AN EXAMINATION OF SELF-ATTRIBUTION, SELF-CONCEPT, AND DEPRESSION BETWEEN TWO LABELED GROUPS

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A Thesis

Presented for the

Master of Science

Degree

Austin Peay State University

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by

A. Susan Richardson

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DEDICATION

In memory of my mother,

Almyra Katherine DeCleene Huffman,

whose influence instilled in me a reverence for God

and a value of knowledge and education.

Her generosity through her estate made all this possible.

This thesis is dedicated to my children

Mark DeCleene Richardson

and

Laura Nan Richardson.

May you both surpass me!

and also to my husband

Samuel Nolen Richardson

who encouraged me in my efforts.

A final dedication to my sisters

Mary Elizabeth White

and

Monica "Nicky" Huffman

for all their multifaceted support and love.

"I Love You All"

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ABSTRACT

The hypothesis of this research predicted there would be no difference in the two labeled groups. This finding would support other studies which found that labeling of children has negative effects on a child's self-concept, level of depression, and attributional style. A total of thirty-five students were included in the study which examined a group of ADHD children ages 8-11 years and a comparison group of children with asthma using the CDI, SPPC, and CASQ. The results did not support the hypothesis. The ADHD group had significantly higher levels of depression and a more negative self-concept than the asthma group. There was no statistical difference in the attributional styles. In addition, there was an interaction among diagnostic group, level of understanding, and the scores for all three questionnaires. The asthma group with a moderate understanding of asthma had a lower level of depressive symptoms, a more maladaptive attributional style, and a more adequate self-concept than the good or poor understanding level asthma groups. The ADHD group with a moderate understanding of ADHD had a greater level of depressive symptoms, had a more adequate attributional style, and a lower self-concept than either the good or poor understanding level ADHD groups.

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CHAPTER I

REVIEW OF LITERATURE

Diagnostic labels are thought to elicit negative perceptions or harmful treatment from professionals, teachers, and others who interact with individuals who have been labeled as psychotic, neurotic, serious emotional disturbance (SED), learning disordered, or (ELD) expressive language disordered (Fox & Stinnett, 1996; Gibbons & Kassin, (1982), Herson, 1975; Leimkuhler & Ziegler, 1978; Morrison, 1985; Wood & Valdez-Menchaca, 1996). In their review of the literature on labeling, Rist & Harrell (1982) state the negatives of labeling are easily documented while the benefits are less evident. Some studies indicate a label will elicit a negative attitude toward the individual (Rosenhan, 1973; Gove, 1970; Leimkuhler and Ziegler, 1978) while other studies suggest the child is judged primarily on behavior (Fogel and Nelson, 1983; Fernald, Williams, & Droescher, 1985; Lehmann, Joy, Kreisman, & Simmens, 1976). Some studies found that a child's behavior can change how they are perceived by those around them in spite of their diagnostic label (Fernald, Williams, & Droescher, 1985; Wallston, Wallston, and DeVellis, 1976). In certain situations the label may even be beneficial if it enhances the adult's understanding and knowledge of the child's behavior (Fernald & Gettys, 1980; Wood & Valdez-Menchaca, 1996; Kurtz, Harrison, Neisworth & Jones, 1977). A label can bring about better treatment of an individual in some circumstances (Farina, Thaw, Felner, and Hust, 1976). "Labels provide a sense of closure about the nature of a child's behavior disorders and generate favorable perceptions of the child" (Fernald & Gettys, 1980, p. 231). It can be seen there is no consensus of the effects of labeling.

Labels can elicit a more tolerant attitude from adults when the label contributes to understanding the cause of the behavioral differences and academic deficiencies (Macmillan, Jones, & Aloia, 1974; Propst & Nagle, 1981; Wood & Valdez-Menchaca, 1996). However, Wood and Valdez-Menchaca (1996) point out this may not be in the child's best interest as some teacher's may not encourage the social skills and behavior that will prepare the child for socialization in environments where their learning disability is not understood or known. A study by Gibbons and Kassin (1982) found that mainstreamed nonretarded children held low behavioral expectations of retarded individuals in the cognitive and ability areas. These results provide support for Wood & Valdez-Menchaca's (1996) study. When individuals interacting with those labeled retarded, such as teachers, parents, and nonhandicapped peers, experience low expectations, it may prevent those individuals from providing challenges for the labeled child or demanding a higher level of behavior.

Herson's (1974) study presented descriptions of each of four cases to 180 teachers. The descriptions either contained a diagnostic mental health label, a behavioral description, or both. Her results indicated that each labeled group was seen as more severely incapacitated than the group with only a behavioral description. Herson (1974) reports the results indicate a diagnostic label has biasing effects for teachers dealing with the pupils. A study by Siperstein, Budoff, & Bak (1980) suggests the elementary school students react in a stigmatized manner when a child is called a retard. The stigma is less when the child has the clinical label of mentally retarded. The authors theorize that the clinical label may contribute to children understanding the student's academic incompetence. However, a clinical label itself can elicit a negative or positive response. Wallston, Wallston, & DeVellis' (1976) study found that

nurses responded more favorably to the emotional actor when he had cancer but not when he had colitis. An individual's attitude toward the problem indicated by the label can influence the individual's response. As a result, Wallston, et. al. (1976) suggest labeling can effect impression formation but this may not necessarily have negative implications.

Partly to protect children eligible for resource or special education services from the stigma of being different, the Federal Government passed the Individuals with Disabilities Education Act (IDEA) of 1990. The federal law outlined the terms of the requirements concerning the least restrictive environment (found in section 34 CFR 300.550 [b] of the law) and began the movement in the public education system called inclusion. Inclusion requires that children remain in the regular classroom with a trained aid for all possible academic activities (Vaughn, Elbaum, & Schumm, 1996). Children who meet the criteria and have a diagnosis of learning disabled for health impaired are among those approved for special education services in the public school and are given consideration for inclusion. According to Semmel, Gottlieb, and Robinson (1980) mainstreaming is a result of the labeling controversy. "With the passage of PL 94-142, educators are required to implement and evaluate 'mainstreaming programs' " (p. 229). This means the child is to be educated in the "least restrictive environment consistent with his or her individual needs" (p. 267). Semmel et. al. (1980) report their review of the literature indicates that "handicapped children have more cognitive interactions with teachers and attend to tasks more in resource rooms and special classes than in the regular grades" (p. 269-70). For this reason the authors concluded that the empirical data does not support the concept of main streaming (p. 271).

A review of the literature concerning the influence labels can have on children reveals the complexity of this issue. Studies which have examined the influence of labeling have found conflicting results concerning the influence labels have on children and their self-concept as well as how others react to them as a result of the diagnosis/label (Fernald et. al., 1985; Fox & Stinnett, 1996; Leimkuhler & Ziegler, 1978; Vaughn, et al., 1996; Wallston et al., 1976). Diagnostic labels are necessary in order to determine which children are eligible for services and cue those professionals working with the child to appropriate treatment. Although Fox and Stinnett (1996) express concern that labeling can affect the prognostic judgments of professionals working with the child, Wood and Valdez-Menchaca (1996) found that adults perceived children with expressive language disorder (ELD) more favorably when they were labeled than when they were not labeled. In their study, participants were reported to provide more support and express a more positive attitude toward the child when the child was labeled ELD than when the same child was not labeled.

Fox and Stinnett's (1996) study presented participants with a one page vignette followed by a nine item evaluative questionnaire. The participants, in their study, included school psychologists, special education teachers, regular education teachers, and students enrolled in introductory psychology classes. The vignette gave all participants the same information for each target child. The only difference was the label given to the child in the story. The diagnostic labels utilized in the study were Conduct Disordered (CD), Socially Maladjusted (SM), Seriously Emotionally Disturbed (SED), or No Exceptionality (NE). The 1996 study by Fox & Stinnett found there was a negative effect determined by the label given the child. The SED label accounted for the effect as evidenced by the participants predicting

poor future interpersonal relationships for these children.

Fogel and Nelson (1983) found that teacher's checklist scores were influenced negatively by special education labels. When checklists are used teacher's rate these children more negatively. Therefore, those who read these checklists, such as psychologists, teachers, administrators, etc., may be biased as a result of the rating in the absence of observing a child's performance. There is a weak but positive relationship between school warmth and tests of achievement with a somewhat stronger relationship between school warmth and class participation (Voelkl, 1997). A possible explanation may be that school warmth encourages participation which improves achievement rather than directly affecting achievement. The concern is that labeling may deprive children of a demonstration of warmth by the classroom teacher which would negatively effect achievement (Chapman & Larsen, 1975; and Voelkl, 1997).

A study by Maras, Redmayne, Hall, Braithwaite, and Prior (1997) found that teachers, school governors, managers and administrators, education committee members, educational psychologists, and parents have a more positive attitude toward the labeled child when they understood the label. The measures used in the study analyzed the participant's understanding of each diagnosis and measured the participants behavior toward the children identified with these disorders. When the measures indicated the participant understood the underlying cause of the behavior and that the child was unable to behave differently, their response was one of support. In addition, they found the child more likable (Maras et al., 1997).

In contrast, a study by Fernald et al. (1985) found that labels had little impact on layperson's perception of children and that a child's behavior was a more important predictor

of others' perceptions. Children are judged primarily on behavior and that behavior can change how an individual is perceived by those around them in spite of their diagnostic label (Fernald et al., 1985; Wallston et al., 1976). In some situations the label may even be beneficial if it enhances the adult's understanding and knowledge of the child's behavior. Behavior is a greater influence on attitudes than are labels (Lehmann et. al., 1976). Lehmann's et. al. (1976) study concluded there was no evidence that labels elicit rejection but rather it is the aberrant behavior that results in rejection of the labeled individual. According to Fernald et. al. (1985) the behavior of the labeled individual has a very powerful effect on the impressions of others. The major implication from their study was that it "probably does not matter much whether labels are used or not, because they seem to have such relatively weak impact on perception (Fernald et. al., 1985, p. 658). Academic competence like behavior has been found to be a stronger influence on the perceptions of others than are labels (Gottlieb, 1974). It has also been found that labels do not influence the grading of academic work (Fogel & Nelson, 1983). A theoretical analysis and review of the literature by MacMillan et. al. (1974) found evidence of the effects of labeling are limited and inconclusive. Their analysis of the research highlights the complexity of the problems with these studies. These problems include concerns that labeling studies are poorly designed; contain sampling biases; and that self-contained classes consist of a variety of independent variables (Macmillan et. al., 1974).

Self-concept

Self-concept is the mental impression individuals form about their own identity, abilities, or worth (Webster's New World Dictionary of the American Language, 1980). Some

studies suggest labeling negatively impacts the self-concept. Tests that measure the self-concept are one way the effects of labeling can be explored. Vaughn et al. (1996) reported learning disabled (LD) students "demonstrated self-concepts that were on par with other achieving subgroups' for the factors of physical appearance, friendship, and overall self-worth" (p. 605). The other achieving subgroups in the study consisted of low-average (LA) and average to high-average (AHA) achieving students. Further, the study indicated LD students scored significantly lower than LA or AHA students on academic self-concept. Hoza, Pelham, Milich, Pillow, and McBride (1993) also found that ADHD participants in their study did not rate themselves differently from the control group in the subscales of global self-worth and self-perception on the Self-Perception Profile for Children or SPPC . They suggested the ADHD group did not differ from the control group because they may have used compensating techniques to protect their ego through what they call an illusory (or deceptive) adaptive process. This is evident in the way the ADHD participants maintained a positive self-image despite their poor academic achievement and rejection by peers (Hoza et al., 1993). Other studies support these results (Bear, Juvonen, McInerney, 1993; Bryan, 1986; Cooley & Ayres, 1988; Grolnick & Ryan, 1990; Hoza et. al., 1993).

Studies have found that children with asthma also experience a lower self-concept. The Sears Self-Concept Inventory was used by Nelms (1989) in a study with a group of children with asthma and a control group of children without asthma. The study concluded that the experimental group had significantly lower self-concept scores than the control group of well children. Padur et. al. (1995) found that a group of asthmatic children scored significantly lower in self-concept than did a group with cancer and a control group. In

another study by Sharma & Nandkumar (1980) the results indicate that children with asthma display marked disturbance due to a significantly lower self-concept.

However, Kashani, Konig, Shepperd, Wilfley, and Morris (1998) conducted a similar study using the Child Behavior Checklist (CBCL) and Piers-Harris Children's Self-Concept Scale and found results differing from Nelms. In this study the experimental group of children with asthma did not significantly differ from a control group of well children in level of self-concept. The severity of the disorder effects the self-concept of children with asthma. Those with mild (requires little treatment and very infrequent hospitalization) asthma have adequate levels of self-esteem and more closely resemble controls.

In summary, the results of studies of self-concept involving children with asthma and children with ADHD are conflicting when each group is compared to a control group of asymptomatic children.

Self-attribution

Self-Attribution refers to how an individual internalizes a quality or characteristic (Webster's New World Dictionary of the American Language, 1980). Attribution as measured by the Children's Attributional Style Questionnaire (CASQ) gives us information on where children place responsibility for good or bad events in their lives. Bryan's (1986) review of studies involving learning disabled (LD) children suggests that attribution can be defined as behavior is influenced by a person's ideas concerning the causes of events. He describes those who accept outcomes as a result of their own actions as holding an internal locus of control. Those who believe outcomes in their lives are the result of outside forces are said to have an

external locus of control. Hoza et al. (1992) conducted a study with a restricted sample of ADHD boys, 8.5 to 13 years of age, from one summer day camp treatment program. Although the results may have limited generalizability, they provide insightful results which require further study. The scores on the CASQ indicated that ADHD children internalized responsibility in social situations with a positive outcome while, in contrast, those same ADHD children externalized responsibility for social situations with negative outcomes. A relationship was found between attributional style and level of depression in the control group in this study; however, this association was not found with the ADHD children. Hoza et al., suggests a possible explanation is that ADHD children experience negative social situations daily but do not attribute these situations to their own behavior (internalize responsibility) whereas the control group did internalize responsibility. In addition to ADHD children's lack of ability to connect their behavior with the resulting social situation, a study by Gordon, Thomason, Cooper, & Ivers (1991) found ADHD children do not tend to generalize behaviors from one situation to another. They suggest this may further explain the difference in attributional style and lack of relationship to their level of depression. If a child with ADHD learns skills appropriate for one situation, they may not necessarily use the skills in another situation. They do not seem able to make this transfer of learned behaviors (Gordon et al., 1992).

Depression

Depression can be described as a feeling of dejection, sadness, or low spirits (Guralnik, ed., 1980) and is usually identified by behaviors such as change in eating patterns, sleeping

disturbance, weeping, withdrawal, poor self-esteem, etc. (Gizynski and Shapiro, 1990; Hoza et. al., 1992). Fischer, Barkley, Fletcher, and Smallish (1993) conducted an eight year study of ADHD children and a control group of children of similar socioeconomic status and geographic area. They found that the ADHD children experienced a significantly higher level of anxiety and depression into adolescence than the control group in the study. Specifically, they found that the level of anxiety/depression as scored on the Child Behavior Checklist (CBCL) decreased in severity but continued to be at a more significant level at the end of the study than the control group. The ADHD participants did not show a significantly increased level of depression on the Children's Depression Inventory (CDI) when areas such as school, behavior problems, and absence of friends were excluded (Hoza et. al., 1992). Since it would be impossible to eliminate these aspects of a child's life, adults dealing with ADHD children should be mindful of the possibility of depressive symptomatology. There is some evidence that depression is a comorbid disorder with ADHD due to the high incidence of depression among those diagnosed with ADHD (Biederman, Faraone, Mick, & Leon, 1995; Hoza et. al., 1992). However, other studies suggest that depression is independent of ADHD and should be treated as a separate syndrome in ADHD children (Biederman, Mick, and Faraone, 1998; Milberger, Biederman, Faroane, Murphy, & Tsuang, 1995). Their findings suggest that depression in ADHD children is not a result of demoralization due to academic failure and peer rejection but is a disorder that coexists with ADHD in some cases.

Asthma is described as a "chronic disorder, characterized by wheezing, coughing, difficulty in breathing, and a suffocating feeling, usually caused by an allergy to ingested substances" (Guralnik, ed., 1980). Children with asthma were significantly more depressed

than the well children in the study. Bennett's (1993) Meta-Analysis contained mixed results on depression but concluded that all chronically ill children have a greater incidence of depressive symptoms than normals. His review further suggests that family functioning and negative life events exacerbate depression in asthmatic children rather than the severity of their disorder producing negative effects on depressive symptoms. Asthmatic children have been found to score higher than well children in depression and feelings of sadness (Kashani, Konig, Shepperd, Wilfley, & Morris, 1988; Nelms, 1989; Sharma & Nandkumar, 1980; & Vesely, 1969).

Siefert et. al. (1992) did not find significant differences in levels of depression between children with asthma and children with cancer; however, another study found that asthmatic children experienced higher levels of depression than children with cancer (Gizynski & Shapiro, 1990). Friedman & Booth-Kewley (1987) conducted a meta-analysis of several chronic medical illnesses such as asthma, headaches, rheumatoid arthritis, and coronary heart disease. "Regarding asthma, the variables of anxiety, depression, and anger/hostility/aggression are again positively and reliably associated with disease, but higher levels of introversion are associated with asthma" (p. 549).

ADHD and Asthma

A particularly significant study regarding depression was done by Gizynski & Shapiro (1990) and included 60 children from three clinics. The three groups were children with cancer, asthma, and behavior disorders. A small number of the behavior disordered group were children diagnosed with ADHD. Information was taken from the hospital evaluation and

open-ended interviews with families. The children ranged in age from 4-13 with 73% males and 93% white participants. Gizynski and Shapiro found the behavioral disordered group rated more depressed than the other two groups while the group with asthma rated more depressed than the group with cancer. Because the behavior disordered group in the study by Gizynski and Shapiro (1990) included other disorders such as conduct disorder and major depressive disorders, more study would need to be done to determine exactly how the ADHD individuals rated in relation to the asthma group. Biederman, Milberger, Faraone, Guite, & Warburton (1994) studied the possibility of a link between asthma and ADHD. Their results did not support their hypothesis but rather they found the rate of asthma among ADHD children did not differ significantly from the rate of asthma among a group of normal controls. The results did find a two fold increase in the incidence of asthma among ADHD children with multiple comorbid disorders such as conduct disorder, major depression, and anxiety disorders. In spite of this increase, the results were still not statistically significant. Family members were included in this study and it was suggested by the results that ADHD and asthma are independently transmitted through generations (Biederman et. al., 1994).

Two labeled groups were chosen for this study. One group was labeled with a medical diagnosis (asthma) and the other with a behavioral disorder (ADHD). Both groups have similarities in several psychological and social dimensions. Some studies indicate that children with asthma have elevated depression scores when compared with control groups (Bennett, 1993; Kashani, 1998; Nelms, 1989; Vesely, 1969) just as other studies have found that children with ADHD have elevated depression scores when compared with control groups (Biederman et. al., 1995; Cotugno, 1995; Hoza et. al., 1993). Both groups are able to attend

school and social activities; both conditions are invisible to the public; both are attributed to genetic causes as well as parenting style (Comings, 1996; Gizynski & Shapiro, 1990; Friedman & Booth-Kewley, 1987). Some psychologists believe cognitive behavior management techniques will reduce or eliminate the symptoms of each disorder (Weiss & Hermalin, 1987; Gordon, et. al., 1991). Although these two groups were included in a study of childhood illness and depression, the results did not compare the two groups separately. This study will only include those children whose primary diagnosis is ADHD and children medically diagnosed with asthma.

The purpose of this study is to look at the influence of diagnostic labels from the perspective of the ADHD child. Two similar groups of labeled children were chosen for this study in order to analyze the differences between children with a behavior label as opposed to a medical label. The question to be answered by this study is if there is a significant difference between these two labeled groups in the areas of level of depression, self-concept, and self-attribution. If labels cause children to experience more depression, poorer self-concepts, and more negative attribution, then we would not expect to find a significant difference between the two groups in this study. If the results indicate a significant difference in the two groups, this might indicate an unidentified variable is effecting the child's self concept, level of depression, and attributional style.. The results are expected to find that the group of children with ADHD will not have a significantly higher level of depression, lower self-concept, and poorer self-attributional style than the group of children with asthma.

CHAPTER II

METHODS

Participants

Thirty-five children were recruited through a medical clinic in Clarksville, one elementary school in Nashville and one elementary school in Dover, Tennessee. Thirty-four percent of the participants were girls (N=12) and 66 percent were boys (N=23), ranging in age from 8 - 11 years. Demographic information was not collected.

The pediatrician identified ADHD children to be included in the study by parent/teacher history as well as a physician's exam. The ADHD participants met the criteria for an ADHD diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (American Psychological Association, 1994). They were recruited from those children at the clinic whose records contained a history obtained through parent interview and teacher questionnaires. The pediatrician used the ADHD Comprehensive Teacher's Rating Scale (ACTER's) questionnaire for his diagnosis. In addition to the history, there were physical and neurological exam reports, and hearing and vision screenings. The pediatrician, trained in testing, had given a vigilance test which is a variation of matching familiar figures. The child was timed for this test which was done to indicate poor attention. The vigilance test was used as an observational tool. The medical exams were done to eliminate the possibility of the behavior being due to a thyroid problem, Graves disease, or brain tumor, etc. that would eliminate ADHD as the primary diagnosis. This screening process also controlled for mental retardation (I.Q. less than 70) or autistic disorder. I.Q. screening was done by the pediatrician, or obtained by parental consent from the school record. For ADHD to be the

primary diagnosis, it was necessary for the symptoms to be present to a greater degree than would be appropriate for age and cognitive ability. The ADHD children from the schools were identified through school information which verified a diagnosis of ADHD.

The comparison group of children with asthma were identified as those who had been treated for repeated episodes of obstructive disease of airways for a period of more than one year. Their symptoms were considered reversible with appropriate anti-asthma medicine. The children with asthma that were accessed through the schools were identified through parental report or school records containing a doctor's statement.

A total of 139 letters (59 - asthma and 80 - ADHD) were mailed to potential participants. A total of 48 children were tested. Twelve of the tests were eliminated because instructions were not followed accurately, and another test was eliminated for a student who did not complete the testing procedure. An incident concurred at on of the schools. A child was tested without parental permission so these tests were excluded from the results. One other child had parental permission but chose not to participate. This resulted in a small sample of 35 children, 19 in the asthma group and 16 in the ADHD group. There were 42 scheduled at the clinic with only 24 attending. Of the letters sent from the schools, 25 were scheduled, 24 were tested, and only 11 of those were used in this study for the reasons stated above. There was a greater percentage of participation by those contacted through the schools than through the clinic which may be attributable to the lack of interruption to the family schedule. This type of contact requires the least effort in order to allow participation. Some contacts did not result in scheduling because of testing times and the child's athletic involvement or the parent's work schedule. A few who showed enough interest to ask

questions decided not to participate due to what they percieved as potential harm to their child.

Measures

The Children's Attributional Style Questionnaire (CASQ) (Keyser & Sweetland, 1985); the Self-Perception Profile for Children (SPPC) (Keyser & Sweetland, 1992); and the Children's Depression Inventory (CDI) (Kramer & Conoley, 1992) were used in this study. Each questionnaire is a self-report measure designed for ages 8-13 years for the CASQ and SPPC and 8-17 years for the CDI. The three tests can be given in a group setting or individually. Each questionnaire can be read aloud by the tester as the participants' read along silently (Keyser & Sweetland, 1985; 1992; Kramer & Conoley, 1992; Seligman et. al., 1983).

The CASQ includes 48 items in forced-choice format and is most often limited to studies of depression. The CASQ has three dimensions: internality, stability, and globality. The items are statements of good or bad events. The possible responses are stated to determine a response of good or bad internal or external attribution. There are two possible scores, 1 or 0, with a high score indicating a more maladaptive attributional style (Keyser & Sweetland, 1985; Seligman et. al., 1983; Hoza et. al., 1992).

The coefficient alpha for the CPCN (Compasite Positive Composite Negative) is .73 (Seligman, et, al, 1984). A maladaptive explanatory style is indicated by a higher score and associated with higher levels of depression. "Overall composite scores for good events and for bad events result from combining the sub-scales" (Seligman, et al, 1984, p. 236).

The SPPC is designed to assess how children view their competence in six domains. This measure contains a total of 36 items with six items in each subscale to determine self-perception in six domains made up of scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct, and global self-worth. There is no overlap in the subscales. The questionnaire is rated on a four point scale and scored by averaging each of the six domains. Greater competence is indicated as the score increases (Keyser & Sweetland, 1992; Hoza et. al., 1992). According to the Test Critiques, Volume IX, 1992, the SPPC was normed on 2,271 children and found an internal consistency of .73 to .86. The test-retest reliability coefficients for a subsample retested after three months ranged from .70 to .87 and a range from .69 to .80 after nine months (Keyser & Sweetland, 1992).

The CDI is designed to measure the level of depression in children and adolescents and it is recommended for use in research (Kramer & Conoley, 1992). The instructions ask participants to answer the questionnaire based on their feelings during the previous two weeks. Each of 27 items is made up of three statements of feelings in increasing degrees of intensity with a possible score of 0-2 where 2 indicates the most depressive or negative score. Therefore, a high score indicates a high level of depression (Kramer & Conoley, 1992; Seligman et. al., 1983). Internal consistency for the CDI is reported to be .86; concurrent validity indicated a positive correlation with two other self-rating instruments measuring depression. Normative data is limited and for this reason the CDI is recommended for use in clinical research settings only.

A questionnaire designed for this study was administered to ascertain a participant's level of understanding of his or her diagnosis. The purpose of the questionnaire was to

determine if a good understanding of the diagnosis effected the level of depression, self-attribution or self-perception. This questionnaire was modeled after one used by Eiser, Town, & Tripp (1988). The scoring key was prepared by the physician who identified the questions that indicated an understanding of the diagnosis and he provided the correct answer for each. There were nine questions on the asthma questionnaire (item # 1, 2, 3a, 3b, 4, 6, 7, 8, and 12) that revealed level of understanding. There were eight questions on the ADHD questionnaire (item # 1, 2, 3a, 3b, 3c, 4, 5, and 10) scored for understanding. The ADHD answers were distributed and scored as follows: six participants had poor understanding; seven particiapants had moderate understanding; and three had good understanding. The asthma answers were distributed and scored as follows: four participants had poor understanding; ten participants had moderate understanding; and five had good understanding.

Procedure

Letters were sent to prospective participants. The letters included a brief summary of the purpose of the study as well as the need to meet with each participant on one occasion for several hours. Separate letters were sent to each group, ADD/ADHD or Asthma (Appendix A and B). There were not sufficient numbers of participants so additional letters were sent out. Due to a continued lack of response, the study was amended to include two schools. The purpose of the study was presented to parents and children in groups: children with ADHD and their parents and asthmatic children and their parents. Parents and their children were given consent forms detailing an explanation of what the study would involve and the purpose of the study. The children were informed that the investigator was interested in how

they felt about having ADHD or Asthma. They were not told they were being compared with another group so that their answers would not be prejudiced. It was a concern that they might not answer the questions sincerely but rather answer in a way that they thought would make them look better than the other group. The ADHD group and Asthma group were asked to come to the clinic on different days. Only the children who agreed to participate and whose parents agreed to their participation were included in the study. The CDI, CASQ, and SPPC were given to the children in each group by trained testers in accordance with test directions. The tests were read aloud while the participants read along silently. Reading the test aloud was expected to eliminate the influence of the possible confounding variable of reading competence.

For the purposes of this study the participants were not tested to eliminate those who had a comorbid behavior disorder. Since the participants were either chosen at random or all possible participants in a given pool were contacted, the participant pool should have had equal possibility for each group to include those who may have a behavior disorder in addition to ADHD or asthma. The sample was not random as expected, i.e., those who responded to our recruitment to be families who were committed and interested in availing themselves and their children of all possible sources of information.

CHAPTER IV

RESULTS

The results of this research indicated ADHD children have a significantly higher level of depression and view their global self worth more negatively than the comparison group of children with asthma. However, there was no significant difference between the two groups in their attributional style. In each area there was an interaction between levels of understanding and scores on the CDI, SPPC, and CASQ. In each case it had the reverse effect for the two groups.

An analysis of variance was performed for each questionnaire. The results of the CDI indicated a significantly higher level of depression for the ADHD group when compared to the asthma group, $F(1,29) = 12.51$, $p = .001$.

TABLE 1

ANALYSIS OF VARIANCE - CDI

Least squares means.

	LS MEAN	SE	N
Asthma Group	6.750	1.548	19
ADHD Group	14.810	1.673	16

There was no significant statistical difference between the Asthma and ADHD group in attributional style as reported by the CASQ.

TABLE 2

ANALYSIS OF VARIANCE - CASQ

Least squares means.

	LS Mean	SE	N
Asthma Group	7.200	0.927	19
ADHD Group	6.698	1.002	16

The results found a statistically significant difference between the two groups on the self-worth scale of the SPPC. The asthma group saw themselves as more positive in global self worth than did the ADHD group. The SPPC indicates greater competence as the score increases.

TABLE 3

ANALYSIS OF VARIANCE - SPPC - GLOBAL

Least squares means.

	LS Mean	SE	N
Asthma Group	3.360	0.157	19
ADHD Group	2.829	0.170	16

In addition, there was an interaction among diagnostic group, level of understanding, and the scores for all three questionnaires. Those in the asthma group who had a moderate understanding of asthma had a lower level of depressive symptoms than either the good or poor understanding level groups. The reverse was true for the ADHD group. The moderate understanding level group had a greater level of depressive symptoms, $F(2,29)<3.693$, $p = .016$.

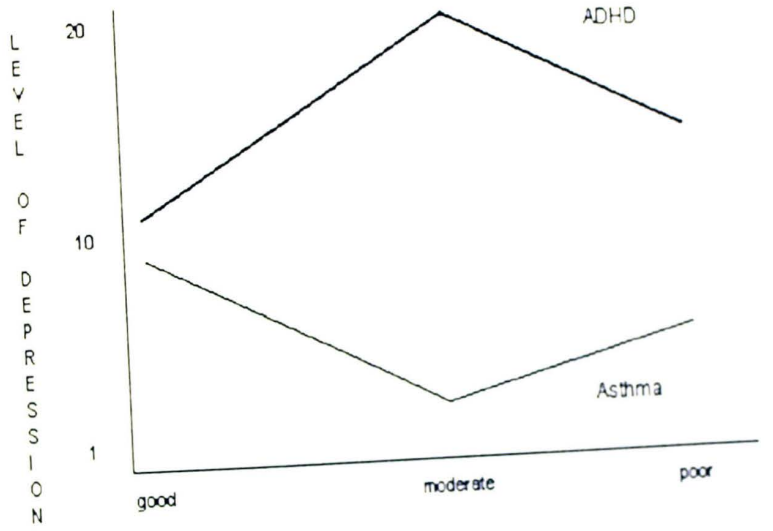

Figure 1.

The results of the responses on the CASQ had similar results. The moderate level asthma group was more likely to have a maladaptive attributional style of internalizing responsibility for positive events while externalizing responsibility for negative events. The good or poor level groups had a more adequate attributional style. Again, the reverse was true for the ADHD group. The moderate group was less likely to internalize responsibility for good events than the good or poor understanding level, $F(2,29) = 4.780$, $p = .016$.

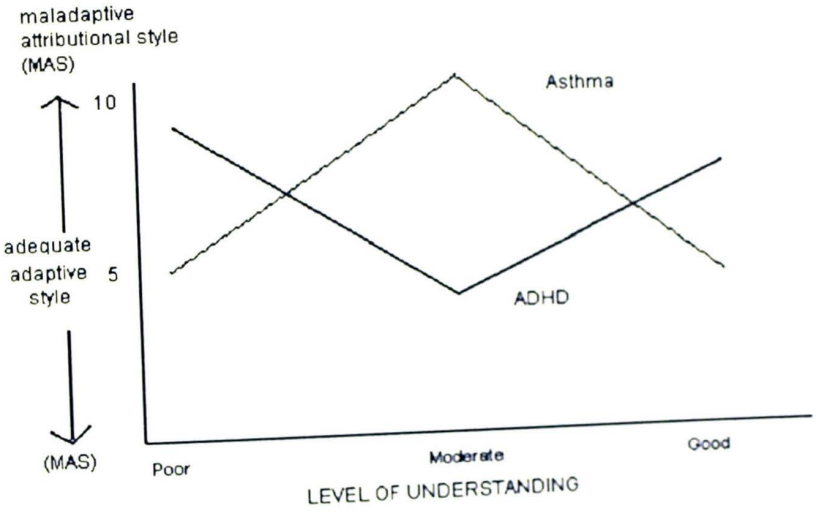

Figure 2.

The SPPC domain for global self-worth resulted in the same pattern. The asthma group with a moderate level of understanding felt more positively toward themselves than did those with good or poor understanding. The moderate level understanding ADHD group saw themselves more negatively than the good or poor understanding level groups, F (2,29) - 3.495, $p = .044$.

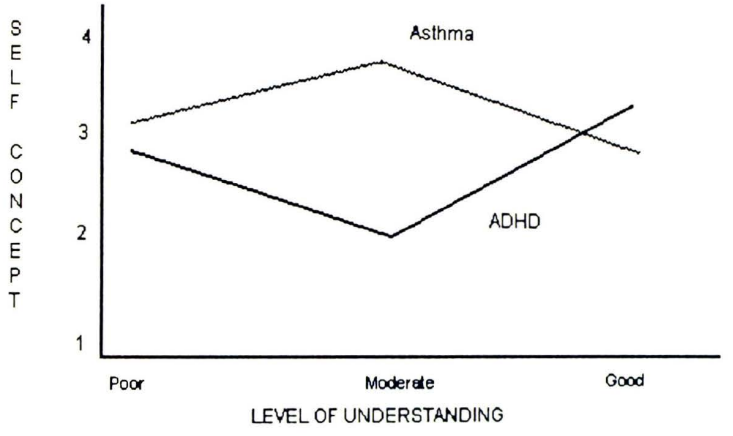

Figure 3.

CHAPTER V

DISCUSSION

The results of this study contradicted the stated hypothesis. It was expected there would be no difference in the groups which would support the studies that indicate labeling can influence a child's self-concept, level of depression, and attributional style. However, the ADHD group had highly significant levels of depression when compared to the asthma group. The results further found that the ADHD group viewed themselves more negatively than the asthma group. The only results which supported the hypothesis were the CASQ. There was no statistical difference in the attributional style of each group. According to Seligman et al., (1984) an attributional style of internalizing responsibility for bad events is likely to put children and adults at risk for depressive symptoms. This attributional style may put a child "at risk for future depression by processing information about bad events through this insidious attributional style" (p. 238). Although there was no significant difference in attributional style, the significant differences in the level of depression and self-concept indicate there is a confounding factor other than the respective "label" that is influencing ADHD children not present for asthmatic children. The results of this study in regard to depressive symptoms supports the findings of Gizynski and Shapiro (1990) who found a behavior disordered group, including a small number of ADHD children, rated more depressed than all other groups in the study which included a group of children with asthma.

This study is inconclusive due to the small sample size as well as the varied participant pools which included a large urban area, small rural area, and a middle sized urban area. The socioeconomic status of the participants was not a controlled factor in this study and could be

a confounding factor. Due to the limitations of this study, the results lack generalizibility. There would need to be a further study with a larger sample size and controls for demographics before the results could be considered conclusive.

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APPENDIXES

APPENDIX A
Children's Assent Form

I, (name), understand that I am taking part in a research study about how I feel about having ADHD or ASTHMA). The study will help the doctors understand how children like me feel so they can take care of us in a better way. It will help psychologists understand how to help us if we feel very sad and need to talk. I know the questions I will be answering will tell how I feel about myself and if I feel good about the things I am able to do in school, sports and friendships. The study will take several hours during one visit to my doctor's office. There will be about 50 children like me who will answer the same questions I will. The questions will be about my feelings which means there is no right or wrong answer. I know I will be answering questions the tester will read to me. I will answer the questions only if I agree and if my parents give their permission for me to answer the questions. I know that my answers to all questions will only be shared with the people doing the study. My parents will be given the results of the study.

My medical care will not change because I have taken part in this research study. I realize I can quit at any time and no one will be upset with me. If I answer all the questions and decide later that I do not want my answers included in the study, I can call the clinic or Susan Richardson (931-289-3923) before the results of the study have been entered in the computer. After that time it will not be possible to know which information is mine so it cannot be taken out. If I call before the information goes in the computer, my information will be destroyed.

I agree to answer questions for the research.

_____ _____

(child's signature) (witness' or parent's signature)

APPENDIX B
Parents Consent Form

The purpose of this study is to understand more about children with (ADHD or asthma) and how they feel about themselves and their diagnosis. This knowledge will provide the professional community with an increased awareness of how having (ADHD or asthma) affects children.

I, (parent's name), understand that my child, (child's name, will be taking part in a research study that will be measuring my child's level of depression, self-perception, self-attribution, and understanding of (ADHD or asthma). My child will be answering four questionnaires that will be read to him/her by a student or professional approved by Austin Peay State University and Premier Medical Center Staff. The questions are self-report and do not have a right or wrong answer so my child is not expected to have any bad feelings after answering them. The Children's Depression Inventory (CDI) is designed to measure the level of depression in children and adolescents and it is recommended for use in research. The Children's Attributional Style Questionnaire (CASQ) has 48 questions that determine how a child places blame on himself or others when good or bad things happen in his life. The Self Perceptions Profile for Children (SPPC) has 36 questions that determine how a child feels about his social acceptance, athletic competence, physical appearance, behavioral conduct, academic performance, and global self-worth. The fourth questionnaire will determine how well they understand their diagnosis. All of this will take place at the clinic during one visit which will take several hours.

Information that identifies my child will be locked in a file and will not be reported in the study. The only people who will know my child's identity will be those involved in conducting the study and necessary representatives of Austin Peay State University. I will be given the results of the study if I request it. My child will take part in the study only if he/she agrees and if I/we agree. I can withdraw my child or my child may withdraw at anytime during testing without penalty or prejudice.

If my child should have any problems even after returning home because he/she was part of the research, I can call the Clinic or Susan Richardson (931-289-3923) and my child will receive help. If we decide after answering the questions that we do not want our child's information to be used in the study, we can call the Clinic or Ms. Richardson and my child's questionnaire's will be destroyed along with all identifying information. This can be done up until the time the information is entered for statistical analysis. After that time they will be unable to withdraw my child's information because it will be converted to numerical data only and it will be impossible to identify a particular child's scores.

I understand that taking part in this study is voluntary and that participation will not affect, either positively or negatively, my child's medical care or medical benefits in any way.

I have read and understand the above information and I was given time to ask questions and receive answers. I have been given a copy of this information for my records.

I agree to allow my child to participate in this research.

_____ (Father's signature)

_____ (Mother's signature)

APPENDIX C
Questionnaire for Children with Asthma

1) Can you tell me what it is like to have asthma?
2) What happens inside your body when you have an asthma attack?
3) Are any parts of your body different from other people's because you have asthma?

_____yes _____no

Name them: _____

_____

4) Why do you think you have asthma?
   What causes asthma?
5) Do you think you will have asthma as long as you live, or not? ___ yes ___ no
   If you won't always have asthma, when do you think it might stop. How old will you be when it stops?
   What would happen to make it stop?
6) Is there anything you can do to stop an asthma attack?
7) Is there anything a doctor can do to stop attacks?
8) What do you do when you have an attack?
9) Do you ever talk to your parents about your asthma? ____ yes ____ no
10) Do you carry an inhaler with you? ____ yes ____ no
11) Do your friends/people at school know you have asthma?
    Friends: ____ yes ____ no Teachers: ____ yes ____ no

12) I have asthma because
    _____ there is something wrong with my lung
    _____ my parents haven't taken care of my health
    _____ I was born with it
    _____ other people cause it, like by smoking

13) When you think about having asthma, what are the main <u>feelings</u> you have? (You can check more than one.)
    _____ sad _____ frustrated _____ angry or mad

    _____ depressed _____ worried

    What are those feelings about?

APPENDIX D
Questionnaire for Children with ADHD

1) Can you tell me what it is like to have ADD or ADHD?
2) Why do you think you have ADD/ADHD, what causes it?
3) Do you think you will always have ADD/ADHD? ____ yes ____ no
   If you won't always have ADD/ADHD, when do you think it might stop? How old will you be when it stop?
   What would happen to make it stop?
4) Is there anything that you can do to control your ADD/ADHD?
   If there is, what would it be ?
5) Is there anything a doctor can do to control your ADD/ADHD?
6) Do you ever talk to your parents about ADD/ADHD? ____ yes ____ no
7) Do you take medicine for your ADD/ADHD? ____ yes ____ no
8) When do you take it?
9) Do your friends/people at school know you have ADD/ADHD?
   Friends: ____ yes ____ no Teachers: ____ yes ____ no
10) The main reason I have ADHD is
    ____ there is something wrong with my brain
    ____ I was born with it
    ____ my parents didn't teach me how to behave
    ____ other people are too noisy and so I can't pay attention
11) When you think about having ADD/ADHD, what are the main feelings you have? (You can check more than one.)
    _____ sad _____ frustrated _____ angry or mad

    _____ depressed _____ worried

    What are those feelings about?