The distinction between depression and demoralization becomes important when considering treatment. There is not a strong need for a full treatment of depression if the depressive symptoms are a result of demoralizing circumstances. Instead the clinician should consider a treatment that attempts to amend the situation that brings about demoralization. For example, in the case of the child who feels stigmatized by their tics,

the clinician could pursue several possible treatment directions. As one option, the clinician could choose a treatment direction that attempted to decrease overall tic symptoms through a medication referral or through a CBIT treatment. As another option, the clinician could use therapeutic interventions that attempted to lower the child's experience of stigma. The clinician could offer supportive psychotherapy to the child. Also, the clinician could provide psychoeducation to the child's family and school so that they responded to the child's tics in a supportive fashion. If pursuing these options did not sufficiently lower the child's depressive symptoms, the clinician could then consider the recommended treatment for depression within point 30.

Point 32 is endorsed when the clinician believes that family members could benefit from psychoeducation or emotional support around issues related to having a family member with depression. It can be difficult for family members to endure a child's depression. Some family members may not even interpret the child's behaviors as depression. This could particularly be the case when the child is showing irritable mood symptoms. Educating the family members about depression can allow the family members to separate the symptoms of the child's depression from their overall view of the child. Also, the family members' understanding of the symptoms and the treatment can give them better tools to support the depressed child. In addition to psychoeducation, the clinician should encourage family members to voice their frustration and worry about the child's depressive state. By validating the family members' experience of the child's depression, the clinician can increase the family's ability to tolerate the child's depressive symptoms and to support the child.

Point 33 and 34 are in the Manic Episode section of the Depression Module.

Point 33 asks the clinician to provide a rating of treatment necessity on a 1-10 scale. In determining this rating, the clinician should consider the potential negative impact that could be caused by manic symptoms if further treatment interventions are not employed. The clinician should use information about any past episode of mania as an indicator of what might be expected if there are future episodes. Next, the clinician should estimate the level of risk for a future episode. Primarily, the child should be considered to be at high risk if there has been at least one past manic episode and there are no particular medical interventions in place to prevent a future episode. The rating of treatment necessity should be based on the perceived risk.

While there are a couple of recent CBT models for the treatment Bipolar Disorder, none are established. Clinicians interested in recent advances in psychotherapy techniques should refer to Robert P. Reiser and Larry W. Thompson (2005) “Bipolar Disorder” from the series “Advances in Psychotherapy – Evidence-Based Practice.” Medication is the only established method for stabilizing an individual who is experiencing a manic episode. Moreover, continuing medication is the only established method for preventing future episodes. If the clinician is confident about their bipolar diagnosis, the recommended treatment is a referral to a psychiatrist with expertise in the treatment of bipolar disorder.

Point 34 is endorsed when the clinician believes that family members could benefit from psychoeducation or emotional support around issues related to manic symptoms or bipolar disorder. In the case of a child with bipolar disorder, providing

education and support may be the clinician's primary role. As discussed above, medication is the only established method to stabilize the symptoms of bipolar disorder. If a medication solution is not currently in place, the clinician should work with the family to understand why this is the case. The clinician should educate the parents about the high potential for negative consequences stemming from another manic episode if medication is not being used. If the parents are resistant to medication, the clinician should offer support around medication issues again with the goal that parents might decide to seriously consider medication in spite of their trepidation.

Clinical Judgment Point Within the Behavioral Module

Point 35 is in the Behavioral Module. It asks the clinician to provide a rating of treatment necessity on a 1-10 scale. The clinician should consider how much current behavioral problems are affecting client's overall functioning or causing disruptions within the child's family, school or social environment. In making this ranking, the clinician should consider the pervasiveness, frequency and severity of behavioral problems. The clinician should give a high rating if behavioral problems are present throughout many different settings. Likewise, the clinician should give a high rating if behavioral problems are frequent, even if they only occur in one or a few settings. Clearly, highly frequent behavioral problems that occurred in only one setting would occur in a setting where the client spent a lot of time. The clinician should also give a high rating if there are severe behavioral problems even if they are not pervasive or frequent. For example, physical aggression would generally lead to a high rank even if it only happened 1-2 times in the past week.

Within this Conceptualization Guide, there are two different fundamental approaches to managing behavioral problems. The first approach uses “structured reinforcement planning” to increase positive behaviors and to decrease negative behaviors. The second approach uses “collaborative problem solving” to decrease explosive outbursts. The corresponding treatments for each approach will be discussed. Then, there will be a discussion as to how the clinician can choose between the two approaches.

For the structured reinforcement planning approach, the recommended treatment is dependent on the age of the child. For children aged of 12 or younger, the recommended treatment is Russell Barkley and Christine Benton (1998), “Your Defiant Child: 8 Steps to Better Behavior.” In brief summary, there are 8 steps to this treatment. Step 1 focuses the parent on giving positive attention to their child. The step requires for a daily play period where the parent spends 15-20 minutes a day doing whatever activity the child wishes to do. Step 2 instructs the parent to give the child praise for any positive behaviors or for any times the child does not engage in anticipated negative behaviors. The step further increases the opportunities for the child to engage in positive behaviors by instructing the parent on how to give the child commands in a manner that maximizes the potential for success. Step 3 encourages the parent to increase their child's compliance by offering specific rewards. The step directs the parents in their creation of a point system where rewards can be earned over time. Step 4 supplements the systems of praise and rewards by introducing mild punishment for misdeeds. Parents are instructed to use the point system as a way to impose fines (point deductions) for

noncompliance and misbehavior. A time-out procedure is introduced for specific target behaviors. Step 5 is an extension of the time-out component of step 4. Parents are encouraged to add additional behaviors that will warrant the time-out punishment. Step 6 takes the home-focused strategies learned in steps 1-5 and modifies them when the child is in public. Step 7 brings some of the intervention strategies into the child's school. Willing teachers are asked to cooperate in modifying the child's in school behaviors. They are further asked to complete a daily report card where the teacher rates the child's behavior. The parent incorporates the feedback from the report card into their home incentive program. Step 8 helps the parent plan for the long-term. Parents are advised on how to keep the techniques in place to maintain gains and on how to respond to new behavioral problems as they arise.

Within the structured reinforcement approach, for adolescents ages 13 and older, the recommended treatment interventions are contained within the biobehavioral-family system model of ADHD (Robin, 2006) described in Chapter 14: "Training Families with Adolescents with ADHD" of "Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment," by Russell A. Barkley. A brief summary of the approach was described earlier as recommended psychological treatment approach for ADHD in adolescents. The latter half of the the chapter talks about how to manage the behavioral component of ADHD. The strategies for behavioral management are applicable to adolescents even when there is no diagnosis of ADHD.

The pertinent sections of the adolescent treatment describe the clinician's goals in their work with the parents and with the adolescent. Parents are encouraged to move

away from habits of authoritarian control or habits of permissiveness in favor of a parenting style that allows for more democratic decision making as a means of fostering adolescent independence. At the same time, parents are encouraged to identify concrete areas where the adolescent's behaviors are non-negotiable. Parents are taught skills to implement consistent structure around these areas with an emphasis on incentives over punishments and consistent action over lectures in response to noncompliance.

Adolescents are encouraged to understand the rationale of the necessity for some structure. Also, they are encouraged to take an active role in negotiating with their parents in areas where there is room for flexibility. The chapter further discusses problem solving communication skills training. In this portion of a treatment, the adolescent and the parent meet together with the clinician. The family learns how to define problems without accusing or putting down other members of the family by using "I-statements." Once a problem is identified, the family brainstorms solutions and works together to find the best idea from a list of alternative solutions. Overall, this recommended treatment should allow the parent and the adolescent to work together in the task of improving behavioral functioning.

The alternative treatment approach to the structured reinforcement approach is the collaborative problem solving approach. The recommended treatment for all childhood ages is Ross Greene (2001), "The Explosive Child." As a brief summary, parents are taught that their child's explosive behaviors are not under the child's control but a result of the child's inflexible style of thinking that leads to meltdowns when things do not go as they expect. Parents are taught to prioritize their expectations into three "baskets."

Basket 1 is for issues that are nonnegotiable for the parents. In other words, the parent would prefer a meltdown to the behavior. Basket 2 is for issues that are negotiable. Basket 3 is for issues that are not worth fighting over. With the basket system established, the initial goal of treatment is to reduce the stress in the environment by working to decrease the amount of meltdowns. To achieve this, parents are encouraged to put most issues into basket 3 and to accommodate many of the child's inflexible requests. For example, if a child demands pancakes for breakfast when the parent is planning to make eggs, this treatment approach would suggest that the parent should make pancakes for the child in order to avoid a meltdown. Basket 1 is reserved for serious behaviors such as hitting. Parents would likely prefer to prohibit hitting behavior even when their prohibition will result in their child having a meltdown. Basket 2 is reserved for issues where the child and the parent should negotiate the result. As the family succeeds in decreasing the number of meltdowns and as the environment becomes more stable, the treatment begins to focus on basket 2. The parent selects issues that are worth negotiating and uses basket 2 negotiations to teach children better problem solving skills. This aspect of the treatment is the collaborative problem solving approach. As the child gains better skills over time they should have less meltdowns even with less accommodation.

In determining whether to select the structured reinforcement approach or the collaborative problem solving approach, the clinician should try to determine the abilities of the child. Also, the clinician should consider what approaches have already been used. In determining the abilities of the child, the clinician should decide whether the

behavioral problems are characterized more by impulsivity and/or defiance versus if the behavioral problems are characterized more by meltdowns and tantrum behaviors. In the former case, the child either tends to act without thinking or purposefully acts up because they are used to getting their way. When the behavioral problems are caused by either factor, the structured reinforcement approach is warranted. In the latter case, the child is characterized by rigid desires and an intolerance to change. They are easily overwhelmed and in response exhibit rage behaviors that appear excessive compared to the source of their upset. When behavioral problems result from these meltdown behaviors, the collaborative problem solving approach is warranted.

In addition to deciding what approach to use, the clinician should consider the parent's past and current experience in trying to control their child's behavior. Some parents may have attempted some version of the structured reinforcement approach. The approach may have failed because the child is not capable of following a structured incentive plan due to a lack of skills and a tendency to meltdown. On the other hand, the approach may have failed because the plan was poorly implemented or was carried out ineffectively. In this case, the clinician will have to carefully explain what went wrong in the past and what will be done differently in the current treatment.

Other parents may have settled into an approach that is already highly accommodating. In other words, the parents try to quickly meet the child's demands and allow the child's negative behaviors in an effort to avoid tantrums. This is often the case when the parents are concerned that the child has no ability to control their behaviors. The parent may worry about punishing their child for something that was a direct result

of the TS diagnosis. For example, the parent might allow profanity due to a worry that the curse words are vocal tics. Clinicians should work to redefine the parents' role as one that teaches their child control through structured behavioral interventions. Considering that behavioral plans will need to be carried out by the parents, their understanding of the rationale for treatment and their ability to carry out their role is a crucial component for success.

Point 35 was the final clinical judgment point. Refer back to the beginning of this chapter for information on how to use the clinical judgment points in conceptualization and treatment planning. The next chapter will briefly discuss how the information that has been gathered with the Questionnaire Forms can be entered into a data tracking system. The tracking system will allow a clinician to monitor treatment progress within a single case. Also, it will allow clinics treating multiple TS cases to study treatment outcomes across multiple cases.

CHAPTER VI
DATA TRACKING SYSTEM

Coding Forms

The standardized conceptualization process that is created by the Questionnaire Forms and the set of recommended treatments provides an opportunity for gathering uniform data between cases. Following the assessment, clinicians will take important information that has been gathered on the Questionnaire Forms and transfer them to the Coding Forms. There are seven Coding Forms, one for each of the Questionnaire Forms, including the General Questionnaire and the five Modules with separate forms for the depression symptoms and manic episode sections of the Depression Module. Appendix E contains the Coding Forms.

Description of Forms

The forms were created on a PC computer using an office management software program called OpenOffice.org. OpenOffice is an open source product created by Sun Microsystems Inc. The program is similar to the well known piece of software, Microsoft Office. Document and spreadsheet files that are created using OpenOffice can be saved as Microsoft Office files and can subsequently be opened using Microsoft Office. OpenOffice was selected over Microsoft Office for the purposes of the Conceptualization Guide because OpenOffice is a free and reliable piece of software. It can be downloaded from Sun Microsystems Inc. at <http://www.openoffice.org/>. Within the OpenOffice software, a program called Database is used for the purposes of data

tracking. Database itself uses the OpenOffice Text Document program in the creation of the forms that are being described.

Each of the seven Coding Forms was created with the goal of storing the most pertinent treatment data within a computer database with a file for each individual client. As a general rule, the General Questionnaire Coding Form gathers basic, non-detailed information from the General Questionnaire. For example, the form has a yes/no box for whether or not there are school accommodations. The form does not ask what accommodations are being used. The idea here is that the form asks for information in a way that is either categorical or quantifiable. That way the data can be used for future analyses. In this fashion, the General Questionnaire Coding Form has boxes for basic identifying information including client name, date of information, clinician name, client's age, client's grade, mother's name, father's name, # of siblings, and which parent was present for the interview. Also, the form has boxes for tic information, including age of first tic, YGTSS motor, vocal and disruption scores and level of parental concern over tics. In addition, the form has boxes asking for yes/no responses from several areas on the General Questionnaire including suicidality, medication use, substance use, learning disability, school accommodations, school problems and social problems. Further, the form notes if any of the modules were administered and asks for the number of yes responses from the trauma and loss section of the General Questionnaire. Lastly, the form has larger boxes for more detailed responses about the presenting problem, other important basic information and additional tic information.

The Coding Forms for the Modules are similar in that they all focus on gathering quantifiable information using the 1-10 ratings from the Module forms and using the scores on the additional measures that were recommended for the particular disorders. The ADHD Coding Form asks for the problem level and distress level scores from the symptoms list table in the ADHD Module. In addition, the form asks for the scores from any of administered Conner 3 measures. The OCD Coding Form asks for the problem level and distress level scores from the symptoms list table in the OCD Module. In addition, the form asks for the score on the CY-BOCS measure. The Anxiety Coding Form asks for the child distress, the disruption, and the parental concern scores from each of the five anxiety areas in the Anxiety Module. In addition, the form asks for the score on the MASC measure, for the number of panic attacks in the past week and for the name of the feared stimuli for up to three simple phobias. The Major Depression Coding Form asks for the frequency and severity rating scores from the symptom table in the Depressive Symptoms section of the Depression Module. In addition, the form asks for the score on the CDI measure. The Manic Episode Coding Form asks for the rating scores from the table Manic Episode section of the Depression Module. In addition, the form asks for the overall disruption level score from manic symptoms. The Behavioral Problems Coding Form asks for the frequency, average severity and worst severity scores from the situations table in the Behavioral Problems Module. In addition, the form asks for the score on the Rage Attacks Screening Questionnaire measure.

Use of Forms

As is implied in the above section, the clinician would fill out the General Questionnaire Coding Form and the forms for any completed modules following their assessment interview. The Module Coding Forms serve the additional purpose of tracking data within a targeted treatment area as the clinician carries out their treatment plan within weekly psychotherapy. Every week, the clinician will ask the parent to complete the appropriate parent versions of the Coding Forms for the area that is being targeted in treatment. The only difference in the parent versions of Coding Forms is that they have specific instructions for parents and they do not have boxes for the scores of the measures. Any measure that is administered during assessment should be re-administered at the end of treatment and at any other time that the clinician judges it to be useful. The completed Coding Forms can be easily transferred into a spreadsheet or database program. A database specific to these coding forms has been created and will be discussed in the following section.

Using the Database

Use of the database is surprisingly simple. The clinician opens the “TS Program Clinical Database Template” file. Upon opening this template file, the clinician will save the file under the name or number that has been assigned to the specific client. At this point, the clinician clicks on the button that says “Forms.” A list of all of the coding forms will appear. Any opened form will look identical to a blank version of the paper form. The clinician will simply go from box to box and copy the data that was entered on the corresponding Coding Form. Data on the form is stored by date.

Many clients should have multiple versions of the same form that were administered on several different dates. At the bottom left of every form, there is a notation of what “record” or form number is being filled out. The first form will say “record 1 of x,” where x equals the number of records. Next to this notation are arrows that will allow the clinician to scroll through different records. If the clinician has the latest past record on the screen, the right arrow will create a new blank record. While this may sound a bit complicated on paper, it is actually straight forward within the software.

The database has been created in such a way that the above two paragraphs contain the entire instruction on how to store data using the database. The database itself will manipulate the data and put it into tables that show treatment data over time for an individual client. In order to access the data for a particular client, the clinician would open the file for that client. The clinician would click on the button that says Reports and then open “Clinical Data” report on that client. A report will open that contains all of the pertinent tracked information.

The clinical data report contains three types of information, initial descriptive data, scores from the Module tables and scores from the selected measures. The initial descriptive data is the data that was gathered from the General Questionnaire and then transferred to the General Questionnaire coding form. This data is intended to give basic categorical or quantifiable information about the client that is not expected to change as a result of treatment. The scores from the Module tables take a total of the above described scoring categories from each of the six Module Coding Forms. The report would give the total scores in a table for any date where a coding form was filled out. For a targeted

treatment area, there should be scores from each session of treatment. Therefore, the report will show clinical change over time for any targeted treatment area. The scores from the selected measures simply report the scores on any instrument on whatever date that the instrument was administered. For a completed case, there should be pre and post treatment scores and scores from any other point where the clinician chose to administer the instrument.

At this point, the database is designed to look at the clinical outcome of a particular client. The clinician can use the database as an easy way to assess if treatment is successful as measured by the assessment process being used. In addition to looking at outcomes in individual cases, the database provides the opportunity for clinicians to look at assessment and ongoing treatment data across multiple clients. The uniform manner that data is being gathered would allow a clinician to look at clinical outcomes for groups of clients with particular presentations. For example, a clinician could look at the outcome data for children who had problems with depression with or without learning difficulties. In this way, the database along with the entire Conceptualization Guide is considered a tool that will allow the TS Program to assess its clinical outcomes for various areas of treatment.

CHAPTER VII

DISCUSSION AND CONCLUSION

The Conceptualization Guide and supporting documentation should provide the TS clinician with the tools necessary for the assessment, conceptualization and treatment of children and adolescents with TS. First, the Guide reviews the TS literature in a way that offers a basic understanding of children and adolescents with TS. The understanding extends beyond the tic symptoms into the often complex presentation of comorbid disorders that accompany TS. Beyond the general understanding, the Guide provides clinicians with a procedure that uses Questionnaire Forms for the comprehensive assessment of a child with TS. The General Questionnaire is designed to allow clinicians to quickly gather the information necessary to make wise treatment decisions. As areas of potential psychopathology are uncovered, the Modules are designed to gather more thorough information. In addition, the recommended instruments were selected as established tools for uncovering and understanding particular problem areas. The Guide further instructs clinicians on how to use the assessment information for conceptualization and treatment decisions. Treatment recommendations are made for the various potential areas of treatment. Finally, the Guide provides a system for data tracking that will allow a clinician to monitor progress within a single case and to measure outcomes across multiple cases.

The information in the current project was based upon extensive research and clinical experience working with children and adolescents with TS. However, the

effectiveness of the Guide in its many goals has not been measured. Currently, there are no formal plans to study the usefulness of the Guide. A major study of the Guide would be one that compared outcomes in a group of clinicians using the Guide with a similar group of clinicians not using the Guide. A study of this scope was deemed beyond the means of author of the Guide and the TS Program. The perceived inability to measure the effectiveness of the use of the Guide compared to “treatment as usual” is a major limitation to the project.

The TS Program has no formal methods for looking at outcomes. In other words, it is difficult to measure the effectiveness of the “treatment as usual” condition that currently exists. The Conceptualization Guide supplies an organized system of gathering data that includes a procedure for tracking basic outcome data. Hence, the effectiveness of the Guide itself can be measured even if a comparison group is lacking. In addition, the Guide is designed so that it can be modified over time based on successful and unsuccessful outcomes found in different areas. Therefore, the Guide creates a legitimate system for improving clinical services over time. For these reasons, the Guide should serve as a useful tool in its stated goal of the conceptualization of children and adolescents with Tourette Syndrome and a complex presentation of comorbidity.

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APPENDIX A
IRB WAIVER LETTER

--- On Sat, 10/4/08, RutgersMJE@aol.com <RutgersMJE@aol.com> wrote:

From: RutgersMJE@aol.com <RutgersMJE@aol.com>
Subject: Re: Request for IRB verification note
To: scewbank@yahoo.com
Date: Saturday, October 4, 2008, 10:24 PM

I have reviewed the approved dissertation proposal of Shawn Ewbank, CONCEPTUALIZATION OF TOURETTE SYNDROME CHILDREN AND ADOLESCENTS WITH COMPLEX PRESENTATION OF COMORBIDITY. This project does not require IRB review because it does not involve any human research subjects.

Maurice Elias

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APPENDIX B

General Questionnaire

The Tourette Syndrome Center

Identified Client:

Date of Interview:

Clinician:

Present at Interview:

As a part of this general questionnaire, clinicians should hand out the Child Behavior Checklist (CBCL) forms to the parent being interviewed and for any other caregiver, teacher who may be absent from the interview but knows the child well. Teachers or classroom aides should complete the Teacher's Report Form. Children who are 11 or older should complete the Youth Self Report form.

After initial greetings, explain to members present the purpose of this formatted interview: I am going to be asking you a number of questions that will help me to get a picture of your child's life and to begin to develop an understanding of what might be going on that brought you here today. I will be filling in information as we go along.

I. BASIC INFORMATION ABOUT CHILD

Age:

Grade:

Describe your child:

Describe your child's interests:

Describe activities your child is involved in:

Describe your child's talents:

Are there any family pets?

---- [Check circle if child's lack of interests or activities seems problematic]

What is the reason for coming to the clinic?

II. BASIC FAMILY INFORMATION

Parents:

Mother's Name:

Age:

Education:

Occupation History:

History of Psychiatric Conditions (e.g. tics, depression, suicide) / substance abuse:

Percentage of Child Care Responsibilities:

Other Important Information about Mother

Father's Name:

Age:

Education:

Occupation History:

History of Psychiatric Conditions (e.g. tics, depression, suicide) / substance abuse:

Living in Home: Yes No

Percentage of Child Care Responsibilities:

Other Important Information About Father:

Other:

Tell me about any other adults who have a major role in the child's life / upbringing?

Is there a history of psychopathology on mother's side of the family?

Is there a history of psychopathology on father's side of the family?

Siblings:

How many?

Name/age/grade/psychopathology/get along

Name	Age	Grade	H/x Psychopathology	Get along?
				Yes Off&On Ignore Fighting
				Yes Off&On Ignore Fighting
				Yes Off&On Ignore Fighting
				Yes Off&On Ignore Fighting
				Yes Off&On Ignore Fighting

Describe any fighting (verbal, physical, tattling):

How often does the parent intervene? What is the intervention?

---- [Clinicians check circle if sibling interaction seems problematic]

III. INFORMATION ABOUT TICS

Age/Type of First Tic:

Since noticing the first tic, how have the tics changed over time? Are there any patterns you have noticed?

How do family members respond to tics?

How do you imagine your child feels about tics?

What was the worst tic period ever?

Describe tics now (using YGTSS):

YGTSS score =

Motor Tic Score =

Vocal Tic Score =

Impairment Score =

---- [Check circle if CBIT treatment may be useful.]

---- [Check circle if child could benefit from supportive psychotherapy around tics.]

Have any methods been used to attempt to reduce tics?

Who knows about your child's tics (extended family, teachers, peers)?

Rate your level of concern about your child's tics on a 1-10 scale (10 = maximum concern): _____

---- [Check circle if family members could benefit from psychoeducation/emotional support around TS related issues.]

IV. PROBLEM AREAS

Describe your child's personality:

The following are important areas where children with sometimes run into trouble. Are any of the following true about your child?

Trouble sustaining attention or easily distracted?	Yes	No	Past	1
Fails to think before acting / acts impulsively?	Yes	No	Past	1
Worries more than peers?	Yes	No	Past	3
Sad or upset more than normal?	Yes	No	Past	3
Quick to anger?	Yes	No	Past	4
Cannot stop strange or stressful thoughts?	Yes	No	Past	2
Has tantrums that seem age inappropriate?	Yes	No	Past	4
Strange rules or rituals/ rigid behaviors (e.g. bedtime)?	Yes	No	Past	2
Insistence/worry around organization of environment?	Yes	No	Past	2
Needs a lot of reassurance?	Yes	No	Past	3
Difficulty organizing tasks / Loses things	Yes	No	Past	1
Things need to be done just right / perfectionistic?	Yes	No	Past	2
Trouble leaving mom or dad?	Yes	No	Past	3
Restless / Trouble sitting still	Yes	No	Past	1
Low self-esteem?	Yes	No	Past	3
Argumentative?	Yes	No	Past	4
Suicidality?	Yes	No	Past	3
Responds to stimuli that others cannot see or hear?	Yes	No	Past	2

On the above section the numbers correspond to modules that would need to be delivered for any answer of “Yes.” If there is an answer of “Past,” the clinician should judge whether administering the corresponding module is appropriate. The number match the following modules. Fill in the total of “Yes” or “Past” responses for each number. Make check marks in the left column if the module will be administered

<u>Endorsed</u> <u>Number</u>	<u>Module</u>	<u># of Responses</u>	
		<u>Yes Response</u>	<u>Past Response</u>
<input type="checkbox"/> 1	ADHD Module	_____	_____
<input type="checkbox"/> 2	OCD Module	_____	_____
<input type="checkbox"/> 3	Anxiety and Depression Modules	_____	_____
<input type="checkbox"/> 4	Behavioral Problems Module	_____	_____

V. TRAUMA & LOSS HISTORY

What is the worst thing that ever happened to your child?

Has your child ever suffered a serious loss?

Yes No

If Yes: Tell me about it.

---- [Check circle if child may benefit from further treatment for issues surrounding loss]

Has your child endured a serious accident or injury?

Yes No

If Yes: Tell me about it.

Has anyone ever touched your child in an inappropriate way?

Yes No

If Yes: Tell me about it.

Has anyone ever hit your child in a way that left marks on their body?

Yes No

If Yes: Tell me about it.

---- [Check circle if there are concerns that child is at risk for continued abuse]

Has your child ever witnessed someone injured or killed?

Yes No

If Yes: Tell me about it.

Write the total number of Yes responses to previous 5 questions: _____

If Clinician suspects trauma, administer “PTSD Reaction Index”

---- [Check circle if child could benefit from treatment to address issues with trauma]

VI. MEDICATION HISTORY

Medication / Date Started / Date Ended / Intended for / Effect

Medication	Start	End	Purpose of Med	Effect of Med

---- [Check circle if child/family could benefit from support or education around issues of medication. Describe what might be useful in space below.]

VII. SCHOOL INFORMATION

Describe how your child does in school:

Typical grades:

Best subject:

Worst subject:

Are there any known learning disabilities?

Any accommodations?

Has anyone ever mentioned the autism spectrum in relation to your child?

Ever gotten in trouble at school? Worst trouble?

What do you imagine your child does at recess/break?

Are there any past IQ/achievement testing?

Estimated IQ range(e.g. average, below average, etc...) (consider administering WISC-IV):

Describe the level of communication with teachers and school about TS and related conditions:

---- [Check circle if intervention at the school would be warranted. Describe needed intervention in the space below]

VIII. SOCIAL INFORMATION

Describe the relationship with your child and their peers:

Number of Friends:

Has Best Friend?
Yes No

Describe the type of peers that your child hangs out with:

Does your child ever tease or bully other kids (non-siblings)? If so, describe the details of when it happens and how adults respond.

Does your child get teased or bullied? If so, describes the details of when it happens, of how your child reacts and of how adults respond.

---- [Check circle if child could benefit from social skills training]

---- [Check circle if child could benefit from support around issues of teasing or bullying]

Has your child ever drank or used any sort of substances?
Yes No

If Yes: What substances? How often?

---- [Check if child could benefit from intervention around substance use.

Are there any other major concerns that we have not talked about?

---- [Check circle if there are other clinical concerns that were not addressed within the questionnaire or modules. Describe the concerns below.]

ADHD Module

Handout Conners 3 for parents, teachers, child as appropriate. Also consider administering a CPT.

Directions: The goal of this module is to not only gather independent evidence that a diagnosis of ADHD is (or would be) appropriate but to further understand the functional symptoms of this particular child's ADHD.

During the past week, did your child show any of the following:

Symptom List	√ if present	Level of Problem	Child's Distress
<u>Inattention</u>	-----	-----	-----
Often fails to give close attention to details or makes careless mistakes in schoolwork, work or other activities			
Often has difficulties sustaining attention in tasks or play activities			
Often does not seem to listen when spoken to directly			
Often does not follow through on instructions and fails to finish schoolwork			
Often has difficulty organizing tasks and activities			
Often avoids, dislikes or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)			
Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)			
Is often distracted by extraneous stimuli			
Is often forgetful in daily activities			
<u>Hyperactivity/Impulsivity</u>	-----	-----	-----
Often fidgets with hands or feet or squirms in his/her seat			
Often leaves his/her seat in the classroom or in other situations in which remaining seated is expected			
Often runs about or climbs excessively in situations in which it is inappropriate to do so [<i>Interviewer: For adolescents, this may be limited to subjective feelings of restlessness.</i>]			
Often has difficulties playing or engaging in leisure activities quietly			

Is often “on the go” or often acts as if “driven by a motor”			
Often talks excessively			
Often blurts out answers before questions have been completed			
Often has difficulty awaiting his/her turn			
Often interrupts or intrudes on others (e.g. butts into conversations or games)			

Have these behaviors existed for at least the past six months?

Yes No

At what age did these behaviors first cause problems for your child? _____ years

During the past week, have any of these behaviors caused problems for this child in any of these situations?

At home?

Yes No

In school?

Yes No

At daycare or with babysitters?

Yes No

In community activities (clubs, sports, scouts, etc.)?

Yes No

Have these behaviors created problems or impairment for your child in either of the following areas?

Social relations with others

Yes No

Academic performance

Yes No

--_____ [Clinician Rating of Treatment Necessity: On a 1-10 scale, use your clinical judgment to rate the level of treatment need regarding ADHD symptoms as they affect overall functioning.]

What is your view on using medication as a means for your child to reduce ADHD difficulties?

---- [Check box if family members could benefit from psychoeducation around ADHD related symptoms or medication issues involving ADHD.]

Take notes below about any problems within any of the above listed situations or areas:

OCD Module

Goal of this screen: make sure that parent/child understand the general idea of what OCD symptoms are and then to uncover and track different areas where OCD may exist. Keep in mind that the parent/child may not recognize various manifestations of OC symptoms.

Explain to parents: “A large percentage of children with TS experience some form of obsessive or compulsive symptoms. We define obsessions as repetitive and intrusive thoughts. We define compulsions as acts or behaviors that a child feels that they must perform without good reason. Both obsessions and compulsions are often distressing. Compulsions may be particularly distressing if they are not performed.” *Further describe OCD if it does not seem well understood by parent.*

Are you aware of any potential obsessions? Yes No
 If so, what are they?

Are you aware of any potential compulsions? Yes No
 If so, what are they?

Table – Common areas of OCD symptoms: Both “Level of Problem” and “Child's Distress” should be ranked a 1-10 scale with 1 being no problem or distress and 10 being most severe level of problem or distress.

Symptom List	√ if present	Level of Problem	Child's Distress
*Need for reassurance			
Rituals around bedtime			
*Idiosyncratic rules about how things need to be or to be done			
*Family members need to do things in a certain way			
*Urge to touch or tap things			
Worries excessively about strange, idiosyncratic topics (e.g. plight of certain animal or car may catch on fire)			
Perfectionism about performance (e.g. school, games, etc)			
Overly moralistic (e.g. excessive upset when others cheat or lie)			

Unpleasant thoughts or images stuck in mind			
Worries around germs or cleanliness			
Excessive checking of safety			
*Items must be organized in certain ways			
Irrational avoidance of objects or places			
*Sensory sensitivities (e.g. certain clothes, tags or seams)			
Skin or hair picking			
Excessive hoarding or collecting items			
*Needs for things to feel “just right”			
Worries about harming self or others			
Other 1:			
Other 2:			
Other 3:			

Are there particular environment or times of day when symptoms seem most present (e.g. right after school or bedtime)?

---- _____ [*Clinician Rating of Treatment necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for the described OCD problems as they affect overall functioning.]

When did you first notice any of the symptoms listed?

When have the symptoms been at their worst?

How have different members of the family responded to OCD symptoms?

What solutions have been attempted to reduce symptoms?

---- [Check circle if family members could benefit from psychoeducation/emotional

support around OCD related issues.]

Clinicians. Use your clinical judgment to rate the child's obsessions for delusional qualities on the scale below. In doing so, consider that there is sometimes a tricky distinction to be made between thoughts that are purely obsessional versus obsessional thoughts that have taken on a delusional quality. Obsessive delusional thinking occurs when a child believes something that is clearly false to be true. For example, if the child has airplane obsessions and strongly believes that they are a Junior Fighter Pilot, the clinician would give a high rating because the child's thinking is more delusional. However, if a child believes that harm will befall their parent if they do not repeat a phrase or action, the clinician would give lower rating because the child's thinking is more purely obsessional. Harm befalling a parent is not an impossibility even if it seems highly unrealistic. There is a good chance that the child is responding to the obsessive worry that harm might occur to a parent even if they know that the chances of harm are small. In this case, the child is more concerned with managing their worry through compulsions than they are concerned with the likelihood of harm. However, if the child is more concerned that actual harm may occur, this is starting to look more delusional but less delusional than if the child thinks that they are a Junior Fighter Pilot. Consider that there is a spectrum between purely obsessional thoughts and more delusional thoughts. Where do you think the child's obsessive thoughts fall?

Pure Obsessions --1-----2-----3-----4-----5-----6-----7-----8-----9-----10--Delusional Thoughts

If there is any suspicion of psychotic features complete the psychosis module.

Psychosis Module

Goal of this module: To determine if child has any sort of psychotic symptoms that could indicate a prodromal schizophrenia, a childhood schizophrenia or some other psychotic or delusional disorder.

Instructions: The goal of this module is to gather the information about these symptoms in the best way possible. As such, it may be best to interview just the child, just the parent, or both at once. Use your clinical judgment. In questions that are not clearly marked with yes or no to circle, make sure that you get more information for any yes answer. For example, if the child says they do recognize the voices, you will want to find out who.

A. Hallucinations1. Auditory Hallucinations

Has you ever heard noises, or sounds, or voices that other people didn't hear?

Yes No

If "No," move on to part 2

If "Yes" continue

What did you hear?

Did the voices come from inside or outside your head?

Inside Outside

If "Inside" But did you hear it with your ears?

How many voices did you hear?

Are they male or female?

Do you recognize them?

Do you hear two or more voice talking to each other?

Do the voices ever talk about what you're doing or thinking?

If "Yes" Do they ever keep up a running commentary on what your thinking or

doing just like a sports announcer describes a ballgame?

How long ago did the voices start?

Do you hear them every day?

How often during the day do you hear them?

Do they influence your behavior?

Do they tell you to do things?

2. Visual Hallucinations

Have you seen visions or other things that other people didn't see?

If "No," move on to part 3

If "Yes" continue

What do you see?

When during the day do you see it?

How long ago did you start seeing it?

Do you see it every day?

How often do you see it?

3. Tactile Hallucinations

Do you ever notice strange sensations in your body or on your skin?

Yes No

Do you ever feel something creeping or crawling on your body or

Yes No

something push or punch you, but no one is there?

If "No," to both, move on to part 4

If "Yes" to either, continue

What have you felt?

When did it happen for the first time?

How often has it happened?

4. Olfactory and Gustatory Hallucinations

What about smells that other people didn't notice or strange tastes in your mouth?

Yes No

If "No," move on to part B

If "Yes" continue

What have you noticed?

When did it happen for the first time?

How often has it happened?

B. Delusions

1. Delusion of Reference

When watching TV, listening to the radio, surfing the internet or reading the newspaper do you notice that they are talking about you or that there

Yes No

are special messages intended specifically for you?

If "No," move on to part 2

If "Yes" continue

What have you noticed?

Does it seem like strangers on the street are taking special notice of

Yes No

you or that they are talking about you?

If "Yes" Is it a feeling you have or are you pretty sure that they are talking about/referring to you?

If pretty sure? How do you know?

Do things seem specially arranged for you?

Yes No

If "Yes" In what way?

2. Delusion of Persecution

Is anybody against you, following you, giving you a hard time, or trying to hurt you?

Yes No

If "Yes" Tell me about it.

Do you feel like there is a plot to hurt you?

Yes No

If "Yes" Who is involved?

Why would they want to hurt you?

3. Thought Broadcasting

Do you ever think something so strongly that people can hear your thoughts?

Yes No

If "Yes" So people can hear your thoughts even when you're not talking?

Yes No

How do you know?

4. Delusion of Mind Reading

Are people able to read your mind and know what you're thinking?

Yes No

If "No," move on to part 5

If "Yes" continue

How can they do this?

Can anybody do this or just some people? Who?

Do they literally read your thoughts or do they just read your facial expressions and know what your thinking?

5. Thought Withdrawal

Are thoughts ever taken out of your head?

Yes No

If doesn't understand the question:

Does someone or some force reach into your head and steal your thoughts?

Yes No

If "Yes" to either: Tell me about it.

6. Thought Insertion

Are there ever thoughts in your head that have been put there from the outside?

Yes No

If "Yes" Tell me about it

7. Delusion of Guilt

Do you ever feel that you have done something terrible and deserve to be punished?

Yes No

If "Yes" I know this will be hard to talk about, but what do you feel guilty about?

Do you blame yourself for bad things going on in the world like war, crime, starvation, etc.?

8. Delusion of Grandiosity

Do you ever think that you have special abilities, talents or powers?

Yes No

If "Yes" Like what?

Do you ever think that you are going to become famous or do great things?

Yes No

If "Yes" Like what?

9. Delusion of Control

Do you ever feel that you are being controlled from some power or force

Yes No

from the outside?

If "No," move on to part 10

If "Yes" continue:

At times, does it feel like you're not in control of your body, almost like
Yes No
your a puppet and something from the outside pulls the strings?

If "Yes" So at times your body does certain things without you willing it?
Yes No

*If "Yes" If I asked you to raise your hand or stand up right now, would
Yes No
you be able to do it?
If "No" Why is that?*

*If "Yes" So you're in control of your actions? Are you always
in control?*

10. Somatic Delusion

Are you concerned that you have a serious physical illness that a doctor has not
Yes No
found or that there is something wrong with your body?

If "No," move to part C

If "Yes" continue:

What do you think is wrong?

Why do you think that?

Are you sure?

C. Other (asked to parent)

Have there been any changes in your child's self-care?

Do you feel that they stay clean?

Yes No

If "No" Tell me more about that.

How long has this been a problem?

Describe any changes that you have seen in their ability to relate to others (family, teachers, friends).

--- [Check circle if family members could benefit from psychoeducation or emotional around issues related to psychosis.]

Describe any changes in the sorts of activities that your child engages in.

--_____ [*Clinician Rating of Treatment necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need regarding the described psychotic processes as they affect overall functioning.]

Anxiety Module

Measures: Have child complete or help child to complete the Multidimensional Anxiety Scale for Children (MASC).

Purpose: The module looks to specify potential areas of internalizing symptoms that the child is experiencing. It focuses on various manifestations of anxiety and depression.

Explain to parent: I am going to ask you some questions about your child's fears and worries and then some questions about your child's mood.

1. Simple Phobias

Does your child have fears that seem excessive in reaction to the presence or anticipation of a specific object or situation (e.g. animals, dark, thunderstorms)?

Yes No

If "No" then move to part 2

If "Yes" continue:

What specifically is your child fearful of? _____

Describe your child's reaction to [feared stimuli]:

How do the fears affect where your child goes or what activities they do?

Rate the level of child's distress on a scale of 1-10. _____

Rate how disruptive this fear is for your child's life (1-10 scale). _____

How concerned are you about your child's fears (1-10 scale)? _____

How long have problems related to these fears been occurring?

--_____ [*Clinician Rating of Treatment Necessity: On a 1-10 scale, use your clinical judgment to rate level of treatment need for simple phobias as they affect overall functioning.*]

2. Separation Anxiety

Does your child react emotionally when they must be separated from you? This includes instances where you are leaving home, when child has to leave you (e.g. to go to school) or even when they have to go to sleep in a separate room from you.
Yes No

If "No" then move to part 3

If "Yes" continue:

Specify the occasions involving separation where your child reacts emotionally.

Describe your child's reaction.

Does your child worry excessively that harm will befall a parental figure?
Yes No

Do they worry that an unexpected event will cause them to get separated (e.g. kidnapping or getting lost)?
Yes No

Do they have nightmares around separation issues?
Yes No

Do they have physical complaints (e.g. headache or nausea) when separation is anticipated?
Yes No

Rate the level of child's distress over separation issues on a scale of 1-10. _____

Rate how disruptive the separation issues is for your child's life (1-10 scale). _____

How concerned are you about your child's separation issues (1-10 scale)? _____

How long have separation concerns been occurring?

--_____ [*Clinician Rating of Treatment Necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for separation anxiety symptoms as they affect overall functioning.]

3. Social Phobia:

Does your child have excessive fears or worries during or in anticipation of a social or performance situation involving unfamiliar people or possible evaluation?
Yes No

Does your child have excessive fears that they will act in a embarrassing manner or feel so anxious that they actually do act in an embarrassing manner?
Yes No

If "No" to both then move to part 4

If "Yes" to either continue:

What particular social situations is your child fearful of?

Describe your child's reaction to [feared stimuli]:

Do they complain of physical symptoms (e.g. headache/nausea) in anticipation of or during social events?
Yes No

How do the fears affect where your child goes or what activities they do?

Rate the level of child's social distress on a scale of 1-10. _____

Rate how disruptive social fears are for your child's life (1-10 scale). _____

How concerned are you about your child's social fears (1-10 scale)? _____

How long have fears concerning social matters been occurring with your child?

--_____ [*Clinician Rating of Treatment Necessity: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for social phobia symptoms as they affect overall functioning.*]

4. GAD

Does your child tend to worry a lot or to be anxious much more than
 Yes No
 other children his or her age?

If "No," then move to part 5

If "Yes," continue:

What particular recent excessive worries have you noticed in your child?

What does your child do when they are worried?

Do they complain of any of the following physical symptoms?

Symptom	Yes	No
Nausea		
Sweating		
Diarrhea		
Exaggerated Startle Response		
Dizziness*		
Shortness of breath*		
Fast heart rate*		

* consider panic disorder as a differential diagnosis

How do the worries affect where your child goes or what activities they do?

Rate the level of child's distress around worries on a scale of 1-10. _____

Rate how disruptive the worries are for your child's life (1-10 scale). _____

How concerned are you about your child's excessive worries (1-10 scale)? _____

How long have excessive worries been occurring with your child?

○--_____ [*Clinician Rating of Treatment Necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for GAD symptoms as they affect overall functioning.]

5. Panic Disorder

Explain panic attacks: Panic attacks are time limited periods of intense fear or discomfort that has corresponding distressing physical symptoms or worries about loss of safety or control.

Does your child have panic attacks?

Yes No

If “No,” then move to “Depression” section

If “Yes,” continue:

During panic periods, does your child display or complain of any of the following:

Symptom	Yes	No
Pounding or accelerated heart rate		
Sweating		
Trembling or shaking		
Sensations of shortness of breath or smothering		
Feelings of choking		
Chest pain or discomfort		
Nausea or abdominal distress		
Feeling dizzy, unsteady, lightheaded, or faint		
Feelings that things are not real		
Feeling outside of their body		
Fears of losing control or going crazy		
Fear of dying		
Numbness or tingling sensations		
Chills or hot flashes		

How long are typical panic attacks?

How many panic attacks have occurred in the past week?

On a 1-10 scale, rate your child's concern that they will have an additional attack:

On a 1-10 scale, rate your child's worry about the risk during an attack (e.g. that they will lose control, have a heart attack, "go crazy," etc) _____

Does your child worry about having a panic attack in certain places or situations where they may become embarrassed or not be able to get help? If so, which places are of concern (e.g. school, outside of home alone, etc)?

Do they avoid any of these places or situations? If so, which ones?

How concerned are you about your child's panic symptoms (1-10 scale)? _____

--_____ [*Clinician Rating of Treatment Necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for panic symptoms as they affect overall functioning.]

Depression Module

Measures: Have child complete or help child to complete the Children's Depressive Inventory (CDI). If there is any endorsement and/or suspicion of suicidality, administer Suicide Risk Assessment.

1. Depressive Symptoms

Explain: I am going to ask you about the presence of a number of symptoms that have to do with your child's mood. If you answer yes to any of the symptoms please rate on a scale of 1-10 how frequently the symptom occurs in the relevant setting (with 1 being almost never and 10 being all the time). Also, rate on a scale of 1-10 how severe the symptom is when it is occurring.

In the past week has your child shown any of the following symptoms

Symptom List	√ if present	Frequency (1-10)	Severity (1-10)
<i>Symptom Group A</i>	--	--	--
Feelings of sadness			
Irritability			
<i>Symptom Group B</i>	--	--	--
Trouble falling/staying asleep or excessive sleeping			
Poor appetite or overeating			
Low energy or fatigue			
Low self-esteem			
Poor concentration / difficulties making decisions			
Feelings of hopelessness			
Suicidal thinking			
<i>Continue only if there are √ s in at least two categories from A or B If not move onto part 2 "Manic Symptoms"</i>			
<i>Symptom Group C</i>	--	--	--
Difficulty with schoolwork			
Slowed body movements			
Difficulties having fun			
Excessive guilt			
Social withdrawal			

Limited facial expressions			
Slowed, monotone speech			
Physical complaints (e.g. aches and pains)			

When does your child show the above-named symptoms?

How long have the symptoms been present?

Have the child shown these symptoms at some other point in the past? Describe that period.

If depression appears likely and has either been present for more than six months or has been present at some prior time, then explain to parent: Based on this information, your child shows evidence of having some depressive symptoms. There are different patterns for different children with depressive symptoms. Do any of the following best match what you have seen in your child. (Mark with a check)

- _____ 1. Periods of depressive symptoms followed by periods of normal mood.
- _____ 2. Ongoing depressive symptoms at same level from time of first symptoms.
- _____ 3. Periods of more extreme depressive symptoms followed by periods where symptoms are less severe.
- _____ 4. Other:

--_____ [Clinician Rating of Treatment Necessity: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for depressive symptoms as they affect overall functioning.]

Does your child have any specific reasons for feeling depressed? For example have there been any recent losses or is there an ongoing stress that would seem to account for your child's feelings (e.g. no friends, severe symptoms of TS, OCD, etc...)

--_____ [*Clinician Rating of Treatment Necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need to address demoralizing situations that are bringing about depressive symptoms.]

How do family members respond to the child's depressive symptoms?

----[Check box if family members could benefit from psychoeducation/emotional support around issues related to having a depressed family member.]

2. Manic Episode

Has your child ever experienced any of the following mood states for one week or more?

- 1. Ongoing, abnormal elevated mood where child appeared excessively happy or giddy? Yes No
- 2. Ongoing, abnormal goal-oriented mood where child believed that that they could accomplish anything or had near unlimited abilities? Yes No
- 3. Ongoing, abnormal irritated mood where child was unusually quick to anger or extreme annoyance (ongoing for a week or more)? Yes No

If "Yes" for 1, 2 or 3, continue module.

If "No" for all three end module.

During the week or more where the above-mentioned mood occurred, did your child show any of the following behaviors. Please rate any level endorsed behaviors as they appeared during that period on a scale of 1-10.

Symptom List	√ if present	Level (1-10)
Inflated self-esteem or excessive over-confidence in abilities		
Marked decreased need for sleep (e.g. felt rested after a few hours)		
More talkative than usual and/or could not seem to stop talking		
Rapidly changing topics while speaking or reports of racing thoughts		
Highly distractable by unimportant objects or events		

Increase in goal-directed activities, productivity or abnormal agitation or restlessness		
Excessive involvement in pleasurable but high risk activities (e.g. sex, drugs, stealing, etc...)		

How much did the above-mentioned mood state disrupt, your child's academic performance, social life or other activities? Rate disruption on a 1-10 scale and describe the nature of the disruption:

Rating: _____

Did your child's abnormal mood result in their needing to be hospitalized?
 Yes No

During the time of this mood state, did your child experience hallucinations,
 Yes No
 notably strange ideas or paranoia (thinking others would harm her/him)?
 If "Yes," please describe:

Please describe the time frame of any of these mood states. How many times they have occurred? How old your child was when they occurred? How long did they last each time?

--_____ [*Clinician Rating of Treatment Necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need for manic symptoms or for the potential of future episodes of mania.]

How do family members respond to the child's depressive symptoms?

----[Check box if family members could benefit from psychoeducation/emotional support around issues related to manic symptoms or bipolar disorder.]

Behavioral Problems Module

Have parent complete “Rage Attacks Screen Questionnaire”

Purpose: This module looks to identify environments and situations where problematic behaviors occur. Within these areas, the module attempts to identify potential triggers that cause behaviors, the nature of the behavioral problems and the reactions of parents and others to the behaviors.

Explain: I am going to ask you about common areas where problematic behaviors occur and quantifies the level of the problem. Data for this table should be collected from the past **one week period**. The “Frequency” is an estimate of how often problematic behaviors were occurring when the child was in the particular setting with 1 being almost never and 10 being always present. “Average Severity” is an estimate of how severe the behavior was overall on a 1-10 scale with 1 being mild and 10 being the most severe conceivable. Using the same 1-10 scale, “Worst Severity” is an estimate of the severity of the worst incident in that setting over the past week of time.

Situations	√ if present	Frequency (1-10)	Average Severity	Worst Severity
Getting ready for school				
Mealtimes				
Washing and bathing				
About to leave the house				
When watching television				
On the computer/video games				
Getting dressed				
Bedtime				
In the car				
Public places (restaurants, parks, etc.)				
When visiting someone's home				
When asked to do homework				
When asked to do chores				
When you are on telephone				
When you don't follow the child's command				
When father is home				
When visitors are over				
When babysitter is over				

When playing with other children				
When playing alone				
When interacting with siblings				
When at school				

Antecedents, Behaviors and Consequences:

Describe anything that you have noticed about what occurs directly before problematic behaviors begin within _____ (any of the endorsed areas of problems):

Describe the repertoire of behaviors that you see when problems are occurring (e.g. verbal, physical, refusal behaviors). Please be as specific as possible.

What typically happens directly after problem behaviors occur?

Are there specific consequences to specific problematic behaviors?

What things have worked well to try to eliminate or reduce problem behaviors? What things have not worked?

How do the behavioral problems affect your relationship with the child? How do they affect the relationship of other family members or significant figures with the child?

Which specific behavior do you consider to be the worst problem?

-- _____ [*Clinician Rating of Treatment Necessity*: On a 1-10 scale, use your clinical judgment to rate the level of treatment need to address behavioral problems as they affect overall functioning.]

APPENDIX C
COPYWRITE PERMISSION FOR PSYCHOSIS MODULE

The following is a copy of the email communication with Mark Zimmerman regarding receiving permission to use the “Assessing Delusions and Hallucinations” section in his “Interview Guide for Evaluating DSM-IV Psychiatric Disorders and the Mental Status Examination.”

--- On Wed, 3/25/09, Zimmerman, Mark MD <MZimmerman@Lifespan.org> wrote:

From: Zimmerman, Mark MD <MZimmerman@Lifespan.org>
Subject: RE: Hoping to Obtain Copywrite Permission
To: "Shawn Ewbank" <scewbank@yahoo.com>
Date: Wednesday, March 25, 2009, 12:45 PM
Dear Mr. Ewbank,

You have my permission to use the psychosis module of my book for the purpose you outline below. Good luck with your dissertation.

Mark Zimmerman

-----Original Message-----

From: Shawn Ewbank [mailto:scewbank@yahoo.com]
Sent: Wednesday, March 25, 2009 12:41 PM
To: Mark_Zimmerman@Brown.EDU
Subject: Hoping to Obtain Copywrite Permission

Hi Dr. Zimmerman,

My permission request is regarding your section on Assessing Delusions and Hallucinations contained within your "Interview Guide for Evaluating DSM-IV Psychiatric Disorders and the Mental Status Examination." I am graduate student in clinical psychology at Rutgers University. As a part of my graduate program, I am a student clinician within a clinic that specializes in Tourette Syndrome (TS). My dissertation work involves creating a case conceptualization tool for clinicians within this clinic. I am quite familiar with your interview guide and use it on a weekly basis within my assessment work at an inpatient hospital. I am hoping to use the aforementioned section on assessing delusions and hallucinations that is on pages 26-29 of the guide within the psychosis module of my conceptualization tool. The tool itself assesses a number of areas of psychopathology. The clinician only administer specific modules if certain screening questions are endorsed. Based on my experience within the TS clinic, I imagine that the administration of the psychosis module

would be a rare event. Over the past 4 years that I have worked within the TS clinic (which works mainly with children and adolescents with TS), we have only had 3 or 4 patients who showed psychotic symptoms. Generally, patients with such severe psychopathology would not end up at our clinic at all. Still, I want my conceptualization tool to be comprehensive and I was hoping to obtain your permission include a slightly adapted version for those rare occasions when it would be useful to do a more comprehensive screen for psychosis. The conceptualization tool including the psychosis module would be used solely by the student clinicians (Rutgers graduate students in clinical psychology) within the Tourette Syndrome clinic. The psychosis module would also be included as an appendix within my dissertation (which I have no intent on publishing) Please let me know if I may have your permission to use the portion of the work that I have specified for the purpose that I have laid out. If not, please let me know if there is something that you would be comfortable with as I am pretty tied to your assessment procedure in this area. I have attached a draft of the psychosis module.

All the Best,

Shawn Ewbank, PsyM
Doctoral Candidate at Rutgers University

APPENDIX D CASE EXAMPLE

The following is a report on the assessment, conceptualization and treatment of a child with TS and comorbid disorders. The case is useful as an example of the general thinking that is employed in the Conceptualization Guide. As the case was active while the Conceptualization Guide was being created, it does not use the complete process of the Guide. The Questionnaire Forms and the Data Tracking system were not used. Despite these drawbacks, the case was included as an excellent example of an individual with TS and complex comorbidity. Permission was obtained from the client and his family to use this case as an appendix to the Conceptualization Guide. Identifying information has been altered for the purposes of confidentiality.

Identifying Information (dated to initial assessment)

Jack is a 10 years old Caucasian male who lives with his mother and his younger sister (age 9) in New Jersey. Jack is in middle school (sixth grade) and is in mainstream classes with no classifications. His parents have been separated (and then divorced) since Jack was 3 years old. His father lives in Kentucky.

Presenting Problem

Jack's mother was referred to the Tourette Syndrome Program at Rutgers by the Tourette Syndrome Association of New Jersey. His mother contacted the clinic seeking information and services for her son regarding problems with anxiety, OCD, ADHD and rage attacks. His mother reported that she was particularly concerned with idiosyncratic rule-based OCD rituals and with rage behaviors that occurred in the evenings around

bedtime and in the mornings when Jack was getting for school.

Relevant History

Jack, his sister and his mother moved to New Jersey from Kentucky when Jack was seven years old. His mother is a full-time single parent, who works part-time while her children are in school and receives child support from the father. Jack's mother reported that she has little in the way of support raising her children. She reported that while it can be difficult that her son needs so much support, she feels that "they are growing up quickly and that she wants to be there and spend as much time with them as possible."

Jack's parents separated when he was 2 years old and divorced within a year. Prior to the divorce, Jack's mother reported that her husband was controlling and emotionally abusive to her. Jack's father, who lives in Kentucky, has partial custody, but has not seen Jack since this past summer. Jack's mother described his father as neglectful and verbally abusive. She reported that during visitations, Jack's father has tended to drink around Jack and his sister, to leave them unattended, to forget to offer them meals, to leave them unannounced with people that they did not know and to generally engage in unsafe behaviors. Prior to their move from Kentucky, he had reportedly driven them back to their mother's while drunk on multiple occasions. On the most recent visit, he checked them into a hotel under aliases without informing Jack's mother where they were. Jack's mother and Jack himself denied any history of physical or sexual abuse of Jack or his sister. Jack's mother reported that Jack does not like his father and currently wishes not to see or speak with him. Jack's father calls the house on a fairly regular

basis. Jack is reportedly distressed in anticipation of and following calls from his father.

Jack received a diagnosis for ADHD at the age six. He was on Ritalin from age six until age seven. Also at age seven, he briefly took first Adderal, then Stratera, both which were quickly discontinued due to adverse side effects and finally Concerta, which he continues to take (during the past summer, he took no medications between June and August). Even with the medication, Jack's mother reported that he needs extra help to remain organized and focused. This is especially the case in the morning and in the evenings when “the medication is not in his system.” As an example, Jack's mother gives him many prompts to get up in the morning. Then, she gives him task-orienting instructions to complete his morning routine. He is capable of doing all of the necessary tasks but will get distracted without continual redirection to complete a task or to go to the next task. There was no reported recent change in his ADHD symptoms.

Jack received a diagnosis for TS at the age of nine but was reported to have noticeable tics at the age of eight. His tics have reportedly increased since the time of diagnosis. His mother reported his tics were primarily simple motor tics including eye blinking, head bobbing, tongue jerking. His primary vocal tic has been an unobtrusive throat clearing tic. Also, Jack's mother reported that he picks at the cuticles on his fingers. Jack described his process of needing to even out the picked skin on one side of his finger with the other side. This habit often leaves the skin around his finger nails raw and red. Jack and his mother reported a recent increase in tic symptoms.

Jack's mother reported that he has shown anxiety problems from an early age. He showed obsessive behaviors and unusual fearfulness from age one. From age two, he had

anxiety around separation from his mother. She reported that while he does not have problems at school, he is fearful in other situations when his mother is not around. He is especially fearful when he is visiting his father. His mother reported that he has specific anxiety around bees and around thunderstorms. Jack is reported to avoid areas where bees may be present, being notably distressed when he is in these areas. During thunderstorms, Jack displays an exaggerated startle response with every crash of thunder. In addition, the premonitory anxiety around thunderstorms results in Jack being hypervigilant about the weather by checking for clouds in the sky and by watching the upcoming forecasts. He prefers that the family does not leave the house when thunderstorms are a possibility. Other than an exaggerated startle response, Jack did not endorse the somatic complaints that are associated with generalized anxiety.

Jack and his mother further reported on a number of ritualistic OCD behaviors that had recently increased considerably. At the time of the intake, Jack's most severe OCD behaviors involved rules that Jack needed to follow around the house. As a few examples, Jack had a rule involving the number 5 that manifested itself in various ways. He would have to run around things five times, touch things 5 times, open and close doors five times, and repeat things in his head five times. In addition, Jack would take a long time in the shower because he always felt that there was more shampoo in his hair and more soap on his body. He had particular ideas about how his possessions needed to be organized, but at times was distressed over his difficulties with maintaining the organization. Jack reported no specific obsession around what happens when things are not done "just right," but instead reported a general feeling of escalating discomfort that

was relieved when things were in proper order. Jack reported a further concern that he was beginning to have some OCD thoughts at school and was worried about increasing urges to follow rituals around approaching, opening and closing his locker.

Behaviors around Jack's OCD rituals were not limited to Jack. Around many of the described areas, Jack involved his mother and at times his sister in the performance of his rituals. Jack would give his mother direction about how she was supposed to arrange items. He would become upset and ask for reassurance that his mother had not touched any of his specifically arranged items when she was cleaning. At times, Jack would ask his mother to complete touching or tapping rituals. In public, Jack would become worried about the safety of his mother and sister. His mother reported that at times, he did not want them to cross the road because of an oncoming car that was actually many blocks away.

In addition the described recent symptoms, Jack's mother reported that he has begun to have almost daily behavioral episodes within his home environment. The episodes first appeared three months prior to the initial intake and have become increasingly worse up to the date of initial intake. In the episodes, Jack will become verbally assaultive and at times threatening towards his mother and sister. His mother denied physically assaultive behaviors, but stated that he has at times raised a cocked fist towards his mother. His mother reported that he is especially derogatory towards her during these episodes, calling her a “bitch and worse” and blaming her for being a terrible mother and causing him problems. Also, he writes derogatory messages on the bathroom mirror for her to find later. During a couple of Jack's episodes, he reported that he

wanted to die. He had no specific suicidal plans or gestures. When questioned about these episodes, Jack reported that he bottles things up all day at school and loses it when he gets home. Jack and his mother reported that he did not remember the episodes after they had occurred. His mother reported that when he comes home from school, he often comments that he “had a bad night” the night before or a “bad morning” but he will say that he does not remember what happened. He is remorseful and apologetic if his mother tells him what happened and will insist he did not mean the cruel things his unkind words. He further maintained that he did not actually want to die.

Jack's mother maintained that during his episodes, Jack seems like “another person.” He is described as generally kind and affectionate towards both his mother and his sister. His mother further describes him as “empathic and helpful.” During the interview, Jack did not show any negative behaviors and indeed seemed quite friendly, cooperative and interpersonally related. His mother reported that she is distressed by his episodes and by his OCD. She reported that she does not know what to do and that she worries that the rituals and episodes are “all part of his TS.” She reported a worry that if she tried to intervene with limits to Jack's behaviors that she would be punishing things that were out of his control and sending a message of nonacceptance about his disability.

Jack's mother reported many positive traits in her son. On one of the intake forms, she wrote, “Jack has always been kind, sweet and loving. He embraces his ADHD because it ‘makes him creative.’ He believes his Tourette's makes him unique and gives him self confidence. As his mother, I agree that he is remarkably mature, well-adjusted and communicative. However, Jack's repeated rage-generated episodes are undercutting

his self esteem. He has begun feeling horrible about himself and has even said he wanted to die.” Jack is reportedly popular at school. He has many friends and also a couple close friends in the neighborhood that he regularly spends time with. He does well in school, but recently his grades have declined and he has been refusing to do homework.

Personal and Medical History

During her pregnancy with Jack, his mother reported that she had excessive nausea, psychological stress caused by her abusive husband, bilateral carpal tunnel and bilateral sciatica. She had an abnormal labor in that it lasted 36 hours and was given antibiotics during delivery due to a maternal infection and an epidural. There were no birth complications. Also, Jack’s mother reported that he has had several bouts of bronchitis and one case of pneumonia at age three. Other than these medical issues, Jack's mother reported that he has been healthy and without major illness or injury.

Family History

Jack’s mother reported that she suffered from separation anxiety as a child. On her side of the family, she reported that her father suffers from panic attacks and alcoholism. There are also several relatives on the maternal side who reportedly suffer from depression. Also, Jack’s maternal great uncle successfully committed suicide more than twenty years ago. Jack’s mother reported that she had no information about psychopathology on Jack’s father’s side. She reported that both sides of the family did not talk at all about such problems.

Mental Status

At the time of the initial interview, Jack was 10 year-old Caucasian male of thin

build who appeared his age. Jack appeared to have appropriate hygiene and he was neatly dressed. There was an small open wound on Jack's upper lip that had been generated by a motor tic where he frequently licked his top lip. He also had sores around his thumbnails that were reportedly attributed to compulsive picking. Jack was cooperative and friendly throughout the interview. He reported to agree with his mother's opinion that coming to the clinic was useful. Jack reported that his mood was happy. He added that he becomes "upset and nervous" when and after his father calls. When asked why he had these feelings, he said his "father was manipulate and tried to turn [him] against [his] mother." His maintained a positive affect with full range throughout the interview. He talked about most of symptoms comfortably, but appeared embarrassed around discussion of his behavioral episodes. Jack was observed to have motor and vocal tics including eye blinking, lip licking and throat clearing. Jack's speech had a normal rate, rhythm and volume. His thought processes were normal. His thought content during the interview was normal. However, Jack and his mother reported his frequent obsessions that occurred particularly in the home environment. Jack denied any suicidality and homicidality. However, during a couple of his behavioral episodes, Jack's mother reported that he said that he wanted to die. He further denied any delusions or hallucinations. His intellect appeared to be above average as demonstrated by his mature conversation and vocabulary compared to children his age and as confirmed by his reported history of academic success. He was oriented X3. Jack had considerable insight into his symptoms, but lacked a sophisticated understanding of them. His judgment outside his described behavioral episodes was good. However, during his behavioral

episodes, his judgment was poor and there were some concerns about his personal safety and the safety of others.

Assessment Procedures and Results

Yale Global Tic Severity Scale (YGTSS)
 Children's Yale-Brown Obsessive Compulsive Scale Checklist (CY-BOCS)
 Child Behavior Checklist (CBCL)
 Conners' Parent Rating Scale – Revised: Long Version (CPRS-R:L)

On the YGTSS, Jack had a global severity score of 45 with a global impairment score of 20. That places Jack in the mild-moderate range for TS symptoms.

On the CY-BOCS, Jack had a Total Score of 31 with Obsessions Scale = 13 and Compulsions Scale = 18, indicating moderate OCD symptoms.

On the CBCL, Jack was in the clinically significant range on the anxious depressed scale, the thought problems scale (possibly due to TS and OCD symptoms) and the rule-breaking behavior scale (for behaviors that occurred during rage attacks). He was also in the borderline clinical range for the somatic complaints scale and the attention problems scale.

On the CPRS-R:L, Jack was in the clinically significant range for the following scales: Oppositional, Cognitive Problems/Inattention, Anxious-Shy, Perfectionism, Psychosomatic, Conners' ADHD Index, Emotional Liability, DSM-IV: Inattentive, DSM-IV: Hyperactive-Impulsive and DSM-IV: Total.

Formulation

Jack is affected by Tourette Syndrome (TS) with a complex presentation of comorbid disorders that are common in children with TS, including Attention Deficit Hyperactivity Disorder – Combined Type, Obsessive Compulsive Disorder, an unspecified behavioral disorder and difficulties with anxiety regulation (Coffey & Park, 1997; Wodrich, Benjamin, & Lachar, 1997). From an etiological perspective, Osmon and Smerz (2005) describe how the complexity of the presentation of TS and comorbidity can be explained by the interaction of many areas of the brain. The authors speak specifically

about theories and research that suggest that TS falls along a spectrum of developmental basal ganglia disorders that include TS and many of the most commonly comorbid disorders. In addition, the common link of various dysfunctions in the fronto-striatal pathways has been hypothesized to lead to both TS and to different comorbid disorders.

A consideration of the course of TS is important in understanding the present increase in Jack's symptoms. The mean age of onset of TS is 6.4 years (Freeman, et al., 2000). Following onset, there is a predictable course of TS in regards to the severity of symptoms. Numerous studies have reported on the tendency for tics to wax and wane over time (e.g., Woods, Piacentini, & Walkup, 2007). There is speculation that there is a “fractal” occurrence of tics that occur in bouts regardless of the time scale studied (Leckman et al., 1998). In other words, tics occur in bouts, which are periods of tic behavior consisting of one or more tics that are separated by periods of non-tic behavior that can last anywhere from a few seconds to several hours (DSM-IV-TR, 2000). Multiple bout of tics are thought to occur in bouts. These bouts-of-bouts occur in bouts as well, leading to a larger time scale concept of bouts-of-bouts-of-bouts-of-bouts of tics (Leckman et al., 2006). In its “bout” fashion, the disorder has been found to follow a predictable course where tic severity increases from age of onset into pre-adolescence or early adolescence. The worst-ever tic severity tends to occur between 7 to 15 years of age (usually between 10 and 11) and is followed by a steady decline in tic severity over the remainder of the lifetime (Bloch et al., 2006; Leckman et al., 1998).

In considering Jack's presentation of symptoms, the comorbid disorders that come with TS are especially a concern due to their potential effects on the course of the

disorder. Coffey & Park (1997) found that up to 50% of patients diagnosed with TS meet the criteria for a comorbid disorder. On the positive side, there is evidence that the level of impairment to individuals with TS with or without comorbid disorders is found to decline over time (Coffey et al., 2004). Still, despite evidence of improvements, longitudinal evidence suggests that children of TS have an impairment in their global functioning that persists into adulthood (Leckman et al., 2006). There is some evidence that the presence of comorbid disorders lead to poorer functional and emotional outcomes than the presence of TS alone (Elstner et al., 2001; Sukholdolsky et al., 2003; Thibert, Day, & Sandor, 1995). Moreover, Wilkenson et al. (2001) found that the existence of comorbid disorders in a TS individual lead to declines in family functioning. The treatment implication of this is that it is often the comorbid disorders and not the tics themselves that should be considered for treatment (Peterson & Cohen, 1998; Woods et al., 2007).

Jack's reported problem areas should be viewed within the context of the common course of the disorder. He has predictably begun the period of his life where his symptoms will present the greatest functional impairments. The increase in tics, OCD symptoms and areas of anxiety are uncontrollable. Both Jack and his mother display a lack of understanding of the complex presentation of psychopathology. Further, they do not have any management strategies for inevitable symptoms. The resulting helplessness contributes to Jack's overall distress and likely serves to exacerbate his symptoms.

Jack's behavioral episodes occur when his distress level reaches a breaking point. An accumulation of factors lead to Jack's distress. While there are not specific distress

factors that necessarily lead to episodes, there are a number of distress factors that appear to be common contributors. First, distress results from the above-described tic and OCD symptoms. Second, distress results from Jack's ADHD symptoms. While, there is no reported recent increase in ADHD symptoms, it is notable that most behavioral episodes occur at times of the day when Jack is not under the influence of his stimulant medication. Third, distress results from Jack's conflictual relationship with his father. Jack is reported to be notably distressed when anticipating or directly following phone calls from his father. Fourth, distress arises from situations that evoke non-OCD anxiety. One avenue of this distress are the named specific phobias to thunderstorms and to bees. Also, based on the initial interview, there is evidence that Jack has general deficits with anxiety regulation. He worries about the safety of others. His mother noted that he has an exaggerated startle response, but there was mixed evidence regarding other somatic complaints. These symptoms would warrant further exploration into the possibility that Jack suffers from Generalized Anxiety Disorder. Other potential avenues of distress involve Jack's developmental stage of pre-adolescence, the beginning of middle school and any number of daily stressors that are yet unnamed. When too many of Jack's stressors build up, he begins to have meltdowns that result in behavioral episodes.

Diagnostically, Jack's behavioral episodes are not well specified. As described, Jack's behavioral episodes occur within discrete time periods. They involve accusatory and derogatory verbal behavioral, threatening gestures, and occasional suicidal talk. His mother refers to the episodes as "rage attacks." A rage attack is well characterized by Budman, Bruun, Park, Lesser, & Olson (2000) as an "abrupt onset of unpredictable and

primitive displays of physical and/or verbal aggression that are grossly out of proportion to any provoking stimuli, often threatening serious self-injury or harm to others” (p.1270). The DSM-IV-TR diagnosis of Intermittent Explosive Disorder is most similar to these described rage attacks. These rage attacks are known to be common in the TS population with parent surveys identifying rage attacks as the most impairing symptom in individuals with TS (Dooley, Brna, & Gordon, 1999). Jack's behavioral episodes have an abrupt onset, are grossly out of proportion to provoking stimuli and often involve threats to harm. However, the episodes lack the fundamental and necessary characteristic of being unpredictable and primitive displays of physical and/or threatening gestures. Instead, his episodes seem both predictable in time and execution. As described, they seem deliberate and meticulously controlled. An alternative DSM diagnostic category is Oppositional Defiance Disorder (ODD). During his episodes, Jack meets the behavioral criteria for ODD. He often argues with adults, he often actively defies or refuses to comply with adult requests or rules, he often deliberately annoys people, he often blames other for his mistakes or misbehaviors, he is often touchy or easily annoyed by others, he is often angry and resentful, and he is often spiteful and vindictive. As the behaviors have only been present for three months, he does not meet the time criteria of six months needed for a diagnosis. More importantly, his behavioral episodes only follow the criteria in name, but not in presentation. The sudden onset of the symptoms are in contrast to the typical age of onset before 8 years. Also, his general tendency of warm compliance towards his mother is in stark contrast to the described behavioral episodes and clinically appears different than an expected oppositionally defiant pattern of

behavior. Lastly, Jack's recognition that his behaviors are unreasonable when he is not in the midst of an episode are not typical of an ODD child who would regard their behaviors as justified. Without, a clear diagnostic category, Jack best fits into the category for Disruptive Behavioral Disorder – Not Otherwise Specified. This would probably remain the best category even if the behaviors were to remain present for over six months.

Jack's mother is unsure of how to respond to the recent escalation of many of Jack's symptoms. In her self education about Tourette Syndrome, she is aware that his tics remain out of his control. She reported that she is worried that she will end up punishing her son for things that are out of his control. Unfortunately, her accommodating behaviors do little to resolve Jack's rituals, worries and episodes. Instead, Jack's mother feels upset and helpless, while Jack (outside of his episodes) feels guilty. Considering that the escalation of behaviors began only three months ago, Jack's mothers quick pursuit of appropriate services demonstrates an ability to recognize a need for help, a strong motivation for change, and an ability to identify appropriate avenues to meet her son's needs.

DSM-IV-TR Diagnosis

Axis I –	307.23	Tourette’s Disorder*
	300.3	Obsessive Compulsive Disorder
	314.01	Attention Deficit Hyperactivity Disorder – Combined Type
	300.29	Specific Phobia – Natural Environment Type
	300.29	Specific Phobia – Animal Type
	312.9	Disruptive Behavior Disorder – Not Otherwise Specified
Rule Out	300.02	Generalized Anxiety Disorder
Axis II –		None
Axis III –		None
Axis IV –		None
Axis V –	GAF 52	(at date of intake)

- * Note that in all other sections of this paper, the term “Tourette Syndrome” substitutes for the DSM label of “Tourette Disorder.” The clinical phenomenon of Tourette's Disorder has more recently been referred to as Tourette Syndrome within the research literature (e.g., Leckman & Cohen, 1999). Using the word “syndrome” in reference to TS has greater technical accuracy following the DSM-IV-TR elimination of the requirement of impairment that had been necessary for a diagnosis of Tourette's Disorder in past versions of the DSM (Olson, Singer, Goodman, & Maria, 2006). The term “disorder” has an implied stigma that works in opposition to a treatment stance of acceptance of tic symptoms.

Treatment Plan

Treatment will initially focus on management of behavioral episodes and reduction of OCD symptoms. For the behavioral episodes, Jack's mother will be asked to track the incidences of behavioral episodes providing date, time, severity ratings, and a description of any episode. Work will be done with Jack and his mother together with the goal that Jack's mother feels more confident in her authority as a parent as demonstrated by deliberate responses to Jack's negative behaviors. As a first step in this goal, Jack and his mother will be given psychoeducation about TS and around Jack's comorbid disorders. Following psychoeducation, Jack's mother should be able to better distinguish tic behaviors, OCD rituals, ADHD symptoms, and acting out behaviors. Further, Jack's mother should gain a sense of how to best respond to each area.

Once Jack and his mother have a better understanding of Jack's symptoms, problems in the home will be addressed using the “Targeted Family Intervention Manual” (Bry et al., 1991). Within this treatment, the family (in this case Jack and his mother) learns how to solve their own problems. Any problem solving session begins by identifying who has the problem, what the problem is and how the problem affects the person with the problem. Once the problem has been identified, the family brainstorms

on potential solutions for what the person with the problem can do differently so that they will be less affected. The family then agrees on the best solution from the list of options and talks about how they will go about implementing the solution. For Jack's family, this course of intervention looks to encourage Jack's mother to respond to her upset and frustration with planned solutions (as opposed to increasing her upset and frustration by accommodating Jack).

OCD symptoms will be targeted at the same time as behavioral symptoms. The manualized OCD treatment by Wagner (2003), "Treatment of OCD in Children and Adolescents: A Cognitive-Behavioral Therapy," will be used to treat Jack's OCD and Jack's simple phobias. The treatment is also known as the Worry Hill Protocol. In brief summary, the Worry Hill Protocol addresses OCD in four phases. Phase I offers the clinician the tools and techniques for assessment and treatment planning. Phase II involves the child in planning their treatment as they learn about their OCD and about strategies to manage their symptoms. The treatment places a strong emphasis on this "treatment readiness" phase, arguing that a premature start to active treatment often leads to treatment failure. Phase III is the active treatment phase and utilizes the strategy of exposure and ritual prevention (ERP) to combat OCD symptoms. The manual uses a child friendly metaphor where doing the ERP is compared to a child riding up a big hill on their bicycle and getting to coast down the opposite side. Phase IV covers relapse prevention by preparing the child to manage their own OCD symptoms and their anxiety following treatment.

Much of the OCD treatment takes place in Phase III, the ERP stage of the Worry

Hill Protocol. One potential challenge of the particular treatment is that Jack reports that his OCD rituals occur mostly in the home. When possible, exposures will be done during sessions. As this may not be possible for many of the rituals, exposure may have to be done primarily as homework. After giving Jack and his mother initial training in exposure work, Jack will be given homework assignments for conducting his own in-home exposures. His mother will be asked to remind Jack to do the assignments, support him during the exposures if necessary and to praise him for completing them. As treatment progresses, Jack will be encouraged to use session time to request that his mother does not enable his OCD by performing rituals on his behalf. If the OCD treatment is successful, the skills learned will be transferred into exposure work with Jack's specific phobias.

Treatment Progress and Outcome

Treatment outcome was positive overall. As treatment unfolded, the larger focus was on issues of OCD and anxiety. Jack demonstrated great motivation during treatment and consistently completed weekly homework assignments. He enjoyed using the Worry Hill protocol as means to manage his anxiety. He enjoyed the activities in the treatment readiness phase, where he named his OCD "The Kingfisher," a cunning trickster who would lure Jack in and force him to follow his OCD rules. During the initial treatment, most of Jack's OCD behaviors did not transfer into session. Despite this challenge, Jack proved to be diligent in following directions for carrying out his own exposures in the home environment. He would monitor his own fear ratings as he would break the rules that were imposed by his OCD. Each week, a different OCD area was selected. Once the

active phase of treatment began, Jack was able to eliminate his problematic OCD behaviors and his weather related phobia in five treatment sessions. The relapse prevention stage focused on how Jack could continue to confront his anxieties on his own. Jack was asked to use his CBT knowledge to plan his own exposures around his bee phobia. He was asked to put his plan into place and report on his progress in the first booster session.

A smaller treatment focus was placed on behavioral episodes. Following psychoeducation and some work with family problem-solving, Jack's mother reported that she felt more empowered to be a parent despite her concerns over Jack's symptoms. She began to set better boundaries by enforcing her structure around bedtime and behavior. She became better at ignoring Jack's outbursts instead of becoming entangled in them. It is further speculated that as Jack's overall anxiety decreased and as Jack learned to manage his OCD and phobia, behavioral meltdowns decreased. In one booster session and several follow-up phone calls, it was reported that Jack had maintained his treatment gains. When new OCD areas came up, he was able to eventually recognize his behaviors as new rituals and “use his CBT” to manage the anxiety and eliminate rituals that had developed.

About a year following treatment, Jack returned to the clinic due to a resurgence of OCD symptoms. He had developed obsessions around thoughts of death and dying. Any time he was confronted with the reality of death, he would have severe anxiety punctuated with a bout of throat clearing tics. The obsession was pervasive, affecting Jack in school when any death was mentioned (even in history class), when he would

watch the news and death was mentioned, when he saw someone kill an insect and in many other areas. His distress became equally pervasive as he continually worried that he would be confronted with an incident where death was mentioned. Treatment was done with in session exposure work supplemented with exposure homework assignments.

The exposure work involved reading to Jack from various obituaries for up to an hour at a time. Jack would respond to each obituary with a bout of tics that would become painful in his throat. Unlike, past areas of OCD, where Jack had achieved habituation relatively quickly, Jack remained highly anxious with little habituation through the exposures and through homework assignments. Within the four consecutive weekly sessions, Jack's fear rating did not drop below an 8 on a 10 point scale. As habituation seemed to be occurring at a snail's pace if at all on an issue related to death, an ethical concern arose that the therapy was simply too distressing and damaging to Jack. With encouragement, Jack agreed to continue the exposure work, despite slow success. After 7 treatment sessions, full habituation was achieved and the obsession quickly disappeared.

Future Directions for Treatment

The TS Program remains a resource for the Jack's family. If future concerns arise, telephone updates or booster sessions will be used to reinforce the skills that Jack has learned in the past. If symptoms arise that Jack or his mother believe that they cannot address on their own, Jack would be able enter into weekly psychotherapy.

APPENDIX E

CODING FORMS

On the upcoming pages are examples of the coding forms. The following forms are present:

General Questionnaire Coding Form

ADHD Module Coding Form – Parent Version

OCD Module Coding Form – Parent Version

Anxiety Module Coding Form – Parent Version

Depression Module Coding Form – Depressive Symptoms – Parent Version

Depression Module Coding Form – Manic Symptoms – Parent Version

Behavioral Module Coding Form – Parent Version

General Questionnaire Coding Form:

Clinicians: Please transfer the following information from the General Questionnaire Form to this page so that the information may be entered into the database.

Basic Information

Client Name: _____ Date of Assessment: _____

Clinician Name: _____ Parent Present: _____

Client Age: _____ Client Grade: _____ # of Siblings: _____

Mother's Name: _____ % of Child Care: _____

Father's Name: _____ % of Child Care: _____

Presenting Problem and other basic information:

Tic Information Age of 1st Tic: _____ Level of Concern About Tics: _____

YGTSS Scores: Motor: _____ Vocal: _____ Disruption: _____

Modules Administered

ADHD OCD Anxiety Depression Behavioral

Other Areas

Suicidality Medication Substance Use Learning Disability

School Accom. School Problems Social Problems

_____ Trauma/Loss # Yes Responses

Other Problems

ADHD Coding Form

Child's Name _____

Date: _____

Within each ADHD symptom area that your child has shown symptoms, please rate the Level of Problem and the Child's Distress Level on a 1-10 scale, where 1 = little problems or distress and 10 = maximum levels of problems or distress.

During the past week, did your child show any of the following:

Symptom List	√ if present	Level of Problem	Child's Distress
<u>Inattention</u>	-----	-----	-----
Often fails to give close attention to details or makes careless mistakes in schoolwork, work or other activities			
Often has difficulties sustaining attention in tasks or play activities			
Often does not seem to listen when spoken to directly			
Often does not follow through on instructions and fails to finish schoolwork			
Often has difficulty organizing tasks and activities			
Often avoids, dislikes or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)			
Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)			
Is often distracted by extraneous stimuli			
Is often forgetful in daily activities			
<u>Hyperactivity/Impulsivity</u>	-----	-----	-----
Often fidgets with hands or feet or squirms in his/her seat			
Often leaves his/her seat in the classroom or in other situations in which remaining seated is expected			
Often runs about or climbs excessively in situations in which it is inappropriate to do so [<i>Interviewer: For adolescents, this may be limited to subjective feelings of restlessness.</i>]			
Often has difficulties playing or engaging in leisure activities quietly			
Is often “on the go” or often acts as if “driven by a			

motor”			
Often talks excessively			
Often blurts out answers before questions have been completed			
Often has difficulty awaiting his/her turn			
Often interrupts or intrudes on others (e.g. butts into conversations or games)			

OCD Coding Form

Child's Name _____

Date: _____

Within each OCD symptom area that your child has shown symptoms, please rate the Level of Problem and the Child's Distress Level on a 1-10 scale, where 1 = little problems or distress and 10 = maximum levels of problems or distress.

For the past week, please rate the following symptoms:

Symptom List	√ if present	Level of Problem	Child's Distress
*Need for reassurance			
Rituals around bedtime			
*Idiosyncratic rules about how things need to be or to be done			
*Family members need to do things in a certain way			
*Urge to touch or tap things			
Worries excessively about strange, idiosyncratic topics (e.g. plight of certain animal or car may catch on fire)			
Perfectionism about performance (e.g. school, games, etc)			
Overly moralistic (e.g. excessive upset when others cheat or lie)			
Unpleasant thoughts or images stuck in mind			
Worries around germs or cleanliness			
Excessive checking of safety			
*Items must be organized in certain ways			
Irrational avoidance of objects or places			
*Sensory sensitivities (e.g. certain clothes, tags or seams)			
Skin or hair picking			
Excessive hoarding or collecting items			
*Needs for things to feel "just right"			
Worries about harming self or others			
Other 1:			
Other 2:			
Other 3:			

Anxiety Coding Form

Child's Name _____

Date: _____

Within each Anxiety symptom area that your child has shown symptoms, please rate the Child's Distress Level, the amount of Disruption for symptoms and the level of Parent Concern on a 1-10 scale, where 1 = distress, disruption or concern and 10 = maximum levels of distress, disruption or concern.

Provide ratings for any area within the past week. If area is not a concern, leave the box blank:

Type of Anxiety enter in simple phobia name	Child's Distress	Disruption	Parent Concern
Simple Phobia 1:			
Simple Phobia 2:			
Simple Phobia 3:			
Separation Anxiety			
Social Phobia			
Generalized Anxiety (or general worries)			
Panic Attacks: How many attacks? _____			

Depression Coding Form: **Child's Name** _____
Date: _____

Within each depression symptom area that your child has shown symptoms, please rate the Frequency and Severity of symptoms on a 1-10 scale. For Frequency, 1 = symptom present very infrequently and 10 = symptom present all the time. For Severity, 1 = on average, symptom was very mild when present and 10 = on average, symptom was as worse as could be imagined.

For the past week, please rate the following symptoms:

Symptom List	√ if present	Frequency (1-10)	Severity (1-10)
<i>Symptom Group A</i>	--	--	--
Feelings of sadness			
Irritability			
<i>Symptom Group B</i>	--	--	--
Trouble falling/staying asleep or excessive sleeping			
Poor appetite or overeating			
Low energy or fatigue			
Low self-esteem			
Poor concentration / difficulties making decisions			
Feelings of hopelessness			
Suicidal thinking			
<i>Symptom Group C</i>	--	--	--
Difficulty with schoolwork			
Slowed body movements			
Difficulties having fun			
Excessive guilt			
Social withdrawal			
Limited facial expressions			
Slowed, monotone speech			
Physical complaints (e.g. aches and pains)			

Manic Coding Form

Child's Name _____

Date: _____

During the week or more where the above-mentioned mood occurred, did your child show any of the following behaviors. Please rate any level endorsed behaviors as they appeared during that period on a scale of 1-10.

Symptom List	√ if present	Level (1-10)
Inflated self-esteem or excessive over-confidence in abilities		
Marked decreased need for sleep (e.g. felt rested after a few hours)		
More talkative than usual and/or could not seem to stop talking		
Rapidly changing topics while speaking or reports of racing thoughts		
Highly distractable by unimportant objects or events		
Increase in goal-directed activities, productivity or abnormal agitation or restlessness		
Excessive involvement in pleasurable but high risk activities (e.g. sex, drugs, stealing, etc...)		

How much did the above-mentioned mood state disrupt, your child's academic performance, social life or other activities? Rate disruption on a 1-10 scale and describe the nature of the disruption in the space below.

Rating: _____

Behavioral Coding Form Child's Name _____ Date: _____

The following situations should be rated for behavioral problems over the past week. For situations where behavioral problems were present, rate Frequency, Average Severity and Worst Severity on a 1 – 10 scale. Frequency is an estimate of how often problematic behaviors were occurring when the child was in the particular setting, with 1 being almost never and 10 being always present. Average Severity is an estimate of how severe the behavior was overall, with 1 being mild and 10 being the most severe conceivable. Using the same 1-10 scale, Worst Severity is an estimate of the severity of the worst incident in that setting over the past week of time.

For the past week, please rate the following present behaviors:

Situations	√ if present	Frequency (1-10)	Average Severity	Worst Severity
Getting ready for school				
Mealtimes				
Washing and bathing				
About to leave the house				
When watching television				
On the computer/video games				
Getting dressed				
Bedtime				
In the car				
Public places (restaurants, parks, etc.)				
When visiting someone's home				
When asked to do homework				
When asked to do chores				
When you are on telephone				
When you don't follow the child's command				
When father is home				
When visitors are over				
When babysitter is over				
When playing with other children				
When playing alone				
When interacting with siblings				
When at school				

