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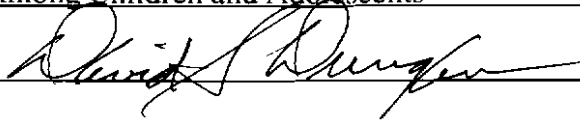
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Title: Use of the Child Behavior Checklist in Discriminating Posttraumatic Stress

Disorder and Dysthymia Among Children and Adolescents

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An important issue in clinically assessing child and adolescent psychopathology is basing diagnoses on information from sources other than the child's self-report, such as parents and teachers. Additional problems arise when children show very similar symptomatology for different disorders. Differentiating between behaviors regarded normal for a certain age group, and those behaviors considered deviant or pathological is often difficult. Some examples of childhood disorders sharing similar symptomatology are Oppositional-Defiant Disorder (ODD) and Conduct Disorder (CD). Two disorders also commonly diagnosed in children are Posttraumatic Stress Disorder (PTSD) and Dysthymia. Like ODD and CD, these two disorders also share similar symptomatology. In addition to this similarity, PTSD and Dysthymia are also often diagnosed in the adult population. Therefore, differentiating between adult symptomatology and that of children is also an important issue. The present study compared 53 children and adolescents diagnosed with PTSD to 47 children who had been diagnosed with Dysthymia. The comparison between the two groups was made on the basis of the participants' scores on the eight syndrome scales of the Child Behavior Checklist (CBCL). A multivariate analysis of variance was conducted to determine if the scores

may be used in diagnostic prediction. Findings suggest that the CBCL does not have the ability to discriminate effectively between PTSD and Dysthymia. Although the results of this research were not significant, the CBCL should not be ruled out as a useful tool in the overall diagnostic process.

USE OF THE CHILD BEHAVIOR CHECKLIST IN DISCRIMINATING
POSTTRAUMATIC STRESS DISORDER AND DYSTHYMIA
AMONG CHILDREN AND ADOLESCENTS

A Thesis

Presented to

the Division of Psychology and Special Education

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In Partial Fulfillment

of the Requirements for the Degree

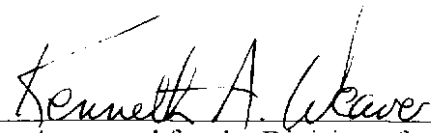
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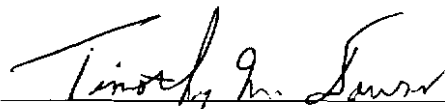
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CHAPTER 1

INTRODUCTION

An important topic in clinically assessing child and adolescent psychopathology is basing diagnoses on information from sources other than the child's self-report, such as parents and teachers. Multiple informants are thought to be necessary for adequate child diagnosis because (a) children may be developmentally unable to provide a reliable account of their psychiatric functioning; (b) children may deny or minimize socially undesirable symptoms; (c) parents may be unaware of intrapsychic symptoms, such as dysphoria, obsessions, and phobias; (d) parents may have limited knowledge of the range of situations in which the child displays problematic behavior (e.g. school vs. home); (e) children and adults may have different thresholds for considering different behaviors clinically significant; and (f) children and adolescents may actually manifest symptoms and behaviors differently in different settings. These factors imply that both parent and child input are necessary because parent-child agreement will often be low and a final assessment decision will need to represent an integration of all the information into a best-estimate diagnosis made by a qualified clinician.

One difficulty in the area of assessment of child psychopathology is the fact that children often show very similar symptomatology for different disorders. Differentiating between behaviors that can be regarded normal for this age and behaviors that can be considered deviant or pathological is often difficult. Many behaviors are often considered problematic in children, such as defiance, anxiety in new situations, or lack of

emotional or behavioral control, which in many cases may be part of normal development. Further, different informants interacting with the child in different situations and under different conditions often disagree on the presence and severity of the child's problem behaviors.

The difficulty clinicians often encounter when diagnosing children and adolescents is discriminating between behavioral disorders which have similar symptomatology such as Oppositional-Defiant Disorder and Conduct Disorder, as well as emotional disorders such as Posttraumatic Stress Disorder (PTSD) and forms of Depression such as Dysthymic Disorder (DD or Dysthymia). For the purposes of this study the researcher will focus on discriminating between PTSD and Dysthymia.

The present study is one which the researcher hopes will indicate the utility of the Child Behavior Checklist in discriminating between child and adolescent disorders which are similar in symptomatology. The disorders in question, PTSD and Dysthymia, are very similar in symptomatology but different in treatment.

The major purpose of this research is to aid the assessment and treatment of children and adolescents. After the process of assessment and diagnosis, the clinician must decide what treatment modality to use in with the client. Although many childhood psychological disorders are difficult to distinguish from one another, the treatment of these disorders may differ greatly. For example, like adult PTSD, the childhood form is a severe and debilitating mental illness, not just the extreme of a continuum of responses to distressing situations. It is also a chronic disorder. However, research has shown that, due to misdiagnoses, more than 40% of children admitted to various mental health

settings due to PTSD are still suffering a year after they were first diagnosed (Famularo, 1997). For this reason, the researcher feels it is important that a clear distinction is made between the two disorders in question as well as other disorders which share symptomatology.

Review of The Literature

Making the distinction between symptomatology of adult and child psychological disorders and that of child psychological disorders has long been a clinical issue although children and adolescents do not manifest the same symptom cluster that seems to be evidenced in the adult population (Wolf, Gentile, & Wolfe, 1989). There are often additional symptoms to take into consideration when working with children. These symptoms are generally behavioral in nature due to the lack of coping skills children have acquired.

Posttraumatic Stress Disorder (PTSD)

There has long been an awareness among researchers and clinicians that stress and trauma can have a severe impact on children and adolescents. A number of theorists have suggested that childhood trauma may account for some of the variability in the presence and degree of psychiatric disorders in adulthood. However, it has only been in the past decade investigators have increasingly recognized that children may develop Posttraumatic Stress Disorder (Shannon, Lonigan, Finch, & Taylor, 1994). Terr (1991) has delineated two classes of trauma that may lead to the development of PTSD in children: Type I Trauma involves single traumatic events that are sudden and unexpected. Examples of such trauma are being the victim of a violent crime or

witnessing a homicide. Type II trauma entails the repeated occurrence of a traumatic event, and the traumatic event may often be expected and predictable. Examples of Type II trauma include many cases of sexual abuse, ritualistic abuse, or the repeated physical abuse of a child (Shannon et al., 1994).

Children may also develop PTSD symptoms from indirect exposure in a near-miss experience; for example, a child who left a bus before it was involved in a terrible wreck may develop PTSD himself. The unwitnessed death or injury of a loved one may precipitate symptoms of PTSD that are exacerbated by the family's retelling of the event, by detailed media coverage, and by contagion effects within the community. When human accountability is tied to the stressor, the impact may be more severe and long-lasting. When the event is perpetrated by an authority figure close to the child, long-lasting adverse changes in personality may occur, undermining the child's ability to trust or to form meaningful relationships. Maltreated children often fail to develop social skills and have serious difficulties with their families and others. Many adults with personality disorders and almost all those with multiple personality were maltreated as children (Famularo, 1997). Researchers have also shown a strong link between PTSD and suicidal tendencies in children and adolescents (Rathus, Wetzler, & Asnis, 1995).

The Diagnostic and Statistical Manual of Mental Disorders--Fourth Edition (DSM-IV) published in 1994 by the American Psychiatric Association describes the criteria for the onset of PTSD follows:

The essential diagnostic feature of post traumatic stress disorder is the development of characteristic symptoms following exposure to an

extreme traumatic stressor involving direct personal experience of an event that involves death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves actual or threatened death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate. The person's response may involve intense fear, helplessness, or horror. In children this may be expressed by disorganized or agitated behavior. In young children, intrusive and recurrent recollections of the traumatic event may lead to repetitive play in which themes or aspects of the trauma are expressed. Although distressing dreams of the event are probable, children may experience dreams as frightening and without recognizable content. Other symptomatology may include intense psychological distress at internal or external cues that symbolize or resemble an aspect of the traumatic event, persistent avoidance of stimuli associated with the trauma as well as the numbing of general responsiveness (not present before the trauma), and persistent symptoms of increased arousal which were not apparent before the trauma. (American Psychiatric Association, 1994)

Additional symptoms of PTSD may include dizziness, sexually inappropriate behavior and conduct disorders such as lying, stealing and truancy. The symptoms are so varied that children with PTSD are often misdiagnosed as hyperactive, depressed, or

suffering from bipolar disorder, a personality disorder, overanxious disorder, or avoidant disorders (Famularo, 1997). Often the misdiagnosis occurs due to the clinician's misinformation about survivor-victim syndromes. This unfamiliarity has resulted in an inappropriate use of institutionalization or counter therapeutic use of psychopharmacological intervention. Misdiagnosis often occurs as a result of failure to make connections between events that happened years ago with present symptoms. This may result in blaming the victim and focusing on present symptomatology as representing character defects (March, 1995).

An additional concern addressed by research on childhood PTSD has been the lack of a consensus in assessing the problem in children. One study (Hyman, Zelikoff, & Clark, 1988) used instruments of a psychoeducational nature to measure the PTSD descriptors.

A study by Hillary and Schare (1993) attempted to investigate the phenomenon of PTSD in adolescents through the use of standard objective measures such as the Minnesota Multiphasic Personality Inventory, the Beck Depression Inventory, and the Spielberger State-Trait Anxiety Inventory. The results from these standardized objective personality measures failed to agree with other diagnoses of PTSD. For this reason it has been suggested that another distinct DSM-IV diagnosis that would include reactions to prolonged stress such as ongoing abuse be specified as "Disorders of Extreme Stress Not Otherwise Specified (DESNOS)." This category might be appropriate for describing psychological disturbances following prolonged trauma that do not currently meet PTSD standings (Motta, 1994). A review of the literature has led to the same conclusion. It is not yet fully understood how to diagnose and treat children who suffer from PTSD-like symptoms.

Dysthymia

Medical professionals note that psychiatric disorders constitute the leading health problem among young people ages 10-18 in the United States. An estimated one in 50 school-aged children exhibit symptoms of major depression, a condition that persists an average of seven to nine months (Lamarine, 1995). A milder but more persistent form, Dysthymia, is defined as chronic depression of a mild to moderate degree for at least two years' duration. The disorder tends to be underdiagnosed despite a prevalence rate of 5 to 15 % in primary care settings (Sansone & Sansone, 1996).

Dysthymia is another childhood disorder often mistaken for other childhood disorders. The essential features of Dysthymia are the same in children as in adults, although children exhibit the symptoms differently. One way in which children differ from adults is in the terrific proportion of newness with which they must cope. Meeting the child next door for the first time, entering the bewildering world of the supermarket, going on an airplane trip, starting preschool or kindergarten, changing living places, and hundreds of other adventures may be scary, pleasant, or stressful depending on the child's temperament, and on the way that parents or other close figures have prepared them to meet such experiences.

The complexity of human behavior, difficult to unravel in the best of circumstances, is more so for children. In the process of realizing their potential and learning to deal with newness, they are developing, and going through many changes as they develop. During the first four or five years of life, most children are confronted with demands to accept and come to terms with numerous new situations. Some of these involve challenges to engage in new activities which may require the integration of new

coordinations and skills, however well established some of the elements of these may be. Some of the skills demanded are not merely new, but are also difficult for the child's level of maturity and capacity. Coping efforts are enhanced in certain children, yet in other children these efforts are constrained by tension aroused by the possibility of failure.

Unlike adults, children may not have the vocabulary to describe accurately how they feel and, therefore may express their problems through behavior. These behaviors may include frequent negative self-statements, self-destructiveness, disruptive behavior, academic difficulties, and peer problems. Also, increased irritability and aggression, suicidal threats, and worsening school performance may indicate the presence of depression or Dysthymia.

The diagnosis of Dysthymia in childhood requires one year of symptomatology (American Psychiatric Association, 1997). Distinguishing features of Dysthymia include (1) persistent sadness; (2) an inability to enjoy previously favorite activities; (3) increased activity or irritability; (4) frequent complaints of physical illnesses such as headaches or stomach aches; (5) frequent absences from school or poor performance in school; (6) persistent boredom, low energy, poor concentration; or (7) a major change in eating and/or sleeping patterns (National Alliance for Research on Schizophrenia and Depression, 1996).

There is emerging evidence suggesting depressive disorders such as Dysthymia can develop in prepubertal children and occur significantly among adolescents. In fact, some children can be formally diagnosed with Dysthymia by the age of five. Under

many circumstances, depression may be quite appropriate. For example, a loss of a loved one, a friend leaving town, moving to another neighborhood, changing schools, and many other circumstances give children “the blues” and make them feel depressed for days and even weeks. However, there is a point at which such a response to loss and other sources of stress is no longer appropriate.

Many parents often ask how to distinguish between a depressed mood or affect and a depressive disorder such as Dysthymia. Some parents may make the mistake of dismissing their child’s Dysthymia as just a phase. Studies indicate, however, that children do not simply grow out of Dysthymia. Left untreated, it can become a lifelong problem, with cycles of remission and relapse (USA Today, 1995). A child who used to play with friends may now spend most of the time alone and without interests. Things that were once fun now bring little joy to the Dysthymic child. Unfortunately, the child’s tendency to show increased aggression towards peers and other antisocial gestures only increases the child’s level of peer rejection. The existence of a relationship between childhood aggression and peer unpopularity and rejection is well established (Dumas, Neese, Prinz, & Blechman, 1996). Unfortunately the relationship between these variables only sends the child into a deeper state of depression. Many children suffering from emotional disorders don’t know how to handle their feelings of sadness and anger. Their poor coping skills often result in self-defeating behaviors and poor social skills (USA Today, 1995).

Very little is known about the treatment of Dysthymia. However, research indicates that the behavioral aspects of Dysthymia tend to lengthen the duration of the

disorder (National Alliance for Research on Schizophrenia and Depression, 1996). For this reason, it is necessary to use behavioral interventions when working with these children. Additional research suggests that an important risk factor is the presence of a parent who is afflicted with a major affective illness. A predisposition to this illness can be genetically passed on to the child.

Exactly what biological process is responsible for the predisposition to Dysthymia is not yet known, but the illness may lie dormant in the child unless spurred to life by some source of stress in the child's environment. However, without stress, the gene may also become expressive at a certain age (Civics, Obrosky, Gatsonis, & Richards, 1997).

Diagnostic Similarities

Many similarities exist between PTSD and Dysthymia in children and adolescents. For example, both of these disorders may be brought about by stress such as experiencing the loss of a relative, friend, or even a pet. It is important to remember that a very mild adult stressor can be devastating for a child. Studies have found high levels of psychiatric comorbidity among children and adolescents meeting operational definitions of depressive disorders, including Dysthymia.

PTSD and Dysthymia may not only share symptomatology but often are comorbid with one another. Research shows that anxiety disorders such as PTSD are three to four times as likely to be diagnosed in children with depressive disorders such as Dysthymia, as in children with no depression (March, 1995). Also, the National Comorbidity Survey found that juvenile depression rarely occurs in "pure" forms. Instead, findings suggest that high levels of psychiatric comorbidity are the rule and not the exception in juvenile

depression (Kovacs, Gatsonis, Paulauskas, & Richards, 1989). The delineation of separate but co-occurring disorders is of importance so that each of the associated conditions present may be treated effectively (Biederman, Faraone, Mick, Moore, & Lelon, 1996).

Child Behavior Checklist

The Child Behavior Checklist (CBCL) was developed by Dr. Thomas M. Achenbach to empirically assess children's competencies and problems in the study of child and adolescent psychopathology. Before the CBCL was introduced, the prevailing diagnostic systems were derived from information about adults and not based on children at all. Instead, they were based on adult problems and assumptions about how adult problems grew out of childhood problems. Dr. Achenbach felt the need for a comprehensive way of organizing our thinking about child psychopathology that was based on a study of actual children (Achenbach, 1991).

The CBCL can be used in virtually all mental health settings for children where parents or parent surrogates are available as informants. These settings include private practices, outpatient clinics, acute care hospitals, group homes, and residential centers. The CBCL can be most useful if it is routinely obtained at intake for all cases. Routine use of the CBCL provides standardized documentation of presenting problems and competencies for purposes of case records, accumulating experience with the CBCL in the particular setting, and providing a baseline from which to assess change.

A key application of the CBCL is in the intake and evaluation of children referred for mental health services. The CBCL is designed to be self-explanatory for parents with

reading skills as low as the fifth grade level. Because most parents involved in the referral process come with the expectation of reporting on their child's behavior, the CBCL is a natural part of the intake routine. If intake materials are sent to parents before their first appointment, the CBCL can be enclosed to be filled out at home and returned by mail or brought to the first appointment.

If intake materials are not routinely mailed in advance, parents may be asked to come approximately 30 minutes prior to their first interview to fill out the CBCL in the waiting room. It is helpful for parents to have access to someone who can answer questions about the CBCL such as the receptionist or an intake worker who is familiar with the CBCL. In some cases, parents or caretakers may not be able to read the CBCL items so it is helpful to give the parent a copy of the CBCL while an interviewer reads each item from a second copy and enters the responses. Here, the focus is always on the parent's description of the child's behavior, rather than on non-verbal cues given by the parent.

All mental health centers in Kansas are now required to administer the CBCL to every child and adolescent at the time of intake. The parent or legal guardian of the client typically fills out the checklist. The purpose of this checklist is to obtain parents' or legal guardians' reports of children's competencies as well as behavioral and emotional problems. The individual filling out the checklist provides information for 20 competence items covering the child's activities, social relations, and school performance. The CBCL has 118 items that describe specific behavioral and emotional problems, and two open-ended items for reporting additional problems. The child is

rated for how true each item is now or within the past six months using the following scale: 0= not true (as far as you know); 1= somewhat or sometimes true; 2 = very true or often true.

The CBCL scoring profile provides raw scores, T-scores, and percentiles for three competence scales (designated Activities, Social, and School), Total Competence, eight cross-informant syndromes, and Internalizing, Externalizing, and Total Problems. The scales are based on factor analyses of parents' ratings of 4,455 clinically referred children, and normed on 2368 children aged 4-18. The normative sample was stratified to be representative of the 48 contiguous states for socioeconomic status (SES), ethnicity, region, and urban-suburban-rural residence.

The Child Behavior Checklist is also one method of delineating separate but co-occurring childhood disorders. The following eight cross-informant syndromes are displayed on the 1991 CBCL profile: Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior. With several items loaded on to each of these scales, nearly every aspect of a child's behavior is assessed.

Research has indicated that the CBCL may effectively discriminate between, for example, children and adolescents with Attention Deficit Hyperactivity disorder (ADHD) and those children with Conduct or Oppositional Defiant Disorder (Kelly & McArdle, 1997). Also, studies have been conducted using scores on the Externalizing and Internalizing scales of the CBCL in order to examine the behavioral consequences of childhood abuse (Dykman et al.). Orlebeke, Knol, and Verhulst (1997) even used the

CBCL in a longitudinal study of twins and the behavioral problems which resulted from maternal smoking during pregnancy. Therefore, the CBCL is quite useful in many arenas of study.

The decision to use behavior rating scales is often based on the cost-effectiveness of the scale. Such rating scales have several advantages over other methods including years of experience with the child over many situations, the allowance for the collection of data that may occur infrequently, the existence of acceptable normative data, the ability to focus on the diversity of pathology, and the allowance for qualitative distinctions of qualitative behaviors (Barkley, 1990).

The CBCL also differs from other diagnostic assessment tools in taking a dimensional as opposed to a categorical approach to psychopathology. Thus, the CBCL's different theoretical basis and approach to collecting data makes it suitable as a method of providing convergent evidence for findings based on categorical diagnoses. Moreover, a large body of research demonstrates the reliability and validity of the CBCL in both clinical and nonclinical populations (Biederman et al, 1996).

The Thirteenth Edition of the Mental Measurements Yearbook (MMY) stated "whichever form of reliability or stability is used, the CBCL/4-18 fares quite favorably. Across all age/gender groups the internal consistencies of the Externalizing and Total Problems scores were in the .92 to .96 range, and the reliability of the Internalizing scale was nearly as strong, .88 to .92. Among the syndrome scales, the internal consistency of the Aggressive scale was strong, .92 for all age/gender groups (p. 132)." The MMY also reported that as a research and descriptive tool, the CBCL is unquestionably the most

well articulated and well established of its kind.

Besides parents, other sources of data are also important for the assessment of most children. For children attending school, teachers may be second only to parents as key adults in children's lives. Teachers can observe aspects of children's functioning that are not evident to parents or clinicians, and their views of a child are also influential in determining what will be done to help the child.

Direct assessment of children via observations in natural settings, clinical interviews, and structured self-reports provide additional perspectives for which we have developed empirically based scoring systems whose findings can be compared with those obtained from parent and teacher reports. Comprehensive assessment of children should also employ standardized tests of ability, achievement, perceptual-motor functioning, and speech-language skills, as well as relevant medical diagnostic procedures. The value of any one assessment procedure, such as the CBCL, can be greatly enhanced by meshing it with the other types of procedures (Achenbach, 1991).

Conclusion

The current study was designed to investigate the following research question: Do scores on the Child Behavior Checklist effectively discriminate between Posttraumatic Stress Disorder and Dysthymia in children?

The hypothesis of the current study was that the eight syndrome scales discriminate among different diagnostic groups. If the CBCL discriminates between these two very similar diagnoses, clinicians should be able to diagnose these conditions more accurately.

CHAPTER 2

METHOD

The purpose of this section is to summarize the methods and procedures to be used to investigate the ability of the Child Behavior Checklist to discriminate between children diagnosed with Posttraumatic Stress Disorder (PTSD) and those diagnosed with Dysthymic Disorder. Scores on each of the eight subscales were compared.

Participants

Participants in this study included all children and adolescents who went through the process of an intake evaluation from a local mental health center between the dates of January 1, 1997 and January 1, 1998. The participants also must have been assigned a primary diagnosis of either Posttraumatic Stress Disorder (n=53) or Dysthymia (n=47). Because the diagnostic criteria for each of these disorders is outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 1994), which is the primary reference for diagnostic criteria among mental health professionals nationwide, the results of this study could possibly pertain to any child in the United States.

The clinicians who typically conduct the intake assessments are Licensed Doctoral Level Psychologists, Licensed Master's Level Psychologists, Licensed Masters Level Social Workers, Licensed Clinical Social Workers, or clinical interns who are working under the supervision of one of these professionals. The CBCL is given to the parents or legal guardians of the child prior to the intake interview by a receptionist or other staff member who is familiar with the CBCL. After the CBCL is collected from the

parent or caregiver who has completed the form, clerical staff at the mental health center enter the scores into a computer program which in turn analyzes the data and subsequently prints out a profile on the specific child. The CBCL and CBCL profile are given to the clinician conducting the intake interview.

In order to ensure confidentiality of all participants, no names or other identifying information were used in this study. Additionally, only the researcher collected the data. Participants were referred to only as numbers throughout the study.

Experimental Design

The current study implemented a descriptive design in exploring the ability of scores from the CBCL to discriminate between PTSD and Dysthymia. The independent variable was the Axis I diagnosis of each participant. This independent variable was then broken down into two separate levels. These levels are defined as the group which was assigned the diagnosis of PTSD and the group which was assigned the diagnosis of Dysthymia. The dependent variable in this study was each participant's scores on each of the subscales of the CBCL.

Instrumentation

Child Behavior Checklist (CBCL): Ages 4-18. The CBCL is a 138 item questionnaire. Of these items, 20 are designed to assess social competency. The remaining 118 items are broken down into 8 syndrome scales measuring specific behavioral and emotional problems in children. The checklist is generally completed by a parent or primary caretaker of the child. The items are answered on a three-point scale ("not true" to "very true"), indicating the degree of agreement between the item and the

parent's recent perceptions of the child's behaviors over the past six months. The items tap behaviors ranging from externalizing, acting out behaviors (e.g. cruelty, bullying, or meanness to others) to internalizing, withdrawn behaviors (e.g. complains of loneliness, thumb sucking). There are eight cross-informant syndrome scales, and three competence scales on the CBCL profile. The present study examined the eight cross-informant syndrome scales labeled as follows: Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior.

Diagnostic issues Clinicians at the Mental Health Center determine the diagnosis assigned to each child by interviewing both the child and his or her legal guardian. When the clinician has determined which DSM-IV criteria the child meets, a diagnosis is then assigned. If further information is needed to support the Axis I diagnosis assigned to a child, the clinician may administer other necessary psychological testing. A report is written by the clinician giving a full description of the reason for the child's referral to the center, the child's psychological history, any relevant test results, and any other conclusions made by the therapist. Prior to the clinical interview, the parent or legal guardian of the child completes the Child Behavior Checklist. However, the results of the checklist are often not available to the clinician in time for a diagnostic decision to be made. Clinicians from the Mental Health Center, as well as the director of Children's Services at the Center were interviewed concerning the CBCL. All of those individuals interviewed reported that they do not use the CBCL when assigning a final diagnosis.

Procedures

Approval was obtained from the Internal Review Board at Emporia State University for the use of human subjects. Additionally, approval from officials at the Mental Health Center of East Central Kansas to use existing charts was obtained by submitting a brief research proposal to be reviewed by the director of each service. After approval was granted, all intake information for the year January 1, 1997 to January 1, 1998 was reviewed. Data collection included recording the Axis I diagnosis of each participant as well as the T- scores of all eight syndrome scales.

CHAPTER 3

RESULTS

The purpose of the present study was to investigate the ability of the Child Behavior Checklist to discriminate between two childhood psychological disorders: Posttraumatic Stress Disorder (PTSD); and Dysthymia. The researcher collected data from archival records at a local community mental health center. Participants in this study were divided into two groups: those assigned an Axis I diagnosis of Posttraumatic Stress Disorder, and those assigned an Axis I diagnosis of Dysthymia.

A multivariate analysis of variance (MANOVA) was performed to compare the scores on each of the eight syndrome scales of the CBCL for those children assigned the diagnosis of PTSD and those assigned a diagnosis of Dysthymia. Findings of this analysis indicate that the Child Behavior Checklist does not effectively discriminate between the diagnoses of Posttraumatic Stress Disorder and Dysthymia, $F(8, 92) = 1.86$, $p < .08$. The means and standard deviations of each of the subscales are shown on Table 1.

Although the MANOVA comparing the two groups yielded no significance, a simple comparison of means (shown in Table 1) at face value shows those individuals assigned the diagnosis of Dysthymia to have slightly higher scores than those diagnosed with PTSD. These differences seem slightly more apparent when reviewing scores on the Anxious/Depressed, Social Problems, Thought Problems, and Aggressive Behavior subscales of the checklist. This face value comparison has no statistical meaning. However, there may be potential for a different type of statistical comparison to be made

Table 1

Means and Standard Deviations for Scores on the Child Behavior Checklist's Eight Syndrome Scales for Primary Diagnoses Posttraumatic Stress Disorder and Dysthymia.

<u>Scale</u>	<u>PTSD</u>		<u>Dysthymia</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Withdrawn	61.87	10.20	63.17	10.37
Somatic Complaints	59.04	10.26	60.25	9.84
Anxious/Depressed	61.66	11.05	65.88	10.32
Social Problems	30.81	18.88	34.32	9.80
Thought Problems	63.04	11.32	59.56	9.48
Attention Problems	62.98	10.60	64.54	9.19
Delinquent Behavior	63.96	9.48	64.83	9.52
Aggressive Behavior	62.70	10.30	65.52	12.23

Note. PTSD = Posttraumatic Stress Disorder

by future researchers. For example, conducting a comparison between scores on each separate scale to each diagnosis may be more informative. Such a comparison may be done by using a oneway analysis of variance.

CHAPTER 4

DISCUSSION

Although the results of this study suggest that the Child Behavior Checklist does not effectively discriminate between the diagnoses of Posttraumatic Stress Disorder and Dysthymia in children, prior studies have shown the checklist to be effective in discriminating between other childhood psychological disorders such as Attention-Deficit Hyperactivity Disorder and other diagnoses which commonly occur with it (Biederman et al., 1993). There are a few possible explanations to why the CBCL may not effectively discriminate between PTSD and Dysthymia.

One possible reason for the CBCL's inability to discriminate between PTSD and Dysthymia is the similarity of symptomatology which exists between the two disorders. Both PTSD and Dysthymia may be characterized by symptoms of depression, acting out, increased irritability and aggression, and difficulty falling to sleep as well as maintaining sleep (American Psychiatric Association, 1994). In fact, PTSD and Dysthymia are often found to be comorbid with one another.

Another necessary consideration is that, as mentioned previously, clinicians do not generally have access to the CBCL at the time of the diagnostic assignment. This means the diagnoses assigned to the children in this study were based mostly upon information gathered in the intake interview. Therefore, it must be made clear that the lack of significant results in this study does not mean that the participants' diagnoses were inaccurate. Additionally, when diagnoses are assigned, there is no reliability check. This reliability check would have to be done by having 2 separate clinicians complete all

of the intake procedures with each client. There is also a chance that the results of the CBCL's used in this study were somewhat varied due to the variety of intake workers who disburse the CBCL to parents and caretakers. It is possible, that if the present study were to be replicated in a setting where interrater reliability was established, the results may be different.

Despite the suggested inability of the CBCL to discriminate between PTSD and Dysthymia, there are several reasons, as noted in previous chapters, that it is important for clinicians to be able to differentiate between the two disorders. First, these disorders may share some symptomatology, but they also have additional symptomatology which is very different. PTSD, for example, is based on a specific stressor or traumatic event which has been experienced by the child. This specific stressor or traumatic event needs to be directly dealt with in order to assist the child toward symptom relief. If this aspect is not dealt with, the child will continue to reexperience the event in many different ways such as through nightmares and encountering situations or cues which resemble or symbolize the traumatic event. Chronic PTSD may be present with a preponderance of symptoms such as dissociation, self-injurious behaviors, substance abuse, and/or conduct problems which may obscure the posttraumatic origin of the disorder. Awareness of the alternative presentation and careful history taking are necessary to avoid overlooking the presence of PTSD diagnosis in these situations.

Clinicians should also be aware that not all behavioral problems in children with PTSD are necessarily related to the trauma, just as those problems in children with Dysthymia are not always due to one or two stressors. In treating these children

recognizing preexisting and comorbid psychiatric disorders and to provide appropriate interventions for these difficulties is essential. Dysthymia also must be diagnosed and treated when necessary due to the fact that previously mentioned research (USA Today, 1995) suggests those children with Dysthymia, left untreated, will become adults with depression.

To the researcher's best knowledge, there have not been earlier examinations of the CBCL and its measurement of PTSD specifically through the analysis of the eight syndrome scales. Therefore, one might suggest further comparison of these two diagnoses, possibly comparing scores either in addition to, or other than those of the eight syndrome scales which were the subject of the current study. Additionally, future research comparing PTSD and Dysthymia to various other childhood psychological disorders is encouraged.

Mental health professionals in all areas need to communicate with schools, parents and other professionals such as psychiatrists in the assessment, diagnosis, and treatment of mental disorders in children and adolescents. The Child Behavior Checklist, in the many forms which it is offered, is one of the methods by which this communication may be accomplished.

There are several advantages of using rating scales such as the Child Behavior Checklist in the assessment of childhood psychological disorders. They are easy to use, they provide a great deal of information about different behaviors across different environments and informants, they can determine the amount of deviance from "normal" child behavior, and they can be used to determine the effectiveness of treatment over

time. Therefore, although the results of the present study were not significant, future research on the Child Behavior Checklist as it relates to Posttraumatic Stress Disorder, Dysthymia, and other childhood diagnoses is encouraged.

References

- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.
- Achenbach, T. M. Manual of the Child Behavior Checklist/4-18 and 1991 profile. Burlington, VT: University of Vermont Department of Psychiatry.
- Barkley, R. A. (1990). Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment. New York: The Guilford Press.
- Biederman, J., Faraone, S., Mick, E., Moore, P., & Lelon, E. (1996). Child behavior checklist findings further support comorbidity between ADHD and major depression in a referred sample. Journal of the American Academy of Child and Adolescent Psychiatry, 6, 734-743.
- Child Behavior Checklist (1998). In J. C. Impara and B. S. Plake (Eds.), The thirteenth mental measurements yearbook (pp. 220-224). Lincoln, Nebraska: The Buros Institute of Mental Measurements.
- Civics, M., Obrosky, D. S., & Richards, C. (1997). First-episode major depressive and dysthymic disorder in childhood: Clinical and sociodemographic factors in recovery. Journal of the American Academy of Child and Adolescent Psychiatry, 36, 777-785.
- Dumas, J. E., Neese, D. E., Prinz, R. J., & Blechman, E. A. (1997). Short-term stability of aggression, peer rejection, and depressive symptoms in middle childhood. Journal of Abnormal Child Psychology, 24, 105-120.

Dykman, R. A., McPherson, B., Ackerman, P. T., Newton, J. E. O., Mooney, D. M., Wherry, J., & Chaffin, M. (1997). Internalizing and externalizing characteristics of sexually and/or physically abused children. Integrative Physiological & Behavioral Science, (1), 62-83.

Even young kids can suffer from depression. USA Today, 124 (1995), p.14.

Famularo, R. (1997). What are the symptoms, causes, and treatments of childhood posttraumatic stress disorder? Harvard Mental Health Letter, 13, p. 8.

Hillary, B. E., & Schare, M. L. (1993). Sexually and physically abused adolescents: An empirical search for PTSD. Journal of Clinical Psychology, 49 (2), 161-165.

Hyman, I. A., Zelikoff, W., & Clarke, J. (1997). Psychological and physical abuse in the schools: A paradigm for understanding posttraumatic stress disorder in youth and children. Journal of Traumatic Stress, 1 243-267.

Kelly, T. P., & McArdle, P. (1997). Using the Achenbach Child Behaviour Checklist (ACBC) in the differential diagnosis of disruptive behaviour disorders. Irish Journal of Psychological Medicine, 14, 136-138.

Lamarine, Roland J. (1995). Child and adolescent depression. Journal of School Health, 65 (9), 390-394.

March, John (1995). Anxiety disorders in children and adolescents. New York: The Guilford Press.

Motta, R. W. (1994). Identification of characteristics and causes of childhood posttraumatic stress disorder. Psychology in the Schools, 31 49-56.

National Alliance for Research on Schizophrenia and Depression (NARSAD) Research Newsletter. (1996, Winter).

Orlebeke, J. F., Knol, D. L. & Verhulst, F. C. (1997). Increase in child behavior problems resulting from maternal smoking during pregnancy. Archives of Environmental Health, *52*, 317-321.

Rathus, J., Wetzler, S., & Asnis, G. (1995). Posttraumatic stress disorder and exposure to violence in adolescents. Journal of the American Academy of Child Psychiatry, *21*, 118-128.

Sansone, L. A., & Sansone, R. A. (1996). Dysthymic disorder: The chronic depression. American Family Physician, *53*, 2588-2597.

Shannon, M. P., Lonigan, C. J., Finch, A. J., & Taylor, C. M. (1994). Children exposed to disaster: I. Epidemiology of posttraumatic symptoms and symptom profiles. Journal of the American Academy of Child and Adolescent Psychiatry, *33*, 88-93.

Terr, L.C. (1991). Childhood trauma: An outline and overview. American Journal of Psychiatry, *148* 10-20.

Wolfe, V.V., Gentile, C., & Wolfe, D.A. (1989). The impact of sexual abuse on children: A PTSD formulation. Behavior Therapy, *20*, 215-228.

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Use of the Child Behavior Checklist In
Discriminating Posttraumatic Stress Disorder
and Dysthymia Among Children and Adolescents
Title of Thesis

Doug Cooper
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