

Validation of the Conners Comprehensive Behavior Rating Scale (CBRS)  
and Conners Early Childhood (EC) with a Vietnamese population.

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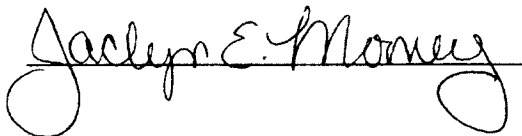
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## **Abstract**

### **VALIDATION OF THE CONNERS COMPREHENSIVE BEHAVIOR RATING SCALE (CBRS) AND CONNERS EARLY CHILDHOOD (EC) WITH A VIETNAMESE POPULATION**

Jaclyn E. Mooney

This study evaluated the psychometric properties of the Conners CBRS and Conners EC in Vietnam. To date, there are few assessment measures for clinicians in Vietnam. Therefore, this study attempted to determine if the Conners CBRS and Conners EC could be useful tools to aid in the assessment of Vietnamese youth. The Conners CBRS and Conners EC forms were first translated from English to Vietnamese and administered to parents, teachers and youth recruited from schools in Vietnam. Obtained data was then examined to analyze reliability, validity, factor structure, and gender differences found within a Vietnamese sample.

Based on the data, the Conners CBRS and Conners EC yielded some sound psychometric properties. Majority of the Conners CBRS and Conners EC scales maintained adequate internal consistency values. Additionally, many scales on the parent and self-report forms maintained the expected factor structure. The teacher form, however, had several scales that did not maintain the expected structure. The scales were also evaluated for evidence of cross informant agreement. This analysis yielded unexpected findings; very weak correlations were found between informants, which resulted in limited evidence of cross informant validity. There were particularly low correlations between teacher and youth self-report scales. Additionally, the Conners

CBRS was evaluated for evidence of convergent validity by correlating scores from Connors CBRS with the CBCL scales in Vietnam. The results of the parent and self-report forms yielded moderate high correlations and evidence of convergent validity. However, the teacher form produced weaker correlations. Lastly, t-tests were computed to evaluate gender differences amongst Vietnamese youth. Based on the data, only self-report measures yielded significantly greater scores in Vietnamese females for internalizing disorders; no significant differences were found on the parent or teacher forms.

The current study represents the first steps in the translation and validation of the Connors CBRS and Connors EC in Vietnam. Future research should continue to examine factors impacting the reliability, validity and factor structure of these scales. Additionally, research should attempt to develop norms that can serve as a representative comparison sample for youth behavior in Vietnam.

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## **Chapter I**

### **Introduction**

#### **Statement of the Problem**

Understanding the social-emotional functioning amongst youth is important for the early identification and assessment of difficulties and the development of subsequent interventions (Merrell, 2003). Social-emotional assessment measures allow for the potential evaluation of intervention effectiveness (Hixson, Christ & Bradley-Johnson, 2008). Unfortunately, many of the measures used to assess students' social-emotional functioning have been developed in Western countries and there are a lack of measures that have been standardized and developed for the assessment of youth in Asian countries, and more specifically Vietnam (Cheuong, Leong & Ben-Porath, 2003; Kassay, 2011; Leung & Wong, 2003; Sue & Chang, 2003). As such, the lack of available standardized measures with Vietnamese norms impacts the ability of clinicians to adequately assess students' social-emotional functioning, make appropriate diagnoses, offer recommendations for intervention, and evaluate the impact of these interventions.

Within recent years, some progress has been made in developing standardized measures within Vietnam and other non-Western countries (Allwood & Berry, 2006; Cheung et al., 2003; Dang, Weiss, Pollack & Nguyen, 2011). Research has focused on incorporating cultural considerations in the administration, scoring, and interpretation with measures that have been developed in Western countries (Cheung et al., 2003; Sue & Chang, 2003). Measures such as the Child Behavior Checklist (CBCL), Minnesota Multiphasic Personality Inventory (MMPI) and the Strengths and Difficulties Questionnaire (SDQ) have each been translated in multiple languages, including

Vietnamese, in order to provide psychologists with assessment tools that assist in the evaluation of children and adolescents (Cheung et al., 2003). This study will analyze the reliability and validity of the Conners Comprehensive Behavior Rating Scale (CBRS) and Conners Early Childhood (EC) amongst Vietnamese youth in order to establish an appropriate basis for the comparison of individuals' scores that will aid in the assessment and diagnoses of Vietnamese youth. Further, this study will examine the factor structure of the scales of the Conners CBRS and Conners EC with a Vietnamese sample in order to determine if the structure is maintained or differs when compared with the original scales. If the Conners CBRS and Conners EC are determined to be reliable and valid, this study also will examine clinical information (i.e. gender differences) provided by the scales amongst Vietnamese youth.

### **Child and adolescent behavioral and social-emotional assessment**

Children and adolescents with academic, behavioral and social-emotional difficulties during their course of development often struggle to function on the same level as their peers within school settings and in other areas of their daily lives (Roeser, Eccles & Sameroff, 2000). These issues can affect their interpersonal interactions with friends and family, their ability to achieve academically, impact their self-concept, alter their course of development, and make them vulnerable to psychological disorders during adulthood (Roeser et al., 2000; Sattler & Hoge, 2006; Teglasi, 2004). Research has shown that early identification and intervention to address difficulties experienced by youth can decrease or alleviate the symptoms associated with a variety of social-emotional and behavioral problems, which can potentially positively impact future success (Dowdy, Dever, DiStefano & Chin, 2011; NASP, 2003). In order to guide

interventions, psychological assessments can provide an effective method of identifying problems and insight for planning and monitoring the success of specific interventions (Butcher, 1997; Merrell, 2003; Smith, Barkley & Shapiro, 2007).

Over the past few decades, psychologists have attempted to more systematically identify and help children with behavioral and social-emotional problems, especially within the school setting (Achenbach & Rescorla, 2007a). Behavioral assessments and the evaluation of social-emotional competencies is unique from the assessment of cognitive or academic competence in that social-emotional and behavioral domains reflect individual styles and characteristics compared to cognitive and academic constructs that are often measured with performance tasks that have clearly identifiable correct answers (Teglasi, 2004). Therefore, due to the variations within these domains, psychologists need to understand the constructs and psychometric properties of measures assessing social-emotional competence and evaluating child behaviors in order to conduct relevant and appropriate assessment of children's functioning (Teglasi, 2004).

In order to conduct an informed evaluation of behavior and social-emotional functioning, the reasons for referral must be analyzed to determine what information should be gathered to address the specific areas of concern (Merrell, 2003). An assessment should be multimodal and not rely on information from a single method, informant or setting (Merrell, 2003; Sparrow, 2010). As part of a comprehensive multimodal evaluation for children's behavior and social-emotional functioning, rating scales can be administered to multiple informants, such as parents, teachers, and the child (Sparrow, 2010). A rating scale is an assessment tool that presents informants with a number of items and asks them to select from a number of choices, typically on a Likert

scale, in order to quantify different aspects of behavior, personality, and social-emotional functioning. Further, rating scales provide an objective standardized format for a reliable evaluation of child and adolescent characteristics by gaining information from informants who are highly familiar with the youths' behaviors in their natural environments (Merrell, 2003). For school psychologists, rating scales can provide valuable information when conducting evaluations to determine appropriate special education classifications/diagnoses, educational placements, and accommodations and in establishing annual goals for children with special needs.

Multiple factors should be considered when choosing a rating scale as part of a comprehensive evaluation. First, the scale should address questions and concerns about the child that can assist in developing appropriate interventions, monitoring responses to treatment and making relevant diagnoses (Sparrow, 2010). The scales should also reflect relevant research findings incorporated in scale content and interpretation (Sparrow, 2010). Further, in order to ensure the scale is providing adequate data, the scale should have solid psychometric properties; including reliability and validity, and a large and diverse standardization sample (Groth-Marnat, 2009; Sparrow, 2010). Lastly, Groth-Marnat (2009) proposed that the standardization sample should be similar to the individual being evaluated with the rating scale.

Several rating scales have been developed in order to provide valuable information regarding children's current functioning, assist in the evaluation of children's behaviors and social-emotional functioning, and inform planning and decision making to remediate these problems (Merrell, 2003). This study focuses on the use of the Conners CBRS and Conners EC and the scale development within a Vietnamese population.



The Conners CBRS is a comprehensive assessment tool for a wide range of behavioral, emotional, social and academic concerns in school-aged children (Sparrow, 2010). It identifies problems such as emotional distress, defiant/aggressive behaviors, academic difficulties, hyperactivity, social problems, perfectionistic and compulsive behaviors, violence potential, and physical symptoms (Conners, 2010). Additionally, the Conners CBRS consists of symptom scales that relate directly to the DSM-IV-TR diagnostic criteria for multiple childhood diagnoses (Conners, 2010). Similarly, the Conners EC assesses a wide range of behavioral, emotional and social concerns, and developmental milestones in preschool-aged children (Sparrow, 2010).

Although, the recent efforts of systematic identification have greatly helped psychologists, parents, educators, and other mental health professionals address children's behavioral and social-emotional problems, most of these efforts have occurred in developed Western cultures (Achenbach & Rescorla, 2007a). Currently, there is a growing need for psychologists to serve children from diverse cultural backgrounds in the mental health field (Achenbach & Rescorla, 2007b). This need arises from the migration of people from different cultures, the growing sensitivity to cultural variations among groups, and the growth of psychology in non-Western countries (Achenbach & Rescorla, 2007b).

### **Western vs. non-Western cultural differences**

Based on current research, extensive characteristic differences exist between Western and non-Western cultures (Sue & Chang, 2003). Western cultures are typically characterized by individualism and independence where individuals are distinct from their social environment, and there is a focus on personal goals and achievements

(Harkness, Super & van Tijen, 2000). Conversely, non-Western cultures are characterized by wholism and collectivism where individuals focus on collective goals, sociocentricity and secondary control that suggests individuals adapt to their existing society (Achenbach & Rescorla, 2007a; Harkness et al., 2000). These basic characteristic differences can influence many areas of psychology including diagnoses, perception of adaptive and maladaptive behaviors, likelihood of seeking treatment, and stigma of mental health services (Achenbach & Rescorla, 2007a; Ferran, Barron & Chen, 2002; Schirmer, Cartwright, Montegut, Dreher & Stovall, 2004). By understanding basic cultural differences, psychologists can provide more effective services to meet the individual needs of children from diverse cultural backgrounds (Achenbach & Rescorla, 2007a).

These cultural differences may also lead to differing views of mental health in non-Western countries that highly varies in comparison with the United States and other Western countries. Specifically, non-Western countries are typically rooted in traditional cultures that have a much narrower definition of mental illness and less understanding regarding mental health services (McKelvey, Sang & Tu, 1997; Schirmer et al., 2004). The prevalence of diagnoses in non-Western countries may also differ since the current diagnostic system is based on Western standards (Ferran et al., 2002). Further, views on mental illness within non-Western countries may also vary depending on the type of community, levels of education, and religious views (Schirmer et al., 2004). Children's development is directly affect by their family and community micro cultures that are, in turn, affected by the larger macro cultures characterized by specific languages, traditions, social structures, economies, values, and attitudes (Achenbach & Rescorla, 2007a).

### **Vietnamese culture and societal changes**

In Vietnam the traditional culture emphasizes interdependence within families and communities, which takes precedence over individual needs and self-fulfillment (Schirmer et al., 2004). As a result, members of the Vietnamese society rely heavily on their social supports with regard to mental health issues; particularly in rural and agricultural areas due to their more strict traditional views and lack of access to mental health services (Schirmer et al., 2004). In rural areas, mental health care is usually provided by local physicians who have minimal training in psychological diagnoses (Schirmer et al., 2004). Overall, Vietnamese perceptions of mental health and help-seeking behavior are strongly influenced by a lack of knowledge of the field and a mix of traditional and modern cultural views (van der Ham, Wright, Van, Doan & Broerse, 2011).

In addition to the traditional Vietnamese culture, the view of mental health related issues in Vietnam has also been greatly influenced by Buddhism, the dominant religious view in the country (Schirmer et al., 2004). In this religious tradition, mental health issues are interpreted as a sign of past life transgression resulting from family inheritance or past family behaviors, which creates feelings of shame and guilt (Schirmer et al., 2004). These feelings of shame and guilt further leads to the care of individuals with psychological and behavioral difficulties to occur within the home in the family system; individuals rarely receive care from professionals unless the symptoms are severe (Ferran et al., 2002; Schirmer et al., 2004). For example, a child exhibiting disruptive behavior is viewed as bringing shame on the family and parents seeking help are more likely to turn to family or community members for treatment rather than professionals (Goren, 2007). If formal

treatment is sought out and provided by professionals, the emphasis at clinics is typically on prescriptions and medication management for most children (Goren, 2007). However, best practices for the treatment of child and adolescent disruptive behaviors include parent-training, child-training, which may include cognitive behavioral approaches, and multi-component treatment that combines both parent and child training components (Eyberg, Nelson & Boggs, 2008). According to Weiss and colleagues (2012), there is a lack of clinical and research training available with regards to mental health in Vietnam and, in general, clinics have not been providing any form of empirically based treatment. Further, the central focus of the development of mental health services over the past two decades has been on developing, implementing and evaluating evidence based approaches to service delivery; however, it is essential that proper tools be developed and disseminated amongst professionals in Vietnam in order to implement, evaluate and monitor these empirically-based approaches (McKelvey et al., 1997; Weiss et al., 2012).

Similar to other developing countries, Vietnam has begun the transition from a primarily rural, agricultural economy to a more modern, mixed industry economy (Weiss et al., 2012). This is due to a growing Western cultural influence worldwide, which often conflicts with traditional values and creates some generational conflicts (Schirmer et al., 2004). During this transition, the government has focused financial resources on areas that most support economic development, which has not included an adequate amount of spending on mental health services (Weiss et al., 2012). According to research by Niemi, Thanh, Tuan and Falkenberg, (2010) only approximately two million U.S. dollars per year is spent on mental health by the Vietnamese government. As a result of this limited spending, mental health services have not developed comparably to economic

development (Weiss et al., 2012). However, as the economy continues to develop, more recently there has been an increasing awareness of a need for resources to be allocated to the development of social service domains, such as mental health (Gabriele, 2006).

The increased awareness and government spending on mental health resources is particularly important to help develop resources that address children's behavioral and psychological difficulties. Many studies have indicated that children in Vietnam face substantial mental health challenges (Weiss et al., 2012). Vietnamese informants that were judged to be most knowledgeable regarding children and adolescent mental health resources identified emotional and behavioral problems as being very serious issues (Weiss et al., 2012). Studies have also found that many high school students experience significant affective, social, and behavior problems (Weiss et al., 2012). Further, Vietnamese education and mental health professionals reported that issues such as depression, suicide, and drug abuse are often seen by nonprofessionals as serious problems for the country's youth but these issues are often not connected to mental health due to the lack clinical training and research (Weiss et al., 2012).

Individual members of cultural groups in Vietnam may differ from each other with respect to multiple characteristics such as aggression, anxiety and attention problems (Achenbach & Rescorla, 2007b; Dowdy et al., 2011). The ways in which individuals express psychological difficulties may also differ and it is important for psychologists to understand to what degree and how culture can impact functioning (Ferran et al., 2002). Psychologists can improve the methods of working with Vietnamese children by identifying similarities and differences across cultures in the ways in which problems manifest in children and the prevalence of these problems amongst the youth in Vietnam

(Achenbach & Rescorla, 2007a). Further, this information can contribute to designing effective interventions to remediate these problems, help to understand and explain the developmental course of psychopathology within different cultures, and promote additional research opportunities in Vietnam and other non-Western countries (Achenbach & Rescorla, 2007a).

### **Mental health in Vietnam**

Overall, a National Institute of Mental Health study has estimated the prevalence of general mental disorders in Vietnam at 10-15%, with higher rates reported in urban areas (Richardson et al., 2010). These various mental health difficulties in Vietnam can be related to several factors that include individual, familial and environmental aspects, and societal changes (Amstadter et al., 2011; United Nations Vietnam Youth Theme Group, 2010). Specifically, poverty-related stressors, traumatic events, limited sanitation, poor nutrition, and lack of access to basic mental health services contribute to poor mental health in children and adolescents (Amstadter et al., 2011; Weiss et al., 2012). The family and social systems in Vietnam have also changed with the rapid economic development, which has increased the risks of children and adolescents to develop mental health disorders (United Nations Vietnam Youth Theme Group, 2010; Weiss et al., 2012). For example, parents now work longer hours, leaving children at home with limited supervision and there is increased pressure on families and children to develop into successful adults within the changing society (McKelvey et al., 1997; Weiss et al., 2012). There is also a rapid growth of families moving into urban environments, which undermines the traditional role and structure of the Vietnamese families (McKelvey et al., 1997; Weiss et al., 2012).

Mental health services are slowly emerging in Vietnam in many different capacities; however, an officially approved mental health policy has not yet been put into effect (World Health Organization, 2011). A mental health plan exists within the general health policy, which was most recently revised in 2010 (World Health Organization, 2011). The mental health plan includes timelines for the implementation of mental health services, funding for the plan, a shift of services and resources from mental hospitals to community mental health facilities, and an integration of mental health services into primary care (World Health Organization, 2011).

According to data from the Mental Health Atlas 2011, there are a total of 59 mental health outpatient facilities, 1 day treatment facility, and 32 mental health hospitals to serve a population of approximately 89 million people, 25% of whom are under the age of 15 (Central Intelligence Agency, 2009; World Health Organization, 2011). A majority of the health professionals working in these facilities include nurses and medical doctors who are not specialized in psychiatry, and there are approximately 286 psychiatrists working in the mental health facilities (World Health Organization, 2006; World Health Organization, 2011). The psychiatrists in these facilities who practice therapy in mental health hospitals have been trained in other countries since therapy is not included as part of the psychiatry curriculum in Vietnam (Schirmer et al., 2004). According to Schirmer and colleagues (2004), there were no psychologists working in the mental health hospitals and few who are employed outside of Hanoi in the early 2000s. However, in 2006, the WHO-AIMS report on the mental health system in Vietnam reported that there are approximately 50 psychologists working in mental health facilities in Vietnam, reflecting the growth of the profession, but more growth is still needed in

order to adequately serve the large Vietnamese population (World Health Organization, 2006). Additionally, in 2009, the Vietnam National University (VNU) began a Masters in Clinical Psychology program (Weiss et al., 2011; Weiss et al., 2012).

Psychologists in Vietnam typically conduct psychological testing and some counseling, primarily in businesses and schools in addition to working in mental health facilities (Schirmer et al., 2004). Therefore, there should be a particular focus on the promotion of school psychology as the mental health system develops in order to address the needs of children and adolescence in Vietnam (Hac & Long, 2004; Weiss et al., 2012). The VNU School of Education is currently conducting school-based mental health programs in 3 schools located in the Northern Vietnamese city of Hanoi to meet students' mental health needs (Weiss et al., 2012). Patel, Flisher, Nikapota and Malhotra (2008) suggested that a focus on schools would be a useful approach with regards to improving child and adolescent mental health in Vietnam. A school-based approach would provide increased access for children requiring mental health services since currently, according to UNICEF (2010) and the United Nations (2011), 92% of primary school aged children in Vietnam attend school (as cited in Weiss et al., 2012, p. 67). This increased accessibility may assist in reducing negative stigma associated with mental health treatment in the traditional Vietnamese culture (Weiss et al., 2012). Further, evaluations and interventions in a school setting can focus on one of the child's primary environments, which may lead to more valid assessments and generalizable interventions (Weiss et al., 2012).

### **Importance of psychological research in Vietnam**



In order for professionals to fully understand and appropriately assess children's behavioral and social-emotional problems from different cultures, and more specifically Vietnam, research is required in order to advance the scientific study of child psychopathology in these cultures (Achenbach & Rescorla, 2007a; Achenbach & Rescorla, 2007b). The use of standardized assessment instruments under diverse conditions can help facilitate the understanding of cultural differences (Achenbach & Rescorla, 2007b). Therefore, there is a greater need for measures to be translated into many languages with multicultural scoring options (Achenbach & Rescorla, 2007b). Translations of instruments have been developed in many cultures in order to assess children's problems in cultures that lack indigenous assessment tools (Achenbach & Rescorla, 2007a). In addition, research is required to provide psychometric support for the assessment tools (Achenbach & Rescorla, 2007b).

Multicultural research can advance the understanding of adaptive and maladaptive functioning, provide information regarding the developmental aspects of psychopathology and help professionals serve children worldwide (Achenbach & Rescorla, 2007a). Further, it can highlight variations within and between cultures and particular problems that may be more common in specific cultural groups than others (Achenbach & Rescorla, 2007a). Based on the lack of current research and resources, there is a great need to develop child and adolescent mental health resources in Vietnam.

There has been an initial attempt to develop Western tools in Vietnam and other non-Western cultures (Cheung et al., 2003). However, there is a need for more culturally relevant and sensitive measures with attention being paid to the quality of translations, cultural relevance, psychometric equivalence, and cross cultural validity (Kuraski,

Okazaki & Sue, 2002; Paunonen & Ashton, 1998). Cross-cultural comparisons, local standardizations and validation study can contribute to ensuring that tests are appropriate for the evaluation of specific populations (Cheung et al., 2003).

While advances have been made, it appears that psychology in Vietnam has not progressed enough to adequately address the demand for the assessment and treatment of children exhibiting behavioral and social-emotional difficulties. It is important to develop measures in order to assist in determining the extent of mental health problems in Vietnamese youth and utilizing this information to aid in diagnoses, as well as the development of appropriate treatment and prevention strategies. It is particularly important for low-cost instruments to be developed that can rapidly and efficiently identify children requiring more extensive evaluations and services (McKelvey et al., 1997). Once valid and reliable assessment tools are developed, Vietnamese children can be identified and receive appropriate services to meet their individual needs (Dowdy et al., 2011). Early intervention and remediation services for psychological issues for children in Vietnam can assist in decreasing the risk for more severe problems in adulthood (Glover & Albers, 2007). This study specifically attempted to begin the standardization process of the Conners CBRS and Conners EC with a Vietnamese population in order to determine if they are valid and reliable assessment tools for clinicians working with Vietnamese youth. It is hoped that if these measures are found to be useful that clinicians can utilize the information obtained from these instruments to aid in the assessment, diagnoses, and intervention amongst Vietnamese children.

### **Translation of psychological measures**

Many Western tests have been translated for professionals to use in non-Western countries; however, the quality of the translation and adaptation varies (Cheung et al., 2003). Western measures can be used with Asian youth as long as they can prove structural and psychometric equivalence across cultures (Byrne et al., 2009; Leong & Wong, 2003). Structural and psychometric equivalencies that are important to consider during the translation of measures often includes linguistic/semantic equivalence, normative equivalence, content equivalence and conceptual equivalence (Leong & Wong, 2003). Byrne and colleagues (2009) suggest that cultural differences contribute to differences in the meaning and/or structure of constructs and can lead to measurement nonequivalence. Therefore, it is particularly important to examine these equivalencies in order to ensure measures are valid in Asian population due to the cultural differences when compared to Western societies (Sue & Chang, 2003).

Linguistic, or semantic equivalence is achieved when the meaning of each item is similar (Leong & Wong, 2003; Sue & Chang, 2003). Linguistic equivalence is typically achieved when a combination of translation and back-translation techniques are employed and evaluated in order to ensure the items maintain meaning (Leong & Wong, 2003; Sue & Chang, 2003; van Widenfelt, Treffers, de Beurs, Siebelink & Koudijs, 2005). After a measure is approved by a bilingual committee, the measure can be administered to a sample of the population in order to be tested (Leong & Wong, 2003).

Few of the measures translated for use in Asian countries examine normative and content equivalence (Leong & Wong, 2003). Normative equivalence refers to normative distributions (i.e. means, standard deviations, skewness, etc.) that are not significantly different between cultures (Leong & Wong, 2003). Content equivalence is the concept

that the content of items are relevant to the new population it is being used in for assessment (Leong & Wong, 2003). These equivalencies are often not achieved and it is therefore necessary for researchers to collect local normative data to avoid misinterpretations and modify or remove particular items from a scale that may not be relevant to the culture (Cheung & Cheung, 2003; Leong & Wong, 2003; Sue & Chang, 2003).

Leong and Wong (2003) relate conceptual equivalence to factorial, construct, convergent and discriminant validity of translated scales with the original measures. Several translated questionnaires, particularly with Asian samples, have performed factor analysis procedures to support factorial validity; however, the exact replication of factor structure within different cultural groups is never expected (Leong & Wong, 2003). Leong and Wong (2003) suggest that major constructs that a measure is intended to assess should be retained in order for some degree of conceptual equivalence to be achieved. Studies using factor analysis varied on their support of factor structure of measures between cultures; this often depended upon the concepts being assessed by the measure (Achenbach & Rescorla, 2007a; Butcher, Cheung & Lim, 2003; Cheung, 2004; Leong & Wong, 2003; Yu & Zhang, 2007). Cheung (2004) reviewed several measures that have been translated for use by professionals in Asia. According to this review, measures such as the MMPI and Neuroticism-Extroversion-Openness Personality Inventory (NEO-PI) demonstrate comparable factor structure to the American versions in some countries (Cheung, 2004). However, the MMPI was not comparable on a structural level in some countries, which resulted in items being changed or dropped from the measure or a completely new measure was developed (Butcher, Cheung & Lim, 2003).

Further, tests such as Eysenck Personality Questionnaire and State-Trait Anxiety Inventory either failed to maintain similar structure, or the results varied depending on the type of analysis (Cheung, 2004).

## Chapter II

### Hypotheses

Based on a review of the literature and current research, several hypotheses for this study can be generated. First, the psychometric properties of the Conners CBRS and Conners EC within a Vietnamese population need to be analyzed in order to determine their reliability and validity (Hypotheses 1-4). Second, if the measures are determined to be reliable and valid, clinical information provided by the scale will be analyzed (i.e. gender differences) within the Vietnamese population (Hypotheses 5). However, if the measures are not reliable and valid, this clinical information cannot be considered to be an accurate reflection of youth functioning within Vietnam and as such these comparisons may have less meaning.

Societal qualities can often contribute to measurement nonequivalence, which refers to the differences in the validity and reliability properties of an instrument across groups (Byrne et al., 2009). Reliability data of the Child Behavior Checklist (CBCL) with a Vietnamese population reveal slightly lower values compared to the CBCL within a Western population (Leung & Wong, 2003; Loughry & Flouri, 2001).

1. Consistent with this research, it is hypothesized that the scores of the Conners CBRS and Conners EC with a Vietnamese sample will have lower reliability when compared to the reliability of scores found with a Western population; however, it is not expected that the differences will be statistically significant and the reliability will still be in the adequate range. Reliability data will include internal consistency (Cronbach's alpha) and standard error of measurement analysis (*SEM*).

Exploratory factor analysis of the CBCL was conducted in two Asian countries: Korea and Thailand. The Korean analysis of the CBCL replicated five of the CBCL syndrome scales: Aggressive Behavior, Delinquent Behavior, Somatic Complaints, Attention Problems and Social Withdrawal (Achenbach & Rescorla, 2007a). It should be noted that in Thailand only children in mental health clinics were used for the analysis and this may not be an accurate representation of the general population; however, an exploratory factor analysis of the Thai data yielded syndromes that are similar to the U.S. syndromes of Aggressive Behavior, Anxious/Depressed, Withdrawn, Somatic Complaints, Delinquent Behavior and Attention problems (Achenbach & Rescorla, 2007a).

2. Based on the findings of the analysis between Asian and Western scales of the CBCL, it is hypothesized that scales that assess similar behaviors will maintain a similar factor structure as the U.S. versions based on Confirmatory Factor Analysis (CFA). Specifically, it is hypothesized that the CBRS scales assessing defiance and aggression (i.e. Defiant/Aggressive Behaviors, the Violence Potential Indicator; DSM-IV-TR Conduct Disorder, DSM-IV-TR Oppositional Defiant Disorder), the DSM-IV-TR ADHD Inattentive scale, scales of Emotional Distress, DSM-IV-TR Major Depressive Episode and DSM-IV-TR Generalized Anxiety Disorder, and the Physical Symptoms scale will each maintain the same single factor structure found during the development of the Conners CBRS in the U.S..

Scales on the Conners CBRS and CBCL that assess similar constructs moderately to highly correlated with one another with a U.S. population during the development of

the Conners CBRS, which establishes convergent validity (Conners, 2010). Significant correlations between the Conners CBRS and the CBCL scales ranged from .43 to .98 (Conners, 2010).

3. It is hypothesized that similar correlations will be found with the parent, teacher and self-report forms of the Conners CBRS and the CBCL with the Vietnamese sample used in this study and there will be no statistically significant difference between the parent, teacher, and self-report ratings. Specifically, the following scales are expected to moderately to highly correlate (i.e. greater than .40) with one another similar to the correlations found during the development of the Conners CBRS in the U.S.:

- a. The CBCL Anxious/Depressed scale with the Conners CBRS scales of Emotional Distress, DSM-IV-TR Major Depressive Episode and DSM-IV-TR Generalized Anxiety Disorder.
- b. The CBCL Somatic Complaints scale with the Conners CBRS Physical Symptoms scale.
- c. The CBCL Aggressive Behavior with the Conners CBRS scales that assess aspects of defiance and aggression (i.e. Defiant/Aggressive Behaviors, the Violence Potential Indicator; DSM-IV-TR Conduct Disorder, and DSM-IV-TR Oppositional Defiant Disorder).
- d. The CBCL Social Problems scale with the Conners CBRS Social Problems scale, DSM-IV-TR Autistic Disorder and DSM-IV-TR Asperger's Disorder scales.



- e. The CBCL Attention Problems scale with the Conners CBRS DSM-IV-TR ADHD Inattentive scale.

Scales with multiple informants are expected to have some degree of similarity with regards to the ratings of child and adolescent behaviors (Conners, 2010).

Correlations are calculated between informants in order to establish the cross-informant validity of a particular scale. During the development of the Conners CBRS in the U.S., parent, teacher and self-report ratings on the Conners CBRS yielded cross-informant correlations ranging between .38 to .54 (Conners 2010).

4. It is hypothesized that the Vietnamese versions of the Conners CBRS and Conners EC will have similar cross-informant correlations as the U.S. versions; this hypothesis will be tested by generating correlations between the scores obtained from each scale on the parent, teacher and self-reports within the Vietnamese sample.

Prior research has illustrated that the boy-to-girl ratio of behavior problems in Asian children is 2:1, with boys obtaining significantly higher scores in the areas of attention problems and externalizing behaviors (Lui et al., 2000). Specifically in Vietnam, it has been found that boys are reported to have more externalizing behavior problems and girls are reported to have more internalizing problems (McKelvey, Davies, Sang, Pickering & Tu, 1999). Further, the girls' levels of internalizing problems significantly increased with age (McKelvey, Davies, Pickering & Tu, 1999).

5. Based on the prevalence ratings of behavioral problems found in other Asian children (Liu et al., 2000), it is expected that there will be differences on the scores of selective scales and subscales between male and female youth that

participated in this study. Specifically, it is expected that males will have higher ratings on the Defiant/Aggressive Behaviors scale, Hyperactivity/Impulsivity scales, DSM-IV-TR ADHD scales, DSM-IV-TR Conduct Disorder scale, and the DSM-IV-TR Oppositional Defiant Disorder scale. Additionally, females are expected to have higher ratings on the Emotional Distress scale, DSM-IV-TR Major Depressive Episode Scale, and DSM-IV-TR Generalized Anxiety Disorder scale.

## **Chapter III**

### **Methods**

#### **Participants**

Participants in this study include students, parents and teachers in various school districts located in or near a large metropolitan area in northeastern Vietnam. A majority of the participants were recruited from the local schools that are affiliated with the faculty at the Hanoi National University of Education (HNUE). Parents were first given a consent form (the parent consent is attached in Appendix A), and upon the return of parental consent, children and teachers were then recruited and given an assent/consent form (the child assent is attached in Appendix B; the teacher consent is attached in Appendix C). All participants were then given the appropriate measures discussed below. The proposed  $n$  was approximately 400 students and parents and fewer teachers. Recruitment measures attempted to obtain equal number of students between the ages of 2 and 18. Students ages 8 to 18 were able to respond to self-report forms; parents and teachers responded to rating scales that assessed the randomly selected students of all ages (2-18). Further, teachers were reimbursed \$10 for completing the measures; parents were reimbursed \$14 for the completed parent and child forms, or \$10 for only completing the parent forms.

#### **Design and Procedure**

The measures in this study were translated and back-translated and edited to develop the final measures with Vietnamese psychology students and faculty members from HNUE and St. John's University with the permission of Multi –Health Systems (MHS), who publishes the Conners scales. Faculty members at HNUE were appointed

site coordinators and were responsible for traveling to the recruited schools in order to complete the data collection process. Prior to any data collection, parental consents were sent home with children. Upon the receipt of the parental consent, children then completed assents with the site coordinator and teachers were given consent forms. The site coordinator randomly selected two children from multiple classes at the affiliated schools, who had parental consent for teacher participation, and asked teachers to complete the Conners CBRS or the Conners EC measure (based on the child's age) for the two randomly selected students, as well as the teacher demographic questionnaire; these were completed either at home or at school. The students and their parents were then given the measures to complete; parent measures were sent home and children completed their measures in school. The student, parent and teacher measures were coded in order for them to be matched after the measures were completed and given to the site coordinator. Once the measures were completed, the Vietnamese site coordinator collected the measures, reimbursed the participants, and mailed the forms to St. John's University.

### **Apparatus and Measures**

The following measures were selected and administered to each of the participants in this study. These measures were included as part of a large research study conducted in Vietnam, which included several additional measures that were not included as part of this study.

**Demographic Questionnaires.** Demographic questionnaires were administered to the parent and teacher participants. The parent demographic questionnaire was used to obtain information about the parents' age, gender, relationship status, education,

birth/living status in Vietnam, geographic location, residents in their home, caretakers' gender and employment, and household income (Appendix D). Additionally, the parent demographic questionnaire required parents to provide information about the child they were referring to in the other measures administered in this study. Child information included age, gender, grade, academic achievement and their birth order in the family. The teacher demographic questionnaire was used to obtain information about the teachers' age, gender, teaching experience and level of education (Appendix E).

**The Conners Behavior Rating Scale (CBRS).** The Conners CBRS is a comprehensive assessment tool for a wide range of behavioral, emotional, social and academic concerns in school-aged children (Sparrow, 2010). The items on each of the report forms yield scale scores for Content Scales, DSM-IV TR Symptom Scales and Validity Scales. Additionally, they produce a Clinical Index score and Other Clinical Indicators score (Conners, 2010). On the Conners CBRS forms, the teacher form (Conners CBRS-T), parent form (Conners CBRS-P), and self-report form (Conners CBRS-SRP) impairment items, critical items and additional questions regarding other concerns and the strengths/skills of the child are also included; however, these items do not yield scores (Conners, 2010). Additionally, reviews of the Conners CBRS suggests that it has strongly established psychometric properties with regards to reliability and validity, which suggests it is a useful tool for professionals to assist them in determining diagnoses, developing appropriate program goals and identifying interventions to support students (Vacca, 2012). The Conners CBRS is recognized as both a reliable and valid instrument for professionals to utilize during the assessment of child behavioral, emotional, social and academic concerns (Vacca, 2012).

**The Conners Early Childhood (EC).** The Conners EC provides information regarding a broad coverage of important behavioral, emotional, social, cognitive, and developmental issues in young children (Sparrow, 2010). The parent (Conners EC-P) and teacher (Conners EC-T) report forms evaluate children between the ages of 2 to 6 years; there is no self-report for these ages. The items on each of the report forms yield scale scores for Behavior, Validity, and Developmental Milestones. Additionally, they also include a Global Index score and Other Clinical Indicators scores (Conners, 2009). On the Conners EC forms, impairment items and additional questions regarding other concerns and the strengths/skills of the child are also included; however, these items do not yield scores (Conners, 2009). A review of the Conners EC, similar to the Conners CBRS, posits that it is a useful tool for the assessment of a wide range of behavioral, emotional, social and developmental concerns for preschool and kindergarten aged children and presents comprehensive evidence with regards to reliability and validity (Bain & Aspiranti, 2012). However, Bain and Aspiranti (2012) note that the reliability and validity tends to be higher for the upper age range of the Conners EC, and professionals should be cautious in interpreting some scales for 2 and 3 year olds. In general, the reliability and validity of the Conners EC are considered very good to excellent, with the exception of some scales for under the age of 4, and the strong psychometric properties establish it as a clinically useful tool for professionals (Sparrow, 2010).

**Child Behavior Checklist (CBCL).** The CBCL was administered to the participants for validity purposes. The CBCL assess the competencies and problems of children and adolescents through multiple informant rating scales; there are parent,

teacher and youth self-report forms (Doll, 2012). The CBCL assesses children between 4 and 18 years old, and has a preschool version for children who are 2 and 3 years old. Scores generated by the CBCL include Sleep Problems, Somatic Problems, Aggressive, Destructive, Syndrome Scales (Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Aggressive Behavior, Delinquent Behavior), Internalizing, Externalizing, Total Problems, Competence Scales (Activities, Social, School, Total Competence), Academic Performance, Adaptive Functioning, Behavior Problems, Withdrawn-Inattentive, Nervous-Obsessive, Depressed, Hyperactive, Attention-Demanding, On-Task Behavior, Aggressive Behavior, Anxious, Family Problems, Resistant, Strange, and Withdrawn. Based on reviews of the CBCL, it is recognized as an empirically derived instrument that is recognized as an important clinical tool with strong reliability and validity (Doll, 2012).

## Chapter IV

### Results

#### Data Analysis

Descriptive and inferential statistics were utilized to analyze the data collected using SPSS 21 and factor structure was tested through Confirmatory Factor Analysis using AMOS. In the current study, statistical decisions were based on an alpha level of .05. The data were first examined for any violations of regression. Outliers were identified in some of the study variables through box plot graphs, and winsorization of the data was conducted to replace extreme values with the next highest or lowest data point not considered an outlier; all of the outliers represented higher extreme values. In all, 4 Conners CBRS-T and 6 Conners CBRS-SRP scales were identified as having one outlier per scale and each value was winsorized; there were no outliers identified on the Conners CBRS-P.

#### Missing Data

An overview of the data indicated that there were a number of participants who failed to complete all of the items on the Conners CBRS and Conners EC, leading to missing values. In total, there were 96 participants on the Conners CBRS-P, 54 participants on the Conners CBRS-T, 106 participants on the Conners CBRS-SRP, 54 participants on the Conners EC-P and 18 participants on the Conners EC-T who failed to complete at least 1 item on the report forms. It should be noted on the Conners CBRS-SRP, some items were not missing due to random error, but rather the participants were unable to read and/or respond to the item(s) due to flaws on the printed scale. In order to calculate reliability values of each scale, pair-wise deletion was utilized to account for



missing values. The Conners CBRS and Conners EC manuals were consulted for guidelines to score scales with missing values. Assessments that had more than 10% items missing were excluded from the data set (Conners, 2010). This included 9 Conners CBRS-P reports, 5 Conners EC parent reports, 8 Conners CBRS-T reports, 1 Conner EC teacher report, and 12 Conners CBRS-SRP forms.

Further, Conners (2010) indicated that scale scores could be calculated if the maximum number of allowable omissions has not been exceeded. The maximum number of allowable omissions varies according to the number of items present on each scale and ranges from 1 item to 5 items. If the amount of missing items on participant responses on each scale exceeded the number of allowable omissions, scale scores were not calculated. For scales that had omissions within the allowable guidelines, Conners (2010) suggests prorating scores by multiplying the obtained raw score by the number of total items on the scale and then dividing that value by the number of items that were completed. This calculation was used in order to take into account the missing item(s) and to adjust the total raw score of the scale based on how the participant responded to the other items on the scale (Conners, 2010).

### **Participant Demographics**

**Parents.** A total of 399 parents participated in this study. A total of 319 completed the Conners CBRS and 80 completed the Conners EC. The parents completed the scales rating the behaviors of 181 female children (45.4%), 141 male children (35.3%) and 77 parents did not indicate their child's gender. The mean child age was 9.58 ( $SD=4.71$ ) ranging from 2 to 17 years old.

The parent participants included 157 (39.3%) females, 225 males (56.4%) and 17 participants did not indicate their gender. The mean parent age was 38.61 ( $SD = 6.43$ ), ranging from 25 to 71 years of age and 39 participants did not indicate their age. Majority of the parent participants reported they were married (93.7%); 1.6% reported being divorced/separated, 1.3% were widowed, and .8% were never married. The data also show that the mother in the home is the primary caretaker (61.7%); 3.8% reported the father as the primary caretaker, 8.3% reported both the mother and the father as primary caretakers, and 5.6% reported having another adult as the primary caretaker. Additionally, most families (86%) indicated their home being located in an urban environment; 1.5% lived in a rural environment, and 6% lived in a suburban environment. Parent education level ranged from no formal education to a doctoral degree and the majority of the parents had some college or a bachelors degree (72.7%); 5.4% reported having less than a high school education, 9.8% received a high school (or equivalent) diploma, and 8.5% obtained a graduate degree.

**Students.** Of the 399 children that were rated by their parents, a total of 275 students participated in this study and completed self-report measures. There were 127 females (46.2%), 84 males (30.5%) and 64 participants did not indicate their gender. The mean child age was 12.87 years ( $SD = 2.99$ ) ranging from 8 to 17 years old. Additional children between the ages of 2 and 8 years old were included in this study through parent and teacher reports; however, self-report forms are not available for children below the age of 8.

**Teachers.** Of the 399 children that were included in this study, a total of 140 teachers completed scales to rate these children's behaviors. The teachers completed the

scales rating the behaviors of 51 female students (36.4%), 43 male students (30.7%) and 46 teachers did not indicate the students' gender. The mean child age was 9.35 ( $SD=4.47$ ) ranging from 2 to 17 years old.

The teacher participants included a total of 107 completed the Conners CBRS and 32 completed the Conners EC. There were 54 (38.6%) females, 78 males (55.7%) and 8 participants did not indicate their gender. The mean teacher age was 33.37 years ( $SD = 8.7$ ), ranging from 22 to 55 years of age. Nine participants did not indicate their age. The mean number of years for teaching experience was 10.59 ( $SD = 8.94$ ), ranging from 1 to 34 years. Twenty six participants did not indicate their years of experience. Teachers' level of education ranged from a Bachelor's to a doctoral degree, with the majority (35.7%) having reported their highest level of education being having earned a Bachelor's degree; 2.9% reported having 30 credits additional to their Bachelor's degree, 7.9% obtained a Master's degree, 2.9% obtained a masters degree with 30 additional credits and .7% obtained a doctoral degree.

### **Psychometric properties of the Conners CBRS and Conners EC**

A number of hypotheses in the present study were developed in consideration of the psychometric properties of the Conners CBRS and the Conners EC within a Vietnamese population. Each of these psychometric properties of the measures will be presented below and a statement as to the support for the proposed hypotheses will be offered. The means and standard deviations of the raw data obtained on the Conners CBRS and Conners EC are presented in tables 1 and 2, respectively.

Table 1  
*Conners CBRS Means and Standard Deviations*

	Scale/Subscale	CBRS-P		CBRS-T		CBRS-SRP	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
CBRS Content Scales	Emotional Distress	31.19	24.64	26.69	717.82	30.97	18.36
	Upsetting Thoughts	4.24	4.22				
	Worry	8.34	6.11				
	Upsetting Thoughts/Physical Symptoms			10.29	7.77		
	Social Anxiety			5.14	2.85		
	Defiant/Aggressive Behaviors	15.36	15.15	25.61	21.15	15.63	15.17
	Academic Difficulties	14.35	10.95	17.61	9.92	8.47	6.26
	Language	8.11	6.67	12.47	6.73		
	Math	4.43	3.41	4.08	3.16		
	Hyperactivity/Impulsivity	9.27	6.49	8.44	4.92	9.44	5.44
	Social Problems	6.13	5.28	10.94	4.67		
	Separation Fears	5.70	4.04	4.38	3.27	6.45	4.24
	Perfectionistic and Compulsive Behaviors	7.87	6.03	6.43	4.00		
	Violence Potential Indicator	22.52	20.30	18.24	15.71	15.79	12.86
Physical Symptoms	10.42	8.17	4.38	3.84	9.16	5.65	
CBRS DSM-IV- TR Symptom Scales	ADHD Inattentive	9.89	5.87	10.88	5.00	10.90	10.42
	ADHD Hyperactive-Impulsive	9.13	6.50	11.43	6.27	9.46	5.43
	Conduct Disorder	10.74	11.13	7.31	7.69	5.36	6.84
	Oppositional Defiant Disorder	7.23	5.35	6.49	5.09	6.51	4.11
	Major Depressive Episode	12.31	10.10	8.82	6.69	11.13	7.28
	Manic Episode	8.72	6.91	8.31	5.72	7.59	4.73
	Generalized Anxiety Disorder	12.58	9.47	8.73	5.98	10.12	6.44
	Separation Anxiety Disorder	8.01	6.14	5.17	3.90	8.49	5.12
	Social Phobia	5.88	4.00	5.48	3.63	5.35	2.97
Obsessive-Compulsive Disorder	4.83	4.63	4.57	3.90	4.79	3.32	

Table continues

Table continued

Autistic Disorder	12.43	6.74	13.17	5.35
Asperger's Disorder	9.64	4.43	10.35	3.94

Table 2  
*Conners EC Means and Standard Deviations*

	Scale/Subscale	Conners EC Parent		Conners EC Teacher	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Conners EC Behavior Scales	Inattention/Hyperactivity	19.58	8.50	20.91	8.67
	Defiant/Aggressive Behaviors	21.14	11.00	16.18	10.21
	Defiance/Temper Subscale	12.93	5.86	6.89	5.08
	Aggression Subscale	8.43	5.74	9.33	5.88
	Social Functioning/Atypical Behaviors	32.97	11.37	33.46	12.68
	Social Functioning Subscale	17.49	5.45	19.09	6.12
	Atypical Behaviors Subscale	14.03	7.53	10.32	5.85
	Anxiety	18.99	8.01	12.72	7.48
	Mood/Affect	13.17	6.24	9.78	5.89
	Physical Symptoms	12.14	6.18	6.67	4.80
	Sleep Subscale	5.37	2.89		
Conners EC Developmental Milestones Scales	Adaptive Skills	25.01	5.14	12.72	4.91
	Communication	20.02	8.49	22.30	5.81
	Motor Skills	24.65	5.56	21.45	5.86
	Play	7.30	2.02	6.76	2.24
	Pre-Academic/Cognitive	28.96	6.44	25.20	8.05

**Reliability.**

**Conners CBRS.** Tables 3-5 display the Chronbach's alpha and standard error of measurement (*SEM*) values for the overall, male and female samples for the Conners CBRS-P data (table 3), Conners CBRS-T data (table 4) and Conners CBRS-SRP data (table 5). First, Chronbach's alpha was calculated to assess the extent to which all items on the same scale consistently measure the same dimension. The mean of Cronbach's alpha for the total sample of the Conners CBRS-P Content (sub)scales was .89 (ranging from .79 to .97). The mean Cronbach's alpha for the DSM-IV-TR Symptom scales was .86 (ranging from .62 to .96). The mean Cronbach's alpha for the Validity scales was .59 (ranging from .58 to .59). The mean of Cronbach's alpha for the total sample of the Conners CBRS-T Content (sub)scales was .83 (ranging from .53 to .97). The mean Cronbach's alpha for the DSM-IV-TR Symptom scales was .81 (ranging from .58 to .93). The mean Cronbach's alpha for the Validity scales was .56 (ranging from .54 to .58). The mean of Cronbach's alpha for the total sample of the Conners CBRS-SR Content (sub)scales was .79 (ranging from .65 to .94). The mean Cronbach's alpha for the DSM-IV-TR Symptom scales was .73 (ranging from .51 to .84). The mean Cronbach's alpha for the Validity scales was .58 (ranging from .51 to .64).

During the development of the Conners CBRS, Conners (2010) deemed that coefficients equal to or greater than .70 are considered to be acceptable. It was hypothesized that the scores of the Conners CBRS and Conners EC with a Vietnamese sample will have lower reliability when compared to the scores found with a western population; however, the differences were not suspected to be statistically significant and the reliability will remain in the adequate range. Based on the calculated reliability data,

Table 3

*Conners CBRS-P Reliability*

Scale/Subscale	Total ( <i>n</i> =319)			U.S. alpha	<i>W</i>	<i>p</i>	Male ( <i>n</i> =141)			Female ( <i>n</i> =181)			
	Chronbach's alpha	C.I.	<i>SEM</i>				Chronbach's alpha	C.I.	<i>SEM</i>	Chronbach's alpha	C.I.	<i>SEM</i>	
Emotional Distress	0.97	.97-.98	4.14	0.95	0.6	<0.01	0.97	.96-.98	3.71	0.97	.97-.98	3.90	
Upsetting Thoughts	0.86	.83-.89	1.59	0.79	0.7	<0.01	0.87	.82-.91	1.3	0.87	.83-.90	1.40	
Worrying	0.89	.87-.91	2.03	0.87	0.9	0.03	0.86	.81-.90	1.96	0.9	.87-.93	1.80	
Social Problems	0.88	.86-.90	1.81	0.85	0.8	0.01	0.89	.85-.92	1.58	0.88	.85-.91	1.67	
Defiant/Aggressive Behaviors	0.96	.96-.97	3.00	0.93	0.6	<0.01	0.96	.95-.97	2.56	0.97	.96-.97	2.36	
Academic Difficulties	0.93	.92-.94	2.80	0.94	1.2	0.96	0.93	.91-.95	2.63	0.92	.90-.94	2.65	
Conners CBRS-P Content Scales	Language	0.9	.88-.92	2.12	0.91	0.9	0.04	0.9	.86-.93	1.97	0.87	.84-.91	1.99
Math	0.79	.75-.83	1.54	0.91	0.4	<0.01	0.75	.65-.83	1.44	0.79	.73-.85	1.44	
Hyperactivity/ Impulsivity	0.87	.85-.89	2.34	0.92	0.6	<0.01	0.89	.84-.92	1.98	0.86	.82-.90	2.26	
Separation Fears	0.8	.76-.84	1.80	0.83	0.9	0.03	0.79	.71-.85	1.7	0.77	.69-.83	1.72	
Perfectionistic and Compulsive Behaviors	0.89	.86-.91	1.97	0.78	0.5	<0.01	0.88	.84-.92	1.91	0.89	.86-.92	1.81	
Violence Potential Indicator	0.97	.97-.98	3.48	0.92	0.4	<0.01	0.97	.96-.98	3.04	0.97	.96-.98	3.08	
Physical Symptoms	0.92	.90-.93	2.31	0.79	0.4	<0.01	0.91	.88-.94	2.27	0.92	.89-.94	2.09	
DSM-IV-TR Symptom Scales	ADHD Inattentive	0.84	.81-.87	2.33	0.93	0.4	<0.01	0.82	.76-.88	2.28	0.85	.80-.89	2.15

Table continues



Table continued

ADHD Hyperactive-Impulsive	0.87	.85-.89	2.34	0.92	0.6	<0.01	0.89	.84-.92	1.98	0.86	.82-.90	2.25
Conduct Disorder	0.96	.95-.96	2.20	0.82	0.2	<0.01	0.96	.94-.97	1.93	0.96	.95-.97	2.05
Oppositional Defiant Disorder	0.88	.86-.90	1.85	0.90	0.8	0.02	0.86	.81-.90	1.73	0.88	.85-.91	1.70
Major Depressive Episode	0.93	.92-.94	2.65	0.85	0.5	<0.01	0.92	.90-.95	2.43	0.93	.91-.95	2.37
Manic Episode	0.90	.88-.92	2.19	0.78	0.5	<0.01	0.89	.85-.92	2.00	0.91	.88-.93	2.03
Generalized Anxiety Disorder	0.93	.91-.94	2.49	0.87	0.5	<0.01	0.93	.90-.95	2.25	0.93	.91-.95	2.34
Separation Anxiety Disorder	0.88	.86-.90	2.12	0.84	0.8	<0.01	0.87	.82-.91	1.98	0.86	.82-.90	2.03
Social Phobia	0.81	.77-.84	1.92	0.75	0.8	<0.01	0.78	.70-.85	1.85	0.85	.81-.89	1.71
Obsessive-Compulsive Disorder	0.89	.81-.91	1.53	0.80	0.6	<0.01	0.91	.87-.93	1.30	0.89	.86-.92	1.42
Autistic Disorder	0.78	.74-.82	3.00	0.78	1	0.51	0.79	.71-.85	2.82	0.8	.74-.85	2.76
Asperger's Disorder	0.62	.54-.68	2.56	0.73	0.7	<0.01	0.66	.53-.76	3.06	0.65	.55-.74	2.41
Validity Scales												
Positive Impression	0.58	.49-.66	2.00	0.61	1	0.28	0.51	.33-.66	1.74	0.59	.46-.70	1.26
Negative Impression	0.59	.50-.66	2.11	0.73	0.7	<0.01	0.54	.36-.68	2.09	0.59	.47-.70	1.97

Note. U.S. sample size includes all informants participating in the normative sample,  $n=1200$

Table 4

*Conners CBRS-T Reliability*

Scale/Subscale	Total ( <i>n</i> =107)							Male ( <i>n</i> =26)			Female ( <i>n</i> =36)		
	Chronbach's alpha	C.I.	SEM	U.S. alpha	<i>W</i>	<i>p</i>	Chronbach's alpha	C.I.	SEM	Chronbach's alpha	C.I.	SEM	
Emotional Distress	0.95	.94-.97	3.90	0.94	0.83	0.12	0.94	.89-.98	3.31	0.93	.88-.97	3.54	
Upsetting Thoughts/ Physical Symptoms	0.90	.87-.93	2.41	0.88	0.83	0.12	0.83	.68-.93	2.16	0.81	.69-.90	2.28	
Separation Fears	0.77	.68-.84	1.58	0.87	0.57	<0.01	0.68	.36-.87	1.69	0.27	-.093	1.51	
Social Anxiety	0.67	.56-.78	1.71	0.87	0.39	<0.01	0.73	.49-.89	1.23	0.54	.22-.76	1.51	
Defiant/Aggressive Behaviors	0.97	.97-.98	3.64	0.97	1.00	0.48	0.95	.92-.98	3.6	0.97	.96-.99	3.15	
Academic Difficulties	0.91	.88-.94	3.06	0.96	0.44	<0.01	0.9	.82-.96	3.21	0.86	.78-.93	2.75	
Language	0.85	.79-.89	2.54	0.94	0.4	<0.01	0.78	.58-.90	2.71	0.71	.53-.85	3.32	
Math	0.82	.74-.87	1.35	0.93	0.39	<0.01	0.78	.57-.90	1.53	0.75	.57-.87	1.23	
Hyperactivity	0.84	.79-.89	1.97	0.93	0.44	<0.01	0.77	.57-.90	2.11	0.88	.80-.94	1.81	
Social Problems	0.53	.45-.71	2.87	0.84	0.34	<0.01	0.49		2.07	0.69	.48-.83	3.06	
Perfectionistic and Compulsive Behaviors	0.78	.69-.85	1.86	0.81	0.86	0.14	0.77	.55-.91	1.61	0.71	.51-.85	1.67	

Table continues

Table continued

Violence Potential Indicator	0.95	.93-.97	3.36	0.93	0.71	0.01	0.89	.78-.96	3.23	0.95	.92-.97	2.85
Physical Symptoms	0.85	.79-.89	1.48	0.81	0.79	0.06	0.81	.62-.92	1.19	0.76	.59-.88	1.37
ADHD Inattentive	0.82	.73-.86	2.18	0.94	0.33	<0.01	0.85	.73-.93	2.16	0.75	.59-.87	2.16
ADHD Hyperactive-Impulsive	0.86	.81-.90	2.33	0.95	0.36	<0.01	0.75	.53-.89	2.5	0.90	.84-.95	2.08
Conduct Disorder	0.93	.90-.95	2.00	0.77	0.3	<0.01	0.84	.71-.93	1.97	0.90	.83-.95	1.61
Oppositional Defiant Disorder	0.9	.86-.93	1.63	0.93	0.8	<0.01	0.81	.64-.92	1.70	0.89	.82-.94	1.44
Major Depressive Episode	0.9	.86-.93	2.14	0.83	0.59	<0.01	0.86	.71-.94	1.95	0.75	.59-.87	1.97
Manic Episode	0.85	.80-.90	2.12	0.74	0.58	<0.01	0.67	.38-.86	2.28	0.64	.40-.81	1.90
Generalized Anxiety Disorder	0.88	.83-.92	2.02	0.85	0.8	0.07	0.86	.73-.94	1.99	0.90	.83-.95	1.83
Separation Anxiety Disorder	0.8	.73-.87	1.77	0.84	0.8	0.05	0.77	.54-.90	1.76	0.70		1.76
Social Phobia	0.75	.66-.83	1.85	0.76	0.96	0.37	0.71	.43-.88	1.54	0.74	.56-.87	1.64

DSM-IV-TR  
Symptom  
Scales

Table continues

Table continued

	Obsessive- Compulsive Disorder	0.83	.77-.89	1.55	0.83	1.00	0.48	0.65	.32-.85	1.76	0.81	.68-.90	1.34
	Autistic Disorder	0.67	.54-.76	2.92	0.76	0.73	0.01	0.57	.20-.82	2.89	0.54	.24-.75	2.94
	Asperger's Disorder	0.58	.44-.71	2.41	0.69	0.74	0.01	0.43	-.085	2.34	0.54	.24-.76	2.35
Validity Scales	Positive Impression	0.54	.36-.69	2.08	0.70	0.56	<0.01	0.32	-1.13	1.72	0.65	.39-.82	2.64
	Negative Impression	0.58	.41-.71	1.82	0.74	0.62	<0.01	0.45	-0.86	1.65	0.69	.46-.84	1.54

*Note.* U.S. sample size includes all informants participating in the normative sample,  $n = 1,200$ .

Table 5

*Conners CBRS-SRP Reliability*

Scale/Subscale	Total (n=205)							Male (n=82)			Female (n=123)		
	Chronbach's alpha	C.I.	SEM	U.S. alpha	W	p	Chronbach's alpha	C.I.	SEM	Chronbach's alpha	C.I.	SEM	
Conners CBRS-SRP Content Scales	Emotional Distress	0.94	.92-.95	4.44	0.96	0.67	<0.01	0.92	.88-.94	4.2	0.94	.92-.96	4.68
	Defiant/Aggressive Behaviors	0.90	.87-.93	3.22	0.93	0.7	<0.01	0.91	.86-.95	2.96	0.89	.84-.93	3.33
	Academic Difficulties	0.68	.61-.78	2.30	0.89	0.34	<0.01	0.66	.49-.80	2.27	0.70	.58-.80	2.40
	Hyperactivity/Impulsivity	0.65	.54-.74	2.54	0.87	0.37	<0.01	0.56	.30-.75	2.57	0.69	.56-.80	2.52
	Separation Fears	0.73	.68-.78	2.21	0.86	0.52	<0.01	0.76	.67-.83	2.07	0.70	.61-.78	2.23
	Violence Potential Indicator	0.85	.81-.89	3.29	0.91	0.6	<0.01	0.81	.71-.89	3.26	0.87	.82-.92	3.32
	Physical Symptoms	0.75	.70-.79	2.72	0.83	0.68	<0.01	0.61	.46-.73	2.59	0.76	.69-.82	2.76
DSM-IV-TR Symptom Scales	ADHD Inattentive	0.82	.78-.85	2.35	0.89	0.61	<0.01	0.83	.76-.88	2.22	0.84	.79-.88	2.30
	ADHD Hyperactive-Impulsive	0.65	.54-.74	2.54	0.87	0.37	<0.01	0.56	.30-.75	2.46	0.69	.56-.80	2.52

Table continues

Table continued

	Conduct Disorder	0.76	.69-.82	1.66	0.84	0.67	<0.01	0.80	.70-.88	1.51	0.71	.58-.81	1.63
	Oppositional Defiant Disorder	0.76	.71-.80	2.00	0.82	0.75	<0.01	0.68	.56-.78	1.85	0.75	.67-.81	1.98
	Major Depressive Episode	0.84	.81-.87	2.8	0.88	0.75	<0.01	0.78	.70-.85	2.65	0.84	.80-.88	2.90
	Manic Episode	0.76	.71-.80	2.33	0.74	0.92	0.24	0.75	.65-.83	2.22	0.73	.65-.80	2.42
	Generalized Anxiety Disorder	0.82	.78-.85	2.66	0.89	0.61	<0.01	0.70	.58-.79	2.48	0.84	.79-.88	2.65
	Separation Anxiety Disorder	0.75	.71-.80	2.80	0.80	0.8	0.02	0.78	.70-.85	2.38	0.73	.65-.80	2.58
	Social Phobia	0.51	.41-.60	2.01	0.80	0.42	<0.01	0.17	-.059	2.04	0.53	.38-.65	2.02
	Obsessive-Compulsive Disorder	0.67	.60-.73	1.90	0.82	0.55	<0.01	0.69	.57-.79	1.80	0.67	.57-.76	1.95
Validity Scales	Positive Impression	0.51	.41-.60	1.61	0.45	0.78	0.01	0.50	.29-.66	1.56	0.48	.32-.62	1.69
	Negative Impression	0.64	.56-.70	2.11	0.65	0.97	0.39	0.54	.36-.68	2.12	0.71	.62-.79	2.06

Note. U.S. sample size includes all informants participating in the normative sample,  $n = 1,000$ .

most scales supported this hypothesis; however, the Validity Scales on the Conners CBRS-P, Conners CBRS-T and Conners CBRS-SRP did not maintain adequate reliability. On the Conners CBRS-P, 24 out of 27 scales for the overall, male, and female sample maintained adequate reliability, which included all content (sub)scales for the and all DSM-IV TR symptoms scales with the exception of the Asperger's Disorder scale. On the Conners CBRS-T, 21 out of the 27 scales of the overall sample, 21 out of 27 scales for the male sample, and 19 out of 27 scales for the female sample maintained adequate reliability. The following Conners CBRS-T (sub)scales did not maintain adequate reliability: Separation Fears (male and female sample), Social Anxiety (overall and female sample), Social Problems (overall, male and female sample), Manic Episode (male and female sample), and Separation Anxiety Disorder (female sample). On the Conners CBRS-SRP, 12 out of 19 scales of the overall sample, 10 out of 19 scales for the male sample, and 14 out of 19 scales for the female sample maintained adequate reliability. The following (sub)scales did not maintain adequate reliability: Academic Difficulties (overall and male samples), Hyperactivity/Impulsivity (overall, male and female sample), Physical Symptoms (male sample), ADHD Hyperactive-Impulsive (overall, male and female sample), Oppositional Defiant Disorder (male sample), Social Phobia (overall, male and female sample) and Obsessive-Compulsive Disorder (overall, male and female sample). However, some scales produced Chronbach's alpha values that were only slightly less than the cutoff value ( $\alpha=.7$ ) to be considered adequate by Conners (2010); therefore, confidence intervals were examined to determine if the Chronbach's alpha values fell within the adequate range with 95% confidence (Funder et al., 2014). In evaluating the confidence intervals, a majority of the inadequate Chronbach's alpha

values yielded a confidence interval that fell above the cutoff point to be considered adequate. However, the following scales' confidence intervals did not reach the adequate range: Conners CBRS-P Asperger's Disorder (overall sample), Conners CBRS-T Separation Fears (female sample), Conners CBRS-SRP Social Phobia (overall, male and female sample), and Conners EC-P Play (overall sample). Additionally, further analyses indicate that reliability calculations would increase upon the deletion of specific items on the scale. On the Conners CBRS-P, there were 3 items on the Autistic Disorder and Asperger's Disorder scale that would increase the Chronbach's alpha score when removed. On the Conners CBRS-T, there was 1 item on the Social Anxiety scale, 1 item on the Academic Difficulties scale, 2 items on the Language subscale, 1 item on the ADHD Inattentive scale, 1 item on the Manic Episode scale, 1 item on the Social Phobia scale, 4 items on the Autistic Disorder scale, and 2 items on the Asperger's disorder scale that would increase the Chronbach's alpha score when removed. Lastly on the Conners CBRS-SRP, there was 1 item on the Hyperactivity/Impulsivity scale, 1 item on the Oppositional Defiant Disorder scale, and 1 item on the Social Phobia scale that would increase the Chronbach's alpha score when removed. However, in each of these cases, the Chronbach's alpha would only minimally increase; therefore the items were included in the analyses.

The second analysis of reliability included *SEM* calculations. *SEM* gives an indication of how much an individual's obtained score might vary from the "true" score. The Chronbach's alpha and the standard deviation found for each scale was utilized to calculate the *SEM* for each scale of the Conners CBRS. The formula utilized to calculate *SEM* was  $SEM = s_x \sqrt{(1 - r_{xx})}$ . In this formula,  $s_x$  = the standard deviation of the test, and



$r_{xx}$  = the estimated reliability coefficient of the test (Chronbach's alpha). The mean *SEM* for the total sample of the Conners CBRS-P Content (sub)scales was 2.38 (ranging from 1.54 to 4.14). The mean *SEM* for the DSM-IV-TR Symptom scales was 2.27 (ranging from 1.53 to 3.00). The mean *SEM* for the Validity scales was 2.18 (ranging from 2.11 to 2.24). The mean of *SEM* for the total sample of the Conners CBRS-T Content (sub)scales was 2.43 (ranging from 1.35 to 3.90). The mean *SEM* for the DSM-IV-TR Symptom scales was 2.08 (ranging from 1.55 to 2.92). The mean *SEM* for the Validity scales was 1.87 (ranging from 1.82 to 1.92). The mean of *SEM* for the total sample of the Conners CBRS-SR Content (sub)scales was 2.96 (ranging from 2.21 to 4.44). The mean *SEM* for the DSM-IV-TR Symptom scales was 2.31 (ranging from 1.66 to 2.80). The mean *SEM* for the Validity scales was 2.16 (ranging from 2.11 to 2.20).

**Conners EC.** Tables 6-7 display the Chronbach's alpha and *SEM* values for the overall, male and female samples for the Conners EC-P data (Table 6) and Conners EC-T data (Table 7) First, Chronbach's alpha was calculated to assess the extent to which all items on the same scale consistently measure the same dimension. A total of 13 out of 16 scales for the overall sample, 12 out of 16 scales for the male sample, and 14 out of 16 scales for the female sample maintained adequate reliability on the Conners EC-P. The mean of Cronbach's alpha for the total sample of the Conners EC-P Behavior Scales was .81 (ranging from .60 to .91). The mean Cronbach's alpha for the Developmental Scales was .77 (ranging from .56 to .85). A total of 14 out of 15 scales for the overall sample, 12 out of 15 scales for the male sample, and 14 out of 15 scales for the female sample maintained adequate reliability on the Conners EC-T. The mean of Cronbach's alpha for the total sample of the Conners EC-T Behavior Scales was .84 (ranging from .64 to .91).

Table 6

*Conners EC-P Reliability*

Scale/Subscale	Total (n=80)							Male (n=40)			Female (n=38)		
	Chronbach's alpha	C.I.	SEM	U.S. alpha	W	p	Chronbach's alpha	C.I.	SEM	Chronbach's alpha	C.I.	SEM	
Inattention/ Hyperactivity	0.87	.82-.90	3.11	0.94	0.43	<0.01	0.85	.79-.91	3.06	0.87	.81-.92	3.18	
Defiant/ Aggressive Behaviors	0.91	.88-.94	3.38	0.92	0.89	0.22	0.92	.88-.95	3.20	0.90	.86-.94	3.55	
Defiance/ Temper	0.82	.77-.87	2.58	0.89	0.61	<0.01	0.82	.74-.89	2.52	0.82	.74-.89	2.66	
Aggression	0.86	.82-.90	2.13	0.86	1.00	0.48	0.89	.83-.93	1.94	0.83	.75-.89	2.67	
Social Functioning/ Atypical Behaviors	0.85	.80-.89	4.49	0.94	0.32	<0.01	0.84	.77-.90	4.51	0.85	.78-.91	4.48	
Social Functioning	0.60	.55-.76	3.21	0.92	0.20	<0.01	0.60	.41-.75	2.70	0.70	.55-.81	3.25	
Atypical Behaviors	0.86	.82-.90	2.80	0.90	0.71	0.02	0.85	.78-.90	2.80	0.88	.83-.92	2.70	
Anxiety	0.84	.79-.89	3.16	0.86	0.88	0.19	0.85	.78-.90	3.04	0.84	.76-.90	3.24	

Table continues

Table continued

	Mood and Affect	0.83	.77-.87	2.62	0.84	0.22	0.89	0.82	.73-.88	2.53	0.83	.76-.90	2.66
	Physical Symptoms	0.82	.76-.87	2.6	0.71	0.62	<0.01	0.79	.69-.87	2.64	0.85	.77-.90	2.55
	Sleep Problems	0.65	.54-.75	1.69	0.64	0.94	0.38	0.6	.41-.75	1.76	0.71	.56-.82	1.62
	Adaptive Skills	0.8	.73-.85	2.48	0.93	0.35	<0.01	0.78	.67-.87	2.48	0.83	.74-.89	2.44
	Communication	0.85	.80-.89	2.34	0.95	0.33	<0.01	0.84	.76-.90	2.27	0.87	.80-.92	2.36
	Motor Skills	0.8	.73-.85	2.49	0.93	0.35	<0.01	0.77	.66-.85	2.53	0.83	.75-.90	2.47
	Play	0.56	.40-.68	1.33	0.89	0.25	<0.01	0.58	.38-.74	1.34	0.54	.31-.71	1.35
	Pre-Academic/ Cognitive	0.84	.79-.88	2.58	0.96	0.25	<0.01	0.79	.70-.87	2.6	0.88	.82-.92	2.54
Develop- mental Milestones Scales	Pre-Academic/ Cognitive	0.84	.79-.88	2.58	0.96	0.25	<0.01	0.79	.70-.87	2.6	0.88	.82-.92	2.54
	Pre-Academic/ Cognitive	0.84	.79-.88	2.58	0.96	0.25	<0.01	0.79	.70-.87	2.6	0.88	.82-.92	2.54

Note. U.S. sample size includes all informants participating in the normative sample,  $n = 800$

Table 7

*Conners EC-T Reliability*

Scale/Subscale	Total (n=32)			U.S.			Male (n=17)			Female (n=15)		
	Chronbach's alpha	C.I.	SEM	alpha	W	p	Chronbach's alpha	C.I.	SEM	Chronbach's alpha	C.I.	SEM
Inattention/ Hyperactivity	0.85	.78-.91	3.39	0.96	0.25	<0.01	0.84	.72-.93	3.26	0.87	.78-.94	3.50
Defiant/ Aggressive Behaviors	0.91	.87-.95	3.06	0.94	0.67	0.04	0.91	.84-.96	2.94	0.93	.87-.97	2.92
Defiance/Temper	0.87	.81-.92	1.83	0.89	0.85	0.23	0.80	.64-.91	1.98	0.91	.83-.96	1.63
Aggression	0.85	.77-.91	1.97	0.91	0.60	0.01	0.84	.72-.92	2.30	0.87	.77-.94	2.28
<b>Behavior Scales</b>												
Social Functioning/ Atypical Behaviors	0.88	.82-.93	4.56	0.96	0.25	<0.01	0.81	.66-.91	4.70	0.93	.87-.97	4.46
Social Functioning	0.74	.61-.84	3.24	0.94	0.17	<0.01	0.64	.36-.83	3.23	0.83	.69-.92	3.29
Atypical Behaviors	0.82	.73-.89	2.48	0.86	0.89	0.14	0.69	.45-.86	2.73	0.90	.81-.95	2.57
Anxiety	0.88	.92-.93	2.59	0.88	1.00	0.47	0.81	.65-.92	2.60	0.93	.87-.97	2.45
Mood and Affect	0.85	.77-.91	2.80	0.85	1.00	0.47	0.79	.61-.91	2.36	0.89	.81-.95	2.20
Table continues												

Table continued

	Physical Symptoms	0.87	.79-.92	1.73	0.75	0.52	0.01	0.89	.79-.95	1.61	0.88	.79-.95	1.76
	Adaptive Skills	0.82	.73-.89	2.07	0.91	0.5	<0.01	0.80	.65-.90	2.1	0.85	.73-.93	2.04
Develop- mental Milestones Scales	Communication	0.83	.74-.89	2.43	0.95	0.29	<0.01	0.82	.69-.92	2.43	0.87	.77-.94	2.35
	Motor Skills	0.82	.74-.89	2.45	0.93	0.39	<0.01	0.85	.74-.93	2.4	0.82	.68-.92	2.47
	Play	0.70	.52-.82	1.24	0.91	0.3	<0.01	0.66	.38-.84	1.35	0.71	.45-.87	1.11
	Pre-Academic/ Cognitive	0.91	.87-.95	2.43	0.96	0.44	<0.01	0.92	.86-.96	2.35	0.9	.82-.95	2.43

Note. U.S. sample size includes all informants participating in the normative sample,  $n = 800$

The mean Cronbach's alpha for the Developmental Scales was .82 (ranging from .70 to .91). Further analyses indicate that reliability calculations would increase upon the deletion of specific items on the scale. On the Conners EC-T, there was 1 item on the Defiance/Temper subscale, 1 item on the Social Functioning/Atypical Behaviors scale, 1 item on the Social Functioning subscale, 1 item on the Atypical Behaviors subscale, and 1 item on the Play scale that would increase the Chronbach's alpha score when removed. Additionally, on the Conners EC-T there was 1 item on the Aggression subscale, 1 item on the Social Functioning/Atypical Behaviors scale, and 1 item on the Social Functioning subscale that would increase the Chronbach's alpha score when removed. However, in each of these cases, the Chronbach's alpha would only minimally increase; therefore the items were included in the analyses.

The second analysis of reliability included *SEM* calculations, which were computed with the same formula utilized for the Conners CBRS calculations. The mean *SEM* for the total sample of the Conners EC-T Behavior Scales was 2.89 (ranging from 1.69 to 4.49). The mean *SEM* for the Developmental Scales was 2.24 (ranging from 1.33 to 2.49). The mean *SEM* for the total sample of the Conners EC-T Behavior Scales was 2.77 (ranging from 1.73 to 4.56). The mean *SEM* for the Developmental Scales was 2.12 (ranging from 1.24 to 2.45).

**Factor Analysis.** It was hypothesized that the Conners CBRS and Conners EC scales would maintain the factor structure of the initial standardization, as assessed by confirmatory factor analysis (CFA). Specifically, the scales assessing defiance and aggression (Defiant/Aggressive Behaviors, the Violence Potential Indicator, DSM-IV-TR Conduct Disorder, DSM-IV-TR Oppositional Defiant Disorder), the DSM-IV-TR ADHD

Inattentive scale, scales of Emotional Distress, DSM-IV-TR Major Depressive Episode scale, DSM-IV-TR Generalized Anxiety Disorder scale, and the Physical Symptoms scale were proposed to maintain the factor structure of the normative data and analysis would confirm a single factor model for each scale. Tables 8, 9, and 10 display the factor loadings found through CFA for the Vietnamese Conners CBRS; tables 11 and 12 displays the factor loadings found through CFA for the Vietnamese Conner EC. For each scale the hypothesized, saturated and independence models are presented. The hypothesized model is the model tested. The saturated model is a model in which the number of estimated parameters equals the number of data points (i.e. variances and covariances of the observed variables) and is least restricted (Byrne, 2010). The independence model is a model of complete independence of all variables (i.e. in which all correlations among variables are zero) and is most restricted (Byrne, 2010). According to Byrne (2010), comparative fit index (CFI) values of .95 or greater are considered representative of a well-fitting model; previously, values greater than .90 were considered well-fitting models and can now be considered as a reasonable fit (Bentler, 1992). For the root mean square error of approximation (RMSEA), values less than .05 indicate good fit, values as high as .08 to .10 indicate a mediocre fit, and values greater than .10 indicate poor fit (Byrne, 2010). The closeness of fit (PCLOSE) values greater than .50 tests the hypothesis that the RMSEA value is “good” in the population (Byrne, 2010). Additionally, the higher the probability (P) value of the minimum discrepancy ( $\chi^2$ ) value indicate a better model fit (Byrne, 2010). Based on the data obtained, of the scales hypothesized to maintain adequate factor structure, the following scales maintained adequate factor structure:

Table 8

*Goodness-of-fit statistics for Conners CBRS-P*

<u>Emotional Distress</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	629	126.398	2.01	0.000	0.902**	3.735	0.050**	0.433
Saturated	0	0			1.000	3.719		
Independence	703	7206.242	10.251	0.000	0.000	18.292	0.152	0.000
<u>Upsetting Thoughts</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	14	61.260	4.376	0.000	0.923**	0.219	0.092*	0.002
Saturated	0	0.000			1.000	0.136		
Independence	21	630.978	30.047	0.000	0.000	1.616	0.270	0.000
<u>Worrying</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	57.528	2.131	0.001	0.969***	0.280	0.053**	0.362***
Saturated	0	0.000			1.000	0.271		
Independence	45	1029.165	22.87	0.000	0.000	2.631	0.234	0.000
<u>Social Problems</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	14	25.486	1.820	0.030	0.986***	0.170	0.045***	0.569***
Saturated	0	0.000			1.000	0.176		
Independence	28	858.507	30.661	0.000	0.000	2.192	0.273	0.000
<u>Defiant/Aggressive Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	189	415.681	2.199	0.000	0.944**	1.361	0.055**	0.127***
Saturated	0	0.000			1.000	1.266		
Independence	231	4268.944	18.480	0.000	0.000	10.832	0.210	0.000
<u>Academic Difficulties</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	119	244.109	2.051	0.000	0.943**	0.870	0.051**	0.389***
Saturated	0	0			1.000	0.854		
Independence	153	2350.467	15.363	0.000	0.000	5.991	0.190	0.000

Table continues



Table continued

<u>Language</u>								
Model	DF	$X^2$	$X^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	35	38.569	1.102	0.311	0.997***	0.248	0.016***	0.994***
Saturated	0	0.000			1.000	0.327		
Independence	55	1155.884	21.016	0.000	0.000	2.954	0.224	0.000

<u>Math</u>								
Model	DF	$X^2$	$X^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	5	27.416	5.483	0.000	0.940**	0.144	0.106	0.007
Saturated	0	0.000			1.000	0.101		
Independence	15	386.349	25.757	0.000	0.000	0.996	0.249	0.000

<u>Hyperactivity/Impulsivity</u>								
Model	DF	$X^2$	$X^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	69.006	1.568	0.009	0.974***	0.339	0.038***	0.882***
Saturated	0	0.000			1.000	0.387		
Independence	66	1031.304	15.626	0.000	0.000	2.646	0.192	0.000

<u>Separation Fears</u>								
Model	DF	$X^2$	$X^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	58.484	6.498	0.000	0.891	0.237	0.118	0.000
Saturated	0	0.000			1.000	0.136		
Independence	21	473.083	22.528	0.000	0.000	1.219	0.233	0.000

<u>Perfectionistic and Compulsive Behaviors</u>								
Model	DF	$X^2$	$X^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	26.232	0.972	0.506	1.000***	0.202	0.000***	0.995***
Saturated	0	0.000			1.000	0.271		
Independence	45	993.502	22.078	0.000	0.000	2.541	0.230	0.000

<u>Violence Potential Indicator</u>								
Model	DF	$X^2$	$X^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	377	742.432	1.969	0.000	0.934**	2.303	0.049***	0.574***
Saturated	0	0.000			1.000	2.332		
Independence	435	5971.51	13.728	0.000	0.000	15.150	0.179	0.000

Table continues

Table continued

<u>Physical Symptoms</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	54	121.918	2.258	0.000	0.955***	0.487	0.056**	0.209***
Saturated	0	0.000			1.000	0.452		
Independence	78	1579.853	20.255	0.000	0.000	4.030	0.220	0.000

<u>DSM-IV-TR ADHD Inattentive</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	35	73.853	2.110	0.000	0.945**	0.336	0.053**	0.369***
Saturated	0	0.000			1.000	0.327		
Independence	55	766.891	13.943	0.000	0.000	1.977	0.180	0.000

<u>DSM-IV-TR ADHD Hyperactive-Impulsive</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	92.432	2.10	0.000	0.852	0.842	0.068**	0.081***
Saturated	0	0.000			1.000	0.903		
Independence	67	431.254	6.437	0.000	0.000	1.023	0.102	0.000

<u>DSM-IV-TR Conduct Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	90	229.851	2.554	0.000	0.953***	0.804	0.062**	0.020
Saturated	0	0.000			1.000	0.678		
Independence	120	3112.962	25.941	0.000	0.000	7.897	0.250	0.000

<u>DSM-IV-TR Oppositional Defiant Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	36.424	1.821	0.014	0.981***	0.212	0.045***	0.596***
Saturated	0	0.000			1.000	0.221		
Independence	36	903.732	25.104	0.000	0.000	2.311	0.246	0.000

<u>DSM-IV-TR Major Depressive Episode</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	90	168.098	1.868	0.000	0.961***	0.648	0.047***	0.679***
Saturated	0	0.000			1.000	0.678		
Independence	120	2142.545	17.855	0.000	0.000	5.459	0.206	0.000

Table continues

Table continued

DSM-IV-TR Manic Episode

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	35	81.91	2.340	0.000	0.961***	0.357	0.058**	0.196***
Saturated	0	0.000			1.000	0.327		
Independence	55	1271.486	23.118	0.000	0.000	3.245	0.236	0.000

DSM-IV-TR Generalized Anxiety Disorder

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	77	157.716	2.048	0.000	0.956***	0.607	0.051**	0.409***
Saturated	0	0.000			1.000	0.598		
Independence	105	1953.788	18.608	0.000	0.000	4.979	0.210	0.000

DSM-IV-TR Separation Anxiety Disorder

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	139.661	5.173	0.000	0.889	0.487	0.102	0.000
Saturated	0	0.000			1.000	0.271		
Independence	45	1055.416	23.454	0.000	0.000	2.697	0.238	0.000

DSM-IV-TR Social Phobia

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	14	46.743	3.339	0.000	0.937**	0.223	0.077**	0.033
Saturated	0	0.000			1.000	0.176		
Independence	28	544.815	19.458	0.000	0.000	1.404	0.215	0.000

DSM-IV-TR Obsessive-Compulsive Disorder

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	12.434	1.382	0.190	0.427	0.122	0.031***	0.760***
Saturated	0	0.000			0.000	0.136		
Independence	21	766.879	36.518	0.000	0.000	1.957	0.299	0.000

DSM-IV-TR Autistic Disorder

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	128.808	1.982	0.000	0.944**	0.520	0.050***	0.500***
Saturated	0	0.000			1.000	0.523		
Independence	91	1234.775	13.569	0.000	0.000	3.168	0.178	0.000

Table continues

Table continued

DSM-IV-TR Asperger's Disorder

<u>Model</u>	<u>DF</u>	<u><math>\chi^2</math></u>	<u><math>\chi^2/df</math></u>	<u>P</u>	<u>CFI</u>	<u>ECVI</u>	<u>RMSEA</u>	<u>PCLOSE</u>
Hypothesized	27	57.767	2.14	0.001	0.947**	0.281	0.054**	0.356***
Saturated	0	0.000			1.000	0.271		
Independence	45	624.477	13.877	0.000	0.000	1.614	0.180	0.000

\*\*\*good fit. \*\*reasonable fit. \*mediocre fit

*Note:* DF: degrees of freedom.  $\chi^2$ (CMIN): minimum discrepancy. P: probability value of  $\chi^2$ . CFI: comparative fit index. ECVI: expected cross-validation index. RMSEA: root mean square error of approximation. PCLOSE: closeness of fit.

Table 9

*Goodness-of-fit statistics for Conners CBRS-T*

<u>Emotional Distress</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	527	1063.28	2.018	0.000	0.689	0.117	0.086**	0.000
Saturated	0	0.000			1.000	9.050		
Independence	595	2321.65	3.902	0.000	0.000	17.192	0.144	0.000
<u>Upsetting Thoughts</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	77	120.723	1.568	0.001	0.908**	1.473	0.064**	0.147***
Saturated	0	0.000			1.000	1.712		
Independence	105	579.3	5.517	0.000	0.000	4.369	0.180	0.000
<u>Separation Fears</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	5	8.354	1.671	0.138	0.964***	0.276	0.069**	0.288***
Saturated	0	0.000			1.000	0.288		
Independence	15	108.736	7.249	0.000	0.000	0.854	0.212	0.000
<u>Social Anxiety</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	17.953	1.995	0.036	0.877	0.388	0.085*	0.143***
Saturated	0	0.000			1.000	0.388		
Independence	21	93.987	4.476	0.000	0.000	0.762	0.158	0.000
<u>Defiant/Aggressive Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	527	1173.62	2.227	0.000	0.735	9.911	0.094*	0.000
Saturated	0	0.000			1.000	9.050		
Independence	595	3021.98	5.096	0.000	0.000	22.302	0.172	0.000
<u>Academic Difficulties</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	189	353.389	1.870	0.000	0.801	3.449	0.079**	0.000
Saturated	0	0.000			1.000	3.262		
Independence	231	1055.34	4.569	0.000	0.000	7.895	0.160	0.000

Table continues

Table continued

<u>Language</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	77	132.105	1.716	0.000	0.871	1.555	0.072**	0.047
Saturated	0	0.000			1.000	1.712		
Independence	105	531.9	5.066	0.000	0.000	4.028	0.171	0.000
<u>Math</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	5	9.643	1.929	0.086	0.960***	0.285	0.082*	0.000
Saturated	0	0.000			1.000	0.288		
Independence	15	131.863	8.791	0.000	0.000	1.021	0.237	0.201
<u>Hyperactivity</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	37.764	1.888	0.009	0.919**	0.617	0.080*	0.102***
Saturated	0	0.000			1.000	0.633		
Independence	36	254.276	7.063	0.000	0.000	1.944	0.209	0.000
<u>Social Problems</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	130.365	2.963	0.000	0.453	1.413	0.119	0.096***
Saturated	0	0.000			1.000	1.108		
Independence	66	223.803	3.391	0.000	0.000	1.768	0.131	0.112
<u>Perfectionistic and Compulsive Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	29.694	1.485	0.075	0.945	0.559	0.059**	0.337***
Saturated	0	0.000			1.000	0.633		
Independence	36	212.423	5.901	0.000	0.000	1.643	0.188	0.000
<u>Violence Potential Indicator</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	377	915.203	2.428	0.000	0.687	7.836	0.101	0.000
Saturated	0	0.000			1.000	6.676		
Independence	435	2154.61	4.953	0.000	0.000	15.918	0.169	0.000
<u>Physical Symptoms</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	21.894	2.433	0.009	0.929**	0.417	0.102	0.056***
Saturated	0	0.000			1.000	0.388		
Independence	21	202.897	9.662	0.000	0.000	1.546	0.250	0.000

Table continues

Table continued

<u>DSM-IV-TR ADHD Inattentive</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	35	62.954	1.799	0.003	0.861	0.885	0.076**	0.082***
Saturated	0	0.000			1.000	0.935		
Independence	55	256.722	4.668	0.000	0.000	1.659	0.162	0.000

Table continues

Table continued

<u>DSM-IV-TR ADHD Hyperactive-Impulsive</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	83.812	1.905	0.000	0.868	1.078	0.081*	0.032
Saturated	0	0.000			1.000	1.108		
Independence	66	366.685	5.556	0.000	0.000	2.796	0.181	0.000

<u>DSM-IV-TR Conduct Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	170.144	2.618	0.000	0.837	1.785	0.108	0.000
Saturated	0	0.000			1.000	1.496		
Independence	91	735.065	8.078	0.000	0.000	5.475	0.226	0.000

<u>DSM-IV-TR Oppositional Defiant Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	29.869	1.493	0.072	0.970***	0.56	0.060**	0.330***
Saturated	0	0.000			1.000	0.633		
Independence	36	368.371	10.233	0.000	0.000	2.765	0.258	0.000

<u>DSM-IV-TR Major Depressive Episode</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	54	112.661	2.086	0.000	0.862	1.328	0.088*	0.005
Saturated	0	0.000			1.000	1.295		
Independence	78	502.048	6.437	0.000	0.000	3.785	0.198	0.000

<u>DSM-IV-TR Manic Episode</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	93.411	3.460	0.000	0.793	1.061	0.133	0.000
Saturated	0	0.000			1.000	0.777		
Independence	45	365.284	8.117	0.000	0.000	2.757	0.226	0.000

Table continues

Table continued

<u>DSM-IV-TR Generalized Anxiety Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	70.875	1.611	0.006	0.916**	0.985	0.066**	0.169***
Saturated	0	0.000			1.000	1.108		
Independence	66	387.529	5.872	0.000	0.000	2.946	0.187	0.000
<u>DSM-IV-TR Separation Anxiety Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	19.232	2.137	0.023	0.912**	0.397	0.090*	0.107***
Saturated	0	0.000			1.000	0.388		
Independence	21	137.533	6.549	0.000	0.000	1.076	0.200	0.000
<u>DSM-IV-TR Social Phobia</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	14	20.53	1.466	0.114	0.948**	0.450	0.058**	0.363***
Saturated	0	0.000			1.000	0.504		
Independence	28	153.663	5.488	0.000	0.000	1.206	0.180	0.000
<u>DSM-IV-TR Obsessive-Compulsive Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	27.338	3.038	0.001	0.901**	0.456	0.121	0.013
Saturated	0	0.000			1.000	0.388		
Independence	21	205.792	9.800	0.000	0.000	1.567	0.252	0.000
<u>DSM-IV-TR Autistic Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	102.929	1.584	0.002	0.846	1.302	0.065**	0.151***
Saturated	0	0.000			1.000	1.496		
Independence	91	337.864	3.713	0.000	0.000	2.618	0.140	0.000
<u>DSM-IV-TR Asperger's Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	47.478	1.758	0.009	0.839	0.730	0.074**	0.126***
Saturated	0	0			1.000	0.777		
Independence	45	172.46	3.832	0.000	0.000	1.370	0.143	0.000

\*\*\*good fit. \*\*reasonable fit. \*mediocre fit

Note: DF: degrees of freedom.  $\chi^2$ (CMIN): minimum discrepancy. P: probability value of  $\chi^2$ . CFI: comparative fit index. ECVI: expected cross-validation index. RMSEA: root mean square error of approximation. PCLOSE: closeness of fit.



Table 10  
*Goodness-of-fit statistics for Conners CBRS-SRP*

<u>Emotional Distress</u>								
Model	df	X <sup>2</sup>	X <sup>2</sup> /df	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	665	1249.237	1.879	0.000	0.824	2.280	0.037***	1.000***
Saturated	0	0.000			1.000	2.404		0.000
Independence	741	4060.591	5.48	0.000	0.000	6.384	0.083	
<u>Defiant/Aggressive Behaviors</u>								
Model	df	X <sup>2</sup>	X <sup>2</sup> /df	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	434	1037.484	2.391	0.000	0.836	1.888	0.046***	0.952***
Saturated	0	0.000			1.000	1.627		
Independence	496	4127.156	8.412	0.000	0.000	6.534	0.107	0.000
<u>Academic Difficulties</u>								
Model	df	X <sup>2</sup>	X <sup>2</sup> /df	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	175.072	2.693	0.000	0.834	0.391	0.051**	0.405***
Saturated	0	0.000			1.000	0.321		
Independence	91	754.16	8.287	0.000	0.000	1.204	0.106	0.000
<u>Hyperactivity/Impulsivity</u>								
Model	df	X <sup>2</sup>	X <sup>2</sup> /df	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	106.949	2.431	0	0.846	0.267	0.047***	0.652***
Saturated	0	0.000			1.000	0.238		
Independence	66	475.256	7.201	0	0.000	0.767	0.098	.0000
<u>Separation Fears</u>								
Model	df	X <sup>2</sup>	X <sup>2</sup> /df	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	14	63.087	4.506	0.000	0.836	0.162	0.074**	0.016
Saturated	0	0.000			1.000	0.108		
Independence	28	326.624	11.665	0.000	0.000	0.526	0.128	0.000
<u>Violence Potential Indicator</u>								
Model	df	X <sup>2</sup>	X <sup>2</sup> /df	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	350	910.828	2.602	0.000	0.803	1.665	0.05**	0.538***
Saturated	0	0.000			1.000	1.340		
Independence	406	3251.545	8.009	0.000	0.000	5.104	0.104	0.000

Table continues

Table continued

<u>Physical Symptoms</u>								
Model	df	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	54	119.04	2.204	0	0.854	0.295	0.043***	0.854***
Saturated	0	0.000			1.000	0.278		
Independence	78	524.069	6.719	0	0.000	0.846	0.094	0.000

<u>DSM-IV-TR ADHD Inattentive</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	85.78	1.95	0.000	0.932**	0.234	0.038***	0.946***
Saturated	0	0.000			1.000	0.238		
Independence	66	684.919	10.378	0.000	0.000	1.091	0.120	0.000

<u>DSM-IV-TR ADHD Hyperactive-Impulsive</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	106.949	2.431	0	0.846	0.267	0.047***	0.652***
Saturated	0	0.000			1.000	0.238		
Independence	66	475.256	7.201	0	0.000	0.767	0.098	0.000

<u>DSM-IV-TR Conduct Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	77	200.964	2.61	0.000	0.926**	0.440	0.050***	0.498***
Saturated	0	0.000			1.000	0.367		
Independence	105	1776.25	16.917	0.000	0.000	2.784	0.157	0.000

<u>DSM-IV-TR Oppositional Defiant Disorder</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	23.501	0.991	0.265	0.991***	0.11	0.016***	0.996***
Saturated	0	0.000	1.000		1.000	0.136		
Independence	36	436.153	0.000	0.000	0.000	0.698	0.131	0.000

<u>DSM-IV-TR Major Depressive Episode</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	90	156.439	1.738	0.000	0.926**	0.380	0.034***	0.999***
Saturated	0	0.000			1.000	0.417		
Independence	120	1023.589	8.530	0.000	0.000	1.626	0.108	0.000

<u>DSM-IV-TR Manic Episode</u>								
Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	42.31	1.567	0.031	0.953***	0.149	0.030***	0.982***
Saturated	0	0.000			1.000	0.167		

Table continues

Table continued

Independence	45	373.558	8.301	0.000	0.000	0.604	0.106	0.000
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DSM-IV-TR Generalized Anxiety Disorder

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	156.745	2.411	0.000	0.88	0.362	0.047***	0.709***
Saturated	0	0.000			1.000	0.321		
Independence	91	856.027	9.407	0.000	0.000	1.361	0.114	0.000

DSM-IV-TR Separation Anxiety Disorder

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	27	86.423	3.201	0.000	0.842	0.217	0.058**	0.150***
Saturated	0	0.000			1.000	0.167		
Independence	45	420.765	9.350	0.000	0.000	0.677	0.114	0.000

DSM-IV-TR Social Phobia

Model	DF	$\chi^2$	$\chi^2/df$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	9	6.656	0.74	0.673	1.000***	0.066	0.000***	0.994***
Saturated	0	0.000			1.000	0.083		
Independence	21	187.968	8.951	0.000	0.000	0.309	0.111	0.000

\*\*\*good fit. \*\*reasonable fit. \*mediocre fit

*Note:* DF: degrees of freedom.  $\chi^2$ (CMIN): minimum discrepancy. P: probability value of  $\chi^2$ . CFI: comparative fit index. ECVI: expected cross-validation index. RMSEA: root mean square error of approximation. PCLOSE: closeness of fit.

Table 11  
*Goodness-of-fit statistics for Conners EC-T*

<u>Inattention/Hyperactivity</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	170	310.645	1.827	0.000	0.607	3.098	0.077**	0.001
Saturated	0	0.000			1.000	3.309		
Independence	210	567.713	2.703	0.000	0.000	4.372	0.111	0.000
<u>Defiant/Aggressive Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	135	213.363	1.58	0.000	0.784	2.312	0.065**	0.076***
Saturated	0	0.000			1.000	2.719		
Independence	171	534.267	3.124	0.000	0.000	4.103	0.124	0.000
<u>Defiance/Temper</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	14	16.328	1.166	0.294	0.981***	0.42	0.035***	0.605***
Saturated	0	0.000			1.000	0.504		
Independence	28	151.604	5.414	0.000	0.000	1.191	0.178	0.000
<u>Aggression</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	59.367	1.349	0.061	0.901**	0.902	0.050**	0.471***
Saturated	0	0.000			1.000	1.108		
Independence	66	221.363	3.354	0.000	0.000	1.751	0.130	0.000
<u>Social Functioning/Atypical Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	434	968.374	2.231	0.000	0.343	8.305	0.094*	0.000
Saturated	0	0.000			1.000	7.583		
Independence	496	1309.357	2.640	0.000	0.000	9.866	0.109	0.000
<u>Social Functioning</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	104	206.952	0.310	0.000	0.237	2.180	0.084*	0.001
Saturated	0	0.000	1.000		0.000	2.187		
Independence	136	285.174	0.000	0.000	0.000	2.282	0.089	0.000
<u>Atypical Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	79.061	1.797	0.001	0.792	1.044	0.076**	0.062***
Saturated	0	0.000			1.000	1.108		
Independence	66	235.622	3.570	0.000	0.000	1.853	0.136	0.000

Table continues

Table continued

<u>Anxiety</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	77	136.999	1.649	0.000	0.766	1.518	0.068**	0.081***
Saturated	0	0.000			1.000	1.712		
Independence	105	318.736	3.036	0.000	0.000	2.495	0.121	0.000

<u>Mood and Affect</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	35	51.13	1.461	0.038	0.871	0.799	0.058**	0.334***
Saturated	0	0			1.000	0.935		
Independence	55	179.599	3.265	0.000	0.000	1.436	0.128	0.000

<u>Physical Symptoms</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	43.222	2.161	0.002	0.846	0.656	0.091*	0.037
Saturated	0	0.000			1.000	0.633		
Independence	36	187.275	5.202	0.000	0.000	1.462	0.174	0.000

\*\*\*good fit. \*\*reasonable fit. \*mediocre fit

*Note:* DF: degrees of freedom.  $\chi^2$ (CMIN): minimum discrepancy. P: probability value of  $\chi^2$ . CFI: comparative fit index. ECVI: expected cross-validation index. RMSEA: root mean square error of approximation. PCLOSE: closeness of fit.

Table 12  
*Goodness-of-fit statistics for Conners EC-P*

<u>Inattention/Hyperactivity</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	104	152.435	1.466	0.001	0.875	0.624	0.034***	0.991***
Saturated	0	0.000			1.000	0.764		
Independence	136	523.814	3.852	0.000	0.000	1.397	0.085	0.000
<u>Defiant/Aggressive Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	152	201.211	1.324	0.005	0.931**	0.792	0.029***	1.000***
Saturated	0	0.000			1.000	1.050		
Independence	190	907.666	4.777	0.000	0.000	2.376	0.097	0.000
<u>Defiance/Temper</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	67.003	1.523	0.014	0.916**	0.334	0.036***	0.908***
Saturated	0	0.000			1.000	0.387		
Independence	66	340.18	5.154	0.000	0.000	0.91	0.102	0.000
<u>Aggression</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	20	26.715	1.336	0.143	0.976***	0.188	0.029***	0.897***
Saturated	0	0.000			1.000	0.221		
Independence	36	321.369	8.927	0.000	0.000	0.848	0.141	0.000
<u>Social Functioning/Atypical Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	324	568.958	1.756	0.000	0.700	1.837	0.044***	0.964***
Saturated	0	0.000			1.000	2.035		
Independence	378	1195.068	3.162	0.000	0.000	3.138	0.074	0.000
<u>Social Functioning</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	140.997	2.169	0.000	0.546	0.550	0.054**	0.273***
Saturated	0	0.000			1.000	0.523		
Independence	91	258.44	2.84	0.000	0.000	0.175	0.068	0.001
<u>Atypical Behaviors</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	65	135.31	2.082	0.000	0.835	0.536	0.052**	0.372***

Table continues

Table continued

Saturated	0	0.000			1.000	0.523		
Independence	91	517.25	5.684	0.000	0.000	1.365	0.108	0.000
<u>Anxiety</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	104	193.401	1.86	0.000	0.761	0.727	0.046***	0.705***
Saturated	0	0.000			1.000	0.764		
Independence	136	509.766	3.748	0.000	0.000	1.361	0.083	0.000
<u>Mood and Affect</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	69.52	1.580	0.008	0.903**	0.341	0.038***	0.874***
Saturated	0	0.000			1.000	0.387		
Independence	66	330.005	5.000	0.000	0.000	0.884	1.000	0.000
<u>Physical Symptoms</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	44	80.34	1.826	0.001	0.847	0.368	0.046***	0.661***
Saturated	0	0.000			1.000	0.387		
Independence	66	303.068	4.592	0.000	0.000	0.817	0.095	0.000
<u>Sleep Problems</u>								
Model	DF	$\chi^2$	$\chi^2/DF$	P	CFI	ECVI	RMSEA	PCLOSE
Hypothesized	5	1.986	0.397	0.851	1.000***	0.080	0.000***	0.977***
Saturated	0	0.000			1.000	0.101		
Independence	15	69.792	4.653	0.000	0.000	0.200	0.096	0.000

\*\*\*good fit. \*\*reasonable fit. \*mediocre fit

*Note:* DF: degrees of freedom.  $\chi^2$ (CMIN): minimum discrepancy. P: probability value of  $\chi^2$ . CFI: comparative fit index. ECVI: expected cross-validation index. RMSEA: root mean square error of approximation. PCLOSE: closeness of fit.

- a. **Conners CBRS-P: Defiant/Aggressive Behaviors, Violence Potential Indicator, DSM-IV-TR Conduct Disorder, DSM-IV-TR Oppositional Defiant Disorder, DSM-IV-TR ADHD Inattentive, Emotional Distress, DSM-IV-TR Major Depressive Episode, DSM-IV-TR Generalized Anxiety Disorder, and Physical Symptoms.**
- b. **Conners CBRS-T: DSM-IV-TR Oppositional Defiant Disorder, DSM-IV-TR ADHD Inattentive, DSM-IV-TR Generalized Anxiety Disorder, and Physical Symptoms.**
- c. **Conners CBRS-SRP: Defiant/Aggressive Behaviors, Violence Potential Indicator, DSM-IV-TR Conduct Disorder, DSM-IV-TR Oppositional Defiant Disorder, DSM-IV-TR ADHD Inattentive, Emotional Distress, DSM-IV-TR Major Depressive Disorder, DSM-IV-TR Generalized Anxiety Disorder, and Physical Symptoms.**

**Convergent Validity.** It was hypothesized that scales on the parent, teacher and self-report forms of the CBCL and the Conners CBRS in Vietnamese would correlate in a similar manner as the English report forms. Specifically, the scales that assess similar constructs and had strong correlations on the English forms of the Conners CBRS and CBCL would also have strong correlations within a Vietnamese sample. Correlations values above .8 are considered to be strong correlations, and values between .5 and .8 are considered to be moderate correlations (Moore & McCabe, 2005). Table 13, 14 and 15 display the correlation coefficients for each scale of the CBCL and Conners CBRS found within the Vietnamese sample; table 13 reports the Conners CBRS-P data, table 14



Table 13

*Correlations between the CBCL Parent and Conners CBRS-P Scales*

CBCL Scale	CBRS-P Scales/Subscales											
	Emotional Distress				Upsetting Thoughts				Worrying			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.81*	0.85*	-1.05	0.29	0.76*	0.80*	-0.83	0.41	0.77*	0.88*	-2.89	<0.01
Withdrawn	0.76*	0.83*	-1.57	0.12	0.71*	0.79*	-1.50	0.13	0.75*	0.60*	2.28	0.02
Somatic Complaints	0.55*	0.47*	0.89	0.37	0.52*	0.42*	1.06	0.29	0.53*	0.27	2.59	0.01
Social Problems	0.81*	0.77*	0.87	0.38	0.77*	0.65*	1.99	0.05	0.79*	0.62*	2.81	0.01
Thought Problems	0.87*	0.93*	-2.59	0.01	0.85*	0.90*	-1.72	0.09	0.81*	0.87*	-1.64	0.10
Attention Problems	0.84*	0.74*	2.16	0.03	0.81*	0.66*	2.66	0.01	0.77*	0.57*	2.97	<0.01
Aggressive Behavior	0.86*	0.65*	4.19	<0.01	0.84*	0.55*	4.87	<0.01	0.80*	0.58*	3.53	<0.01
	Social Problems				Defiant/Aggressive Behaviors				Academic Difficulties			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.76*	0.45*	4.15	<0.01	0.77*	0.48*	4.04	<0.01	0.76*	0.55*	3.07	<0.01
Withdrawn	0.70*	0.90*	-4.94	<0.01	0.70*	0.55*	2.03	0.04	0.74*	0.59*	2.23	0.03
Somatic Complaints	0.53*	0.53*	0.00	1.00	0.51*	0.06	4.15	<0.01	0.53*	0.26	2.68	0.01

Table continues

Table continued

Social Problems	0.79*	0.63*	2.68	0.01	0.79*	0.63*	2.68	0.01	0.75*	0.84*	-2.01	0.04
Thought Problems	0.81*	0.61*	3.33	<0.01	0.87*	0.76*	2.68	0.01	0.83*	0.72*	2.23	0.03
Attention Problems	0.87*	0.76*	2.68	0.01	0.83*	0.72*	2.23	0.03	0.82*	0.75*	1.46	0.14
Aggressive Behavior	0.81*	0.50*	4.67	<0.01	0.86*	0.96*	-5.28	<0.01	0.82*	0.57*	4.12	<0.01
	Language				Math				Hyperactivity/Impulsivity			
	Vietnamese	U.S.	Fishers	<i>p</i>	Vietnamese	U.S.	Fishers	<i>p</i>	Vietnamese	U.S.	Fishers	<i>p</i>
	<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>	<i>r</i>	<i>Z</i>	
Anxious/ Depressed	0.75*	0.58*	2.52	0.01	0.69*	0.49*	2.53	0.01	0.73*	0.76*	-0.55	0.58
Withdrawn	0.70*	0.65*	0.75	0.45	0.70*	0.48*	2.81	0.01	0.68*	0.58*	1.36	0.17
Somatic Complaints	0.50*	0.23	2.60	0.01	0.44*	0.43*	0.10	0.92	0.51*	0.22	2.80	0.01
Social Problems	0.74*	0.87*	-3.11	<0.01	0.69*	0.71*	-0.32	0.75	0.73*	0.82*	-1.85	0.06
Thought Problems	0.81*	0.75*	1.23	0.22	0.76*	0.64*	1.90	0.06	0.82*	0.83*	-0.25	0.8
Attention Problems	0.79*	0.81*	-0.44	0.66	0.75*	0.55*	2.82	<0.01	0.81*	0.82*	-0.24	0.81
Aggressive Behavior	0.80*	0.60*	3.28	<0.01	0.75*	0.46*	3.83	<0.01	0.82*	0.75*	1.49	0.14
	Separation Fears				Perfectionistic & Compulsive Behaviors				Violence Potential Indicator			
	Vietnamese	U.S.	Fishers	<i>p</i>	Vietnamese	U.S.	Fishers	<i>p</i>	Vietnamese	U.S.	Fishers	<i>p</i>
	<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>	<i>r</i>	<i>Z</i>	

Table continues

Table continued

Anxious/ Depressed	0.71*	0.56*	2.06	0.04	0.74*	0.68*	0.99	0.32	0.79*	0.58*	3.32	<0.01
Withdrawn	0.68*	0.34	3.88	<0.01	0.70*	0.66*	0.61	0.54	0.72*	0.68*	0.64	0.52
Somatic Complaints	0.47*	0.24	2.19	0.03	0.47*	0.42*	0.52	0.60	0.55*	0.21	3.35	<0.01
Social Problems	0.68*	0.63*	0.71	0.48	0.74*	0.53*	2.92	<0.01	0.82*	0.71*	2.19	0.03
Thought Problems	0.69*	0.51*	2.27	0.02	0.80*	0.72*	1.52	0.13	0.88*	0.81*	1.98	0.05
Attention Problems	0.71*	0.37	3.97	<0.01	0.78*	0.49*	4.05	<0.01	0.85*	0.81*	1.03	0.30
Aggressive Behavior	0.69*	0.22	5.05	<0.01	0.80*	0.42*	5.29	<0.01	0.86*	0.98*	-8.12	<0.01
	<u>Physical Symptoms</u>				<u>ADHD Inattentive</u>				<u>ADHD Hyperactive-Impulsive</u>			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.78*	0.47*	4.35	<0.01	0.70*	0.69*	0.16	0.87	0.73*	0.76*	-0.55	0.58
Withdrawn	0.73*	0.40	3.95	<0.01	0.70*	0.71*	-0.16	0.87	0.68*	0.58*	1.36	0.17
Somatic Complaints	0.55*	0.58*	-0.36	0.72	0.50*	0.30	1.98	0.05	0.51*	0.22	2.80	0.01
Social Problems	0.79*	0.53*	3.91	<0.01	0.71*	0.81*	-1.95	0.05	0.73*	0.82*	-1.85	0.06
Thought Problems	0.83*	0.50*	5.09	<0.01	0.74*	0.86*	-2.73	0.01	0.82*	0.83*	-0.25	0.80

Table continues

Table continued

	Conduct Disorder				Oppositional Defiant Disorder				Major Depressive Episode			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Attention Problems	0.81*	0.24	7.02	<0.01	0.76*	0.91*	-4.23	<0.01	0.81*	0.82*	-0.24	0.81
Aggressive Behavior	0.83*	0.24	7.63	<0.01	0.75*	0.85*	-2.29	0.02	0.82*	0.75*	1.49	0.14
Anxious/ Depressed	0.77*	0.45*	4.35	<0.01	0.76*	0.61*	2.33	0.02	0.79*	0.83*	-0.95	0.34
Withdrawn	0.69*	0.60*	1.26	0.21	0.71*	0.72*	-0.17	0.87	0.74*	0.65*	1.43	0.15
Somatic Complaints	0.55*	0.16	3.77	<0.01	0.53*	0.34	1.95	0.05	0.55*	0.43*	1.31	0.19
Social Problems	0.79*	0.70*	1.66	0.10	0.77*	0.71*	1.08	0.28	0.81*	0.74*	1.43	0.15
Thought Problems	0.86*	0.77*	2.17	0.03	0.83*	0.80*	0.71	0.47	0.86*	0.86*	0.00	1.00
Attention Problems	0.83*	0.69*	2.71	0.01	0.83*	0.83*	0.00	1.00	0.84*	0.68*	3.12	<0.01
Aggressive Behavior	0.84*	0.93*	-3.53	<0.01	0.84*	0.96*	-5.86	<0.01	0.85*	0.60*	4.55	<0.01
	Manic Episode				Generalized Anxiety Disorder				Separation Anxiety Disorder			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.77*	0.86*	-2.22	0.03	0.79*	0.83*	-0.95	0.34	0.77*	0.60*	2.66	0.01
Withdrawn	0.72*	0.66*	0.94	0.35	0.76*	0.66*	1.66	0.10	0.72*	0.35	4.43	<0.01

Table continues

Table continued

Somatic Complaints	0.56*	0.32	2.49	0.01	0.52*	0.31	2.11	0.03	0.48*	0.20	2.65	0.01
Social Problems	0.80*	0.71*	1.72	0.09	0.79*	0.72*	1.33	0.18	0.74*	0.67*	1.13	0.26
Thought Problems	0.85*	0.98*	-8.29	<0.01	0.85*	0.93*	-3.2	<0.01	0.78*	0.56*	3.28	<0.01
Attention Problems	0.82*	0.74*	1.64	0.10	0.83*	0.71*	2.40	0.02	0.78*	0.36	5.32	<0.01
Aggressive Behavior	0.84*	0.80*	0.99	0.32	0.84*	0.74*	2.19	0.03	0.78*	0.25	6.39	<0.01
	Social Phobia				Obsessive-Compulsive Disorder				Autistic Disorder			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.73*	0.54*	2.63	0.01	0.74*	0.76*	-0.37	0.71	0.75*	0.49*	3.55	<0.01
Withdrawn	0.70*	0.83*	-2.62	0.01	0.70*	0.67*	0.46	0.65	0.67*	0.93*	-6.92	<0.01
Somatic Complaints	0.56*	0.42*	1.53	0.13	0.49*	0.24	2.41	0.02	0.52*	0.24	2.74	0.01
Social Problems	0.75*	0.58*	2.52	0.01	0.74*	0.65*	1.42	0.16	0.76*	0.79*	-0.61	0.54
Thought Problems	0.75*	0.52*	3.16	<0.01	0.82*	0.89*	-2.11	0.03	0.79*	0.75*	0.78	0.44
Attention Problems	0.71*	0.57*	1.91	0.06	0.76*	0.58*	2.66	0.01	0.77*	0.80*	-0.62	0.54
Aggressive Behavior	0.78*	0.32	5.77	<0.01	0.78*	0.62*	2.59	0.01	0.78*	0.63*	2.46	0.01
Table continues												

Table continued

	Asperger's Disorder			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.67*	0.62*	0.70	0.48
Withdrawn	0.60*	0.94*	-8.53	<0.01
Somatic Complaints	0.45*	0.46*	-0.10	0.92
Social Problems	0.68*	0.80*	-2.19	0.03
Thought Problems	0.72*	0.82*	-1.98	0.05
Attention Problems	0.70*	0.86*	-3.39	<0.01
Aggressive Behavior	0.70*	0.71*	-0.16	0.87

\**p*<.05.

Table 14

*Correlations between the CBCL Teacher and Conners CBRS-T Scales*

CBCL Scale	CBRS-T Scales/Subscales											
	Emotional Distress				Upsetting Thoughts/Physical Symptoms				Separation Fears			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.68*	0.53*	1.94	0.05	0.66*	0.04	6.11	<0.01	0.51*	0.35*	1.6	0.11
Withdrawn	0.58*	0.55*	0.36	0.72	0.52*	0.33*	1.92	0.05	0.45*	0.33*	1.17	0.24
Somatic Complaints	0.64*	0.18	4.76	<0.01	0.59*	0.52*	0.84	0.40	0.46*	0.26	1.91	0.06
Social Problems	0.49*	0.66*	-2.11	0.03	0.48*	0.46*	0.21	0.83	0.41*	0.50*	-0.94	0.35
Thought Problems	0.61*	0.42*	2.08	0.04	0.55*	0.64*	-1.11	0.27	0.37*	0.51*	-1.39	0.16
Attention Problems	0.43*	0.44*	-0.1	0.92	0.47*	0.61*	-1.58	0.11	0.28*	0.36*	-0.71	0.48
Aggressive Behavior	0.47*	0.39*	0.79	0.43	0.45*	0.48*	-0.31	0.76	0.30*	0.39*	-0.83	0.41
	Social Anxiety				Defiant/Aggressive Behaviors				Academic Difficulties			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.63*	0.52*	1.34	0.18	0.55*	0.09	4.29	<0.01	0.57*	0.38*	2.01	0.04
Withdrawn	0.61*	0.29	3.38	<0.01	0.47*	0.42*	0.51	0.61	0.45*	0.50*	-0.53	0.60
Somatic Complaints	0.51*	-0.05	5.06	<0.01	0.44*	0.37*	0.69	0.49	0.43*	0.33*	0.97	0.33

Table continues

Table continued

Social Problems	0.49*	0.44*	0.53	0.60	0.43*	0.57*	-1.54	0.12	0.33*	0.79*	-6.00	<0.01
Thought Problems	0.49*	0.05	3.87	<0.01	0.49*	0.44*	0.51	0.61	0.49*	0.30	1.80	0.07
Attention Problems	0.45*	0.16	2.57	0.01	0.47*	0.82*	-5.15	<0.01	0.36*	0.68*	-3.6	<0.01
Aggressive Behavior	0.46*	0.11	3.13	<0.01	0.48*	0.72*	-3.11	<0.01	0.38*	0.67*	-3.32	<0.01
	Language				Math				Hyperactivity			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/Depressed	0.59*	0.40*	2.06	0.04	0.54*	0.23	3.00	<0.01	0.50*	0.16	3.15	<0.01
Withdrawn	0.45*	0.53*	-0.87	0.38	0.47*	0.34*	1.28	0.20	0.38*	0.38*	0.00	1.00
Somatic Complaints	0.43*	0.33*	0.97	0.33	0.38*	0.34*	0.38	0.70	0.29*	0.19	0.88	0.38
Social Problems	0.37*	0.82*	-6.33	<0.01	0.44*	0.58*	-1.57	0.12	0.32*	0.40*	-0.76	0.45
Thought Problems	0.49*	0.29	1.89	0.06	0.54*	0.27	2.61	0.01	0.44*	0.22	1.98	0.05
Attention Problems	0.43*	0.68*	-2.94	<0.01	0.46*	0.55*	-0.96	0.34	0.46*	0.65**	-2.21	0.03
Aggressive Behavior	0.41*	0.69*	-3.33	<0.01	0.43*	0.51*	-0.83	0.41	0.44*	0.57**	-1.42	0.16
	Social Problems				Perfectionistic & Compulsive Behaviors				Violence Potential Indicator			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>

Table continues



Table continued

Anxious/ Depressed	0.41*	0.33*	0.75	0.45	0.58*	0.27	3.13	<0.01	0.51*	0.23	2.67	0.01
Withdrawn	0.38*	0.57*	-2.04	0.04	0.44*	0.05	3.48	<0.01	0.46*	0.50*	-0.43	0.67
Somatic Complaints	0.43*	0.30	1.24	0.22	0.45*	0.15	2.76	0.01	0.37*	0.28	0.83	0.41
Social Problems	0.31*	0.69*	-4.34	<0.01	0.33*	0.11	1.91	0.06	0.37*	0.68*	-3.63	<0.01
Thought Problems	0.38*	0.26	1.07	0.28	0.42*	0.49*	-0.7	0.48	0.46*	0.36*	0.96	0.34
Attention Problems	0.25	0.64*	-4.00	<0.01	0.44*	-0.04	4.08	<0.01	0.44*	0.78*	-4.56	<0.01
Aggressive Behavior	0.24	0.64*	-4.15	<0.01	0.38*	0.01	3.15	<0.01	0.43*	0.71*	-3.45	<0.01

**Physical Symptoms**

**ADHD Inattentive**

**ADHD Hyperactive-Impulsive**

	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.59*	-0.08	6.15	<0.01	0.45*	0.46*	-0.10	0.92	0.50*	0.17	3.07	<0.01
Withdrawn	0.47*	0.22	2.36	0.02	0.33*	0.59*	-2.76	0.01	0.40*	0.40*	0.00	1.00
Somatic Complaints	0.46*	0.50*	-0.43	0.67	0.26*	0.16	0.86	0.39	0.29*	0.16	1.13	0.26
Social Problems	0.42*	0.26	1.49	0.14	0.29*	0.73*	-5.19	<0.01	0.32*	0.39*	-0.66	0.51
Thought Problems	0.55*	0.54*	0.11	0.91	0.44*	0.28	1.47	0.14	0.44*	0.25	1.73	0.08

Table continues

Table continued

	Conduct Disorder				Oppositional Defiant Disorder				Major Depressive Episode			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Attention Problems	0.48*	0.51*	-0.32	0.75	0.47*	0.72*	-3.17	<0.01	0.47*	0.67*	-2.39	0.02
Aggressive Behavior	0.48*	0.34*	1.37	0.17	0.40*	0.67*	-3.13	<0.01	0.47*	0.61*	-1.61	0.11
Anxious/Depressed	0.54*	-0.04	5.23	<0.01	0.52*	0.14	3.53	<0.01	0.75*	0.43*	4.16	<0.01
Withdrawn	0.44*	0.30	1.34	0.18	0.46*	0.50*	-0.43	0.67	0.65*	0.63*	0.28	0.78
Somatic Complaints	0.45*	0.46*	-0.10	0.92	0.37*	0.28	0.83	0.41	0.62*	0.17	4.57	<0.01
Social Problems	0.36*	0.47*	-1.10	0.27	0.39*	0.56*	-1.82	0.07	0.58*	0.83*	-4.33	<0.01
Thought Problems	0.51*	0.53*	-0.22	0.83	0.44*	0.37*	0.67	0.50	0.72*	0.26	5.11	<0.01
Attention Problems	0.38*	0.78*	-5.14	<0.01	0.50*	0.80*	-4.37	<0.01	0.58*	0.76*	-2.66	0.01
Aggressive Behavior	0.43*	0.61*	-2.01	0.04	0.52*	0.73*	-2.85	<0.01	0.60*	0.74*	-2.08	0.04
Anxious/Depressed	0.71*	0.20	5.56	<0.01	0.58*	0.51*	0.81	0.42	0.56*	0.29	2.71	0.01
Withdrawn	0.55*	0.47*	0.89	0.37	0.53*	0.59*	-0.72	0.47	0.48*	0.30	1.76	0.08

Table continues

Table continued

Somatic Complaints	0.60*	0.28	3.35	<0.01	0.48*	0.17	2.90	<0.01	0.51*	0.35*	1.63	0.10
Social Problems	0.51*	0.61*	-1.20	0.23	0.42*	0.67*	-2.99	<0.01	0.44*	0.50*	-0.63	0.53
Thought Problems	0.63*	0.35*	2.99	<0.01	0.53*	0.42*	1.13	0.26	0.42*	0.54*	-1.25	0.21
Attention Problems	0.46*	0.79*	-4.57	<0.01	0.50*	0.63*	-1.53	0.13	0.31*	0.36*	-0.45	0.65
Aggressive Behavior	0.43*	0.69*	-3.14	<0.01	0.51*	0.64*	-1.58	0.11	0.34*	0.33*	0.09	0.93
	<u>Social Phobia</u>				<u>Obsessive-Compulsive Disorder</u>				<u>Autistic Disorder</u>			
	<i>Vietnamese</i>	<i>U.S.</i>	<i>Fishers</i>	<i>p</i>	<i>Vietnamese</i>	<i>U.S.</i>	<i>Fishers</i>	<i>p</i>	<i>Vietnamese</i>	<i>U.S. r</i>	<i>Fishers</i>	<i>p</i>
	<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>		<i>Z</i>	
Anxious/Depressed	0.52*	0.49*	0.33	0.74	0.49*	0.13	3.29	<0.01	0.54*	0.40*	1.47	0.14
Withdrawn	0.49*	0.32*	1.68	0.09	0.40*	0.10	2.66	0.01	0.45*	0.49*	-0.42	0.67
Somatic Complaints	0.44*	-0.12	4.90	<0.01	0.44*	0.34*	0.98	0.33	0.43*	0.28	1.42	0.16
Social Problems	0.41*	0.38*	0.29	0.77	0.28*	0.28	0.00	1.00	0.39*	0.69*	-3.59	<0.01
Thought Problems	0.41*	-0.05	3.87	<0.01	0.38*	0.59*	-2.21	0.03	0.49*	0.31	1.72	0.09
Attention Problems	0.40*	0.13	2.33	0.02	0.35*	0.32*	0.27	0.79	0.41*	0.56*	-1.57	0.12
Aggressive Behavior	0.41*	0.14	2.38	0.02	0.30*	0.27	0.26	0.79	0.41*	0.51*	-1.03	0.30

Table continues

Table continued

	Asperger's Disorder			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.52*	0.34*	1.80	0.07
Withdrawn	0.41*	0.46*	-0.51	0.61
Somatic Complaints	0.36*	0.23	1.18	0.24
Social Problems	0.36*	0.64*	-3.14	<0.01
Thought Problems	0.43*	0.24	1.71	0.09
Attention Problems	0.47*	0.52*	-0.53	0.60
Aggressive Behavior	0.37*	0.51*	-1.41	0.16

\**p*<.05.

Table 15

*Correlations between the CBCL YSR and Conners CBRS-SRP Scales*

CBCL Scale	CBRS-SRP Scales/Subscales											
	Emotional Distress				Defiant/Aggressive Behaviors				Academic Difficulties			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.79*	0.78*	0.19	0.85	0.44*	0.53*	-0.88	0.38	0.56*	0.48	0.82	0.41
Withdrawn	0.59*	0.73*	-1.95	0.05	0.26*	0.42	-1.41	0.16	0.43*	0.57*	-1.46	0.14
Somatic Complaints	0.58*	0.24	3.21	<0.01	0.29*	0.15	1.13	0.26	0.39*	0.05	2.78	0.01
Social Problems	0.66*	0.74*	-1.21	0.23	0.40*	0.50*	-0.97	0.33	0.46*	0.74*	-3.49	<0.01
Thought Problems	0.61*	0.39	2.16	0.03	0.39*	0.53*	-1.30	0.19	0.31*	0.02	2.18	0.03
Attention Problems	0.58*	0.84*	-4.29	<0.01	0.42*	0.60*	-1.88	0.06	0.48*	0.79*	-4.12	<0.01
Aggressive Behavior	0.67*	0.60*	0.91	0.36	0.79*	0.60*	2.92	<0.01	0.41*	0.73*	-3.81	<0.01
	Hyperactivity/Impulsivity				Separation Fears				Violence Potential Indicator			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/ Depressed	0.28*	0.52*	-2.15	0.03	0.52*	0.37	1.40	0.16	0.46*	0.72*	-3.06	<0.01
Withdrawn	0.12	0.59*	-4.32	<0.01	0.36*	0.39	-0.27	0.79	0.40*	0.64*	-2.60	0.01

Table continues

Table continued

Somatic Complaints	0.19	0.11	0.63	0.53	0.31*	0.01	2.39	0.02	0.34*	0.15	1.56	0.12
Social Problems	0.28*	0.65*	-3.76	<0.01	0.34*	0.54*	-1.93	0.05	0.49*	0.68*	-2.26	0.02
Thought Problems	0.37*	0.14	1.80	0.07	0.43*	-0.06	3.78	<0.01	0.56*	0.42	1.34	0.18
Attention Problems	0.43*	0.86*	-6.4	<0.01	0.19*	0.61*	-3.97	<0.01	0.45*	0.83*	-5.40	<0.01
Aggressive Behavior	0.50*	0.78*	-3.83	<0.01	0.29*	0.51*	-2.04	0.04	0.80*	0.76*	0.79	0.43
	Physical Symptoms				ADHD Inattentive				ADHD Hyperactive-Impulsive			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/Depressed	0.58*	0.56*	0.22	0.83	0.63*	0.50*	1.43	0.15	0.28*	0.52*	-2.15	0.03
Withdrawn	0.46*	0.24	1.96	0.05	0.52*	0.73*	-2.74	0.01	0.11	0.59*	-4.40	<0.01
Somatic Complaints	0.59*	0.40	1.95	0.05	0.50*	0.06	3.76	<0.01	0.19	0.11	0.63	0.53
Social Problems	0.51*	0.51*	0.00	1.00	0.61*	0.71*	-1.37	0.17	0.28*	0.65*	-3.76	<0.01
Thought Problems	0.57*	0.11	3.90	<0.01	0.43*	0.23	1.64	0.10	0.37*	0.14	1.80	0.07
Attention Problems	0.44*	0.60*	-1.70	0.09	0.65*	0.79*	-2.27	0.02	0.43*	0.86*	-6.40	<0.01

Table continues

Table continued

	Conduct Disorder				Oppositional Defiant Disorder				Major Depressive Episode			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Aggressive Behavior	0.54*	0.50*	0.42	0.67	0.54*	0.81*	-4.04	<0.01	0.50*	0.78*	-3.83	<0.01
Anxious/Depressed	0.45*	0.38	0.63	0.53	0.60*	0.67*	-0.88	0.38	0.74*	0.71*	0.47	0.64
Withdrawn	0.24*	0.29	-0.42	0.67	0.47*	0.73*	-3.25	<0.01	0.57*	0.64*	-0.86	0.39
Somatic Complaints	0.23*	-0.01	1.88	0.06	0.48*	0.45	0.29	0.77	0.60*	0.24	3.45	<0.01
Social Problems	0.44*	0.59*	-1.58	0.11	0.55*	0.56*	-0.11	0.91	0.66*	0.79*	-2.15	0.03
Thought Problems	0.34*	0.22	0.95	0.34	0.62*	0.58*	0.45	0.65	0.67*	0.36	3.15	<0.01
Attention Problems	0.33*	0.61*	-2.81	0.01	0.56*	0.70*	-1.80	0.07	0.59*	0.95*	-8.86	<0.01
Aggressive Behavior	0.60*	0.55*	0.58	0.56	0.74*	0.71*	0.49	0.62	0.65*	0.74*	-1.35	0.18
	Manic Episode				Generalized Anxiety Disorder				Separation Anxiety Disorder			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Anxious/Depressed	0.65*	0.51*	1.58	0.11	0.69*	0.71*	-0.29	0.77	0.56*	0.49	0.72	0.47
Withdrawn	0.44*	0.58*	-1.48	0.14	0.51*	0.49*	0.21	0.83	0.43*	0.51*	-0.80	0.42

Table continues

Table continued

Somatic Complaints	0.44*	0.00	3.63	<0.01	0.53*	0.2	2.98	<0.01	0.41*	0.06	2.89	<0.01
Social Problems	0.60*	0.54*	0.69	0.49	0.61*	0.71*	-1.37	0.17	0.38*	0.59*	-2.14	0.03
Thought Problems	0.59*	0.36	2.18	0.03	0.61*	0.21	3.60	<0.01	0.46*	-0.01	3.69	<0.01
Attention Problems	0.54*	0.89*	-6.28	<0.01	0.53*	0.80*	-3.9	<0.01	0.24*	0.59*	-3.32	<0.01
Aggressive Behavior	0.63*	0.58*	0.61	0.54	0.58*	0.57*	0.21	0.90	0.34*	0.60*	-2.62	0.01
	<u>Social Phobia</u>				<u>Obsessive-Compulsive Disorder</u>							
	Vietnamese	U.S.	Fishers	<i>p</i>	Vietnamese	U.S. <i>r</i>	Fishers	<i>p</i>				
	<i>r</i>	<i>r</i>	<i>Z</i>		<i>r</i>		<i>Z</i>					
Anxious/Depressed	0.62*	0.69*	-0.92	0.36	0.65*	0.51*	1.58	0.11				
Withdrawn	0.52*	0.52*	0.00	1.00	0.43*	0.43	0.00	1.00				
Somatic Complaints	0.43*	0.16	2.29	0.02	0.49*	0.00	4.12	<0.01				
Social Problems	0.51*	0.80*	-4.13	<0.01	0.54*	0.53*	0.11	0.91				
Thought Problems	0.49*	0.50*	-0.10	0.92	0.51*	0.25	2.23	0.01				
Attention Problems	0.37*	0.76*	-4.67	<0.01	0.48*	0.73**	-3.12	<0.01				

Table continues



Table continued

Aggressive  
Behavior

0.42*	0.41	0.09	0.93	0.48*	0.34	1.31	0.19
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\* $p < .05$ .

reports the Conners CBRS-T data, and table 15 reports the Conners CBRS-SRP data. The following CBCL and Conners CBRS scales were expected to highly correlate with one another within the Vietnamese sample:

- a. Within this Vietnamese sample, correlations of the CBCL Anxious/Depressed scale and the following Conners CBRS scales were as follows: the Emotional Distress scale (parent  $r = .82$ ; teacher  $r = .68$ ; self  $r = .79$ ), DSM-IV-TR Major Depressive Episode scale (parent  $r = .81$ ; teacher  $r = .75$ ; self  $r = .74$ ), and DSM-IV-TR Generalized Anxiety Disorder scale (parent  $r = .81$ ; teacher  $r = .58$ ; self  $r = .69$ ). These data supports the hypothesis of high correlations for all scales on the Conners CBRS-P. The Conners CBRS-T and Conners CBRS-SRP yielded moderate correlations.
- b. Within this Vietnamese sample, correlations of the CBCL Somatic Complaints scale and the Conners CBRS Physical Symptoms scale were: parent  $r = .55$ ; teacher  $r = .46$ ; self  $r = .58$ . These data does not support the hypothesis of high correlations between the CBCL Somatic Complaints scale and the Conners CBRS Physical Symptoms scales. The Conners CBRS-P and Conners CBRS-SRP yielded a moderate correlation and the Conners CBRS-T yielded a weak correlation.
- c. Within this Vietnamese sample, correlations of the CBCL Aggressive Behavior scale with the following Conners CBRS scales were as follows: the Defiant/Aggressive Behaviors scale (parent  $r = .86$ ; teacher  $r = .48$ ; self  $r = .79$ ), Violence Potential Indicator Scale (parent  $r = .86$ ; teacher  $r = .43$ ; self  $r = .79$ ), DSM-IV-TR Conduct Disorder scale (parent  $r = .84$ ; teacher  $r = .43$ ;

self  $r = .67$ ), DSM-IV-TR Oppositional Defiant Disorder scale (parent  $r = .84$ ; teacher  $r = .52$ ; self  $r = .74$ ). These data supports a high correlation for the Conners CBRS-P for the specified scales. The Conners CBRS-SRP data yielded moderate correlation and the Conners CBRS-T yielded correlations ranging between weak and moderate.

- d. Within this Vietnamese sample, correlations were examined for the CBCL Social Problems scale with the following Conners CBRS scales were as follows: the Social Problems scale (parent  $r = .79$ ; teacher  $r = .31$ ), DSM-IV-TR Autistic Disorder scale (parent  $r = .76$ ; teacher  $r = .39$ ), and DSM-IV-TR Asperger's Disorder scale (parent  $r = .68$ ; teacher  $r = .36$ ). Based on these data, the hypothesis was not supported. The Conners CBRS-P yielded moderate correlations while the Conners CBRS-T yielded a weak correlation.
- e. Within this Vietnamese sample, correlations were examined for the CBCL Attention Problems scale and with the Conners CBRS DSM-IV-TR ADHD Inattentive scale were as follows: parent  $r = .76$ ; teacher  $r = .47$ ; self  $r = .65$ . Based on these data, the hypothesis was not supported. The Conners CBRS-P and Conners CBRS-SRP yielded moderate correlations while the Conners CBRS-T yielded a weak correlation.

Additionally, it was hypothesized that the Vietnamese correlation coefficients between the Conners CBCL and CBRS scales would not significantly differ from correlations found in the U.S. population during the development of the Conners CBRS. The Vietnamese correlation coefficients were compared with the U.S. correlation coefficients using Fisher's  $Z$ . Correlations presented in tables 13, 14, and 15 are

considered statistically significantly different if the  $Z$  value equals or exceeds 1.96 and the  $p$  value equals or exceeds .05.

- a. On the Conners CBRS-P, 70 out of 175 correlation coefficients were not significantly different with CBCL Parent scales between the Vietnamese and U.S. populations.
- b. On the Conners CBRS-T, 100 out of 175 correlation coefficients were not significantly different with CBCL Teacher scales between the Vietnamese and U.S. populations.
- c. On the Conners CBRS-SRP, 63 out of 119 correlation coefficients were not significantly different with CBCL YSR scales between the Vietnamese and U.S. populations.

Correlations were also examined to determine divergent validity. The results in this study were consistent with the findings during the development of the Conners CBRS (Conners, 2010). Specifically, when examining the correlations between the Conners CBRS and CBCL scales, scales that did not assess similar constructs (reported above) tended to have lower correlation values compared to scales that assessed similar constructs (tables 13, 14 and 15), which establishes some evidence of divergent validity.

**Cross Informant Agreement.** It was hypothesized that the Vietnamese versions of the Conners CBRS and Conners EC would have similar cross-informant correlations as the original English forms. Correlation coefficients were calculated between each pair of informant ratings for all Conners CBRS scales. Table 16 displays the correlation coefficient results for the overall sample of the Conners CBRS. Table 17 displays the correlation coefficient results for the overall sample of the Conners EC.

Table 16

*Conners CBRS Across-Informant Agreement Correlations*

Scale/Subscale		P to T			
		Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Conners CBRS Content Scales	Emotional Distress	0.45**	0.53	-0.82	0.41
	Defiant/Aggressive Behaviors	0.31*	0.6	-2.94	<0.01
	Academic Difficulties	0.40**	0.67	-3.04	<0.01
	Language	0.42**	0.65	-2.61	0.01
	Math	0.16	0.61	-4.39	<0.01
	Hyperactivity/Impulsivity	0.27*	0.60	-3.31	<0.01
	Social Problems	0.32**	0.48	-1.52	0.13
	Separation Fears	0.24*	0.33	-0.78	0.44
	Perfectionistic and Compulsive Behaviors	0.29	0.42	-1.15	0.25
	Violence Potential Indicator	0.35**	0.65	-3.22	<0.01
	Physical Symptoms	0.43**	0.29	1.29	0.1
	DSM-IV-TR Symptom Scales	ADHD Inattentive	0.23	0.64	-4.14
ADHD Hyperactive-Impulsive		0.32**	0.60	-2.75	<0.01
Conduct Disorder		0.39**	0.58	-2.01	0.04
Oppositional Defiant Disorder		0.30*	0.55	-2.46	0.01
Major Depressive Episode		0.37**	0.55	-1.84	0.07
Manic Episode		0.31*	0.51	-1.9	0.06
Generalized Anxiety Disorder		0.43**	0.51	-0.8	0.42
Separation Anxiety Disorder		0.33**	0.34	-0.09	0.93
Social Phobia		0.27*	0.42	-1.36	0.17
Obsessive-Compulsive Disorder		0.27*	0.46	-1.74	0.80

Table continues

Table continued

Autistic Disorder	0.29*	0.61	-3.15	<0.01
Asperger's Disorder	0.07	0.6	-4.89	<0.01

Scale/Subscale	P to Self				T to Self				
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>	
Conners CBRS Content Scales	Emotional Distress	0.22**	0.52	-4.89	<0.01	0.12	0.43	-2.58	0.01
	Defiant/Aggressive Behaviors	0.37**	0.57	-3.41	<0.01	0.01	0.50	-4.34	<0.01
	Academic Difficulties	0.24**	0.6	-5.92	<0.01	0.01	0.51	-4.39	<0.01
	Hyperactivity/Impulsivity	0.21**	0.57	-5.76	<0.01	-0.1	0.48	-4.95	<0.01
	Separation Fears	0.25**	0.46	-3.28	<0.01	0.16	0.23	-0.57	0.57
	Violence Potential Indicator	0.35**	0.61	-4.55	<0.01	-0.24	0.51	-6.46	<0.01
	Physical Symptoms	0.32**	0.43	-1.74	0.08	0.06	0.20	-1.16	0.25
DSM-IV-TR Symptom Scales	ADHD Inattentive	0.12	0.56	-6.91	<0.01	-0.08	0.44	-4.42	<0.01
	ADHD Hyperactive-Impulsive	0.24**	0.57	-5.21	<0.01	-0.1	0.48	-4.84	<0.01
	Conduct Disorder	0.41**	0.56	-2.60	0.01	0.07	0.48	-3.67	<0.01
	Oppositional Defiant Disorder	0.25**	0.57	-5.31	<0.01	-0.09	0.46	-4.73	<0.01
	Major Depressive Episode	0.31**	0.5	-3.08	<0.01	0.06	0.43	-3.22	<0.01
	Manic Episode	0.24**	0.39	-2.24	0.03	0.06	0.26	-1.66	0.10
	Generalized Anxiety Disorder	0.21**	0.50	-4.51	<0.01	0.03	0.38	-2.96	<0.01
	Separation Anxiety Disorder	0.25**	0.48	-3.58	<0.01	0.14	0.26	-0.99	0.32
	Social Phobia	0.13	0.41	-4.09	<0.01	-0.03	0.36	-3.23	<0.01
Obsessive-Compulsive Disorder	0.22**	0.33	-1.60	0.11	0.17	0.28	-0.92	0.36	

Note. All U.S. *rs* significant,  $p < .001$ . U.S.  $N = 96$ . \*Vietnamese correlation is significant at the 0.05 level (2-tailed). \*\* Vietnamese correlation is significant at the 0.01 level (2-tailed). Pair-wise deletion of missing cases was used (Parent to Teacher,  $N = 64-71$ ; Parent to Self-Report,  $N = 192-213$ ; Teacher to Self-Report,  $N = 64-72$ ).

Table 17  
*Conners EC Across Informant Agreement Correlations*

Scale/Subscale	P to T			
	Vietnamese <i>r</i>	U.S. <i>r</i>	Fishers <i>Z</i>	<i>p</i>
Inattention/Hyperactivity	-0.07	0.78	-5.39	<0.01
Defiant/Aggressive Behaviors	0.13	0.69	-3.39	<0.01
Defiance/Temper Subscale	0.05	0.67	-3.75	<0.01
Aggression Subscale	0.12	0.70	-3.61	<0.01
Social Functioning/Atypical Behaviors	-0.19	0.86	-6.56	<0.01
Social Functioning Subscale	-0.1	0.78	-5.18	<0.01
Atypical Behaviors Subscale	-0.17	0.87	-7.26	<0.01
Anxiety	0.10	0.68	-3.14	<0.01
Mood/Affect	0.04	0.71	-4.01	<0.01
Physical Symptoms	-0.07	0.46	-2.63	<0.01
Adaptive Skills	0.49*	0.78	-2.25	0.02
Communication	0.22	0.81	-3.79	<0.01
Motor Skills	0.21	0.85	-4.93	<0.01
Play	0.23	0.77	-3.95	<0.01
Pre-Academic/Cognitive	0.32	0.85	-4.18	<0.01

*Note.* All U.S. *rs* are significant,  $p < .001$ . U.S.  $N = 813$ . \*Correlation is significant at the 0.05 level (2-tailed). Pair-wise deletion of missing cases was used (Vietnamese  $N = 21-29$ )

- a. The mean parent to teacher correlation of the Conners CBRS was .30 (ranging from .03 to .45).
- b. The mean parent to youth correlation of the Conners CBRS was .26 (ranging from .12 to .41).
- c. The mean teacher to youth correlation of the Conners CBRS was .09 (ranging from .01 to .24).
- d. The mean parent to teacher correlation of the Conners EC was .06 (ranging from -.07 to .49)

Further, the Vietnamese cross informant correlation coefficients were compared with the U.S. cross informant correlation coefficients using Fisher's *Z*. Correlations presented in table 16 and 17 are considered statistically significantly different if the *Z* value equals or exceeds 1.96 and the *p* value equals or exceeds .05.

- a. Cross informant correlations between the Conners CBRS-P and Conners CBRS-T yielded 13 out of 23 correlation coefficients that were statistically significantly different between the Vietnamese and U.S. populations.
- b. Cross informant correlations between the Conners CBRS-P and Conners CBRS-SRP yielded 15 out of 17 correlation coefficients that were statistically significantly different between the Vietnamese and U.S. populations.
- c. Cross informant correlations between the Conners CBRS-T and Conners CBRS-SRP yielded 12 out of 17 correlation coefficients that were statistically significantly different between the Vietnamese and U.S. populations.



- d. All 15 of the cross informant correlations between the Conners EC-P and Conners EC-T were statistically significantly different between the Vietnamese and U.S. populations.

In order to further examine agreement between informants, raw scores on the Conners CBRS and Conners EC were converted into T-scores and were categorized according to the diagnostic guidelines provided by Conners (2010). T-scores between 40-64 fall in the average-high average range, T-scores less than 40 are considered to be a low score, and T-scores equal to or greater than 65 are considered to be elevated (Conners, 2010). This analysis was conducted to determine whether or not there was agreement on the significance of concerns reported by the child, their parent, and teacher. Although the raw scores may differ between informants, affecting the correlation coefficients, the T-score conversions of the raw score may fall in the same range, which indicates there is some agreement regarding the severity of reported concerns. Table 18 (Conners CBRS) and table 19 (Conners EC) presents the number of informants that produced T-scores that were consistent with one another (agree), inconsistent with one another (disagree), and the percentage of agreement based upon the total number of T-scores for each scale.

- a. Between the parent and teacher Conners CBRS scales, there was a mean of 64.9% agreement between informants.
- b. Between the parent and self-report Conners CBRS scales, there was a mean of 69.6% agreement between informants.
- c. Between the teacher and self-report Conners CBRS scales, there was a mean of 65.6% agreement between informants.

Table 18

*Conners CBRS T-Score agreement*

	Scale/Subscale	P to T				P to Self				T to Self			
		Agree		Disagree		Agree		Disagree		Agree		Disagree	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
CBRS Content Scales	Emotional Distress	39	63.9	22	36.1	100	64.5	55	35.5	31	58.5	22	41.5
	Defiant/Aggressive Behaviors	51	76.1	16	23.9	63	84	12	16.0	15	57.7	11	42.3
	Academic Difficulties	40	69.0	18	31.0	109	58.6	77	41.4	48	72.7	18	27.3
	Language	42	65.6	22	34.4								
	Math	49	71.0	20	29.0								
	Hyperactivity/Impulsivity	39	58.5	27	41.5	107	60.6	76	39.4	39	58.2	28	41.8
	Social Problems	40	58.0	29	42.0								
	Separation Fears	47	69.1	21	30.9	135	80.2	81	19.8	43	67.2	21	32.8
	Perfectionistic and Compulsive Behaviors	36	55.4	29	44.6								
	Violence Potential Indicator	47	77.0	14	23.0	52	93.7	26	6.3	12	50	12	50.0
	Physical Symptoms	48	70.6	20	29.4	123	82.2	73	17.8	37	92.9	29	7.1
CBRS DSM- IV-TR Symptom Scales	ADHD Inattentive	38	55.1	31	44.9	154	73.3	56	26.7	56	78.9	15	21.1
	ADHD Hyperactive-Impulsive	40	60.6	26	39.4	49	60.5	32	39.5	14	60.9	9	39.1
	Conduct Disorder	54	76.1	17	23.9	167	93.7	26	6.3	63	86.3	10	13.7
	Oppositional Defiant Disorder	39	58.2	28	41.8	121	57.9	88	42.1	45	63.4	26	36.6
	Major Depressive Episode	35	54.7	29	45.3	126	66	65	34.0	47	65.3	25	34.7
	Manic Episode	34	51.5	32	48.5	122	60.7	79	39.3	39	54.2	33	45.8
	Generalized Anxiety Disorder	43	65.2	23	34.8	109	58.3	78	41.7	53			
Separation Anxiety Disorder	49	72.1	19	27.9	121	58.7	85	41.3	45	63.1	31	36.9	

Table continues

Table continued

Social Phobia	40	57.1	30	42.9	113	54.3	95	45.7	40	65.2	24	34.8
Obsessive-Compulsive Disorder	54	80.6	13	19.4	155	76.7	47	23.3	44	58	29	42.0
Autistic Disorder	39	60.0	26	40.0						62.9	26	37.1
Asperger's Disorder	45	67.2	22	32.8								
<b>Total</b>	<b>988</b>		<b>534</b>		<b>1926</b>		<b>1051</b>		<b>671</b>		<b>369</b>	

Table 19  
*Conners EC T-Score agreement*

	Scale/Subscale	P to T			
		<i>n</i>	%	<i>n</i>	%
Conners EC Behavior Scales	Inattention/Hyperactivity	19	70.4	8	29.6
	Defiant/Aggressive Behaviors	17	65.4	9	34.6
	Defiance/Temper Subscale	45	22.2	0	77.8
	Aggression Subscale	18	66.7	9	33.3
	Social Functioning/Atypical Behaviors	15	65.2	8	34.8
	Social Functioning Subscale	15	62.5	9	37.5
	Atypical Behaviors Subscale	21	77.8	6	22.2
	Anxiety	16	72.7	6	27.3
	Mood/Affect	16	61.5	10	38.5
	Physical Symptoms	14	56.0	11	44.0
	Conners EC Developmental Milestones Scales	Adaptive Skills	15	68.2	7
Communication		17	77.3	5	22.7
Motor Skills		18	69.2	8	30.8
Play		23	79.3	6	20.7
Pre-Academic/Cognitive		15	62.5	9	37.5
	<b>Total</b>	<b>284</b>		<b>111</b>	

- d. Between the parent and teacher Conners EC scales, there was a mean of 65.1% agreement between informants.

The total number of T-score agreements and disagreements were used to compute a chi-square ( $\chi^2$ ) test in order to determine if there was a significant difference in the number of participants that agreed on the T-score ranges for the Conners CBRS (parent-teacher, parent-self, and teacher-self) and the Conners EC. Results for this analysis are presented in table 20. Based on the data, there was a significant difference found in all analyses (i.e. Conners CBRS parent-teacher agreement, Conners CBRS parent-self agreement, Conners CBRS teacher-self agreement, and Conners EC parent-teacher agreement). These results indicate that a significantly greater number of agreements were found between raters when raw scores were converted into T-scores and categorized according to Conners (2010) diagnostic guidelines.

**Scale Intercorrelations.** Scale intercorrelation calculations were conducted in order to further examine factorial validity and evaluate if redundancy is suggested in the scales as evidence by high correlations (Conners, 2010). Similar to the findings in the development of the Conners CBRS, the two Academic Difficulties subscales correlated highly with  $r$  values greater than .80 with the overall Academic Difficulties scale and the two Emotional Distress subscales correlated highly with  $r$  values greater than .80 with the overall Emotional Distress scale on the Conners CBRS-P. Additionally, the Conners CBRS-P subscales of Emotional Distress and Academic Difficulties highly correlated indicating they assess similar constructs (Upsetting Thoughts and Worrying  $r = .88$ ; Language and Math  $r = .84$ ). On the Conners CBRS-T the two Academic Difficulties subscales correlated highly with  $r$  values greater than .80 with the overall Academic

Table 20

*Chi-square analysis of across informant T-score agreement*

	Number of agreements	Number of disagreements	df	$\chi^2$	<i>p</i>
CBRS parent to teacher	988	534	22	44.01	<0.01
CBRS parent to self	1926	1051	16	100.74	<0.01
CBRS teacher to self	671	369	16	35.50	<0.01
EC parent to teacher	284	111	14	27.46	0.02

Difficulties scale and two out of the three Emotional Distress subscales correlated highly with  $r$  values greater than .80 with the overall Emotional Distress scale; the Separation Fears subscale only moderately correlated ( $r = .79$ ). The Conners CBRS-T subscales of Emotional Distress and Academic Difficulties highly correlated indicating they assess similar constructs (Upsetting Thoughts/Physical Symptoms and Separation Fears  $r = .68$ ; Upsetting Thoughts/Physical Symptoms and Social Anxiety  $r = .81$ ; Separation Fears and Social Anxiety  $r = .74$  Language and Math  $r = .84$ ) Further, consistent findings were found in the development of the Conners EC. The Social Functioning and Atypical Behaviors subscales correlated highly with the overall Social Functioning/Atypical Behaviors scale (parent form  $r$ s = .80 and .90, teacher form  $r$ s = .88 and .90). Similarly, the Defiance/Temper and Aggression subscales correlated highly with the total Defiant/Aggressive Behaviors scale (parent form  $r$ s = .95 and .95, teacher form  $r$ s = .92 and .94). The Conners EC subscales of Defiant/Aggressive highly correlated indicating they assess similar constructs, however, the Social Functioning/Atypical Behaviors subscales produced weaker correlations with one another (Defiance/Temper and Aggression parent  $r = .46$ , teacher  $r = .74$ ; Social Functioning and Atypical Behaviors parent  $r = .80$ , teacher  $r = .59$ ) Results are presented in table 21 (Conners CBRS-P), table 22 (Conners CBRS-T), table 23 (Conners CBRS-SRP), table 24 (Conners EC-P) and table 25 (Conners EC-T).

### **Clinical Aspects of the Conners CBRS and Conners EC**

**Gender differences amongst Vietnamese youth.** It was hypothesized that there would be a difference between the raw score ratings of youth male and female behaviors

Table 21

*Conners CBRS-P Scale Intercorrelations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1																										
2	.95																									
3	.96	.88																								
4	.94	.87	.86																							
5	.94	.93	.87	.90																						
6	.93	.88	.88	.86	.91																					
7	.91	.86	.86	.85	.90	.98																				
8	.85	.81	.81	.78	.83	.93	.84																			
9	.83	.77	.80	.78	.78	.81	.79	.74																		
10	.91	.88	.86	.86	.90	.87	.86	.80	.74																	
11	.96	.93	.90	.91	.98	.92	.91	.83	.79	.91																
12	.94	.88	.88	.90	.88	.89	.87	.82	.82	.87	.90															
13	.84	.78	.81	.78	.79	.82	.80	.78	.74	.79	.83	.80														
14	.88	.84	.81	.82	.88	.87	.86	.79	.75	.83	.89	.84	.82													
15	.93	.92	.87	.88	.98	.90	.89	.83	.78	.88	.97	.88	.78	.87												
16	.91	.86	.86	.86	.88	.88	.86	.81	.75	.87	.92	.87	.84	.87	.88											
17	.97	.93	.91	.90	.93	.91	.89	.84	.82	.90	.94	.95	.82	.87	.92	.89										
18	.94	.90	.88	.89	.92	.87	.85	.82	.79	.89	.93	.90	.82	.86	.91	.89	.93									
19	.97	.90	.94	.88	.90	.92	.90	.86	.82	.90	.93	.94	.84	.86	.90	.90	.96	.93								
20	.90	.86	.86	.85	.87	.87	.85	.80	.96	.81	.88	.89	.78	.82	.87	.83	.89	.87	.89							
21	.91	.85	.89	.85	.85	.83	.82	.76	.78	.82	.86	.84	.78	.80	.84	.82	.87	.84	.86	.82						
22	.92	.92	.87	.84	.90	.87	.87	.78	.76	.90	.90	.87	.75	.82	.90	.84	.90	.88	.89	.84	.82					
23	.78	.71	.69	.76	.72	.73	.74	.63	.64	.72	.74	.74	.65	.66	.72	.73	.74	.72	.75	.69	.70	.69				
24	.71	.63	.64	.66	.65	.67	.67	.60	.59	.66	.67	.67	.57	.58	.67	.65	.68	.66	.71	.63	.64	.64	.92			

Table continues



Table continued

*Note:* All *rs* significant,  $p < .001$ . The hyperactivity/impulsivity scale is not included in this correlation matrix due to its complete item overlap with the ADHD Hyperactive-Impulsive scale.

1 = Emotional Distress	9 = Separation Fears	17 = Major Depressive Episode
2 = Upsetting Thoughts subscale	10 = Perfectionistic & Compulsive Behaviors	18 = Manic Episode
3 = Worrying subscale	11 = Violence Potential Indicator	19 = Generalized Anxiety Disorder
4 = Social Problems	12 = Physical Symptoms	20 = Separation Anxiety Disorder
5 = Defiant/Aggressive Behaviors	13 = ADHD Inattentive	21 = Social Phobia
6 = Academic Difficulties	14 = ADHD Hyperactive-Impulsive	22 = Obsessive-Compulsive Disorder
7 = Language subscale	15 = Conduct Disorder	23 = Autistic Disorder
8 = Math Subscale	16 = Oppositional Defiant Disorder	24 = Asperger's Disorder

Table 22

*Conners CBRS-T Scale Intercorrelations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1																									
2	.96																								
3	.79	.69																							
4	.91	.81	.74																						
5	.86	.86	.62	.78																					
6	.78	.72	.74	.71	.70																				
7	.81	.78	.76	.75	.75	.87																			
8	.72	.70	.70	.58	.68	.87	.81																		
9	.55	.56	.48	.45	.49	.63	.60	.61																	
10	.89	.86	.74	.84	.82	.75	.81	.67	.49																
11	.89	.89	.61	.81	.95	.71	.75	.66	.54	.83															
12	.89	.93	.65	.72	.78	.66	.74	.67	.51	.77	.81														
13	.71	.66	.67	.70	.75	.74	.79	.72	.57	.74	.71	.63													
14	.73	.70	.53	.70	.84	.56	.66	.54	.38	.69	.78	.64	.83												
15	.84	.88	.59	.69	.93	.67	.72	.70	.52	.77	.92	.83	.68	.73											
16	.83	.82	.59	.79	.95	.66	.73	.63	.46	.83	.90	.75	.73	.82	.86										
17	.92	.93	.66	.83	.87	.76	.80	.74	.55	.84	.87	.87	.71	.75	.88	.85									
18	.82	.81	.66	.78	.85	.69	.78	.64	.44	.84	.83	.72	.80	.81	.78	.83	.81								
19	.89	.85	.59	.83	.85	.68	.75	.60	.42	.81	.85	.80	.68	.79	.77	.88	.86	.76							
20	.81	.72	.96	.73	.66	.78	.78	.74	.55	.74	.65	.71	.69	.54	.64	.61	.69	.66	.60						
21	.91	.81	.75	.90	.76	.73	.74	.60	.54	.84	.78	.71	.66	.63	.68	.77	.79	.73	.80	.75					

Table continues

Table continued

22	.91	.93	.69	.76	.84	.73	.77	.67	.57	.86	.84	.79	.64	.66	.83	.78	.86	.84	.78	.70	.78		
23	.76	.74	.60	.68	.76	.75	.77	.69	.75	.75	.78	.69	.80	.70	.72	.75	.73	.77	.69	.65	.70	.75	
24	.75	.73	.63	.72	.68	.67	.74	.58	.54	.79	.70	.66	.74	.66	.61	.69	.69	.82	.69	.63	.71	.74	.81

Note: All rs significant,  $p < .001$ . The hyperactivity/impulsivity scale is not included in this correlation matrix due to its complete item overlap with the ADHD Hyperactive-Impulsive scale.

1 = Emotional Distress

2 = Upsetting Thoughts/Physical Symptoms

3 = Separation Fears subscale

4 = Social Anxiety subscale

5 = Defiant/Aggressive Behaviors

6 = Academic Difficulties

7 = Language subscale

8 = Math Subscale

9 = Social Problems

10 = Perfectionistic & Compulsive Behaviors

11 = Violence Potential Indicator

12 = Physical Symptoms

13 = ADHD Inattentive

14 = ADHD Hyperactive-Impulsive

15 = Conduct Disorder

16 = Oppositional Defiant Disorder

17 = Major Depressive Episode

18 = Manic Episode

19 = Generalized Anxiety Disorder

20 = Separation Anxiety Disorder

21 = Social Phobia

22 = Obsessive-Compulsive Disorder

23 = Autistic Disorder

24 = Asperger's Disorder

Table 23

*Conners CBRS-SRP Scale Intercorrelations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2	.74															
3	.70	.65														
4	.48	.39	.47													
5	.80	.95	.68	.43												
6	.79	.71	.65	.48	.74											
7	.48	.44	.45	.30	.47	.42										
8	.70	.69	.59	.47	.71	.64	.43									
9	.67	.93	.66	.40	.89	.66	.41	.65								
10	.74	.84	.64	.33	.87	.61	.42	.66	.73							
11	.91	.79	.71	.44	.85	.84	.74	.73	.72	.76						
12	.76	.71	.58	.38	.72	.63	.42	.75	.64	.69	.77					
13	.92	.68	.67	.44	.74	.80	.46	.68	.61	.67	.88	.74				
14	.52	.42	.48	.56	.47	.52	.30	.48	.42	.36	.47	.41	.47			
15	.70	.52	.50	.40	.56	.49	.32	.51	.51	.52	.61	.45	.63	.42		
16	.80	.50	.50	.36	.56	.57	.39	.48	.46	.48	.68	.61	.72	.39	.44	

Note: All rs significant,  $p < .001$ . The hyperactivity/impulsivity scale is not included in this correlation matrix due to its complete item overlap with the ADHD Hyperactive-Impulsive scale.

1 = Emotional Distress

2 = Defiant/Aggressive Behaviors

3 = Academic Difficulties

7 = ADHD Inattentive

8 = ADHD Hyperactive-Impulsive

9 = Conduct Disorder

13 = Generalized Anxiety Disorder

14 = Separation Anxiety Disorder

15 = Social Phobia

Table continues

Table continued

4 = Separation Fears

5 = Violence Potential Indicator

6 = Physical Symptoms

10 = Oppositional Defiant Disorder

11 = Major Depressive Episode

12 = Manic Episode

16 = Obsessive-Compulsive Disorder

Table 24

*Conners EC-P Scale Intercorrelations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Inattention/Hyperactivity																
2. Defiant/Aggressive Behaviors	.86*															
3. Defiance/Temper Subscale	.83*	.95*														
4. Aggression Subscale	.82*	.95*	.80*													
5. Social Functioning/Atypical Behaviors	.80*	.79*	.74*	.73*												
6. Social Functioning Subscale	.55*	.40*	.45*	.33*	.80*											
7. Atypical Behaviors Subscale	.84*	.88*	.80*	.85*	.90*	.46*										
8. Anxiety	.78*	.76*	.75*	.70*	.82*	.51*	.85*									
9. Mood/Affect	.87*	.90*	.87*	.84*	.84*	.50*	.92*	.82*								
10. Physical Symptoms	.80*	.80*	.76*	.78*	.79*	.43*	.84*	.89*	.82*							
11. Sleep Problems Subscale	.63*	.61*	.58*	.59*	.69*	.39*	.72*	.81*	.69*	.89*						
12. Adaptive Skills	.27*	.33*	.25*	.32*	.25*	.01	.39*	.35*	.36*	.36*	.34*					
13. Communication	.39*	.47*	.40*	.45*	.38*	.07	.51*	.42*	.49*	.45*	.43*	.88*				
14. Motor Skills	.36*	.39*	.36*	.34*	.29*	.08	.39*	.33*	.41*	.31*	.29*	.84*	.83*			
15. Play	.35*	.36*	.33*	.34*	.32*	.17	.35*	.42*	.37*	.42*	.30*	.71*	.72*	.60*		
16. Pre-Academic/Cognitive	.40*	.53*	.42*	.54*	.34*	.04	.49*	.33*	.50*	.39*	.34*	.78*	.35*	.80*	.63*	

Note:  $r$  is significant at the 0.05 level.

Table 25

*Conners EC-T Scale Intercorrelations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Inattention/Hyperactivity															
2. Defiant/Aggressive Behaviors	.85*														
3. Defiance/Temper Subscale	.71*	.92*													
4. Aggression Subscale	.87*	.94*	.74*												
Social Functioning/															
5. Atypical Behaviors	.87*	.86*	.78*	.83*											
6. Social Functioning Subscale	.57*	.59*	.58*	.51*	.88*										
7. Atypical Behaviors Subscale	.87*	.90*	.78*	.89*	.90*	.59*									
8. Anxiety	.88*	.88*	.75*	.87*	.91*	.67*	.87*								
9. Mood/Affect	.56*	.87*	.80*	.82*	.84*	.60*	.84*	.86*							
10. Physical Symptoms	.78*	.80*	.62*	.84*	.74*	.51*	.71*	.88*	.80*						
11. Adaptive Skills	.34*	.33*	.40*	0.27	.41*	.48*	0.28	.40*	.42*	.41*					
12. Communication	.41*	.47*	.52*	.37*	.52*	.55*	.39*	.56*	.51*	.52*	.86*				
13. Motor Skills	0.3	0.24	0.25	0.21	.39*	.48*	0.24	.36*	.34*	.45*	.81*	.72*			
14. Play	.36*	.37*	.43*	0.29	.44*	.52*	0.25	.43*	.39*	.34*	.66*	.64*	.50*		
15. Pre-Academic/Cognitive	.34*	.32*	.31*	.33*	.44*	.42*	.36*	.41*	.40*	.41*	.86*	.80*	.83*	.56*	

Note: \*\*rs significant at 0.01 level.\*r is significant at the 0.05 level.

on Conners CBRS and Conners EC scales based on raw score data. Specifically, it was expected that males would have higher ratings on the following scales:

Defiant/Aggressive Behaviors, Hyperactivity/Impulsivity, DSM-IV-TR ADHD scales, DSM-IV-TR Conduct Disorder, and DSM-IV-TR Oppositional Defiant Disorder.

Further, it was expected the females would have higher ratings on the following scales:

Emotional Distress, DSM-IV-TR Major Depressive Episode, and DSM-IV-TR

Generalized Anxiety Disorder. T tests were conducted for the specific scales that were

expected to produce differences in ratings between genders in order to determine if scores were statistically different between the ratings of male and female youth in the

Vietnamese sample. Based on these data, only three scales on the Conners CBRS-SRP

yielded statistically significant differences in scores between males and females:

Emotional Distress, DSM-IV-TR Major Depressive Episode and DSM-IV-TR

Generalized Anxiety Disorder. On these scales, the female sample produced scores that

were significantly greater than the male sample. There were no significant differences

found between the ratings of male and female youth on parent or teacher rating scales.

Table 26 displays the results of the Conners CBRS-P, table 27 displays the results of the

Conners CBRS-T, and table 28 displays the results of the Conners CBRS-SRP.



Table 26  
*T-tests of the Conners CBRS-P*

	Male Sample		Female Sample		<i>df</i>	<i>t</i>	<i>p</i>	Cohen's D
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Defiant/Aggressive Behaviors	10.33	12.78	10.59	12.65	171.75	-0.133	0.894	-0.02
Hyperactivity/Impulsivity	7.11	5.96	7.94	6.03	169.15	-0.936	0.351	-0.14
DSM-IV-TR ADHD Inattentive	8.34	5.37	8.82	5.55	171.39	-0.595	0.553	-0.09
DSM-IV-TR ADHD Hyperactive-Impulsive	7.11	5.96	7.94	6.03	169.15	-0.936	0.351	-0.14
DSM-IV-TR Conduct Disorder	7.61	9.67	7.54	10.23	173.68	0.047	0.963	0.01
DSM-IV-TR Oppositional Defiant Disorder	5.46	4.62	6.04	4.91	174.16	-0.845	0.399	-0.12
Emotional Distress	23.68	21.42	24.14	22.52	157.56	-0.138	0.890	-0.02
DSM-IV-TR Major Depressive Episode	8.96	8.59	9.17	8.97	170.29	-0.161	0.872	-0.02
DSM-IV-TR Generalized Anxiety Disorder	9.59	8.50	10.51	8.83	165.15	-0.719	0.473	-0.11

Table 27

*T-tests of the Conners CBRS-T*

	Male Sample		Female Sample		<i>df</i>	<i>t</i>	<i>p</i>	Cohen's <i>D</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Defiant/Aggressive Behaviors	18.94	16.08	17.22	18.17	37.24	0.328	0.745	0.10
Hyperactivity/Impulsivity	7.89	4.39	7.11	5.23	40.79	0.546	0.588	0.16
DSM-IV-TR ADHD Inattentive	11.16	5.57	8.93	4.32	32.12	1.470	0.151	0.45
DSM-IV-TR ADHD Hyperactive-Impulsive	10.22	5.00	9.48	6.58	42.17	0.428	0.671	0.13
DSM-IV-TR Conduct Disorder	4.76	4.93	3.67	4.85	33.74	0.724	0.474	0.22
DSM-IV-TR Oppositional Defiant Disorder	5.33	3.91	4.89	4.34	39.13	0.357	0.723	0.11
Emotional Distress	19.87	13.88	20.35	13.40	29.31	-0.106	0.916	-0.04
DSM-IV-TR Major Depressive Episode	6.33	5.04	6.11	3.94	23.37	0.151	0.881	0.02
DSM-IV-TR Generalized Anxiety Disorder	7.71	5.31	7.29	5.79	36.21	0.249	0.805	0.08

Table 28

*T-tests of the Conners CBRS-SRP*

	Male Sample		Female Sample		<i>df</i>	<i>t</i>	<i>p</i>	Cohen's D
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Defiant/Aggressive Behaviors	10.06	9.88	13.04	10.04	76.21	-1.373	0.174	-0.30
Hyperactivity/Impulsivity	8.77	3.88	8.64	4.51	80.28	0.151	0.880	0.03
DSM-IV-TR ADHD Inattentive	9.06	5.38	10.24	5.74	158.39	-1.421	0.157	-0.21
DSM-IV-TR ADHD Hyperactive-Impulsive	8.77	3.88	8.64	4.51	80.24	0.151	0.880	0.03
DSM-IV-TR Conduct Disorder	2.72	3.37	3.05	3.03	76.43	-0.497	0.621	-0.10
DSM-IV-TR Oppositional Defiant Disorder	5.54	3.42	6.40	3.95	171.20	-1.577	0.117	-0.23
Emotional Distress	23.73	14.85	32.46	19.10	151.88	-3.254	0.001	-0.51
DSM-IV-TR Major Depressive Episode	8.33	5.66	11.13	7.25	175.04	-2.929	0.004	-0.43
DSM-IV-TR Generalized Anxiety Disorder	7.53	4.77	10.23	6.62	181.08	-3.217	0.002	-0.47

## **Chapter V**

### **Discussion**

In this section, the findings of this study will be further discussed as follows: (1) the reliability of the Conners CBRS and Conners EC in Vietnam, (2) the factor structure of the Conners CBRS and Conners EC in Vietnam, (3) the validity of the Conners CBRS and Conners EC within a Vietnamese population, (4) gender differences amongst the ratings of Vietnamese youth on the Conners CBRS, (5) conclusions based on the data, and (6) implications of this study for educators, clinicians and school psychologists. The main purpose of this study was to evaluate the psychometric properties of the Conners CBRS and Conners EC in Vietnam. Additionally, if the scales were considered to have adequate psychometric properties (i.e. reliability and validity), clinical information provided by the rating scales (i.e. gender differences amongst the ratings of behavior of Vietnamese youth) that can be provided by the Conners CBRS and Conners EC with a Vietnamese population would be examined. In consideration of the results with respect to the aims of this study, it can be determined that the Conners CBRS and Conners EC demonstrates some sound psychometric properties. Thus, it is believed that this instrument has the potential to be a useful assessment measure to aid in the evaluation of social-emotional functioning among Vietnamese youth.

#### **Reliability**

The reliability calculations of the Conners CBRS and Conners EC were expected to be adequate but weaker within the Vietnamese population compared to that of the U.S. population due to the effects of cultural differences (Byrne et al., 2009). The majority of the scales on the Conners CBRS-P, Conners CBRS-T and Conners CBRS-SRP

maintained adequate internal consistency for the overall, male and female sample.

However, some scales on the Conners CBRS-P, Conners CBRS-T and Conners CBRS-SRP did not maintain adequate Chronbach's alpha values.

There was only one scale on the Conners CBRS-P that did not maintain adequate internal consistency. The Conners CBRS-T and Conners CBRS-SRP produced a greater number of reliability values that were not considered to be in the adequate range compared to the Conners CBRS-P. A total of 5 Conners CBRS-T (sub)scales did not maintain adequate reliability for the total, male, and/or female sample in the study. On the Conners CBRS-SRP, a total of 7 scales were found to have inadequate internal consistency for the total, male, and/or female sample. On the Conners EC parent report form 4 scales did not maintain adequate reliability. Lastly, on the Conners EC teacher report form, 3 scales did not maintain adequate reliability.

In examining the weak reliability values, there were a greater number of inadequate values obtained with the male youth for the self-report forms on the Conners CBRS-SRP compared to the female sample. It is important to note that the size of the male sample ( $n=82$ ) was smaller than the female sample ( $n=123$ ) on the self-report form, which may have affected the reliability calculations and resulted in the male sample having weaker Chronbach's alpha values than the female sample. Additionally, some scales produced Chronbach's alpha values that were only slightly less than the cutoff value ( $\alpha=.7$ ) to be considered adequate by Conners (2010). In evaluating the confidence intervals, a majority of the inadequate Chronbach's alpha values yielded a confidence interval that fell above the cutoff point to be considered adequate. These results indicate that the "true" value of the reliability calculations within the Vietnamese population may

be adequate; however, more research is needed in order to further examine the reliability calculations. Future research may consider attempting to utilize a larger sample size in order to ensure more accurate reliability calculations.

To further examine if there were individual items affecting the reliability of the Conners CBRS and Conners EC scales, reliability analysis included the Chronbach's alpha values if specific items were deleted. Analysis revealed that reliability values would improve on the Conners CBRS-P Autistic disorder scale, the Conners CBRS-T Social Anxiety and Manic Episode scales, and the Conners CBRS-SRP Hyperactivity/Impulsivity, Oppositional Defiant Disorder and Social Phobia scales with the removal of specific items; however, the Chronbach's alpha would only minimally improve and would still be considered to be inadequate. Future research should include an item level analysis to determine if the items should be modified or removed to improve the Conners CBRS and Conners EC scales in Vietnam.

The Vietnamese version of the Conners CBRS also demonstrated weak internal consistency on the validity scales and the values were not considered to fall in the adequate range (.70 or greater) on all of the report forms. Similarly, the Positive and Negative Impression scales displayed weaker internal consistency, as assessed by Chronbach's alpha, on both the English and Spanish versions of the Conners CBRS (Conners, 2010). Conners (2010) has proposed that the few number of items on these scales resulted in lower alpha values, as the validity scales have considerably fewer items than the other Conners CBRS scales. Further, the validity scales include a set of items that are not typically endorsed and have small variances, which can also lower the alpha values (Conners, 2010).

Low reliability calculations could be due to a number of factors. First, there may have been issues related to translation, regardless of the attempts made to ensure linguistic equivalence. On the scales with low Chronbach's alpha values, certain items may have been particularly poorly worded and negatively impacted the reliability of the scale. As discussed previously, certain scales' reliability would increase with the removal of specific items, which indicates these items may be poorly worded. Errors that can occur during translation can include literal translations that may cause an item to lose meaning in a different language and mistranslations where the original item was not understood by the translator and meaning is also lost (van Widenfelt et al., 2005). It has also been argued that it is difficult to find adequate translations for some words and concepts because there may be no exact terminology to convey the original meaning after translation (Leung & Wong, 2003; van Widenflet et al., 2005). Therefore, future research should determine if problematic items need to be reworded due to translation issues or if the items should be removed completely.

Further, due to cultural differences and differences between educational systems, items on the Conners CBRS and Conners EC developed in the U.S. may not be applicable in the Vietnamese cultures or the school setting in Vietnam, or concepts unique to Vietnam may not be captured by Conners CBRS and Conners EC items. Leung and Wong (2003) noted that there have been few studies conducted to derive and test culture-specific items for Asian youth, and rather, western measures are typically translated and analyzed in Asian countries. There may be some culture-specific constructs in Asian countries that are missed by western measures (Leung & Wong,

2003; van Widenflet et al., 2005). Similarly, particular concepts may be specific to Western countries and not applicable in Vietnam.

In this study, data was also not collected to determine the cognitive abilities or reading level of the individuals participating in this study. Therefore, it is not clear if the individuals participating in this study were able to comprehend all of the scales' items, which also may have impacted reliability scores. Lastly, Vietnamese participants may have had a different response styles compared to individuals in the U.S. Zhan and Norvilitis (2002) found that Chinese participants are more likely to use scale midpoints rather than extremes, whereas Americans reported more extreme values. Further research is needed to determine if Vietnamese participants exhibit a particular type of response style on psychological measures, which may impact reliability calculations.

*SEM* calculations were computed in addition to Chronbach's alpha. Typically, *SEM* values decrease as Chronach's alpha increases; however, in this study, the large standard deviation of the obtained raw score values resulted in the *SEM* calculations to be higher than expected. Large standard deviation values are typically due to outliers; however in this study, outliers were windsorized prior to analysis. Current research has also found large standard deviations in scores amongst the ratings of Asian youth behaviors by parents, teachers and on self-report scales (Liu et al., 2000; Weiss et al., 2014). Research has suggested that a range of scores can be due to a number of factors including age, gender, and whether or not the children have been referred for psychological services (Liu et al., 2000). The present study did not account for the referral status of youth for mental health services within this sample or divide the sample by age to examine their impact on standard deviations and reliability calculations.



Additionally, Weiss and colleagues (2014) found cultural differences between provinces in Vietnam, which resulted in differences in respondents' likelihood to report mental health problems amongst youth as well as the types of problems reported (T. Nang Khuc, personal communication, July 19, 2014). Further, demographic data was not collected to determine which province of Vietnam the reporters originate from. Although the vast majority of participants currently reside in the same province, it is possible that families and/or individual participants may have moved throughout the course of their life, particularly from rural to urban environments in order to adjust to the changing economy in Vietnam (McKelvey et al., 1997; Weiss et al., 2012). These families/individuals will likely be influenced by the culture of their province of origin, and as a result have differing views of reporting mental health difficulties. Therefore, future research is needed to determine if these factors are affecting the range of scores on psychological measures when assessing Vietnamese youth in order to obtain accurate reliability calculations for specific samples within the population.

### **Factor Analysis**

With regard to factor structure, the data supported the hypothesis that all of the predicted scales would maintain factor structure on the Conners CBRS-P and Conners CBRS-SRP; however, the Conners CBRS-T did not maintain the expected hypothesized structure. The results on the Conners CBRS-P and Conners CBRS-SRP are consistent with other work that found scales that assess similar constructs having maintained factor structure in Asian countries (Achenbach & Rescorla, 2007a). As such, these results indicate that the items on each of these scales relate to the latent variable it is intended to assess. However, on the Conners CBRS-T the Defiant/Aggressive Behaviors, Violence

Potential Indicator, DSM-IV-TR Conduct Disorder, Emotional Distress, and DSM-IV-TR Major Depressive Episode scales did not maintain factor structure as expected. Because only the Conners CBRS-T produced scales that did not maintain the expected factor structure on specific scales, it is possible that there may be a unique cultural component in the Vietnamese school setting that impacts teachers' perspectives of their students and/or their response style. Specifically, the cultural differences may result in items on the Conners CBRS-T assessing different constructs in Vietnam compared to the U.S. constructs found through the initial factor analysis of the Conners CBRS-T. For example, items that load on a particular factor in the U.S. may load on a different factor in Vietnam, or combine with a set of other items to form a new factor that is culture-specific to the Vietnamese school environment. Further research is needed to explore modifications that may be needed for these scales to more accurately assess the underlying constructs on the Conners CBRS-T.

### **Validity**

**Convergent Validity.** Convergent validity was examined by computing correlation coefficients between the Conners CBRS and the CBCL. It was hypothesized that scales on the Conners CBRS that assessed similar constructs as scales on the CBCL would produce moderate to high correlations (i.e. equal to or greater than .50) and would be similar to the correlations found during the development of the Conners CBRS. Although some correlations were statistically different in Vietnam than in the U.S., the data indicates that all of the scales on the Conners CBRS-P and Conners CBRS-SRP that were expected to yield moderate to high correlations with CBCL scales produced correlations that fell within the expected range of .50 or above to establish evidence of

convergent validity. However, the Conners CBRS-T did not produce moderate to strong correlations on all of the scales that were expected to correlate with one another. Specifically, the Conners CBRS-T Defiant/Aggressive Behaviors, Social Problems, Violence Potential Indicator, Physical Symptoms, ADHD Inattentive, Conduct Disorder, Autistic Disorder, and Asperger's Disorder scales yielded correlations that are considered to be weak with CBCL scales that assessed similar constructs. These scales may not have correlated strongly with the CBCL scales due to weaknesses in other psychometric properties. Based on the previous data discussed as a part of this study, it was determined that the Defiant/Aggressive Behaviors, Social Problems, Violence Potential Indicator and Conduct Disorder scales did not maintain the expected single factor structure in Vietnam that was found in the U.S. on the Conners CBRS-T. Additionally, the Social Problems, Autistic Disorder, and Asperger's Disorder scales of the Conners CBRS-T yielded inadequate measures of internal consistency. Both of these weaknesses may have impacted the correlations with the CBCL scales.

In examining the research reviewing psychological assessments in Asia, there were few studies that examined convergent validity (Leung & Wong, 2003). Leung and Wong reported only 4 of the 16 measures they reviewed reported convergent validity and, of these, 3 of the scales examined convergent validity in a single study. Liu and colleagues (2000) reported moderate to high correlations of the Chinese CBCL teacher report form with the Conners Hyperkinesis Index (CHI) on scales of externalizing problems and attention problems. However, the CBCL yielded low correlations with the CHI for internalizing scales including the Somatic Complaints and Withdrawn scales (Leung & Wong, 2003). In addition to the CBCL, Leung and Wong (2003) reviewed the

General Health Questionnaire , Beck Depression Inventory, and State-Trait Anxiety Inventory in Chinese self-report forms; all of these scales established strong convergent validity with measures that assessed similar constructs such as anxiety, depression, and somatic complaints.

Based on the convergent validity data obtained in this study, although some were significantly different within the Vietnamese sample compared to the U.S. sample, the majority of correlations remained in the moderate to strong range. Particularly, the Conners CBRS-P and Conners CBRS-SRP yielded moderate to high correlations on all scales of the CBCL that were expected to correlate with one another. Fewer scales on the Conners CBRS-T correlated strongly with CBCL scales. Further research is needed to determine if the Conners CBRS-T scales need to be modified to improve the psychometric weaknesses that may be impacting the correlations with the CBCL. These results indicate that the scales on the Conners CBRS, particularly the Conners CBRS-P and Conners CBRS-SRP, relate to scales on the CBCL that assess similar constructs, which provides some evidence of convergent validity.

It is important to note that Chronbach's alpha and *SEM* calculations for the CBCL were not conducted as part of this study. Several other studies have previously examined the psychometric properties of the CBCL in Vietnam and deemed the scale to be acceptable; therefore additional analyses was not conducted (Achenbach & Rescorla, 2007a; Cheung et al., 2003; Leong & Wong, 2003; Loughry & Flouri, 2001; McKelvey et al., 1999). However, because research has found that psychometric properties are affected by which province the participants are from, it may be useful in future research to ensure that the scales being compared are reliable in that specific sample. Future research should

determine if all of the scales utilized, including those that are only administered for validity purposes, maintain adequate reliability within that particular sample.

**Cross Informant Agreement.** To further establish scale validity, correlations between informants were calculated within the Vietnamese population and compared to the cross informant correlations during the development of the Conners CBRS in the U.S. using Fishers Z. Contrary to the hypotheses, the correlations found between informants were lower than expected and significantly differed from the values found during the development of the Conners CBRS. In addition to correlations between informants, the raw scores were converted to T-scores and categorized into Conners (2010) diagnostic categories of within normal limits, elevated, and low. The total numbers of agreements and disagreements between informants (i.e. Conners CBRS parent-teacher, Conners CBRS parent-self, Conners CBRS teacher-self, and Conners EC parent-teacher) were calculated and compared with one another in order to determine if the numbers were significantly different one another. This study found that there were a significantly greater number of agreements than disagreements between informants. Based on this data, it can be determined that although participants may produce individual scores that are significantly different than one another, they tend to agree more often on the severity of problems reported. This data provides some support for cross informant agreement. Specifically, if informants agree on the severity of problems reported, this information can help psychologists conducting evaluations determine whether or not a significant problem exists and if further investigation is needed within specific domains (e.g. depression, anxiety, academic difficulties, etc.). However, further research is needed to

further examine agreement between informants and possible explanations for low cross informant correlations.

Other studies evaluating the ratings of children's behaviors in Asian cultures have also found less certain agreement between raters, or failed to calculate correlations between parent, teacher and self-reports (Leung & Wong, 2003). Leung and Wong (2003) identified and reviewed 16 imported western measures in Asian cultures and none reported agreement between parent, teacher and self-report measures. The inter-rater agreement that has been reported for some scales translated in Asian cultures, which included comparisons between 2 parents and/or 2 teachers that rated the same child; however, agreement was not calculated between the parents and teachers. Unfortunately, Leung and Wong (2003) did not address why these analyses were lacking in the development of these instruments for use in Asian cultures. Du, Kou and Coghill (2008) conducted the only research that was found that reported inter-rater agreement. Du and colleagues (2008) examined the SDQ in China and found correlations with a mean of 0.42 (ranging from 0.23 to 0.44,  $n = 1965$ ) between parent and teacher reports, a mean of 0.41 (ranging from 0.36 to 0.49,  $n = 1965$ ) between parent and self-reports, and a mean of 0.35 (ranging from 0.29 to 0.42,  $n = 690$ ) between teacher and self-reports. Du and colleagues (2008) results yielded higher correlations between informants compared to the results found in this study, and also included a much larger sample size. However, there was some consistency in that the teacher and self-reports yielded the lowest correlations between informants.

In the present study, several factors can account for discrepancies between informants. First, child behavior is often context-dependent. Higher ratings on specific

scales by different informants may indicate that the reported problems are affected more by situational factors (Achenbach, Krukowski, Dumenci & Ivanova, 2005). This context-dependent factor may also be magnified by the cultural differences found between the U.S. and Vietnam. Parents may under-report problems due to the stigma and shame attached to the view of mental illness in Vietnam (Schirmer et al., 2004). With regards to teacher ratings, Vietnam teachers tend to keep a distance from developing personal relationships with their students in order to maintain their status as the authority figures, which may impact their ability to accurately rate their students' behaviors, especially for items that reflect internalizing symptoms (T. Nang Khuc, personal communication, July 19, 2014). Further, there is a narrow understanding of mental illness and lack of knowledge related to diagnosis and treatment, which can affect parent, teacher and self-report ratings of behavior (McKelvey et al.1997; Schirmer et al., 2004; van der Ham et al., 2011).

In addition, although several methods were used to translate and evaluate the Vietnamese versions of Conners CBRS and Conners EC, the low correlations may reflect translation in-equivalences. Specific items that assess the same construct in English may have a slightly different meaning on each measure (Conners CBRS-P, Conners CBRS-T, Conners CBRS-SRP, Conners EC-P and Conners EC-T) after translation into Vietnamese, which would affect the correlations across informants. Additionally, some scales on the Conners CBRS-T and Conners CRBS-SRP the yielded low correlations with one another also yielded low reliability scores and/or failed to maintain factor structure, which may have impacted correlations between informants. Particularly, when examining the low correlations between the Conners CBRS-T and Conners CBRS-SRP,

there were 5 scales on the CBRS-SRP that had low reliability, 9 scales on the Conners CBRS-T that did not maintain the expected factor structure. Of these scales, 3 of the scales with low reliability calculations on the Conners CBRS-SRP were the same scales that did not maintain factor structure on the Conners CBRS-T.

Although several factors may have contributed to low cross informant agreement, it is unclear if these results are due to inadequate measurements or due to a manifestation of cultural differences between Vietnam and the U.S. in this study. For example, it is possible that teachers, parents, and/or children in Vietnam may be more or less likely to over or under-report mental health and behavioral concerns experienced by Vietnamese youth. Additionally, due to cultural expectations in specific settings, youth may exhibit different behaviors in the home and school environments, which may also result in low agreement between informants. In examining the cross informant agreement, there was minimal consistency between teacher and self-reports of youth behaviors while consistency was stronger between parent and teacher reports. Minimal consistency between teachers' perceptions of their students' behaviors and the students own report may be accounted for by the structure of the school system in Vietnam (T. Nang Khuc, personal communication, July 19, 2014). Teachers have large class sizes and are expected to keep a wide distance from their students with regards to personal relationships in order to maintain their status as the authority figure over the students in their classroom (T. Nang Khuc, personal communication, July 19, 2014). Further, teachers may under-report problems to give the impression of having a "strong collective" classroom, or to protect their students from experiencing shame (T. Nang Khuc, personal communication, July 22, 2014). Future research is needed to investigate



the possible explanations for low cross informant agreement and measurement changes, such as the modification and/or removal of items that may be needed in order to improve the measure.

### **Clinical Aspects**

Previous research has indicated that Vietnamese boys obtain significantly higher scores on scales that assess attention problems and externalizing behavior concerns, and girls have been reported to have more internalizing issues (Lui et al., 2000; McKelvey et al., 1999). McKelvey and colleagues (1999) proposed that gender differences amongst Vietnamese youth may be reflective of the differential socialization practices for boys and girls in Vietnam. Specifically, the Vietnamese society encourages individuals, and especially women, to internally manage emotional problems rather than expressing their negative feelings and personal problems to others (McKelvey et al., 1999). As a result of this societal influence, women may have an increased risk for developing internalizing mental health issues. Results in the present study were consistent with previous findings of higher scores on scales that assessed internalizing concerns with girls on the Conners CBRS-SRP. The Conners CBRS-SRP yielded significantly higher scores with female respondents than male respondents on the following scales: Emotional Distress, DSM-IV-TR Major Depressive Episode and DSM-IV-TR Generalized Anxiety Disorder. There were no significant differences found between the ratings of male and female youth on parent or teacher rating scales, which indicates that although the female youth report experiencing more internal distress, parents and teachers are not perceiving any differences on these scales between genders. Riley (2004) proposed that the self-report of children and adolescents provide a unique perspective of their own internal states,

whereas, parents and teachers can only observe behavior in certain specific settings. In Vietnam, there may be a gender difference between the internal emotional distress experienced by male and female youth based on the significantly higher scores that females reported on these scales via the Conners CBRS-SRP. This data is consistent with existing research that has indicated that female youth in Vietnam are reported to have more internalizing problems, which may be reflective of the differential socialization that were previously discussed (McKelvey et al., 1999). However, parents and teachers may under-report symptoms because they are unaware of the internal symptoms experienced by female youth due to the cultural influence that discourages individuals', particularly women, from expressing their distress (McKelvey et al., 1999). However, due to the confidentiality of this study (i.e. students did not report their name or any other identifying information) the female students participating in this study may have been more willing to disclose information regarding their internal emotional distress, which resulted in higher scores on the previously discussed scales.

Internalizing disorders, such as depression and anxiety, are most commonly assessed by self-report and parent measures (Garber, 2010). Garber (2010) proposed that studies that use questionnaires that focus on samples obtained in the community, such as in the school setting, generally report lower levels of internal distress compared to parent and self-report when evaluating children in a private clinic or home environment. In the present study, teachers and parents may not have reported some internalizing symptoms due to the cultural and religious influence on the view of mental health in Vietnam. Typically, in the traditional Vietnamese culture, problems may not be reported until they are severe and mental illness may be considered to bring shame upon a family (Goren,

2007; McKelvey et al., 1997; Schirmer et al., 2004). However, with the changing culture in Vietnam with the increase of a Western influence and generational conflict between age groups in Vietnam, the youth of Vietnam may be more likely to report psychological difficulties (Schirmer et al., 2004).

In this study, as previously discussed, Vietnamese girls reported experiencing more internal distress compared to Vietnamese boys through self-report measures. Boys, however, did not indicate having significantly more externalizing concerns than girls in this study as expected. This is in contrast to prior research that reported the boy-to-girl ratio of behavior problems in Asian children as 2:1, with boys obtaining significantly higher scores in the areas of attention problems and externalizing behaviors, based on teacher report information (Lui et al., 2000). However, recent research found that the Vietnamese sample produced scores for externalizing problems below the international average (Weiss et al., 2014). Therefore, externalizing problems may be generally under-reported in Vietnam compared to other countries for both genders due to the cultural stigmas and religious influences on mental health previously discussed. Future research is needed to further investigate the presence and prevalence of externalizing behavioral concerns in Vietnam, particularly with male youth in order to determine if there is truly no difference between genders or if externalizing problems are under-reported by informants.

## **Conclusions**

In summary, the Connors CBRS and Connors EC demonstrate some strong psychometric properties. Thus, these rating scales can provide clinicians with a method of gathering some valuable information regarding the functioning of Vietnamese youth. The

scales generally demonstrate adequate reliability, convergent validity, and maintained factor structure. Particularly, the Conners CBRS-P generated the most evidence of strong reliability, validity, and each scale that was expected to maintain factor structure did in fact maintain the proposed single factor structure; therefore, the Conners CBRS-P may be the most useful of the three forms for clinicians and educators. As with any psychological assessment, rating scales can provide a piece of information regarding youth functioning and results should be interpreted with the consideration of several other forms of data. Merrell (2003) and Sparrow (2010) suggest an assessment should be multimodal and not rely on information from a method, informant or setting. However, rating scales are valuable tools that allow clinicians to have a standardized measure to compare the ratings of an individual to a normative sample. They also allow for information to be collected from multiple informants, such as parents, teachers, and the child (Sparrow, 2010). Based on the data in this study, the Conners CBRS and Conners EC are two particular rating scales that can help clinicians and educators gather valuable information when conducting evaluations amongst youth in Vietnam. However, this data should be carefully examined at an item level to ensure the item is applicable and appropriate to the student until further modifications to the scales are made.

### **Limitations and future directions**

As discussed previously, further research is needed to focus on the psychometric properties and clinical aspects of the Conners CBRS in Vietnam. Studies may examine the influence of age, place of origin, and the referral status of the youth may be factors to investigate with regards to their impact on reliability. Additionally, research should attempt to include a larger sample size in order to ensure accurate reliability calculations;

this would help determine if the “true” reliability scores fall within the adequate range. Further, the Conners CBRS should be administered twice, to at least a subscale of participants, in future studies in order for test-rest reliability to be calculated. This would also allow for the standard error of prediction to be calculated and help determine how much scores may be expected to change over time due to random error. Reliability calculations should also be computed for the CBCL in order to improve the conclusions regarding convergent validity and ensure that both scales are valid amongst the specific sample of participants.

Additional data and item level analysis is also needed to determine if modifications need to be made to items and/or scales, or if items need to be completely removed in order to improve reliability and to strengthen factor structure. Specifically, modifications may be needed on the Conners CBRS-T, as several scales that were expected to maintain factor structure did not do so in this study. Exploratory factor analysis should also be conducted to determine if a different structure is more appropriate for the Conners CBRS and Conners EC in Vietnam. Further, the response style of informants should be examined to determine possible impacts on reliability calculations.

The most unexpected findings in this study were with regards to the cross informant agreement. In particular, the ratings of youth behavior between teacher and self-reports were most inconsistent based on the correlation coefficients that were calculated. Further research is needed in order to help understand these discrepancies. Methods such as interviewing informants and conducting observations of children in the school setting may be useful in providing such insight. Additionally, the ratings on

particular scales, such as academic performance, can be compared with actual performance in the school setting (e.g. test grades).

Lastly, additional information can be useful when examining the clinical information provided by the Conners CBRS. Particularly, data should be collected in both Vietnam and other countries, such as the U.S., to compare the ratings of specific behaviors and on the overall Conners CBRS scales. Further, data collection from a clinical sample of Vietnamese youth with the use of the Conners CBRS and Conners EC would help further enhance the validity of these scales. This information could add knowledge to the prevalence and severity of particular problems the youth in Vietnam are experiencing and aid in developing appropriate prevention and intervention plans. As discussed previously, additional data is also needed to further investigate the presence and prevalence of externalizing behavioral concerns in Vietnam particularly with male youth. At this time, it is not clear if externalizing problems are under-reported by Vietnamese participants and as a result, there are no notable gender differences or there are truly no gender differences with regards to externalizing concerns. If no differences truly exist, it may be helpful to consider the role of culture in assessment of these variables.

In order to improve the psychometric properties of the Conners CBRS and Conners EC in Vietnam, items may need to be modified in order to more appropriately reflect culture-specific aspects of behavior, personality, and psychopathology. Although several methods were used to accurately translate the Conners CBRS and Conners EC into Vietnamese, linguistic inequivalence may still exist and need to be addressed through additional studies that examine each scale at an item level to ensure that the

items are maintaining their meaning and are applicable in Vietnam. These studies can help further improve the reliability, convergence validity, and cross informant agreement.

## Chapter VI

### Implications for the Practice of School Psychology

According to UNICEF (2010) and the United Nations (2011), 92% of primary school aged children in Vietnam attend school (as cited in Weiss et al., 2012, p. 67). Nguyen, Le and Tran (2007) found that 90% of students in Vietnam are experiencing significant problems in school, including difficulties learning, maintaining positive relationships, and making future career choices. Further, school-aged children exhibit significant mental health concerns such as depression, anxiety, or behavioral disorders (Nguyen et al., 2007). To address some of these students' needs, in 2005 the Ministry of Education and Training (MOET) of Vietnam recommended for vocational and psychological counseling services be implemented in schools and some schools have been able to allocate funds to hire professionals to provide these services (Hac & Long, 2004; Le, Hagens, Powers & Hass, 2011; Weiss et al., 2012).

Additionally, within recent years, attempts have been made to include students with disabilities in mainstream classes in the public school system in Vietnam (Rydstrom, 2010). Specifically, an inclusion education program has been implemented to support this effort (Rydstrom, 2010). According to Rydstrom (2010), students with moderate disabilities can be enrolled in a public Inclusive Education school or an 'integrated' school. In an Inclusive Education school, students with disabilities are taught the mainstream curriculum, which may be adjusted to meet their needs (Rydstrom, 2010). In an integrated school, students with disabilities are taught in a separate classroom apart from the mainstream group of students; however, all of the students attend classes in the same building (Rydstrom, 2010). Regardless of students' placement in an Inclusive



Education or integrated school, students with disabilities require specialized services, such as modifications and/or accommodations to meet their educational needs.

Rydstrom (2010) described an inadequate diagnostic system for children in Vietnam with students with disabilities typically being classified only as having 'learning difficulties,' rather than a specific diagnosis that can identify their individual needs. As more research is conducted and assessment scales are developed for use in Vietnam, such as the Conners CBRS and Conners EC, educators and clinicians can be provided with the knowledge and tools to more appropriately identify students with specific disabilities, rather than a general classification of having 'learning difficulties.'

As the number of special education students enrolled in public schools increases, as well as the persistence of mental health problems amongst general education students, there is also a growing need for psychological services to serve these students. Further, clinicians must be provided with adequate assessment tools to evaluate students in order to make appropriate diagnoses and recommendations that will improve their education and overall mental health. The Conners CBRS and Conners EC are just two rating scales that can assist clinicians in conducting comprehensive assessments of students with suspected psychological difficulties. In this study, the first steps to adapting the Conners CBRS and Conners EC for a Vietnam were made. Specifically, the Conners CBRS and Conners EC were translated and the psychometric properties were examined within the Vietnamese population. With further research to help modify and improve the scales, the Conners CBRS and Conners EC can be developed and published as valid and reliable assessments to evaluate Vietnamese youth.

Long term goals of future research and the further development of the Conners CBRS and Conners EC in Vietnam should be to provide clinicians and educators with some of the tools necessary to assess students, improve their knowledge on psychological difficulties experienced by Vietnamese youth, and to improve the diagnostic system used to identify specific disabilities in Vietnam. Further, clinicians, educators, and school psychologists should utilize this information to assist in the appropriate placement of students with disabilities, as well as to implement effective interventions and/or services that are specific to the students' needs.

## Chapter VII:

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## Chapter VIII:

### Appendices

#### Appendix A: Parental Consent

You are being asked to participate in a study to learn more about the influence of parenting on child behavior. This research is being conducted by Drs. Tamara Del Vecchio and Mark D. Terjesen, Psychology Department, St. John's University.

If you agree to be in this study, you will be asked to complete some questionnaires about parenting and your child's behavior. Please **choose one child ages 2-17** and mark your answers based upon that child. Mark your first impression and do not spend a lot of time on any one item. The entire process should take approximately 60-75 minutes. Please complete all of the enclosed forms and return the entire packet to the site coordinator.

There are no known risks for participation in this study. If participation makes you uncomfortable, please contact the researchers or the site coordinator for further assistance.

Although you will receive no direct benefits, this research may help the investigator about how parents' beliefs, emotions, and behaviors can be related to children's behavior.

All participants who return the consent form and completed questionnaires, as well as their child's completed questionnaires will receive \$14USD.

To ensure confidentiality, once consent to participate is received, each participant will be provided with an identification number on the research packet and no identifying information will be located on the questionnaires. The responses you make will be held in strictest confidence and only the research staff working on the projects will have access to the files containing your responses. The exception to this confidentiality is if there is suspicion of harm to self or others. Your responses will be kept in a secure office.

Participation in this study is voluntary. You may refuse to participate or withdraw at any time without penalty. You have the right to skip or not answer any questions you prefer not to answer.

If there is anything about the study or your participation that is unclear or that you do not understand, if you have questions or wish to report a research-related problem, you may contact Drs. Tamara Del Vecchio or Mark D. Terjesen at (718) 990-5860, St. John's University, US. You may also contact them by email at [delvecct@stjohns.edu](mailto:delvecct@stjohns.edu) or [terjesem@stjohns.edu](mailto:terjesem@stjohns.edu). Or you may contact Nguyen Son at 084 091 330-3387, [nguyensontl@yahoo.com](mailto:nguyensontl@yahoo.com).

For questions about your rights as a research participant, you may contact the University's Human Subjects Review Board, St. John's University, at 718-990-1440.

I have read the above information and agree to participate in this study.

---

Signature

Date

## Appendix B: Child Assent

Dear Student:

You are being invited to take part in a research study that will attempt to find out more about child behavior, cognitions, and anger. This study is being conducted by Dr. Mark Terjesen, of the School Psychology Department at St. John's University in Queens, NY.

If you agree to participate in this study, you will be asked to complete the attached questionnaires, which it is estimated will take approximately 60-75 minutes to complete. There are no known risks associated with your participation in this research beyond those of everyday life. This research may also be beneficial to others in the future by extending our knowledge about what factors impact teaching behavior.

Confidentiality of your research records will be strictly maintained by using unique identifying numbers in place of identifying information. Furthermore, all research records will be kept in the locked office of the principal investigator. Your responses will be kept confidential and will not be shared with your professor, principal, or any district administrators. No one will see your responses except the research study team at St. John's University.

Participation in this study is voluntary. You may refuse to participate or withdraw at any time without penalty. You may skip any question that you do not want to answer, although it is preferred that you respond to the questionnaires as completely as possible to provide the most useful information. Not participating in the study or withdrawing from the study will not affect your job in any way. By completing the attached questionnaires and returning them, you are giving your consent to participate in this study. Furthermore, students who participate will receive \$ 12 US that will be delivered to their families

If there is anything about the study or your participation that is unclear or that you do not understand, if you have questions or wish to report a research related problem you may contact Dr. Mark Terjesen at (718) 990-5861, [terjesem@stjohns.edu](mailto:terjesem@stjohns.edu), School Psychology Department, St. John's University, Marillac Hall SB-36, 8000 Utopia Parkway, Jamaica, NY 11439. For any questions about your rights as a research participant, you may contact the Human Subjects Review Board, St. John's University, (718) 990-1440.

Sincerely,

Mark D. Terjesen, Ph.D.

Associate Professor, Department of Psychology

**Agreement to Participate**

I agree to participate in the study described above.

I do not agree to participate in the study described above.

---

Signature

---

Date

## Appendix C: Teacher Consent

Dear Teacher:

You are being invited to take part in a research study that will attempt to find out more about teaching behavior, affect, and cognition, as well as ratings of student behavior. This study is being conducted by Dr. Mark Terjesen, of the School Psychology Department at St. John's University in Queens, NY.

If you agree to participate in this study, you will be asked to complete the attached questionnaires, which it is estimated will take approximately 60-75 minutes to complete. There are no known risks associated with your participation in this research beyond those of everyday life. This research may also be beneficial to others in the future by extending our knowledge about what factors impact teaching behavior.

Confidentiality of your research records will be strictly maintained by using unique identifying numbers in place of identifying information. Furthermore, all research records will be kept in the locked office of the principal investigator. Your responses will be kept confidential and will not be shared with your professor, principal, or any district administrators. No one will see your responses except the research study team at St. John's University.

Participation in this study is voluntary. You may refuse to participate or withdraw at any time without penalty. You may skip any question that you do not want to answer, although it is preferred that you respond to the questionnaires as completely as possible to provide the most useful information. Not participating in the study or withdrawing from the study will not affect your job in any way. By completing the attached questionnaires and returning them, you are giving your consent to participate in this study. Furthermore, teachers who participate will receive \$8 US upon returning completed packets.

If there is anything about the study or your participation that is unclear or that you do not understand, if you have questions or wish to report a research related problem you may contact

Dr. Mark Terjesen at (718) 990-5861, [terjesem@stjohns.edu](mailto:terjesem@stjohns.edu), School Psychology Department, St.

John's University, Marillac Hall SB-36, 8000 Utopia Parkway, Jamaica, NY 11439. For any

questions about your rights as a research participant, you may contact the Human Subjects

Review Board, St. John's University, (718) 990-1440. Thank you for your consideration!

Sincerely,

Mark D. Terjesen, Ph.D.

Associate Professor, Department of Psychology



I agree to participate in the study described above.

I do not agree to participate in the study described above.

---

Signature

---

Date

## Appendix D: Parent Demographics

### Parent Information

1. Age: \_\_\_\_\_
2. Sex:     Female             Male
3. Relationship status:
  - a) Married
  - b) Single (never married)
  - c) Divorced
  - d) Widowed
  - e) Separated
4. Highest educational level completed:
  - a) No formal education
  - b) Primary education
  - c) Intermediate education
  - d) Secondary education (no degree)
  - e) Secondary education (degree)
  - f) Some college
  - g) Bachelor's degree
  - h) Master's degree
  - i) Doctoral degree
5. Were you born in Vietnam?     Yes             No
  - If you answered No, where were you born? \_\_\_\_\_
  - If you answered No, how long have you lived in Vietnam? \_\_\_\_\_

### Family Information

6. Residence:
  - a) Urban
  - b) Rural
  - c) Sub-urban
7. How many children (age 17 and under) are in the home? \_\_\_\_\_
8. How many adults (over age 17) are in the home? \_\_\_\_\_
9. Is there a *female* parent or caretaker in the home?     Yes             No
  - Employment status:
    - a) Full-time
    - b) Part-time
    - c) Unemployed



## Appendix E: Teacher Demographics

Please answer all questions.

Age: \_\_\_\_\_ Gender: M F

1. How many years have you been teaching? \_\_\_\_\_
2. Currently, are you primarily a special education teacher? Y N
3. In the past, have you ever taught special education classes? Y N  
If yes, for how many years? \_\_\_\_\_
4. What grade(s) do you presently teach? \_\_\_\_\_
5. What is your typical class size this year?

- 0 - 7
- 8 - 14
- 15 - 21
- 22 - 28
- 28 - 35

6. Which of the following best describes your current educational level? (check one)

- Bachelor's degree with less than 30 additional graduate credits
- Bachelor's degree plus 30 or more additional graduate credits
- Masters degree with less than 30 additional graduate credits
- Masters degree plus 30 or more graduate credits
- Doctorate

7. How would you rate the severity of students' problems in your classroom? Please circle one.

Not severe at all                      A little severe                      Moderately severe                      Very severe

## VITA

Name: Jaclyn E. Mooney

Date of Birth: January 29, 1988

Elementary School: P.S. 193/Resurrection School  
Brooklyn, NY  
J.F.K. Middle School  
Bethpage, NY

Date graduated: June 2002

High School: Bethpage Senior High School  
Bethpage, NY

Baccalaureate Degree: Bachelor of Arts  
St. John's University  
Jamaica, NY

Date Graduated: May, 2009

Other Degrees: Master of Science  
St. John's University  
Jamaica, NY

Date Graduated: June, 2012