2004

Concurrent Validity Study of the Clinical Assessment of Depression with the Beck Depression Inventory-Second Edition

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CONCURRENT VALIDITY STUDY OF THE CLINICAL ASSESSMENT OF DEPRESSION WITH THE BECK DEPRESSION INVENTORY-SECOND EDITION

A Specialist Project
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Specialist in Education

By
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May 2004

CONCURRENT VALIDITY STUDY OF THE CLINICAL ASSESSMENT OF DEPRESSION WITH THE BECK DEPRESSION INVENTORY-SECOND EDITION

Date Recommended 4/15/04

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Acknowledgments

I would like to express my deepest gratitude to everyone that provided me with help and support while reaching this point of closure. I want to thank my committee members, Libby Jones, Reagan Brown, and Carl Myers for their knowledge, guidance, and patience. I would like to thank Brooke Wootton Tinsley for her collaboration efforts, keeping everything in perspective, and for working so well with me throughout this process. Another thank you goes to my co-workers and employer for providing support, lending an ear, and giving me time to work on this project. I thank my friends for helping me see things through, providing me with support, and for being there to listen. I would also like to thank my parents and family, as well as my husband's family, for their continual support. Finally, I especially want to thank my husband for his encouragement and support, patience and understanding, and for believing in me.

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Shanna Bowers May 2004 49 Pages

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Depression in adolescents if unrecognized, can interfere with every aspect of the individual's life, increasing the risk for illness and interpersonal difficulties in the future. Therefore, it is imperative that significant levels of depressive symptoms be recognized, assessed, and treated. The usefulness and psychometric properties of new measures of depression are determined, in part, through comparison with existing measures. The current study investigated the concurrent validity of the Clinical Assessment of Depression (CAD; Bracken & Howell, 2004) with the Beck Depression Inventory-Second Edition (BDI-II; Beck, Steer, & Brown, 1996) for an adolescent population. The sample for this investigation consisted of 23 adolescents (13-18 years) with a primary diagnosis of unipolar depression and 98 adolescents that did not have a clinical diagnosis. Correlation coefficients were large and statistically significant between the CAD and BDI-II, ranging from .97 to .66. The CAD was able to distinguish between clinical and non-referred groups on the basis of mean group scores. Using the BDI-II classification as the criterion, a contingency table was computed and a classification consistency of 82% for the total sample was found. Findings of the current study indicate that the CAD appears to have adequate validity to support its use with adolescents.

Review of the Literature

Depression is prevalent in the adolescent population and is often overlooked (Fritz, 1997; Peterson et al., 1993). It is important that depression be recognized, assessed, and treated in adolescents to reduce its impact on an individual's life, increasing the risk of illness and interpersonal difficulties in the future. Self-report measures are often used for assessing depression in adolescents. It is important that the self-report measures used have evidence of adequate psychometric properties, including adequate validity. The present investigation will explore the concurrent validity of a newly developed measure of depression with an established measure.

The next section will provide a review of literature relevant to the current investigation of the validity of the Clinical Assessment of Depression (CAD; Bracken & Howell, 2004). First, an overview of child and adolescent depression will be provided including incidence, symptomology, and diagnostic criteria. Next, the assessment of depression in children and adolescents will be reviewed. Last, the purpose of the present investigation will be presented.

Depression in Adolescents

Depression is a psychological disorder that is often overlooked among child and adolescent populations. According to Reynolds (1992), 8 to 18% of school-aged youth have experienced a clinical level of depression. Health care providers and family members of children and adolescents often view possible indicators of depression expressed by young people as typical mood swings and, as a result, the disorder remains under-diagnosed and untreated

(Evans, Velsor, & Schumacher, 2002; National Institute of Mental Health [NIMH], 2000). Children and adolescents often display classic symptoms such as low self-esteem, guilt, loss of interest in school activities, decreased school performance, and boredom, yet find these emotions difficult to identify or label in themselves (NIMH, 2000). It is critical for the depressive symptoms of adolescents to be recognized, evaluated, and treated, as depression can increase the risk for illness and interpersonal difficulties in the future and affects almost every aspect of that individual's life (Evans et al., 2002; Stanard, 2000).

Research concerning childhood and adolescent depression has increased over the past two decades and a knowledge base regarding childhood depression has emerged. Prevalence rates for major depression are comparable to that of adults, making depression a major health problem among this population. The incidence of depression among youth in the United States ages 9-17 is estimated to be around 5%, with 1.5% to 4.7% being diagnosed with Major Depressive Disorder (Fritz, 1997; Pullen, Modrcin-McCarthy, & Graf, 2000; Stanard, 2000).

The prevalence of depressive disorders differs in countries throughout the world. Past research indicates percentages ranging from 11.7% of adolescents in East Germany to 40% of Bulgarian adolescents. In the United States, Canada, and Britain, the prevalence was found to be around 10% and in Poland, the percentage was around 30 (Boyd, Gullone, Kostanski, Ollendick, & Shek, 2000). While prevalence rates may vary across countries, depression appears to be a universal construct of significant concern in children and adolescents.

Gender and depression. When looking at the prevalence rates of depression by gender, an equal number of boys and girls suffer from depression prior to adolescence. The percentage of adolescent boys identified as experiencing a depressed mood is between 20 and 35% while for adolescent girls, the percentage rate is between 25 and 40 % (Peterson et al., 1993).

During adolescence, however, rates of unipolar depression (major depressive disorder, dysthymic disorder, or depressive disorder not otherwise specified) have been found to be higher for girls than for boys (Baron & Campbell, 1993; Herson & Ammerman, 2000; Marcotte, Fortin, Potvin, & Papillon, 2002; Rutter, Graham, Chadwick, & Yule, 1976). In a study comparing female and male mean scores on the Reynolds Adolescent Depression Scale (RADS) and the Beck Depression Inventory (BDI), Baron and Campbell (1993) examined whether females exhibit higher mean scores on discriminating items than males. It was found that females do in fact have higher mean scores on these items. This supports the view that females characteristically report more depressive symptoms than males.

Diagnostic criteria. In determining a diagnosis of depression for adolescents, the criteria set forth by the Diagnostic and Statistical Manual of Mental Disorders-4th Edition Text Revision (DSM-IV-TR; American Psychiatric Association [APA], 2000) must be met. The DSM-IV-TR consists of three diagnostic categories for unipolar depressive disorders. Of importance to this investigation are the criteria for the unipolar types of depression: major depressive disorder, dysthymic disorder, and depressive disorder not otherwise specified.

As a severe form of depression, Major Depressive Disorder is characterized by one or more Major Depressive Episodes. These episodes last at least two weeks and consist of depressed mood and loss of interest in most all activities. The individual must also suffer from at least four of the following symptoms: "changes in appetite or weight, sleep, and psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating, or making decisions; or recurrent thoughts of death or suicidal ideation, plans or attempts" (APA, 2000, p. 356).

The second depressive diagnostic category is Dysthymic Disorder. This form of depression consists of a less severe symptom pattern than major depression; however, the symptoms are chronic in that two or more symptoms are experienced for at least one year. With children and adolescents, symptoms must last at least one year and may include: irritability, poor self-esteem, poor social skills, feelings of hopelessness, and impaired school performance (APA, 2000).

The third diagnostic category involving unipolar depression in the DSM-IV-TR is Depressive Disorder Not Otherwise Specified. This form of depression includes depressive features consistent with that required to diagnose major depression or dysthymia, yet the symptom pattern does not meet the criteria for any other Depressive Disorders in severity, quantity, or duration. When there is inadequate or contradictory information, this form of depression may be used for diagnosis (APA, 2000).

Adolescent symptoms. While the same criteria are required for a diagnosis of Major Depressive Disorder in adolescents as in adults, the symptoms are commonly presented differently (Mash & Wolfe, 2002; Mellin & Beamish, 2002; Oster & Montgomery, 1994; Stanard, 2000). Adolescents experiencing depressive disorders tend to exhibit more helplessness, fatigue, despair, lack of pleasure, suicidal thoughts, hypersomnia, and variations in weight than depressed adults (Reynolds, 1990; Wright-Strawderman, Lindsey, Navarrete, & Flippo, 1996). Depressive disorders during adolescence also tend to be more episodic, with phases of depression, followed by phases of better functioning (Fritz, 1997; Mash & Wolfe, 2002). Impairments in academic performances and relationships with others is often noted in adolescents experiencing clinical levels of depression (Evans et al., 2002; Mellin & Beamish, 2002). Adolescent depression may also be expressed in ways that do not even resemble

depressive symptoms, such as behavior problems, family problems, substance abuse, or rebellion (Mellin & Beamish, 2002). There are also gender differences in the expression of depressive symptoms. Males tend to exhibit more irritability, work inhibition, sleep disturbance, and social withdrawal while females tend to exhibit more body image distortion, loss of appetite, sadness, dissatisfaction, and weight loss (Baron & Campbell, 1993).

Assessment of Depression

Use of self-report measures. The diagnosis of depression is reached after a comprehensive assessment in which information about the individual's symptoms and behavior/behavior patterns are obtained. Recommended practices in diagnosis are to gain such information primarily through a multimodal assessment approach utilizing clinical/diagnostic interviews with the child/adolescent or their parent(s), documentation of the child's/adolescent's behavior over time through use of behavior checklists, and self-report measures (Wright-Strawderman et al., 1996). While all of these methods are important to use in a thorough assessment, self-report measures are frequently utilized to assess depression and are the focus for this investigation (Martin, 1988; Reynolds, 1990; Shinn, Walker, & Stoner, 2002; Stanard, 2000; Wright-Strawderman et.al., 1996).

Self-report measures are frequently used in social-emotional assessment (Marcotte et al., 2002; Stanard, 2000; Reynolds, 1990; Wright-Strawderman et al., 1996). The utilization of such measures enables individuals to report their own internal thoughts, feelings, and emotions. This allows for better first-hand information of an individual's internal experience of depression than what could be obtained from a third party's observation of symptom patterns.

Objective self-report measures are standardized instruments. They require the completion of questions or items concerning an individual's own social or emotional behavior

and answers are compared to a population sample. It has been proposed by Martin (1988) that self-report measures must have four essential characteristics present before being considered for use: (a) adequate test-retest reliability, (b) standardized procedures, (c) normative data for comparison, and (d) adequate validity.

Types of self report rating scales. Self-report measures vary on the scope of the behaviors or symptomology covered. There are some self-report measures available that deal with a broad range of symptomology; however, there are also measures available that focus only on depression symptomology. Such standardized measures that assess adolescent depression include the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) and the Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987). While some measures are helpful as a screener to provide information regarding depressive symptoms, the RADS and the BDI-II provide a more systematic depth of coverage into depressive symptoms.

The Beck Depression Inventory-II (BDI-II) was developed by Beck, Steer, and Brown (1996). The BDI-II replaced the original BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and modernized the amended Beck Depression Inventory (BDI-IA; Beck, Rush, Shaw, & Emery, 1979). The BDI, and later the BDI-IA, have been the most widely used measures in assessing the severity of depression in psychiatric patients, as well as detecting depression in normal populations (Archer, Maruish, Imhof, & Piotrowski, 1991; Piotrowski & Keller, 1992; Piotrowski, Sherry, & Keller, 1985). The current edition of the BDI, the BDI-II, assesses the severity of depressive symptoms in adults and adolescents, ages 13 to 80. It measures symptoms related to the cognitive, affective, behavioral, and somatic components of depression through responses to 21 items. A total score provides an estimate of the overall severity of depression.

In modernizing the amended Beck Depression Inventory, the revised BDI-II replaced items of Weight Loss, Body Image Change, Somatic Preoccupation, and Work Difficulty with Agitation, Worthlessness, Concentration Difficulty, and Loss of Energy. To allow for increases and decreases in appetite, two items were changed and many statements used in rating other symptoms were reworded. The BDI-II stands as a major revision of the BDI, more so than the BDI-IA, and was developed to be more consistent with DSM-IV criteria.

The psychometric properties of the BDI-II are quite strong. The BDI-II has good reliability and validity and has been shown to discriminate between individuals with depression and those without depression (Beck, Steer, & Brown, 1996; Krefetz, Steer, Gulab, & Beck, 2002; Plake & Impara, 2001). The BDI-II has shown to be a useful tool in assessing depression and it is widely used within the field of psychology (Camara, Nathan, & Puente, 2000; Plake & Impara, 2002; Wilcox, Field, Prodromidis, & Scafidi, 1998).

As mentioned previously, Martin's (1988) criteria described four essential characteristics that a self-report measure should possess in order to be considered a good self-report measure. The BDI-II has established test-retest reliability of .93 (Beck et al., 1996; Plake & Impara, 2001). Standardization procedures are utilized in the BDI-II in that test items are presented in a consistent manner, and the responses are compared to responses of other individuals. The BDI-II provides normative data that allow a score to be compared to a larger group of individuals, and it has established validity (Beck, Steer, & Brown, 1996; Krefetz et al., 2002; Plake & Impara, 2001). Based on Martin's criteria, the BDI-II is an established self-report measure that provides reliable, standardized, valid information to the professionals that utilize it.

The Clinical Assessment of Depression (CAD; Bracken & Howell, 2004) is an instrument that is under development by Psychological Assessment Resources (PAR). It was

developed to answer the question of whether or not depressive symptoms are consistent across the age range from childhood through adulthood. The existing published measures are designed either for adult or child populations. The CAD assesses depression among children, adolescents, and adults using a single form. Because the CAD is currently under development, there is limited information available. However, preliminary information indicates that this measure has adequate test-retest reliability and validity (B. A. Bracken, personal communication, March 25, 2004).

Purpose of Present Investigation

Self-report measures play an important role in the assessment of depression. Due to the internalizing nature of depression, an individual is more in tune to their own thoughts and feelings than what a third party can ascertain through observation (Merrell, 1999; Reynolds, 1990; Stanard, 2000). Since individuals are more credible sources of their own depressive symptoms, self-report measures are often used within the field of psychology. Further, the BDI-II is one of the most frequently used measures in clinical psychology. In a survey conducted by Camara, Nathan, and Puente (2000), current uses of psychological assessment measures by clinical psychologists and neuropsychologists were investigated. A rank-order list of the top 20 tests used within the participants' profession resulted in a BDI-II ranking of 10. Regarding the most often used personality measures, the BDI-II ranked second (Camara et al., 2000). Thus, the BDI-II is a well-known and frequently used assessment tool for psychologists.

In order to validate the usefulness and psychometric properties of new measures, existing measures are one criterion by which to judge new instruments. According to the *Standards for Educational and Psychological Testing (AERA, APA, & NCME, 1999)*, such investigations should be conducted prior to the instrument's use in the field. The purpose of this investigation

is to examine the concurrent validity of a measure under development, the Clinical Assessment of Depression (CAD), with an existing proven measure, the Beck Depression Inventory- Second Edition (BDI-II). The hypotheses for this investigation are as follows.

1. The CAD total score and subscales will evidence strong concurrent validity with the BDI-II total score for the total sample. Concurrent validity will be evidenced by total scores yielding statistically significant, moderate to high correlations.
2. The clinical group will evidence significantly higher mean scores on the CAD than the non-referred group and higher group mean scores on the BDI-II than the non-referred group.

In addition to the above hypotheses, the classification efficacy of the CAD was examined using the BDI-II as the criterion measure.

Method

Participants

The total sample consisted of 65 female and 56 male adolescents ages 13 to18. The mean age for the total sample was 15 years of age. The ethnicity of the total sample consisted of 111 Caucasians, 9 African Americans, and 1 Other. The clinical sample comprised of 23 participants, 13 females and 10 males, with a mean age of 15.0 years old. Among this group were 21 (91.3%) Caucasian and 2 (8.7%) African American participants. These participants had a clinician confirmed primary or secondary diagnosis of Major Depressive Disorder, Dysthymia, or Depressive Not Otherwise Specified (NOS), as based on DSM-IV-TR (APA, 2000) criteria.

Participants for the clinical sample were allowed to have a dual diagnosis, as long as the additional diagnosis was not a diagnosis with a psychosis (e.g., Bi-Polar Disorder, Schizophrenia). The clinical participants were recruited through inpatient and outpatient facilities, as well as private practice clinicians' offices. Comprising the clinical sample were 14 adolescents with a primary diagnosis of Depressive Disorder NOS, 2 with Dysthymic Disorder, 1 with Cyclothymic Disorder, 5 with Major Depression, and 1 with a secondary diagnosis of Major Depression. Of the clinical participants, 10 (44%) were not taking psychotropic medications.

The non-referred sample consisted of 98 participants, 52 females and 46 males, recruited from a high school in south-central Kentucky. The mean age for the non-referred group was 15.4 (SD=1.14) years old and this group included 92 (92%) Caucasians, 7 (7%) African Americans, and 1 (1%) Other. The participants were self-reported to have no existing diagnosis of Major Depression, Dysthymia, or Depressive NOS, as based on DSM-IV-TR (APA, 2000) criteria.

Instruments

Beck Depression Inventory-Second Edition (BDI-II). The Beck Depression Inventory Second Edition (Beck, Steer, & Brown, 1996) is one of the most widely used self-report measures of depression (Camara et al., 2000; Plake & Impara, 2001; Wilcox et al.,1998). The high usage of the BDI-II is a continuation of the original BDI and BDI-IA. As a revision of the BDI-IA and original BDI, the BDI-II is a 21-item, self-report instrument that can be used with ages 13 to 80. The BDI-II can be used as an indicator of the presence and degree of depressive symptoms.

The BDI-II assesses symptoms of depression that correspond to criteria in the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition for diagnosing depressive disorders (APA, 2000). The BDI-II takes approximately 5 to 10 minutes to complete, and can be administered orally if needed. Items are rated on a 4-point scale, ranging from 0-3. In scoring the BDI-II, ratings are summed to derive a total score. The maximum total score is 63. "Minimal" depression is represented by total scores of 0 to 13, "Mild" depression by total scores of 14 to 19, "Moderate" depression by total scores of 20 to 28, and total scores of 29 to 63 as "Severe" depression (Beck, Steer, & Brown, 1996). For this study, a cutoff score of 17 for depression was used, which is recommended by the manual.

The psychometric properties of the BDI-II and its previous editions have been investigated for many years to support the use of the instrument with clinical and non-clinical populations. The BDI-II is the 1996 revision of the amended BDI-IA and the original BDI. The BDI-II has not been independently studied as extensively as the previous editions. However, the BDI-II adds to the 35 years of psychometric data collected on the BDI and BDI-IA. Therefore, psychometric data regarding the original BDI and/or BDI-IA may also be reported.

In reviewing 25 years of evaluation of the original BDI, Beck, Steer, and Garbin (1988), reported that the internal consistency of the BDI yielded coefficient alphas from .76 to .95, with a mean coefficient alpha of .86 for psychiatric populations. For nonpsychiatric samples, a mean alpha of .81 was determined, with the range being .73 to .92. Strober, Green, and Carlson (1981) found a coefficient alpha estimate of internal reliability of .79 among 78 adolescent inpatients on the BDI.

A study by Beck, Steer, & Brown (1996) investigated the psychometric properties of the BDI-II. A coefficient alpha internal consistency reliability of .92 was reported with an outpatient group, and .93 for the college students. Of the 21 items on the BDI-II, corrected item-total correlations for the outpatient and college student samples were significant and ranged from correlations from .39 to .70 for the outpatient sample. The college student sample correlations ranged from .27 to .74 (Beck, Steer, & Brown, 1996).

In another investigation, a coefficient alpha of .89 for the BDI-II was obtained for college students, indicating a high internal consistency (Steer & Clark, 1997). Additionally, a study conducted by Beck, Steer, Ball, and Ranieri (1996) found internal consistencies of .91 for the BDI-II and a .89 for the BDI-IA, indicating that the internal consistency of the BDI-II is comparable to that of the BDI-IA.

Based on responses of a subsample of 26 outpatients, the BDI-II test-retest correlation was .93 (Beck et al., 1996). Strober et al. (1981) determined a test-retest correlation of .74 among adolescents diagnosed with Major Depression, and .69 for adolescents with nonaffective diagnoses.

Convergent and discriminant validity of the BDI-II are evidenced through correlations with other psychological tests assessing similar constructs including: the Hamilton Psychiatric

Rating Scale for Depression (HRSD), Beck Hopelessness Scale (BHS), Scale for Suicide Ideation (SSI), Beck Anxiety Inventory (BAI), and the Revised Hamilton Anxiety Rating Scale (HARS-R). The total test correlation between the BDI-II and the Beck Hopelessness Scale (BHS) was .68 and a correlation between the BDI-II and the Scale for Suicide Ideation (SSI) was .37. The BHS and SSI evidence divergent validity. The correlation between the BDI-II and the Beck Anxiety Inventory (BAI) was .60. The BDI-II scores were most highly correlated with the Hamilton Rating Scale for Depression (HRSD) with a correlation of .71 (Beck, Steer, & Brown, 1996: Krefetz et al., 2002; Plake & Impara, 2001). Thus the BDI-II evidences convergent and divergent validity.

Krefetz et al. (2002) investigated the convergent validity of the BDI-II with the Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987). The findings indicated similar psychometric properties between the BDI-II and RADS with coefficient alpha internal consistency reliability greater than .90. These internal consistencies of the BDI-II and RADS were found to be excellent for clinical purposes according to Cicchetti's (1994) guidelines. Inpatient adolescents diagnosed with Major Depressive Disorder indicated more severe depression than those who were not diagnosed with Major Depressive Disorder. Additionally, results support BDI-II convergent validity for assessing depression in adolescent inpatients through self-report. A correlation between the BDI-II and the RADS was found to be positive and strong ($r = .84$).

The review of the BDI-II provides support for its usefulness in assessing adolescent depression. As an established measure, the BDI-II has strong psychometric properties. The BDI-II appears to be good and plausible measure in indicating the presence and degree of depressive symptoms.

Clinical Assessment of Depression (CAD). The Clinical Assessment of Depression (CAD) is currently in development by Psychological Assessment Resources. It is a 50-item scale that takes approximately 10 minutes to complete. The CAD has four subscales, which are: Depressed Mood, Anxiety/Worry, Diminished Interest, and Cognitive and Physical Fatigue. The age range for this measure is 9 to 79 years. The CAD assesses depressive symptomology in six diagnostic categories: Negative Affect, Irritability/Agitation, Interest in Pleasure, Positive Affect, Energy, and Cognitive Efficiency. Items in these categories were developed using wording and content appropriate for all ages.

In scoring the CAD, item scores are computed into an overall T-score. The CAD does not specify a specific cutoff score; rather, clinicians are suggested to use a cutoff T-score that they are comfortable in using. However, qualitative risk categories of T-scores are indicated as the following: 50 = Normal range, 60-69 = Mild Clinical Risk range, 70-79 = Significant Clinical Risk range, >79 = Very Significant Clinical Risk range (B. Bracken, personal communication, March 23, 2004). For this study, a cutoff T-score of 60 was used.

Because the CAD is currently under development, there are limited psychometric data available at this time. Among age, race, and gender, the CAD reliability analyses have varied slightly with the Total Scale score range of alpha coefficients being .96 to .98 across subsamples. The reliability of the subscales on the CAD vary slightly by subsamples: Depressed Mood = .95 to .97, Anxiety/Worry = .82 to .90, Diminished Interest = .79 to .92, Cognitive and Physical Fatigue = .79 to .91. The CAD Total Scale score test-retest reliability has been found to be .81 to .87. For the CAD subscales, strong confirmatory factor analysis support has been found. Concurrent validity was evidenced in correlations between the CAD and the BDI-II total scores

with ages 8-18 evidencing a correlation of r = .71 and individuals above 18 years evidencing a correlation of r = .87 (B. Bracken, personal communication, March 23, 2004).

Procedure

The Human Subjects Review Board of Western Kentucky University reviewed and approved the procedures of this study (see Appendix A). The subjects for the clinical group were recruited through inpatient and outpatient facilities, as well as private practice clinicians. Once permission was obtained to solicit participants from these treatment providers, the treatment providers were given packets and directions for distributing forms (see Appendix B) to parents/guardians. Treatment providers were also given local fast food restaurant coupons (not exceeding a $2.00 value) to distribute to each participant upon completion of a packet.

Treatment providers distributed the packets to the parent/guardian. Each packet contained a letter including the description of the study and an invitation to participate, a parent consent form**,** a release of information form, an adolescent assent form, an instruction sheet, and the CAD and BDI-II depression measures (see Appendix B). To expedite data collection, the conductor of this study combined data collection with another researcher; therefore, the Reynolds Adolescent Depression Scale (RADS), was an additional measure included in the packets. The RADS was not used for the current study**.**

The instruction sheet found within each packet asked the parent/guardian to complete the consent form and the release of information form. The adolescents were asked to complete the assent form and the three depression measures. Upon completion of the three depression measures and the consent and assent forms, participants were asked to place and seal the measures in one envelope and the consent and assent forms in the separate envelope provided.

The parent/guardian and/or participant were instructed to return both packets to their treatment provider. The conductor of this study retrieved the packets from the providers. The conductor of this study then asked the treatment providers to complete the Clinician's Record Form after a signed release form was obtained from the parent/guardian (see Appendix B).

Subjects comprising the non-referred group were solicited from a local high school in south-central Kentucky. For data collection at the high school, an introductory letter and consent form (see Appendix C) was sent home with randomly selected 9th, 10th, 11th, and 12th grade classrooms. Students who returned forms to school received a local fast food restaurant coupon that did not exceed a value of $2.00. A coupon was given for returning the consent form whether or not consent was granted. The students for whom parental consent was obtained were asked to sign an assent form and complete three measures during school hours. An appropriate time for completion of questionnaires, which was approximately 25 minutes, was determined between the researcher and the students' teachers. A coding system was used so that a student could be identified in the event of significant responses indicating depression or suicidal ideation. Parent/guardians were notified by the researcher when significant scores for depression were found in this group. Names were kept separate from all forms, with no names appearing on the forms.

Results

The current study had two primary purposes: (a) to examine the strength of the relationship between the CAD and the BDI-II, and (b) to determine whether group differences existed between the clinical and non-referred group on the CAD and BDI- II. Additionally, the hit rate or classification efficacy of the CAD was examined using the BDI-II as the criterion measure. Table 1 provides the means and standard deviations of the raw scores for each measure broken down by group and gender.

To examine the relationship between the BDI-II and CAD, correlation coefficients were computed between the total score on the BDI-II and total score and each subscale of the CAD (Depressed Mood, Anxiety/Worry, Diminished Interest, and Cognitive and Physical Fatigue). Using the Bonferroni approach to control for Type I error across the 15 correlations, a p value of less than .003 was established for significance. The results of the correlational analyses are presented in Table 2. All correlations were statistically significant and large using Cohen's (1988) effect sizes. The results indicate strong concurrent validity between the total score on the BDI-II and the total score on the CAD, as well as between the BDI-II and each subscale of the CAD.

To determine whether group differences existed between the clinical and non-referred groups, independent sample t tests were computed to see if each measure (BDI and CAD) evidenced mean score differences between the two groups (clinical and non-referred). Levene's Test for the Equality of Variances was computed due to the unequal number of

Table 1

Sample Descriptive Statistics for the Raw Scores on the BDI-II[a] and the CAD[b]

	BDI-II				CAD			
Sample	*N*	*M*	*SD*	*SEM*	*N*	*M*	*SD*	*SEM*
Non-referred								
Male	52	9.80	8.50	1.27	47	97.34	29.81	4.35
Female	46	15.22	12.59	1.76	52	107.12	29.29	4.06
Total	98	12.68	11.15	1.14	99	102.47	29.80	2.99
Clinical								
Male	10	12.90	9.20	2.91	10	106.40	26.07	8.25
Female	13	25.15	13.67	3.79	13	138.77	27.33	7.58
Total	23	19.83	13.23	2.76	23	124.70	30.90	6.44
Total Sample								
Male	62	11.35	16.43	2.20	57	101.87	29.18	3.86
Female	59	20.19	19.27	2.40	65	122.95	31.4	3.90
Total	121	16.26	18.94	1.72	122	106.66	31.12	2.82

Note. Clinical sample consisted of individuals diagnosed with Major Depressive Disorder, Dysthymia, or Depressive Disorder, NOS.

[a]Beck Depression Inventory – Second Edition. [b]Clinical Assessment of Depression.

Table 2

Correlations of BDI-II[a] total score with CADS[b] total score and Scales

Subscale	*1*	*2*	*3*	*4*	*5*	*6*
1. CAD Total Score	-	.97*	.93*	.90*	.86*	.77*
2. CAD, Depressed Mood	-	-	.86*	.84*	.76*	.75*
3. CAD, Anxiety/Worry	-	-	-	.78*	.78*	.74*
4. CAD, Diminished Interest	-	-	-	-	.77*	.64*
5. CAD, Cognitive & Physical Fatigue	-	-	-	-	-	.66*
6. BDI-II Total Score	-	-	-	-	-	-

[a]Beck Depression Inventory – Second Edition. [b]Clinical Assessment of Depression.

* $p < .004$

participants in the groups. All significance levels were found to be above .05, indicating no violation of the assumption of homogeniety of variance. Therefore the *t* tests were interpretable. The *t* tests were significant, $t\ (117) = -2.66$, $p = .009$ for the BDI-II, and $t\ (120) = -3.2$, $p = .002$ for the CAD. The results support the hypothesis that the clinical group will evidence higher mean scores on each of the two measures than the non-referred group. Participants in the clinical group displayed higher mean scores on both measures than participants in the non-referred group.

Classification efficacy of the CAD was examined using the BDI-II as the criterion measure. According to Bracken (personal communication, March 23, 2004), a cutoff T-score of 60 is recommended for distinguishing between depressed and non-depressed individuals. Using the BDI-II cutoff score of 17 and comparing CAD categories of depression ($T \geq 60$) and non-depressed to actual BDI-II findings, a 2 X 2 contingency table was computed (Table 3) for the total sample. The distribution of the score classification between the BDI-II cutoff score and the CAD cutoff score were found to be significant, $X^2 = 44.72$, ($p < .000$), indicating cell proportions found are not a chance occurrence. Cell proportions indicated that 82% of the total sample was correctly identified by the CAD when using the BDI-II as its criterion measure (see Table 3).

Additional contingency tables were computed in order to understand the classification efficacy of the CAD and BDI-II using group membership (clinical and non-referred) as the criterion. Table 4 shows a contingency table for the CAD and group membership. The hit rate for the CAD was found to be 68%. There were 25% false positives and 7% false negatives. The distribution within the contingency table was significant ($X^2 = 44.72$, $p < .000$) indicating that this was not a chance occurrence. Table 5 shows a contingency table for the BDI-II and group membership. The hit rate for the BDI-II was found to be 68%. There were 24% false positives

Table 3

Total Sample Classification Table between BDI-II[a] and CAD[b] Diagnosis of Depression

	CAD Classification		
BDI-II Classification	Non-depressed	Depressed	Total
Non-depressed	56% (n=68)	10% (n=12)	66% (n=80)
Depressed	8% (n=10)	26% (n=32)	34% (n=42)
Total	64% (n=78)	36% (n=44)	100% (n=121)

Note. $X^2 = 44.72$, $p < .000$.

[a]Beck Depression Inventory – Second Edition; depression classification based on raw score $\geq$ 17.

[b]Clinical Assessment of Depression; depression classification based on T-scores $\geq$ 60.

Table 4

Classification Table between CAD[a] Diagnosis of Depression and Group Membership[b]

	CAD Classification		
Group Membership	Non-Significant	Depressed	Total
Non-Referred	57%	25%	81%
	(n=69)	(n=30)	(n=99)
Clinical	7.4%	11.5%	19%
	(n=9)	(n=14)	(n=23)
Total	64%	36%	100%
	(n=78)	(n=44)	(n=122)

Note. $X^2 = 44.72$, $p < .000$.

[a]Clinical Assessment of Depression; depression classification based on T-score $\geq$ 60.

[b]Non-referred consisted of 99 adolescents 13-18 years of age; clinical sample consisted of 23 individuals, 13-18 years of age, diagnosed primarily with Major Depressive Disorder, Dysthymia, or Depressive Disorder, NOS.

Table 5

Classification Table between BDI-II[a] Diagnosis of Depression and Group Membership[b]

	BDI-II Classification		
Group Membership	Non-Significant	Depressed	Total
Non-Referred	66%	15%	81%
	(n=81)	(n=18)	(n=99)
Clinical	12.3%	6.6%	19%
	(n=15)	(n=8)	(n=23)
Total	66%	34%	100%
	(n=80)	(n=42)	(n=122)

Note. $X^2 = 44.72$, $p < .000$.

[a]Beck Depression Inventory, Second Edition; depression classification based on raw score $\geq$ 16.

[b]Non-referred consisted of 99 adolescents 13-18 years of age; clinical sample consisted of 23 individuals, 13-18 years of age, diagnosed primarily with Major Depressive Disorder, Dysthymia, or Depressive Disorder, NOS.

and 8% false negatives. The distribution within the contingency table was significant (X^2 = 44.72, $p < .000$) indicating that this distribution was not a chance occurrence.

Discussion

The purpose of the current study was to determine the strength of the relationship between the BDI-II and the CAD. High correlations between the two measures were expected. The second purpose was to examine whether the CAD could discriminate between the clinical and non-referred participant groups. The clinical group participants were expected to have significantly higher total scores on the CAD than the non-referred participants. Additionally, the hit rate or classification efficacy between the CAD and BDI-II was examined.

In determining the strength of the relationship between the CAD and BDI-II, some noteworthy results were found. Significant, strong correlation coefficients were found between the total BDI-II score and the total score and each subscale of the CAD (Depressed Mood, Anxiety/Worry, Diminished Interest, and Cognitive and Physical Fatigue). The strongest correlation (.97) was between the CAD total score and the CAD Depressed Mood subscale and the weakest correlation (.66) was between the BDI-II total score and the CAD Cognitive and Physical Fatigue scale. The correlations obtained account for 75%-94% of the variance on the two measures. The findings support the hypothesis that the CAD will evidence strong concurrent validity with the BDI-II.

The second purpose was to establish whether the CAD can discriminate between clinical and non-referred populations on the basis of group mean scores. Independent samples *t* tests were computed to determine if there were mean differences for the two groups (clinical and non-referred) on the two measures (CAD and BDI-II). The *t* test for the BDI-II indicated that the two populations can be discriminated on the basis of group mean scores. The *t* test for the CAD was also significant indicating that the clinical group could be distinguished from the non-referred group on the basis of mean group scores on this measure. For both measures, higher mean

scores were found for the clinical groups than for the non-referred group. These findings support the hypothesis that the clinical group will evidence higher mean scores than the non-referred group.

The third purpose was to examine the hit rate or classification efficacy, using the BDI-II as the criterion measure. A Chi square procedure was used and a 2 X 2 contingency table was computed. From the analyses, 10% of the sample was categorized as false positives on the CAD. Individuals classified as depressed on the CAD were non-depressed on the BDI-II (the criterion). False negatives were also determined. Individuals classified as non-depressed on the CAD were found to be depressed on the BDI-II. Eight percent of the total sample (n = 10) fell within the false negative category. Considered as the more conservative, false positives are more preferred.

In examining the classification efficacy, a hit rate for the total sample was determined as high at 82%. However, there were 10% false positives and 8% false negatives. In looking at group membership, a hit rate of 68% was found for the CAD and BDI-II. With the CAD, there were 25% false positives and 7% false negatives found. On the BDI-II, there were 24% false positives found and 8% false negatives found. In the event that the two measures are not perfectly correlated, it would be expected to find some classification differences between the measures.

There are also three other possible explanations for the classification differences found. One explanation could be the small sample size of clinical group participants (n=23) when compared to the non-referred group participants (n=98). A higher hit rate found with the non-referred group may be because of the larger sample size. A second explanation is that more clinical group participants were from outpatient facilities than from inpatient facilities. As such, it would appear that the clinical sample consisted of less severely depressed individuals. A third

explanation could be the uncertainty of the clinical participants status on the continuum of depression. The researcher was unaware of how long each participant had been diagnosed with depression and had been receiving treatment.

Limitations

Before findings of the current study can be interpreted and generalized, limitations of the study need to be considered. The small sample size, limited geographic area, and small percentage of ethnicities represented among the participants of the clinical and non-referred groups may have limited the amount of information gathered and the generalizability of the data obtained. Also, the recruitment of clinical participants from both inpatient and outpatient facilities may explain some of the classification discrepancies between the measures (hit rate).

For the current study, it is difficult to know if any events occurred prior to completion of the two measures that may have impacted the responses of the participants and threatened internal validity (e.g., relationship difficulties, school stress). An additional threat to internal validity is that the non-referred group was self-reported to have no existing diagnosis of depression. It is possible that some participants of this group did in fact have a diagnosis of depression. Based on the ratings on the two measures (BDI-II and CAD), 21 individuals in the non-referred group had clinically significant levels of depression.

A threat to external validity of the study is noted, in that the clinical sample relied on treatment providers to recruit clinical participants to ensure confidentiality. Individuals diagnosed with depression and not seeking treatment were not included in this study. Another threat to external validity is that the clinical sample was not homogeneous. Some participants had secondary diagnoses and one participant had depression as the secondary diagnosis. In addition, the clinical sample represented all diagnoses of depression and not just one particular

diagnosis such as Major Depression only or Dysthymia only. A more homogeneous sample may have provided different or more consistent findings.

Other factors impacting the external validity of the study include the extent and method of treatment the clinical participants were receiving and whether the participants were currently taking any medications. A final threat to external validity is that the data for this study were collected in one geographic location (south-central Kentucky). Although the clinical and non-referred sample was relatively balanced for gender and representative of the ethnicity of the region, 7% minority, generalizability to other geographic regions may not be valid.

Implications

Practical implications. The major implication of the current study is that psychometric evidence has been established and provided for the CAD's use as a measure for assessing depression in adolescents. The hit rate or classification efficacy when using the BDI-II as a criterion measure was established as high. The current study has also expanded the knowledge base of available adolescent depression measures. While depression measures are limited for children and adolescent populations, it is important that additional measures be established, in addition to the CAD and BDI-II. With prevalence rates of childhood depression on the rise, and the high need for professionals to utilize depression measures (Camara et al., 2000), it is imperative that valid and reliable measures be established and made accessible. Measures that can adequately identify and diagnosis depressive symptoms will increase the likelihood of accurate treatment.

Further research. In regard to future research, the psychometric properties of the CAD warrant further investigation. Additional studies addressing differing age groups, different clinical groups (outpatient versus inpatient), and more homogeneous diagnoses may help to

further clarify the usefulness of the CAD. Future research should also investigate the subscales of the CAD with other established measures that measure wider ranges of symptomology, including depression, such as rating scales that assess both internalizing and externalizing behaviors. In addition, future studies should expand sample size and the geographic area to enhance the generalizablity of findings. Evidence of validity should also be obtained through factor analytic procedures to substantiate the subscale structure of the CAD.

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Appendix A

Letter of Human Subjects Review Board Approval

WESTERN KENTUCKY UNIVERSITY
Human Subjects Review Board
Office of Sponsored Programs
104 Foundation Building
270-745-4652; Fax 270-745-4211
E-mail: Phillip.Myers@Wku.Edu

In future correspondence please refer to HS03-077, April 3, 2003

Shanna Bowers
1500 Crossbreeze Ct.
Bowling Green, KY 42104

Dear Shanna:

Your research project, "Concurrent Validity of Adolescent Depression Measures," was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.
1. In addition, the IRB found that: (1) **signed informed consent will be obtained from all subjects.** (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects. (4) **Any ad or flyer used to recruit participants must be reviewed by the HSRB before used.**
a. Your research therefore meets the criteria of **Full Board Review** and is **Approved**.
2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future to determine the status of the project.
Sincerely,

Phillip E. Myers, Ph.D.
Director, OSP and
Human Protections Administrator

cc: Human Subjects File HS03-077
cc: Shanna Bowers
cc: Dr. Elizabeth Jones

Appendix B

Clinical Packet Forms

Dear Parent/Guardian,

Your child is invited to participate in a study looking at the usefulness of 3 measures of social and emotional well-being. This study is being conducted by Shanna Bowers, Brooke Wootton and Dr. Elizabeth Jones of Western Kentucky University in cooperation with your child's clinician. The results of the study will be used to determine how well these 3 instruments measure social and emotional well-being in adolescents.

In addition, the data from this study will be used to evaluate a new instrument that measures social and emotional well-being. Such data can provide information about the new instruments' usefulness and ability to measure what it sets out to measure. If you agree to allow your child's responses to be used in this evaluation process, there is a separate consent form included in this packet that requires your signature. This form will be returned to the test publisher.

Upon your consent and your child's assent, your child will be asked to complete 3 questionnaires concerning their thoughts, feelings, and emotions as they relate to their day-to-day functioning. It will take approximately 25 minutes to complete and this may be done before or after your child's therapy sessions. You will also be asked to complete a release of information form to allow your child's therapist to release diagnosis, medication, and family history information. This information will only be used by the researchers to insure that research requirements are met. Your child's name will not appear on this form. For your child's participation in this study he or she will receive a local fast food restaurant coupon that will not exceed a $2.00 value.

Your consent and your child's participation are completely voluntary. At any time withdrawal from the study is possible. If you do not consent for your child to participate, it will have no negative outcomes for you or your child and will not affect the relationship with the clinician. There are no physical risks involved in filling out the questionnaires. However, answering the items on the questionnaires may cause your child to feel some emotional discomfort, due to the nature of the questions asked about your child's behavior. All information collected in this study will be kept strictly confidential and will be accessible only to project staff. However, all packets will be coded to allow for identification only if an individual's responses indicate a threat to self or others on the questionnaires. Researchers must by law report this information to your child's clinician and you will be immediately informed.

The procedures in this study have been reviewed and approved by the Western Kentucky University Human Subjects Review Board. If you have questions about the study you may contact Dr. Elizabeth Jones by phone at (270) 745-4414. We hope that both you and your child agree to take part in our study. To indicate your consent for participation please complete and sign the attached form, have your child complete the questionnaires, and return the packet to your child's clinician.

Sincerely,

Elizabeth L. Jones, Associate Professor of Psychology
Shanna Bowers, School Psychology Graduate Student
Brooke Wootton, School Psychology Graduate Student

Participation Consent Form

Child's Age ____ Child's Gender __ M __F Child's Race/Ethnicity_____

I have read the information provided concerning this study. I give consent for my child to participate in this study conducted by Shanna Bowers, Brooke Wootton, and Dr. Elizabeth Jones of Western Kentucky University. I understand that I may withdraw from the study at any time without penalty.

_____ I **DO** give consent for my child to participate in this study.

_____ I **DO NOT** give consent for my child to participate in this study.

Parent/Guardian Signature _____ Date _____

PARENT/GUARDIAN CONSENT FORM

Research Participation in a Behavioral Study

General Information and Purpose

My child:_____ has been asked to participate in a research study being conducted by PAR, Inc., a developer and publisher of educational and behavioral assessment tools. The purpose of the study is to evaluate a new test designed to identify behavioral problems in adolescents. I have been asked to participate in this study because I am the parent of a child (ages 2 to 18 years); if my child is between 8 and 18-years-old, he or she has also been asked to participate.

What is involved in my child's participation?

If I agree (and give consent for my child) to participate in this study, my child will complete one or more questionnaires that ask about my child's academic, social, and personal behaviors. Children questionnaires take from 15 to 30 minutes to complete.

Risks

There is no physical risk involved in filling out the questionnaires. Answering the questions on the questionnaires may cause my child to feel some emotional discomfort, due to the nature of the questions asked about my child's behavior.

Benefits

The results of this study may be of benefit in the future to children with behavioral problems and the professionals who evaluate and treat them. **There is no immediate benefit to my child for their participation, however they may benefit in the event that they indicate suicide or harm to others. If such indicators are present, they will be identified and I will be identified immediately.**

Confidentiality

My child's answers on the questionnaires are strictly confidential and anonymous. I will not be asked to put my child's name on the questionnaires. Only the primary researchers or their designees will have access to my child's confidential survey responses. However, the packets will be coded to allow for identification only if my child's responses indicate suicide or harm to others. By law researchers must report this information to you immediately.

Right to Withdraw or Decline to Participate

My child's participation in this study is completely voluntary. He/she may choose not to participate, or to withdraw from participation at any time without penalty.

I attest that I have read and understand all of the above pertaining to my child's participation in this study, and that all of my questions about the study have been answered to my satisfaction. I hereby give my informed consent for my child to participate in this research study.

_____	_____	
Parent's Name (please print)	Parent's Signature	Date

Release of Information

CONCURRENT VALIDITY STUDY OF ADOLESCENT DEPRESSION MEASURES

(1) TO:_____ (2) DATE:_____

_____

_____

(3) RE:_____
Name

_____
Address

Authorization is hereby granted to release to Western Kentucky University (WKU) researchers: Dr. Elizabeth Jones, Shanna Bowers, and Brooke Wootton, and Psychological Assessment Resources (PAR) researchers such information relative to service rendered.

(4) _____
Signature of Parent

_____
Address

_____

(5) _____ _____
Witness Date

Information particularly requested is listed below:
Your Childs: Age
Gender
Race
Primary DSM-IV Diagnosis
List of Current Medications
Family History of DSM-IV Diagnosis

As mentioned before, the purpose of this study is to use self-report measures to identify social and emotional well-being in adolescents. To ensure that the participants of this study meet diagnosis criteria, it is necessary to obtain diagnosis information from a clinician.

Attached is a release form that must be completed so that your child's therapist can release diagnosis and medication information to the researchers.

- Fill in the name of your child's therapist at #1
- Put today's date at #2
- Put your child's name at #3
- Sign your name, provide address and date at #4
- Have a witness (someone over 18 years of age) sign at #5

Participation Assent Form

I have read and understand the information provided about this study. I give assent to participate in this study conducted by Shanna Bowers, Brooke Wootton, and Dr. Elizabeth Jones of Western Kentucky University. I understand that I may withdraw from this study at any time without penalty.

I, _____, understand that my parent/guardian has given permission for me to participate in a study concerning social and emotional well-being, under the direction of Western Kentucky University.

My participation in this project is completely voluntary, and I understand that I may stop my participation in this study at any time. I am aware that I am encouraged to answer all of the items, even if I am unsure how to respond, and that I hold the right to refuse to answer items. If I choose not to participate, it will not affect my treatment in any way.

Signature _____ Date_____

Bracken Survey Project

Clinician Record Form

Clinician Name:_____ Date: _____

Age:_____

Please provide the following information for the individual participant being rated/tested.

ID No.: _____ Gender: _____ Race/Ethnicity: _____

Primary DSM-IV Diagnosis(es): _____

Estimated Date of Dx: _____

Diagnosis made by: ☐ Psychologist ☐ Psychiatrist
☐ Pediatrician ☐ Primary care physician
☐ School Personnel ☐ Other: _____

1) _____

			Current?	
Secondary DSM-IV Diagnoses:	2) _____	Estimated Date of Dx: _____	Yes	No
	3) _____	Estimated Date of Dx: _____	Yes	No
		Estimated Date of Dx: _____	Yes	No

Current Psychotropic Medications:

1) _____

2) _____

3) _____

Does either parent or any sibling carry a DSM-IV diagnosis(es)? No ☐ Yes

If yes, indicate biological relative(s) and respective diagnosis(es):

Appendix C

Non-referred Packet Forms

Dear Parent/Guardian,

Your child is invited to participate in a study looking at the usefulness of 3 measures of social and emotional well-being used with adolescents. This study is being conducted by Shanna Bowers, Brooke Wootton and Dr. Elizabeth Jones of Western Kentucky University. The results of the study will be used to determine how well these 3 instruments measure social and emotional well-being in adolescents.

In addition, the results of this study will be used to evaluate a new instrument that measures social and emotional well-being. Such data can provide information about the new instrument's usefulness and ability to measure what it sets out to measure. If you agree to allow your child's responses to be used in this evaluation process, there is a separate consent form included in this packet that requires your signature. This form will be returned to the test publisher.

Upon your consent and your child's assent, your child will be asked to complete 3 questionnaires concerning their thoughts, feelings, and emotions as they relate to their day-to-day functioning. It will take approximately 25 minutes to complete the three questionnaires.
For your child's participation in this study he or she will receive a local fast food restaurant coupon that will not exceed a $2.00 value.

Your consent and your child's participation are completely voluntary. At any time withdrawal from the study is possible. If you do not consent for your child to participate, it will have no negative outcomes for you or your child. There are no physical risks involved in filling out the questionnaires. However, answering the items on the questionnaires may cause your child to feel some emotional discomfort, due to the nature of the questions asked about your child's behavior. All information collected in this study will be kept strictly confidential and will be accessible only to the project staff. However, all packets will be coded to allow for identification only if an individual's responses indicate a threat to self or others on the questionnaires. Researchers must by law report this information to you immediately.

The procedures in this study have been reviewed and approved by the Western Kentucky University Human Subjects Review Board. If you have questions about the study you may contact Dr. Elizabeth Jones by phone at (270) 745-4414. We hope that both you and your child agree to take part in our study. To indicate your consent for participation please complete and sign the attached form.

Sincerely,

Elizabeth L. Jones, Associate Professor of Psychology
Shanna Bowers, School Psychology Graduate Students
Brooke Wootton, School Psychology Graduate Students

Participation Consent Form

Child's Age ____ Child's Gender __ M __F Child's Race/Ethnicity_____

I have read the information provided concerning this study. I give consent for my child to participate in this study conducted by Shanna Bowers, Brooke Wootton, and Dr. Elizabeth Jones of Western Kentucky University. I understand that I may withdraw from the study at any time without penalty.

_____ I **DO** give consent for my child to participate in this study.

_____ I **DO NOT** give consent for my child to participate in this study.

Parent/Guardian Signature_____ Date _____

Participation Assent Form

I have read and understand the information provided about this study. I give assent to participate in this study conducted by Shanna Bowers, Brooke Wootton, and Dr. Elizabeth Jones of Western Kentucky University. I understand that I may withdraw from this study at any time without penalty.

I, _____, understand that my parent/guardian has given permission for me to participate in a study concerning social and emotional well-being, under the direction of Western Kentucky University.

My participation in this project is completely voluntary, and I understand that I may stop my participation in this study at any time. I am aware that I am encouraged to answer all of the items, even if I am unsure how to respond, and that I hold the right to refuse to answer items. Whether or not I choose to participate, I will not be affected in any way.

Signature _____ Date_____