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THE SELF-PERCEPTIONS OF ADOLESCENTS WITH ATTENTION DEFICIT

HYPERACTIVITY DISORDER

by

Patricia M. Bitar

BSN, Duquesne University, 1964

MNEd, University of Pittsburgh, 1967

Submitted to the Doctoral Program Faculty

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Student:	Patricia Murphy Bitar
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Committee Chair:	L. Kathleen Sekula PhD, APRN

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DISSERTATION COMMITTEE:

Please sign below

Chair:	L. Kathleen Sekula, PhD, APRN	*L. Kathleen Sekula*
Member:	Rick Zoucha, DNSc, APRN, CTN	*Rick Zoucha*
External Member:	Jeffrey Miller, PhD	
External Member:	Kathleen B. Gaberson, PhD, RN	*Kathleen B. Gaberson*

Approved by

Joan Such Lockhart, PhD, RN, CORLIN, AOCN®, FAAN
Professor & Associate Dean for Academic Affairs

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Date

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9 Chair Copy
File Copy

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THE SELF-PERCEPTIONS OF ADOLESCENTS WITH ATTENTION DEFICIT
HYPERACTIVITY DISORDER

Patricia Murphy Bitar, RN, PhD

Duquesne University, 2004

Attention Deficit Hyperactivity Disorder (ADHD), which affects 3 – 6% of

school- aged children, is considered one of the most common behavioral disorders of

childhood. Of those, up to 70% will continue to have symptoms into adolescence.

Adolescence is a critical transitional period on the route to adulthood that has the building

of self-identity as its chief developmental task. Adults with positive self-perceptions tend

to be more productive members of society. Most of the studies directed at understanding

the self-perceptions of those with ADHD have been done with children and those studies

have yielded mixed results. There are practically no studies about the self-perceptions of

adolescents with ADHD. The purpose of this study was to examine the self-perceptions

of adolescents with ADHD.

This was an investigative, triangulated, cross-section study based on Symbolic

Interaction Theory that examined the self-perceptions of students with ADHD (n=21) in

senior high school. These students were matched by grade and gender to peers without

ADHD (n=23). Triangulation was accomplished using quantitative and qualitative data

collection methods. Quantitative data was collected using the Harter Self-Perception

Profile for Adolescents and was analyzed using the paired t test and Spearman

correlations. Qualitative data was gathered using phenomenologically focused interviews

and was analyzed using methods suggested by van Kaam and Munhall.

The outcome revealed that both methods yielded similar results. Teens with

ADHD had significantly poorer global self-perceptions (p=.02) than their peers. In

addition the students with ADHD had a significantly poorer perception (p=.04) of their

social acceptance. Correlations revealed that perceptions of close friendship (r_s=.55,

p=.01) were significantly related to perceptions of global self-worth for the teens with

ADHD. The qualitative data revealed that the social interactions of teens with ADHD

center on solitary pursuits such as video games or Internet chat rooms or they are

marginally involved with peers. In addition, the teens with ADHD perceived themselves

in terms of their disorder. Inattention had a strong negative influence in shaping the self-

perceptions of the teens ADHD. The results of this study can guide nurses and other

health professionals in formulating plans of care that can help teens with ADHD reach

adulthood with healthy self-perceptions.

Dissertation Advisor: L. Kathleen Sekula, PhD, RN

My classmate Dr. Anne Bongiorno has become a trusted friend. We have shared many steps on this journey. This journey will end, but I will treasure her friendship forever.

My sister Marilyn who has often stood in a shadow which neither of us intended took the shadow away when she told me, "I have finally realized that you go to school not because you want to seem better than anyone else, but because that is what you like to do." That statement was a priceless gift that made the journey richer. My brother John while not sure why I was studying for a PhD always was behind me in the effort.

My father-in-law, Henry J. Bitar who is approaching his 90th year has said that he hoped that he would live to see me graduate. May God grant him many years beyond this time.

My sons Joe, Bryan, and Eric have been valued consultants. Their expertise in medicine, pharmacy and computers has smoothed over many bumps in the road. When I was unsure of my abilities I often heard, "You'll do fine Mom."

Finally, but most importantly, my husband Buzz always been there for me and in his quiet way has been the rock that so often provided the lifeline during this trek. My best friend, the love of my life I dedicate this work to you.

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I. INTRODUCTION

A. Background of the Study

Attention Deficit Hyperactivity Disorder (ADHD) affects 3 to 6% of school-aged

children and is considered one of the most common behavioral disorders of childhood

(1996; Goldman, Genel, Bexman, & Slanetz, 1998; Gullotta, Adams, & Markstrom, 2000,

p. 76; 1999; McGough & McCracken, 2000). Of those children with ADHD, up to 70%

will continue to have symptoms in adolescence (Weiss & Hechtman, 1993). The disorder

appears in many of cultures and is seen more often in boys than girls. ADHD is a

syndrome characterized by hyperactivity, inattention, and impulsivity (American

Psychiatric Association, 2000). Comorbid conditions have been diagnosed in as many as

two thirds of elementary children who have ADHD. In addition, these children have an

inability to pick up on social cues, which can lead to problems with interpersonal

relationships and self-perception (Cantwell, 1996).

Adolescence is a critical developmental period that provides the springboard for

future self-perceptions. The developmental task of this period is the building of self-

identity (Erickson, 1963). During this period the individual develops abstract thought and

the ability to look at the self objectively (Adamson & Hartman, 1999). This ability

provides a sense of core abilities and coping mechanisms (Funk & Buchman, 1996).

During this time of self-reflection, the teenager evaluates personal strengths and

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weaknesses and applies them to various roles. They begin to integrate these various ideas about the self into a coherent and stable self-system (Harter, 1999; James, 1952).

Self-perception has been defined as the images of the self that are experienced through language. It is how one sees or describes oneself (Harter, 1999). The study of self-perception has been ongoing since the turn of the 20th century. While the theories of early psychologists and sociologists such as Baldwin, James, and Cooley were cast aside toward the middle of that century in favor of newer philosophies such as behaviorism, they have received renewed attention from today's researchers (Harter, 1999). Symbolic interaction, which asserts that the development of the self-system is accomplished by reflecting on the reactions of significant others toward the individual, has received renewed attention (Cooley, 1902). The individual first looks to parents and caregivers for these impressions. Later, peers and teachers provide substantial input into the development of the self-perceptions (Baldwin, 1897). These groups of significant others are often called referent groups. Nurturance, encouragement, and support enhance the perception of the self; constant criticism, neglect, and rejection has the opposite effect (Cooley, 1902).

By working to minimize negative attacks, the perception of self provides a protective function that enables the person to maintain a positive self-view. Various strategies are used to maintain this positive outlook. Included in these maneuvers are a change of referent group (i.e. from parents to peers and/or teachers) and rearrangement of the hierarchical structure of the domains used to build the global self-perception. Domains are subsections of the global perception of self and can include areas such as perceptions of scholastic competence, job competence, social acceptance, or close friendship. However, these efforts may not have a positive outcome. Research has shown that stress in families,

as is often the case with ADHD, is correlated with low levels of self-perception (Carlson, Uppal, & Prosser, 2000). When bonds are broken with the family, individuals often look to peers for support. Sometimes those new referent groups are involved in deviant behavior (Scheler, Botvin, Griffin, & Diaz, 2000). In addition, personal or societal values can make changing of domain importance difficult (Harter, 1993).

This study examined the nature of the self-perceptions of adolescents with ADHD. The importance of various self-perception domains and the referent groups used to build self-perceptions were investigated to provide a richer understanding of adolescents with ADHD. Poor academic performance, poor peer relations, and conduct disorders are the symptoms that can have poor self-perceptions at their roots. Erickson cautioned against mistaking the child for his or her symptoms (Erickson, 1963). Often the adolescent with ADHD cannot be seen for the shield of behaviors that has been built up. In an effort to enable a successful transition to adulthood, those dealing with adolescents with ADHD need to look beyond the symptoms in order to help foster positive self-perceptions. The first step in building positive self-perceptions for adolescents with ADHD is to learn the nature of those perceptions. Information gained from this study may help school nurses and other professionals play a pivotal role in the intervention process.

Data for the study were gathered and analyzed by using a triangulation of quantitative and qualitative methods. It was expected that using more than one research method to examine the self-perceptions of adolescents with ADHD would provide information that may not be uncovered by using either method alone. Quantitative data was gathered using the Harter Self-perception Profile for Adolescents (SPPA) (Harter, 1988b). Phenomenology served as the basis of the qualitative design. This method is not

only a means of data collection and analysis, but is also a philosophical approach that provides the basis for understanding the lived experience or the meaning of being human for those involved with a phenomenon. The end result of a phenomenological study is a description of the phenomenon. It is expected that the researcher will not only gain an understanding of the phenomenon and the individuals involved with the experience, but also will develop a greater self-knowledge (Moustakas, 1994; Munhall, 2001).

B. Personal Background

In doing research it is important for the investigator to approach the project with an open mind. Researchers often write about their own experiences in relation to the research topic in an effort to bracket those experiences and isolate potential bias. The following is an attempt to bracket my personal experience with ADHD.

In my work as a school nurse I have daily contact with students diagnosed with ADHD. As these students get into middle school and high school, they don't want to stand out from their classmates. As a result, they don't want to come to the health office for their daily medication. One day after tracking down one student, who was particularly reluctant to comply, I asked him why he thought he had to take the medication. He immediately replied, "Because I am crazy." I was surprised at his answer because he was not mentally ill. Then I remembered hearing students tell him and others with ADHD to remember to go and take their "crazy pills." It is no wonder that he did not want to come for his medication! Similar comments and the frequent difficulties that students with ADHD encounter in school because of their behavior led me to wonder what effect these experiences had on their developing sense of self. I wondered what else they thought about themselves.

A few years later, as I was preparing my application for the PhD program for which this dissertation is being written, I was asked to state my research goals. I realized this was my opportunity to do the ADHD research that I had always wanted to do. The memory of my student's reply led me to the decision to focus on the self-perceptions of the adolescents with whom I worked. When I began this educational trek, I expected to learn about ADHD, self-perception, and adolescents. However, I did not realize that it would also be a journey of self-discovery. I had always felt close to those with ADHD, but as I learned about ADHD I realized that I had many ADHD traits.

My traits are centered mostly in the areas of inattention. I frequently misplace things, I have difficulty finishing a task before I start another, I often read more than one book at a time and rarely finish a book because another has caught my attention, I am often late or I forget appointments if I don't make a particular effort, I daydream, and I procrastinate.

Although I see most of my ADHD symptoms in the area of inattention, I have also recognized impulsivity and to a lesser degree hyperactivity. I often make impulsive statements that I regret after I have spoken. I have learned to control this to some extent, but I have to work at this regularly. I frequently make impulsive purchases and have to work at keeping the charge card balances under control. I have experienced the depression that often accompanies ADHD and formal counseling has been helpful for this. Over the years, I have learned that if I keep busy, the depression is kept in check. The busyness is not always in the form of physical activity, but rather in mental activity. I find that having constructive projects helps me to focus positively and avoid the destructive negativity of

depression. I frequently have more than one project going and my mind is constantly working. It sometimes is hard to stop thinking at bedtime.

While these traits never have been severe enough to cause impairment in my daily life, they have caused me considerable embarrassment, discomfort, and regret on innumerable occasions. I now understand why I get into some predicaments. However, I have been able to recognize benefits from the ADHD traits that I have. Even though I have multiple projects going at one time I eventually can accomplish most of them successfully. I can often think "outside the box" and at arrive at creative solutions to problems. If one solution doesn't work, I usually can arrive at another. I am able to evaluate patient care situations quickly and arrive at an effective plan of care. I am able to see multiple aspects to most situations, but sometimes in looking at the multiplicity, I overlook the obvious.

The research methods chosen for this study yielded rich data that will led to a description and greater understanding of adolescents with ADHD. In addition, the unexpected result for me was a greater understanding of myself.

C. Purpose

The specific aim of this study was to examine the self-perceptions of adolescents with ADHD. The study used symbolic interaction theory (SIT) as a theoretical framework. SIT theory indicates that self-perceptions develop as a result of a person's interpretation of the reactions of significant others toward the individual. Of particular interest were the global self-perceptions, the hierarchical arrangements of the domains that make up self-perception, and the referent group or groups of the participants. This information has the potential to provide nurses in various settings such as schools, physicians' offices, and

mental health clinics with valuable information that can be used to understand adolescents with ADHD.

D. Definition of Terms

This study was primarily a study of self-perception in adolescents with ADHD. The tool used to quantitatively investigate self-perception was the Self-perception Profile for Adolescents (SPPA) developed by Harter (Harter, 1988b). Harter defined self-perception as "attributes or characteristics of the self that are consciously acknowledged through language—that is how one describes oneself" (Harter, 1999, p. 4).

E. Research Questions

The following questions were answered in this research study:

1. What are the self-perceptions of adolescents with ADHD as compared to those of adolescents without ADHD?

2. How do the global self-perception scores compare with the various domain scores as measured by the Harter SPPA?

3. What domains are considered most important by adolescents with ADHD as compared to those adolescents without ADHD?

4. What referent groups do adolescents with ADHD use most often as compared to those adolescents without ADHD?   F. Assumptions

The following assumptions were made:

1. The diagnosis of ADHD, as reported for the participants in this study, is accurate.

2. Participants will truthfully reveal their experiences and feelings about ADHD and adolescence in an interview setting.

3. Participants will be able to articulate their feelings about ADHD.

G. Limitations

The following factors restrict the generalizability of the study.

1. Only senior high school students with ADHD were studied.

2. Participants were recruited primarily in one geographical area of

    of the United States.

3. There was no control for misdiagnoses or comorbid conditions.

H. Significance of Study

In an effort to lessen the comorbidity associated with ADHD, persons such as nurses, physicians, psychologists, or probation officers need to help build and maintain positive self-perceptions of adolescents with ADHD. Parents need to understand the importance of persons used by their children use for feedback about themselves (referent groups) and need support and guidance in providing appropriate behavioral interventions and guidance for the adolescent with ADHD. The first step in building positive self-perceptions for adolescents with ADHD is to learn the nature of those perceptions and to know what referent groups (parents, family, peers, teachers, etc.) are used in the formation of the self-perception. Because school nurses work with students with ADHD, they can serve as liaisons among students, educators, and parents. Information gained from this study may help school nurses play a pivotal role in the intervention process. School nurses can use the information from this study to act as advocates for students with ADHD. Results of this study can serve as a springboard for future research to test the results in other populations of students with ADHD. Further study will help to provide a clearer understanding of this complex individual—the adolescent with ADHD.

II. REVIEW OF THE LITERATURE

The review of the literature that has been done in preparation for this study focuses on these areas: ADHD, adolescence, and self-perception. These terms were used to search Ovid, HAPI, Medline, Proquest, and PsycInfo for relevant material. The following sections of this chapter will present the relevant literature in each of these areas.

A. Conceptual Framework

The framework that guided this study is a combination of theories proposed by James and Cooley at the turn of the 20th Century. James (1952) proposed that one's self-perception develops as the result of a ratio of one's achievements and aspirations. If a person is successful in a particular area, then that accomplishment has the potential to contribute to a positive perception of the self. Conversely, a failure in a specific area can contribute to a negative perception. However, for any success or failure to have an influence on the self-perception, it must be in an area that has importance to the individual.

In developing Symbolic Interaction Theory (SIT), Cooley (1902) used a related concept—significance. According to SIT, a person builds the self-perception as the result of that individual's interpretation of the reactions of significant others around him or her. It is of importance to note that this interpretation is what the individual believes is the intent of the significant other. This may not be accurate. Theoretically if the developing

person receives nurturance, encouragement, and support, the self-perception should be positive. Constant criticism, neglect, and rejection should have the opposite effect. In the development of SIT, Cooley used the term "Looking Glass Self." This analogy proposed that the significant others turned into a social mirror that reflected the opinions of important caregivers or social contacts that become incorporated into the sense of self.

In my interpretation of both the Jamesian theory of importance and SIT there are similarities. First, the individual can be an active or passive determinate of self-perception. The person can determine which areas of life are important and which persons are significant, or simply accept the opinions of others or society as a whole. Second, both are unified by the related concepts of importance and significance.

In the literature there are many terms that are used interchangeably: self-perception, self-concept, and self-esteem. It is my contention that they are not synonymous. In the conceptual framework of this study, self-perception will be viewed as the basis from which self-concepts and self-esteem are developed.

<center>B. Attention Deficit Hyperactivity Disorder</center>

Incidence

ADHD is considered one of the most common behavioral disorders (McGough & McCracken, 2000) and it is one of the most researched disorders of childhood (Rostain, 1991). However, few studies have looked rigorously at the incidence of the condition. Areas that have received little attention include race, ethnicity, socio-economic status, and age (Lahey & Rowland, 1999). Many sources show that it affects from 3 to 6% of school-aged children (2000; Cantwell, 1996; Goldman et al., 1998; McGough & McCracken, 2000). Some sources indicate that the prevalence could be as high as 20 %

because these numbers do not account for preschool, adolescent, and adult populations (Lahey & Rowland, 1999). Higher incidence may be seen in the future because of an increased awareness of the disorder, better diagnostic tools, and the broader base of criteria provided by the DSM-IV (Ciaranello, 1993; Goldman et al., 1998). Males are reported at a ratio of 4:1 over females in epidemiological studies, but clinical studies have shown a ratio of 9:1 in favor of males possibly because males are referred more than females. This may be related to the fact that females have fewer hyperactivity symptoms and more inattentive symptoms (Cantwell, 1996; Zametkin & Ernst, 1999). However, as a result of the DSM-IV criteria, more girls are being diagnosed and the ratios may even out in the future (Goldman et al., 1998).

It was once thought that the symptoms of ADHD abated with the onset of puberty, but ongoing research has shown that from 30% to70% of persons with ADHD will carry symptoms into adolescence (Weiss & Hechtman, 1993). From 8% to 66% will have the disorder as adults (Goldman et al., 1998; Zametkin & Ernst, 1999).

Comorbid conditions have been diagnosed in as many as two thirds of elementary children who have ADHD. These comorbid conditions can include learning disabilities, language and communication disorders, oppositional defiant disorder, conduct disorder, anxiety disorders, mood disorders, and Tourette's syndrome (Cantwell, 1996).

Behavioral Symptoms

Attention Deficit Hyperactivity Disorder is a syndrome characterized by inattention, hyperactivity, and impulsivity. The symptoms can be categorized as primarily inattentive type (ADHD-I), primarily hyperactive type (ADHD-H), and combined type (ADHD-HI or ADHD-C). Behaviors associated with ADHD include

problems with inattention (fails to give close attention to detail, has difficulty sustaining attention in tasks or play, often does not seem to listen, often loses things necessary for tasks, often is forgetful in daily activities); hyperactivity (often fidgets with hands or feet, often leaves seat in the classroom, often on the go, often talks excessively), and impulsivity (often blurts out answers, has difficulty awaiting turn, intrudes into conversations or games). The symptoms must have started before the age of 7, have existed for 6 months, and exist to a greater extent than would be present in persons of the same age. Dysfunction must be seen in at least two domains that include home, school, work, and social functioning (American Psychiatric Association, 2000). A fourth diagnostic category is Attention Deficit Hyperactivity Disorder Not Otherwise Specified. This category designates individuals who present with primarily inattentive symptoms after the age of 7 or who do not meet the full criteria for the inattentive type, but have problems with sluggishness, daydreaming, and hypoactivity. It was thought that children outgrew the disorder at puberty, but it is now known that many have the symptoms into adolescence and adulthood (Goldman et al., 1998). The criteria found in the DSM-IV-TR permit the diagnosis of more girls and adolescents than the guidelines found in earlier editions of the DSM (Weiss, Murray, & Weiss, 2002).

Historical reviews of the disorder by authors such as Barkley (1998) repeatedly have found reference to a cluster of symptoms that relate to inattention, hyperactivity, and impulsivity. The syndrome has been known by many names and has had several theoretical causes, and the struggle to understand the disease has led to false impressions that continue to the present day even though scientific investigation has refuted the misconceptions. These controversies will be presented later in the literature review.

History

As early as 1865 the German physician/poet Hoffman made reference to a hyperactive child called "Fidgety Phil." In 1902 British physician Still published the first scientific writing about symptoms that relate closely to ADHD. Still believed that these children had a "defect in moral control" (Barkley, 1998, p. 4). The poor behavior exhibited by these children could be excused in those thought to have improper parenting. However, children who had a proper upbringing who still exhibited this poor behavior were thought to have a defect in morality and "volitional inhibition" (Barkley, 1998, p. 4). Those who could not suppress their actions were thought to be ignoring the good of those around them and therefore were lacking in moral control and consciousness (Barkley, 1998).

Following an outbreak of encephalitis in 1917, several clinicians noted that children who survived the disease exhibited problems with attention, impulsivity, and difficulty controlling their behavior. They also had problems with cognitive abilities. The syndrome was called Post-Encephalitic Behavior Disorder and was clearly the result of brain damage. This led others to look for possible causes of brain damage such as birth injury, measles, epilepsy, and head injury that might account for ADHD type behaviors (Barkley, 1998).

In the 1930s some investigators noted the similarity between the behavior of hyperactive children and primates with frontal lobe damage. Milder forms of hyperactivity were attributed to childrearing practices that led to spoiling the child. Others were attributed to poor and chaotic family environments. This trend of thought resurfaces periodically (Barkley, 1998).

Many in the 1940s became convinced that the triad of symptoms was definitely the result of some type of brain injury even though little or no evidence of damage could be found. The syndrome became known as Minimal Brain Dysfunction (MBD). The concept of MBD continued into the early 1960s. During this time, researchers found methods to distinguish learning disabilities from ADHD. It was during this period that the DSM-II had a brief description of the syndrome of hyperactivity (Barkley, 1998).

In the 1950s, the neurological mechanisms involved with the syndrome were examined. Researchers referred to the triad of symptoms as Hyperkenetic Impulse Disorder. The neurological deficit was thought to be in the area of the thalamus and symptoms were thought to occur because of a poor filtering system that allowed excess stimulation to reach the brain (Barkley, 1998).

During the 1970s more than 2000 different research projects were aimed at studying the disorder. It was during this time that more consideration was given to the symptoms of inattention and impulsivity.

Ongoing research led to the criteria published in the DSM-III where the symptoms of inattention and impulsivity were given equal standing with hyperactivity. The symptom lists were more specific, age of onset was delineated, and guidelines to gauge the duration of symptoms were set down. Subtypes included ADD with and without hyperactivity. The revised version of the DSM-III introduced the term ADHD. The disorder was classified as being mild, moderate, or severe. By the close of the decade the syndrome was recognized as a chronic developmental disorder that has genetic links. It also was acknowledged that the disorder had a negative, often handicapping, impact on the person's school and social life (Barkley, 1998).

In the 1990s research was directed at finding clinical links to brain abnormalities that could be used as a clinical marker for the diagnosis of ADHD. Several studies had pointed to under functioning of the frontal lobe. However, no physical findings were demonstrated. Work begun in that decade to find a cause and means of diagnosing the disorder continued into the next century, and will be discussed further in the next section.

Diagnosis

Research to find a cause for ADHD and an objective diagnostic marker seem to be linked. Brain research has used various techniques that include positron-emission tomography (PET), single-photon emission computed tomography (SPECT), magnetic resonance imaging (MRI), quantitative electroencephalography (QEEG), and functional electroencephalography (EEG). Zametkin et al. (1990) used PET to demonstrate lowered frontal lobe metabolic activity in adults with ADHD. Hynd, Semrud-Clkiemam, Lorys, Novey, and Elioplus (1990) used MRI to demonstrate that children with ADHD had smaller right anterior cortical regions. Later, research showed that portions of the corpus callosum were smaller in children with ADHD (Castellanos et al., 1996). Others found a smaller right caudate and prefrontal cortex (Casey et al., 1997), impaired responses in the midline attentional system which is responsible for higher-order motor control (Rubia et al., 1999), and reduced cerebral volume (Castellanos et al., 2001). The latter study found a smaller cerebral vermis that is believed to have an effect on the executive functions of the brain. The role of executive functions will be discussed later.

SPECT studies have shown less activity in the left frontal and parietal brain regions (Seig, Gaffney, Preston, & Hellings, 1995) and decreased profusion in the prefrontal cortex (Amen & Carmichale, 1997) for participants with ADHD. In a review

of neuroimaging studies, Hendren, DeBacker, and Pandina (2000) noted that researchers had found differences in the size of brain hemispheres in participants with ADHD, but the researchers could not agree if the right or left side was implicated. There does seem to be a consensus that the prefrontal regions of the cerebral cortex are implicated as the sites that moderate self-control (Barkley, 2000).

In addition to neuroimaging, EEG has been used in ADHD cause and diagnosis research. Studies have shown that QEEG is able to differentiate participants with ADHD from controls as well as detect hemispheric asymmetry (Kuperman, Johnson, Arndt, Lindgren, & Wolraich, 1996) and was sensitive to ADHD subjects 94 to 98% of the time (Monastra, Lubar, & Linden, 2001; Monastra et al., 1999). Functional EEG studies have shown that participants with ADHD have lower activity in the frontal area of the brain when compared to controls (Baving, Laucht, & Schmidt, 1999; Silberstein et al., 1998).

Various neuroimaging and electroencephalography studies have used forms of continuous performance task (CPT) (Monastra et al., 1999; Silberstein et al., 1998). This form of testing uses a computer to test an individual's attention in research studies designed to stimulate the frontal areas of the brain. Since its development as a research tool, some practitioners use it as an objective diagnostic tool for ADHD. However, its sensitivity to the diagnosis of ADHD has not been validated (Baron & Swanson, 1996; Ruccio & Reynolds, 2001).

Neurotransmitter research has looked at both the brain and genetics. Dopamine, epinephrine, norepinephrine, and serotonin all have been implicated in the disorder (Anderson et al., 2000; Biederman & Spencer, 2000; Ernst, Cohen, Liebenauer, Hons, & Zametkin, 1997; Ernst et al., 1999; Gainetinov & Caron, 2001; Lombroso, Quist, &

Kenedy, 2001). However, no definitive connection has been made to ADHD. A strong linkage to the dopamine system and the indication that ADHD is a heritable disorder (Sunohara et al., 2000; Thapar, Holmes, Poulton, & Harrington, 1999) led to genetic research that looked at dopamine receptor genes. Many studies have shown that ADHD subjects have an increase in the 7-fold repeat form of the dopamine 4 receptor gene (DRD4) (Barr, 2001; LaHoste et al., 1996; Sunohara et al., 2000). The DRD4 gene has been associated with an increase in novelty-seeking behavior which could also be related to the impulsivity of ADHD (LaHoste et al., 1996).

A review of 11 years of neurobiological ADHD research looking for a cause of ADHD has revealed many clues to the cause of the disorder, but nothing conclusive has been determined. Until an objective means of determining the cause and diagnosis of ADHD is found, subjective means currently in use to describe behavioral symptoms will continue to be used. These methods include the DSM-IV-TR diagnostic guidelines, psychological testing, parent rating, teacher evaluation, classroom observation, diagnostic interview, and physician history and physical examination (Anastopoulos, 1999; McGough & McCracken, 2000; Zametkin & Ernst, 1999). Because of the potential bias inherent in these methods, data from several sources are needed to make a diagnosis. A diagnosis can be made as early as 3 years of age and behavioral symptoms always must be compared with appropriate behavior for persons of the same age and developmental level (Zametkin & Ernst, 1999).

Treatment

Once a diagnosis is made, various treatment options are available, including medication, family therapy, individual counseling, behavior modification programs, and

school accommodations (Cantwell, 1996). Standard treatment will be discussed in this

section.

The most common form of medical treatment is the use of stimulant medication.

Those most commonly used are methylphenidate (Ritalin), amphetamine sulfate

(Adderall), and dextroamphetamine (Dexedrine). From 1990 to 1993, 90% of the ADHD

children seen for outpatient visits received prescriptions; 71 % of those were for

methylphenidate (Pelham & Greenhill, 1999). Stimulant medications initially were

prescribed only during school hours to target symptoms of hyperactivity and inattention.

However current practice includes after-school and weekend doses to help with the

completion of homework and to increase chances of success in after school activities.

This current philosophy attempts to eliminate the roller coaster effect of being on and off

medication (Cantwell, 1996). Tricyclic antidepressants are prescribed for some persons

for whom the stimulant medication is ineffective (Anastopoulos, 1999).

The stimulant medication was often prescribed 2 to 3 times a day and usually

required a mid day dose at school. Pharmaceutical research has developed several

versions of sustained release stimulants that can be given once a day. Extended release

methylphenidate is marketed as Concerta, Metadate CD, and Ritalin LA. Long acting

amphetamine sulfate is marketed as Adderall XR. These medications can be

administered once a day before breakfast. In addition to the long acting stimulants there

are two drugs that delay the reuptake of norepinephrine and/or dopamine, in essence

allowing the brain to stimulate itself. They are atomoxetine (Strattera) and

dexmethylphenidate (Focalin). Finally, on the horizon is the development of

methylphenidate in a transdermal patch. All of these innovations allow fewer daily

doses, maintain more constant blood levels, and eliminate the need for in school doses of medication (Edwards, 2003; Wimett & Laustsen, 2003).

Treatment combining the use of medication and behavior modification is commonly called multimodal treatment. Early studies found this combination to be effective in the short run (MTA Cooperative Group, 1999). In an effort to determine the long-term effects of multimodal treatment, the National Institutes for Mental Health (NIMH) sponsored a 14-month study in four sites across the United States using that modality. Entitled the Multisite Multimodal Treatment Study of Children with ADHD (MTA) it was designed to test the long-term effects of parent effectiveness training, teacher effectiveness training, and stimulant medication. When the data analysis was completed in 1999, results showed that medication alone was equal to the multimodal treatment. However, it was noted that the medication alone and the multimodal groups showed better outcomes than the group that received standard community treatment. (Treatment that can be obtained on ones own in the community.) Also, the multimodal group received lower doses of stimulant mediation (MTA Cooperative Group, 1999). In a follow-up article, it was theorized that the reason that the multimodal treatment was not better than medication was because the intensity of parent effectiveness training was lessened at the end of the study (Pelham et al., 2000). It may be that parents need ongoing support and training in their efforts to deal with their ADHD child (MTA Cooperative Group, 1999). Researchers reanalyzed the data and looked at the significance of treatment effect size rather than the statistical significance. They felt that viewing clinical significance rather than statistical significance would be of more use to practitioners. This reexamination demonstrated that the effect size of the multimodal

method over medication alone was minimally greater. Successful treatment occurred

12% more often in the multimodal method (Swanson et al., 2001).

Controversies Surrounding ADHD

Controversy and disagreement about the nature of ADHD, diagnosis, and

treatment fall into public and professional realms. The discussion that follows will

present concerns of the general public and the scientific community in the above areas.

Disagreement has surrounded ADHD from the time of its earliest documentation.

As noted earlier, young people with the cluster of symptoms related to the disorder were

originally thought to have a defect in moral character (Barkley, 1998). Children who

have had a proper upbringing are supposed to behave. When they do not, either the child

or the parents were considered to be of poor moral character. Some believe that parents

and teachers have medication prescribed merely to control irritating behavior. These

proponents suggest that sterner parenting, not chemicals, is the answer to the problem

(Talley, 1997).

The lack of a definitive means of diagnosing ADHD has contributed to the

controversy. Some groups campaign actively to have the disorder declared a myth and

the use of stimulants banned because it is considered a form of mind control.

Unfortunately these topics get a lot of media coverage and create an air of fear and

confusion in the mind of the public (Goldman et al., 1998). Commenting on the media

coverage an international group of ADHD experts said

> .... coverage of the disorder casts the story in the form of a sporting event
> with evenly matched competitors. The views of a handful of not-expert
> doctors that ADHD does not exist are contrasted against mainstream
> scientific views that it does, as if both views had equal merit. Such
> attempts at balance give the public the impression that there is substantial
> scientific disagreement over whether ADHD is a real medical condition.

>In fact, there is no such disagreement—at least no more so than there is over whether smoking causes cancer, for example, or whether a virus causes HIV/AIDS (*International consensus statement on ADHD*, 2002).

Parents often are reluctant to use stimulant medication for treatment of ADHD because of the attention to nonscientific opinion given in the media (Talley, 1997).

Debate in scientific circles seems to revolve around the guidelines set down in the DSM-IV-TR. Earlier references have indicated that these criteria allow for more cases to be identified, but many researchers have called for further revisions. Barkley (1997a; 1997b) theorized that the cluster of symptoms in ADHD is not primarily a disorder of attention as stated in the DSM-IV-TR, but rather is a disorder of behavioral inhibition. This problem with self-control does not allow for the development of various executive functions that moderate decision-making and motor control. In Barkley's theory (1997b), a person with ADHD has a lessened ability to filter input from the environment, thus decreasing the ability to make informed decisions. Rather he or she goes directly from stimulus to response. A simplification of the process can be found in paraphrasing an adage—persons with ADHD leap before they look. Barkley also contends that a parallel deficit, a warped sense of time, contributes to the disorder. Not only do persons with ADHD have a poor sense of the passage of time, but they also lack the ability to accurately judge the future consequences of present actions.

Some have argued that inattentive and impulsive/hyperactive forms are separate entities that should have separate diagnostic criteria or that association with comorbidities such as Conduct Disorder represents a distinct classification (Barkley, 1997a; Biederman, Newcorn, & Sprich, 1991; Faraone, Biederman, Jetton, & Tsuang, 1997; Willcutt, Pennington, Chhabildas, Friedman, & Alexander, 1999). Others have concerns that the

DSM-IV-TR age of onset requirement is too restricting (Barkley & Biederman, 1997;

Rowland, Umbach, Stallone, Naftel, & Bohlig, 2002). Still others conclude that the

subtypes represent developmental stages of ADHD. Based on the age of onset of ADHD,

hyperactive/impulsive symptoms are the first to emerge, with inattentive symptoms

becoming prominent at a later age (Faraone, Biederman, Weber, & Russell, 1998).

In response to the public and scientific controversies, two federal government

reports and an international statement were commissioned. Two of these documents

directly addressed ADHD and the other included ADHD in a general recommendation

about mental illness. The National Institutes of Health convened the Consensus

Development Conference on the Diagnosis and Treatment of ADHD in November 1998

to recommend the examination of the treatment and diagnosis of ADHD. It found that

the treatment system was fragmented and was strewn with barriers for receiving help for

those with the disorder. Also, it was generally acknowledged that the current methods of

diagnosing ADHD were controversial at best. A priority was placed on research that

aims to find a standard method of diagnosis for the disorder. Another priority was placed

on research directed at determining the effectiveness of pharmacological and/or behavior

modification treatments. Finally, coordination of efforts of practitioners and educators in

the diagnosis and treatment of ADHD was encouraged (*Diagnosis and treatment of*

Attention Deficit Hyperactivity Disorder: NIH Consensus Statement Online, 1998).

Four years later an international consortium of ADHD researchers and clinicians

signed a consensus statement reaffirming the validity of the disorder and its adverse

impact on those with the disorder (*International consensus statement on ADHD*, 2002).

The third document was the US Surgeon General's report on Mental Illness published in

1999. Noting that many forms of mental illness begin in childhood and adolescence, the

Surgeon General urged research aimed at discovering the causes and finding a means of

early diagnosis and intervention for mental illness. Among the disorders targeted in this

report, ADHD was cited as a condition in need of research (*Mental health: A report of*

the Surgeon General, 1999).

Consequences of ADHD

None of the controversial opinions examined the consequences of ADHD. There

is a risk of developing comorbid conditions such as depression, anxiety, Oppositional

Defiant Disorder (ODD), and Conduct Disorder (CD) (Biederman, Faraone, Milberger,

Guite et al., 1996). Teens with ADHD have lower grade point averages and poorer

psychosocial and adaptive skills than their peers (Wilson & Marcotte, 1996). In school,

21% skip school on a regular basis, 45% have been suspended, 30% have failed or had to

repeat a school grade, and 35% eventually drop out of school. Sixty-five percent of those

with ADHD have problems with non-compliance, defiance, verbal hostility, and temper

tantrums. Sleep problems occur in 50% of those with the disorder. Teenagers with

ADHD have almost four times as many traffic citations and automobile accidents. Those

with a one-car wreck are seven times more likely to have a second accident (*The statistics*

of ADHD, 2002). Forty percent become teen parents and 16% contract sexually

transmitted diseases. Less than one half of those with ADHD receive treatment

(*International consensus statement on ADHD*, 2002). It is estimated that health care for a

child with ADHD is $1150.65 per child per year. That amounts to a cost of 2.5 billion

dollars per year to health care systems. These estimates do not include the costs for

school expenses such as school nurse care, psychologists, counseling, and special

education teachers. Also not included are the expenses for incarceration and inpatient

mental health care (Chan, Zhan, & Homer, 2002).

<div align="center">C. Adolescence</div>

Adolescence spans the years between childhood and adulthood. The beginning of

adolescence often is signaled by the onset of puberty; however, there is no clear-cut end.

It can be divided into phases that coincide with the United States school system: early

adolescence, which includes those in middle school or junior high school; middle

adolescence, which involves those in high school; and late adolescence. The latter

encompasses those involved in immediate post high school activities such as attending

college or technical schools, beginning military service, or entering the job market

(Gullotta et al., 2000, p. 76). A literature review of adolescence could cover many topics.

However, this review will focus on the aspects of adolescence that relate to self-

perception and the conceptual framework of Symbolic Interaction Theory.

The chief developmental task of adolescence is the development of self-identity

(Erickson, 1963). Identity has been described as "...a complex psychological state that

provides a sense of direction, commitment and trust in a personal ideal or self-image

(Gullotta et al., 2000, p.76). It answers the question, "Who am I?" The development of

self-perception begins in childhood and eventually incorporates aspects such as sex-role

identification, beliefs and values, and societal norms (Gullotta et al., 2000).

Development of self-perception during adolescence becomes more refined because self-

awareness becomes heightened during this stage (Harter, 1993). The physical changes

that are associated with puberty help to heighten this new awareness. Not only are there

physical changes, but hormonal changes also trigger sexual urges. (Gullotta et al., 2000).

It is during adolescence that the individual becomes capable of abstract thought and is able to look at the self objectively (Adamson & Hartman, 1999). Humans are the only beings who are able to step outside themselves to obtain this view-point (Rosenberg, 1986a). During this time of self-reflection, the teenager evaluates his or her strengths and weaknesses and applies them to various roles. In the evolution of the perception of the self during this period, the person needs to integrate these various ideas about the self into a coherent and stable self-system (Harter, 1999). Along with increased self-awareness there is an increase in self-consciousness, introspectiveness, and preoccupation with physical appearance. Self-perception becomes more fragile and open to attack.

In this transitional period, not only is self-perception developing, but also an additional task involves becoming independent from the parents. Adolescents typically struggle with the desire for autonomy and also the need to remain connected to their parents. Teens gradually gain more freedom and as adolescence progresses, parents are seen less in omnipotent terms but rather in a realistic, balanced manner. In early adolescence, bickering and hassling over issues such as family rules and degrees of autonomy are not uncommon. This situation remains stable during middle adolescence but begins to decline at the end of this period when the adolescent and parents begin to renegotiate their relationship. A healthy resolution of this stage results in a new relationship that moves from unilateral parental authority to one that is cooperative and respectful. The family relationships prior to adolescence are likely to continue in adolescence. Strong family relationships usually remain as the hassles of early and middle adolescence begin to wane. On the other hand, weak, dysfunctional family

situations will remain the same and may deteriorate as adolescence progresses (Steinberg, 1990).

As adolescents work to gain self-identity and autonomy from their parents, the importance of peer approval increases dramatically (Rosenberg, 1986a). Teens may pick a group that has values comparable to their own or they may move from group to group trying out various group concepts in an effort to develop a personal self-identity (Brown & Lohr, 1987). It has been supposed that peer groups can lead an adolescent into deviant or delinquent behavior. However the individual's preadolescent behavior, personality, social skills, and values predetermine eventual peer group membership. Peer groups merely reinforce preexisting traits (Brown, 1990). The influence of peer groups is highest in early adolescence. Most teens learn to have a balance between their relationships with their friends and parents. They learn when to rely on the advice of their friends, when to seek help from their parents, and when to rely on their own judgment (Fuligni, Barber, Eccles, & Clements, 2001). Teens who think that their parents exert too much or too little control may rely exclusively on peers. In this instance they have exchanged dependence on parents for dependence on peers (Steinberg & Silverberg, 1986). Teens with heavy reliance on peers in early adolescence have been shown to develop problem behavior and poor academic achievement as adolescence progresses (Fuligni et al., 2001).

In order to maintain peer acceptance some adolescents will conspicuously display poor behavior and underachievement, forgo parental rules, and disregard their own talents. Teens who look to their peers only for advice were not at risk for poor behavior in the long run (Fuligni et al., 2001). In this period when friends become important and

the self-perception is in a malleable state, those who have been diagnosed with ADHD in

childhood are more rejected by peers as teenagers even if they no longer meet the

diagnostic criteria than those who never had ADHD. As a result those with ADHD have

fewer friends and the friends that they do have are more often deviant friends than friends

of peers without ADHD (Bagwell, Molina, Pelham, & Hoza, 2001).

<center>D. Self-Perception</center>

Inherent in the development of identity during adolescence is the individual's

self-view or self-perception. Modern self-perception theory development started in the

late 19th century with research starting a few decades later. This section will examine

symbolic interaction theory, the James theory of importance, various tools used to

measure self-perception, and finally the outcomes of selected self-perception studies

will be presented.

Symbolic Interaction Theorists

Symbolic Interaction Theory (SIT) postulates that self-perceptions are developed

by observing the reactions of significant others. People perceive themselves as they

believe others see them. These beliefs can be called metaperceptions "because they

involve perceptions of perceptions" (Clark & Douglas, 1998, p. 299). There are three

elements to the process: the other person's actual view, the person' perception of the

other's view, and the person's self-perception. "According to SIT, people pick up signals

about how the other person views them, and by internalizing this view, it becomes their

self-view" (Clark & Douglas, 1998, p. 299). This interpretation is subject to error in that

the internalized view may not be an accurate representation of the view of the other

(Clark & Douglas, 1998). Early theorists laid the groundwork for SIT.

Baldwin (1897) emphasized the role of others by stating that the child's personality is developed through the imitation of others. The family provided the first model which was followed by school and peers as the child matured.

Cooley (1902) first coined the term "symbolic interactionism." Cooley's model proposed that the child's sense of self evolves through symbolic interactions with significant others. These interactions achieve significance by means of the symbolism of language. The significant others involved in early linguistic exchanges are those in the role of caregiver to the child. These interactions can have a positive or a negative effect on the developing sense of self. If the child receives nurturance, encouragement, and support, the self-perception will be positive. Constant criticism, neglect, and rejection have the opposite effect. Cooley made the analogy that significant others become a social mirror that reflects the opinions of caregivers of significant social contacts that become incorporated into the sense of self.

James (1952) proposed that a person's self-perception is generated by a ratio of the person's pretensions and successes. A person can have multiple pretensions or ideal selves from which to choose. James humorously indicated that he had aspirations to be come a scientist, bonvivant, great lover, mountain climber, and psychologist. He realized that it was not possible for one person to be all of those things and was forced to make choices about the person he was to become. If the person achieves success in the areas in which he has goals, self-esteem will be positive. If there is little success in such a domain, self-esteem will be negative. A caveat to this ratio was the concept of importance. If there is little success in a field for which the person has little or no hopes, there will be a negligible effect on the self-perception. James illustrated this concept by

saying that he had no desire to master the Greek language, as it did not matter to him that there were scholars who understood the language better than he did. However, he would be devastated if there were a better psychologist than he was. For self-perception to become more positive, one must either raise one's competency or lower one's expectations. That is not always easily accomplished. It often is not possible to change a level of competency, even with much effort. Also society puts high values on specific competencies, including appropriate behavior, so that often it is hard to lower one's aspirations (Harter, 1993).

James' conception of the self depicted it as a whole that was made up of two aspects, the *I* and the *Me.* The *I* is the subjective, internal, or private part of the self. The *Me* is the objective, social, or observed portion. Modern researchers variously have labeled these two aspects of the self the observer and the observed (Wylie, 1979), the ideal and the real self (Harter, 1999), and the experienced and the presented self (Wayment & Zetlin, 1989).

The *Me* consists of the material, social, and spiritual portions of the self. On the other hand, the *I* includes self-awareness, self-agency, self-continuity, and self-coherence. Awareness of self involves understanding one's own internal states, needs, thoughts, and emotions. Agency gives the person a sense of creating one's own thoughts and actions. Markus and Nurius (1986) equated agency with self-control and mastery in various domains. Individuals without a sense of agency tended to have low self-perceptions. Continuity allows the person to view the self as the same person over time. Coherence creates a stable sense of self (James, 1952).

Stability of the sense of self can be viewed on two levels, state and trait. Trait self-perceptions represents the typical or average level and usually is stable over time but is capable of change. State self-perceptions represent sensitivity to immediate circumstances or situations and can fluctuate accordingly. Both state and trait perceptions can be influenced by aspirations and successes (Crocker & Wolfe, 2001).

Meade (1962) further developed SIT, noting that the *self* is distinct from the body. The *self* is not present at birth and develops over time in response to the social process. In the social process, associations are made between gestures and responses to gestures between individuals, and confer meaning to the communications. Meade called the process symbolic interaction. As Cooley did, Meade theorized that language provides the symbolism that is essential for the interactions to take place. Mental development and the subsequent development of the *self* are dependent on the social process. This process takes place at first with specific others who are direct care-givers, but then expands to include the generalized other which is the community at large. The individual gradually begins to imagine the self as seen by others and tries on various roles to determine where he or she fits in the community. The person learns that the *self* is capable of reacting to others in unique ways, depending on the other person. The individual can be a different self with different persons. These attitudes and interactions with others are organized in patterns unique to the individual, and allow participation in specific social situations. Meade believed that the individual develops a sense of self-worth by combining the weighted judgments of others. They are weighted in the sense that more significance is given to the opinions of those important to the individual.

Modern Theorists

Gergen (1991) theorized that modern communication has exposed the individual to a multiplicity of social contacts. Television, video games, telephones, and computer technology all have played a role in increasing the person's exposure to the world. This allows the person to visualize an increasing number of roles, values, and opinions. This can add an element of confusion to the process of self-development because these wider social contacts may provide conflicting messages that can bewilder the maturing person.

Possible Selves Theory

Possible selves theory is significant during adolescence when the individual is working on identity development and is capable of introspection and abstract thinking. The adolescent may be a different person in different situations. The adolescent must integrate these various selves into a unified whole. Failure to do this can result in confusion and conflict thus preventing the development of independence (Harter, 1990). The early repertoire of possible selves is very concrete in the early stages. As the individual ages, the range is less expansive and develops a more general character. For example, a young person may want to be a champion tennis player, but as the years pass this may change into the desire to be a good provider or a good parent (Cross & Markus, 1991).

The possible self is distinct from the real self and is made up by the ideal self and the feared self. The ideal self represents the good me, the person the individual would like to become and tends to be made up by abstract ideas. The feared self symbolizes the undesired self and is the person the individual tries to avoid. The feared self tends to be experience-based and is more concrete than the ideal self. The possible selves provide

navigational clues of things to strive for and things to avoid in order to achieve success (Ogilvie, 1987).

The possible selves serve two functions in the development of the perception of the self. One is to provide goals to achieve the ideal self and to avoid the feared self. The second function is to provide a current evaluation of the real self. This assessment serves as a defense by allowing restructuring of the possible selves when the individual sees discrepancies. This revision can range from a change in strategies to reach a goal to changing the goal completely when the appraisal indicates that the current ideal is now unattainable, undesirable, or no longer important. This process helps to reduce the discrepancy between the real and ideal self (Cross & Markus, 1991; Markus & Nurius, 1986). Because this process is private, it allows the individual to maintain the stability of the more public global self-perception without losing face. This could represent a basic need of individuals to present the self in a constant way. The stability of global self-perception is achieved by revamping the parts that make the whole (Markus & Nurius, 1986).

Dimensions

Self-perception can be viewed on two levels, the global and the domain. Global self-perception represents the overall evaluation of the self. The domains represent subsections that make up the whole and can include areas such as perceptions of scholastic competence, athletic ability, job performance, or social acceptance. There is discussion about whether perceptions from the domain level filter up to create a global sense of self, whether the global perception downwardly affects the domain, or whether there is continuous influence between the two (Marsh & Yeung, 1998). It is thought that

the development of various domains enables the person to weigh the real self against the ideal self and gain a sense of adequacy (Harter & Whitesell, 1999).

The Role of Importance

When the works of early and more recent theorists are examined it appears that the common link is importance. Importance influences whether the outcome of the James ratio is positive or negative self-perceptions. Symbolic interactionists such as Baldwin and Cooley indicated that significant or important others in the person's life would have influence on a person's perceptions of the self. Meade said that the judgments of others are weighted or ranked in importance to form self-perception. Gergen suggested that the multitude of societal input could make it hard for the person to determine importance. Possible selves theorists argued that goals are determined by their importance to the individual. The degree of importance can be altered when personal evaluation shows that the current course of events is not in the person's best interest.

Importance plays a key role in the conceptual framework of this study. The term points to something or someone who can change the course of events of the nature of something. It connotes something of great worth, influence, or significance (*The American heritage dictionary of the English language*, 2000; *Merriam-Webster Online: Collegiate Dictionary*, 2000). Importance can influence self-perception on a personal or environmental level. On the environmental level, the theories of symbolic interactionism said that the individual sense of self is developed by the reflected appraisals of significant others or the generalized other. Most often these others are parents and teachers (Baldwin, 1897; Cooley, 1902; Meade, 1962). However, as the individual moves through

childhood to adolescence, the influence of parents can lessen if the person perceives that

the parents are not supportive.

At the personal level, importance refers to the significance that the person

attaches to attaining competence in various domains. If the individual can discount areas

of low competence and focus on realms of competence, the self-perception will remain

positive. Girls seem to have problems minimizing areas of weakness, while boys seem to

be able to compartmentalize shortcomings and center on strengths (Lavitt, 1996).

Various domains and the individual's sense of the importance of each, work to build a

global sense of self. The valance attached to any area can be conceived as a ratio of

one's ideals to one's success or failure in the domain. Input from important others helps

to form ideals and gives an evaluation as to whether endeavors to meet that ideal have

Self-Perception Model

Significant Environmental Input

Real Self (success/failure)

_____

Ideal Self (aspirations)

Significant Environmental Input

Importance
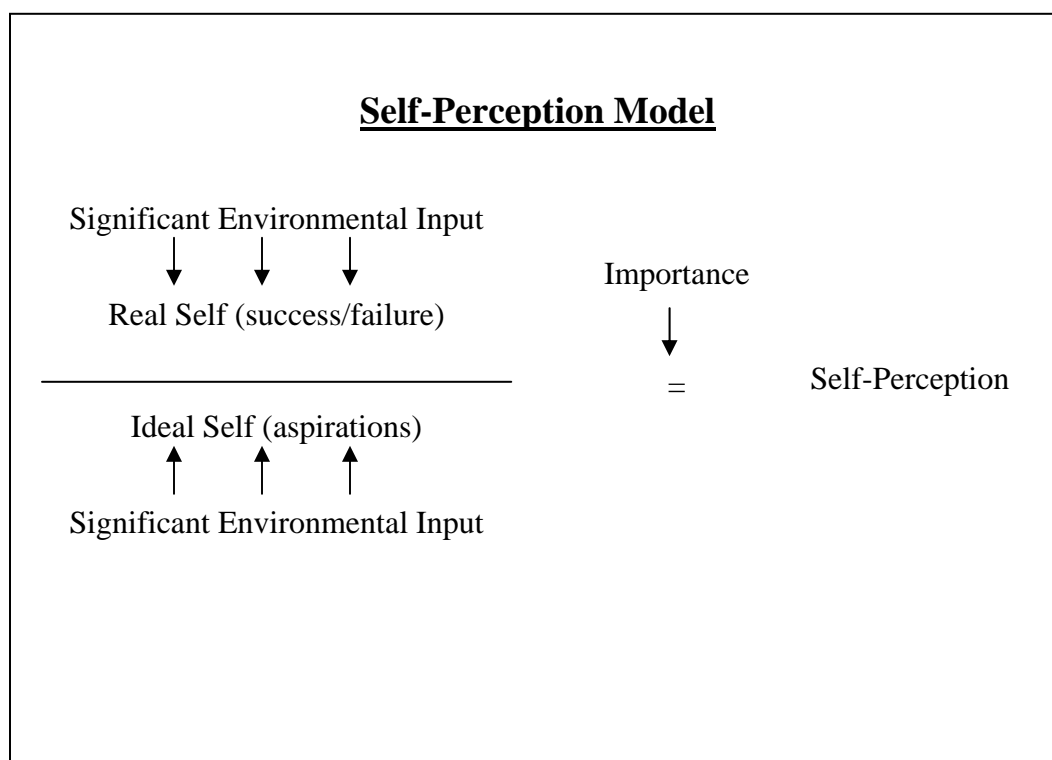
=   Self-Perception

Figure 1 Model of Self-perception

been successful. Figure 1,a model created by this author, illustrates this interaction.

The influence of each domain contributes to the development of a global sense of self.

The valance attached to the final analysis of self-perception will depend on the

importance the individual attaches to the various domains.

Self-perception Tools

There are hundreds of tools used to evaluate self-perception. Wylie (1979)

reviewed more than 200 measures. Most of the instruments reviewed in preparation for

this study were developed after Wylie's landmark work. Dusek and Flaherty (1981)

decried the fact that no generally accepted tool to assess self-concept existed. I have

found that the same situation exists today. Most quantitative instruments used to evaluate

self-perception are paper-and-pencil questionnaires that present the respondent with

various statements that require a self-rating on a Likert-type scale. A few studies used

other methods which include a Q-sort method (Block & Robins, 1993) and qualitative

inquiry (Adamson & Hartman, 1999). Some tools are used more often than others, but

also there is a plethora of instruments developed by individual researchers for their own

work.

In a review of commonly used methods of self-perception appraisal, Harter

(1988a) classified the most commonly used tools as unidimensional (Coopersmith, 1967;

Piers & Harris, 1996) and multidimensional (Harter, 1988b; Marsh, 1990; Rosenberg,

1986b). After reviewing the work of Marsh and colleagues. (1998), I have added a third

category, subdimensional. Unidimensional tools measure only global self-perception,

multidimensional ones assess not only global perceptions but also the domains that make

up the global, and subdimensional tools evaluate aspects that make up a particular

domain. For example Marsh and colleagues (1998) have examined perceptions of verbal

and mathematical ability and the ways in which these sub domains contribute to the

building of perceptions of academic competence. The tools usually are norm-referenced

and seek to determine where an individual lies on the continuum that runs from low self-

perceptions to high self-perception. Some of the tools are used with any age and others

are available in several versions that the authors consider developmentally appropriate for

certain age groups.

Research Outcomes

In addition to looking at the dimensions of self-perception, researchers have

examined influences such as age, race, gender, ethnicity, and social influences in an

effort to arrive at a deeper understanding of the nature of self-perceptions and the effect

on, or relationship with the variables.

Age. Self-perception has been studied across the life span, but many studies

focused on adolescence. It is during this phase that the individual develops skills with

conceptual and abstract thinking. Serious consideration can be given to various possible

selves during this developmental phase (Harter, 1990). Looking at possible selves during

adolescence contributes to identity development (Erickson, 1963; Knox, 1998). Some

researchers found that self-perceptions tended to become more positive with age.

However, age did not cause the change. Rather, the events related to age such as

completing basic education and greater access to adult roles and responsibilities seemed

to contribute to the positive changes of self-perception (O'Malley & Bachman, 1983).

Girls who had either an early or late menarche tended to have lower self-perceptions

(Williams & Currie, 2000).

Gender. Research that focused on adolescence and gender often showed that boys have higher self-perceptions than girls (Block & Robins, 1993; Kendler, Gardner, & Prescott, 1998). Much of the research attributed this difference to various interpretations of sex roles prescribed by society. It was noted that a bias in American society for male characteristics makes the male role less conflicted (Burnett, Anderson, & Heppner, 1995; Harper & Marshall, 1991). Male traits include dominance, power, self-assertion in social interactions, and sternness. Female attributes include warmth, nurturance, emotional expressiveness, need for intimate relationships, and talkativeness (Block & Robins, 1993). There is societal pressure for males and females to have male traits (Burnett et al., 1995). Females who adopted stereotypical female behavior often had low self-perceptions. Authors concluded that in order to achieve better self-perception, girls must learn to balance male and female traits. It is difficult to maintain this equilibrium (Knox, 1998). Research by Marsh and Byrne (1991) found that role conflict is lessened when persons adopt male and female traits. Those who are androgynous are socially more effective.

The sources of self-perception were also found to differ for boys and girls. Boys tended to base their self-perceptions on self-evaluations. They tended to be socially independent while girls were found to be more socially interdependent in that they based their self-perceptions on input from others (Block & Robins, 1993; Josephs, Markus, & Tafarodi, 1992; Knox, 1998). This difference in gender focus had significance in a study that looked at substance abuse and found that self-perceptions based on peer sources were related to greater alcohol use (Scheler et al., 2000).

While differences were found in global self-perception, the domain of body image was found to be the strongest predictor of global self-perception for both genders across the life span (DuBois, Tevendale, Burk-Braxton, Swenson, & Hardesty, 2000; Granleese & Joseph, 1994; Harter, 1989). Girls tended to have lower self-perceptions if they saw themselves as unattractive (Sonstroem & Potts, 1996). There was also a trend for girls to have a less favorable perception of their bodies than boys (Lobel & Guy, 1988). Harter (1989) attributed the obsession with physical appearance to the media emphasis on that domain. Social acceptance or the need for intimate relationships was the second most important domain in determining self-perception across the life span (Harter, 1989).

Boys and girls also differed in the ways in which they handled unfavorable domain self-perceptions. For girls, problems in one area were inclined to spill over into other domains. There was an all-or-none method of handling problems. Self-perception tended to be either all positive or all negative. However, boys seemed to be able to compartmentalize problems and prevent issues from becoming a pervasive influence on global self-perception (Lavitt, 1996).

Ethnicity. Research addressing ethnicity and race had mixed results. One study found that those participants for whom race was important were attuned to racial issues regardless of the situation. However, being in the minority made most of the participants aware of their race (Aries, Oliver, Blount, Fredman, & Lee, 1996). Another study found that Hispanic girls had lower self-perceptions than White and Black. The Black girls had the highest self-perception scores, but these were not statistically different from the scores of the White. Ethnic identity was most important in determining the self-perception of the Black (Carlson et al., 2000).

Social Influence. Studies dealing with influence of peers, family, and school were reviewed to gain an understanding of the influence of these variables. Families that were perceived as supportive contributed to higher levels of self-perception (Harter, 1989; Roberts, Seidman, Pedersen, & Chesir-Teran, 2000). Stress in families was correlated with low levels of self-perception across racial and ethnic boundaries (Carlson et al., 2000). High self-perceptions were related to authorative parenting and perceived teacher support (Carlson et al., 2000). When bonds were broken with the family, individuals often looked to peers for support. Sometime the individuals turned to deviant peers for this support (Scheler et al., 2000). Individuals with delinquent behavior changed self-referent groups from ones that disapproved to those that approved (Harter, 1990). Alcohol use was greater among those who looked to peers for support than among those who recognized their personal competencies (Scheler et al., 2000). Boys who perceived support from parents and peers had less of a tendency to use alcohol, but girls who looked to peers for support had increased substance use (Lifak, McKay, Rostain, Alterman, & O'Brien, 1997). Students making a transition to middle school had lower self-perceptions if they experienced strained relations with peers and had difficulties in school (Fenzel, 2000). Those who had a close ratio of real and ideal selves had lower levels of self-perception when support was not provided by significant others. Conversely, support of significant others did not compensate for a large gap between competence and importance domains (Harter, 1989). In recognition of the input of significant others, it was suggested that determining the frame of reference for the individual completing the self-report would add depth to the interpretation of results (Wylie, 1989).

E. The Relationship of Self-perception, Adolescence, and ADHD

Issues of self-perception and ADHD collide head-on during adolescence. Adolescents with ADHD must learn about themselves through identity and self-perception development and become more autonomous just as other adolescents. However, adolescent development issues can be complicated by ADHD concerns. Concepts discussed earlier will be integrated in an effort to establish the significance of self-perception for adolescents with ADHD.

ADHD Symptoms in Adolescence

It is generally accepted that the symptom of motor hyperactivity diminishes with age, but symptoms of impulsivity and inattention persist through adolescence. Although physical hyperactivity may diminish with age, signs of hyperactivity may manifest internally in adolescence, often in the form of restlessness. Adolescents may feel confined if they are in a classroom for long periods or have to sit at a desk for long periods (Robin, 1998).

Impulsivity, a characteristic of many adolescents, is magnified in the adolescent with ADHD. The teens with ADHD have difficulty postponing wants and desires. They act on a whim and have difficulty dealing with rules. In school, they rush through their work, making careless mistakes. Emotionally they can be moody and can have aggressive outbursts of temper that can be directed at others or themselves in the form of deliberate self-harm. Deficient impulse control can lead to serious life difficulties because of poor decision making with regard to sexuality, substance use, driving, and other high-risk behaviors (Robin, 1998).

Difficulty with attention can be seen in a number of areas for adolescents with

ADHD:

(1) selecting and focusing on the relevant stimuli in the environment, coupled with starting or executing tasks;(2) maintaining concentration and resisting distraction; (3) consistently mobilizing effort in a task-oriented direction; (4) organization, forgetfulness, and recall of learned information; and (5) making transitions from one task to another (Robin, 1998, p. 15)

These symptoms can be manifested as procrastination; daydreaming; leaving a task

undone because another activity has been started; becoming bored with mundane,

repetitive activities; having problems with organization and forgetfulness; being late for

commitments; and becoming hyperfocused on one item or topic while overlooking other

details. Inattention coupled with impulsivity can contribute to experimentation with risky

behavior (Robin, 1998). Barkley (1997a) theorized that inattentive symptoms are a form

of impaired behavioral inhibition.

Symbolic Interaction Theory Implications in Adolescents with ADHD

SIT postulates that earliest self-perceptions are based on reactions of others.

These first perceptions are based in the family. Research has shown that family life in

the homes of those with ADHD often is disruptive and unstable (Biederman, Faraone,

Milberger, Curtis et al., 1996; Kendall, 2000; McKay & Halperin, 2001; Sawyer et al.,

2002). Children with ADHD in a disruptive family have the possibility of receiving

negative perceptions from those around them. Research cited earlier stated that family

situations that were dysfunctional prior to adolescence will remain the same or may

deteriorate. ADHD family life has the potential to become more dysfunctional during

adolescence. Several issues related to adolescence contribute to this potential for

increased dysfunction. Robin (1998) cautioned parents of adolescents with ADHD to

allow freedom to these teens at a slower pace than normal because they develop mature

thinking at a slower pace than their peers. The desire for autonomy and the need for

closer parental supervision during this time have the potential to create havoc in an

already chaotic situation.

As children grow up, significant others change from parents to school and to

peers. As cited earlier, teens often look to peers for support and the alliance with peers

becomes greater when parental reins are perceived as being held too tightly. Teens with

ADHD have a limited circle from which to choose friends. Peers frequently reject those

who had ADHD as children, even though they may no longer meet the diagnostic criteria

for ADHD. Parents report that their children with ADHD have few friends and that their

friends were a bad influence. Of those teens with comorbid CD, their friends were more

involved in substance abuse and less involved in conventional activities that normal

controls (Bagwell et al., 2001).

The impulsivity associated with ADHD has serious implications in the adolescent

search for identity. Impulsivity and the search for possible selves also can lead

adolescents toward delinquent behavior (Oyserman & Saltz, 1993). Harter, Bresnick,

Bouchey, and Whitesell (1997) noted that although the adolescent is developing cognitive

abilities to detect possible selves, the ability to resolve the confusion that may result in

this exploratory period does not appear until late adolescence or young adulthood. This

coupled with the delayed development cited earlier and the impulsivity of ADHD has the

potential to lead teens on deviant paths well before they have the maturity to evaluate

these decisions.

Depression can be comorbid with ADHD, and it also is a frequent occurrence in adolescence. During adolescence, individuals become more aware of their own self-perception and its relation to social support. Deficiencies in self-perception and social support from parents and/or peers can lead to adolescent depression that can lead to suicidal ideation (Harter, 1993; Wichstrom, 2000).

Treatment Issues

Adequate psychosocial treatment such as that outlined in the MTA study (MTA Cooperative Group, 1999) has the potential to help counteract the issues related to self-perception, adolescence, and ADHD. However, the MTA was conducted with preadolescents. Weisz and Hawley (2002) noted a lack of developmentally appropriate mental health treatments for adolescents. In their review of the literature they found that all but one program was either an upgrade of treatment for children or a downgrade of adult treatment programs. They pointed out that treatment for ADHD might use only medication. Their recommendations for developmentally appropriate programs were to include parents to resolve issues of autonomy and schools because of the amount of time spent in that environment. Others have encouraged inclusion of parents and siblings in treatment programs for ADHD because of the heritability of the disorder (Faraone, Biederman, Mennin, Gershon, & Tsuang, 1996; Kendall, 1999, 2000).

Teens in general do not want to appear different from their peers (Erickson, 1963), yet teens with ADHD stand out because they often have to report to the school nurse for daily doses of medication. Long-acting forms of stimulants that can be taken before school can eliminate the daily trip to the school nurse's office and increase compliance (Muscari, 1998)

F. Gaps in the Literature

Studies of self-perception and ADHD are limited. Most of the studies that have been found, focused on children. In a review of the ADHD self-perception studies, Hoza, Pelham, Dobbs, Owens, and Pillow (2002) noted that treatment programs for ADHD often include improvement of self-perception as an outcome goal, but studies of self-perception have yielded mixed results. This presumption of poor self-perception is based on the difficulties that persons with ADHD have with behavior, school, and social situations. Some research has demonstrated poor self-perception in some domains, but not globally (Alexander, 1999; Shealy, 1989). Others have found domain or global self-perception problems (Dumas & Pelletier, 1999; Horn, Wagner, & Ialongo, 1989; Ialongo, Lopez, Pascoe, & Greenberg, 1994). Still others have found positive self-perception, but concluded that these perceptions were not warranted because of the difficulties the participants experienced as a result of the disorder (Hoza et al., 2002; Hoza, Pelham, Milich, Pillow, & McBride, 1993). All of these were quantitative studies.

Two studies were found that investigated the self-perceptions of adolescents with ADHD. Slomkowsky, Klein, and Manuzza (1995) conducted a longitudinal study that looked at participants as children, again at a mean age of 18 years, and finally at a mean age of 26 years. Poor self-esteem was found in the late adolescent subjects. These authors suggested that the reason for the mixed results of childhood studies was that ADHD had not yet influenced self-perceptions in a negative manner and that pervasive poor self-perception may not be apparent until adolescence. Adolescence was not the prime focus for this study but rather the adult outcome of ADHD. Krueger and Kendall (2001) found indications of poor self-perception in a qualitative study of adolescents with

ADHD. In addition, the analysis of interview data showed that the perception of self was linked with the disorder. "They were their ADHD and their ADHD was them" (Krueger & Kendall, 2001, p. 65). The authors concluded that the development of self was severely disrupted and recommended further study of self-perceptions in adolescents. Table 1 describes these studies in more detail.

Table 1. Self-Perception and ADHD Articles

First Author, Year, Country	Sample	Tool	Outcome	Recommendations
Alexander 1999 USA	N=15 boys with ADHD, 12.43 mean yoa N= 15 boys, controls 10.89 mean yoa.	Multiple measurement tools including Coopersmith Self-Esteem Inventory.	Significant differences in school and social self-esteem.	Further study needed to resolve issue of poor self-esteem in children with ADHD.
Shealy 1989 USA	N= 30, 25 boys and 5 girls aged 8-11 yoa.	Harter Self-perception Profile for Children administered to volunteers in the summer	Higher self-perception in global self-worth than the normed scores	Replicate research during the school year.
Dumas 1999 Canada	N=20 girls and 37 boys with ADHD, 25 girls and 34 boys with no ADHD, 6-11 yoa.	French version of the Harter Self-perception Profile for Children	Average self-perception scores lower in ADHD in all areas except athletic competence.	Increased awareness of nurses to the importance of positive self-perceptions.
Horn 1989 USA	N=37 boys and 17 girls with ADHD, 19 boys and 12 girls with no ADHD, in second grade.	Piers-Harris Self-concept Scale for Children.	No differences between ADHD boys and girls but differences between ADHD and non-ADHD	Results of studies conducted with only ADHD boys can be extended to girls
Treuting 2001 USA	ADHD boys (53)with and without aggressive-ness (61), ADHD on medication (27) 8-12 yoa.	Piers-Harris Self-Concept Scale for Children	ADHD groups had lower self-esteem than controls, aggressive boys had lowest.	Medication had better results but no more than self-effort-children need to know they can be self-effective.
Ilongo 1994 USA	N=48 ADHD (35 boys, 13 girls), 21 non-ADHD (13 boys, 8 girls) 7-11 yoa.	Harter Self-perception Profile for Children	ADHD children had lower global self-worth in pre and post testing.	Replicate in older children, ask if medication or self-effort cause improvement.
Hoza 1993 USA	N= 27 ADHD boys, 25 non-ADHD, 13 ADHD had comorbid CD or ODD	Harter Self-perception Profile for Children	No difference in global self-worth scores, ADHD higher in all domains but behavioral	Replicate the study with larger sample having only ADHD. ADHD positive illusionary bias.
Hoza 2002 USA	N= 195 ADHD boys, 73 non-ADHD boys aged 7-12 yoa.	Harter Self-perception Profile for Children	ADHD boys overestimated competence in social, scholastic and behavioral areas.	Treatment plans need to teach self-evaluation skills.
Slomkowski 1995 USA	N=60 ADHD boys, 62 non-ADHD boys, 6-12 yoa-follow-up 6 and 8 years later	Weiss and Hechtman domain specific questionnaire	ADHD had lower self-esteem at all times, lower education, and lower employment	Need to address academic and self-esteem issues during adolescence.
Krueger 2001 USA	N= 8 boys and 3 girls with ADHD 13-19 yoa.	Qualitative study using open-ended interview guide.	Adolescents view self in relation to disorder and do not see self as separate from disorder.	Psychotherapy should be integrated with family therapy in ADHD treatment plans.

From the review of the literature of self-perceptions of adolescence it is apparent that:

1. ADHD is a disorder that can have severe implications across the life span.
2. Adolescence is a critical stage for the development of identity and self-perceptions.
3. There are few mental health treatment programs geared specifically for the developmental needs of adolescents.
4. Treatment programs for ADHD often have improved self-perception as an arbitrary outcome goal.
5. Studies of self-perceptions of those with ADHD have been done almost exclusively with children and have mixed results with regard to the valance attached to those perceptions.
6. None of the studies has examined the hierarchical structure of the self-perceptions of adolescents with ADHD to determine domains of importance.

If there is to be a successful transition to adulthood, treatment programs for adolescents with ADHD need to be based on their unique individual and developmental requirements, not what planners think is desirable or what has worked for children or adults. There is a gap in the literature with regard to the self-perceptions of adolescents with ADHD. Before appropriate treatment planning can be done it is important to know the nature of their self-perceptions. Previous studies have been either qualitative or quantitative in nature. A combination of methods may help provide a deeper understanding of this unique individual—the adolescent with ADHD.

The following chapter will describe the methods to be used to collect the data for this study.

III. METHODS

A. Design

This was a cross-sectional triangulated study that used quantitative and qualitative methods to gather data about the self-perceptions of adolescents with ADHD. Adolescents with ADHD were matched with participants who did not have ADHD. As discussed earlier, James (1952) proposed two aspects of the self, the *I* and the *Me*. The *Me* can be determined by observing a person's behavior. Because of its subjective nature, the *I* only can be tapped by questioning the person. The Harter Self-Perception Profile for Adolescents (SPPA) was used to gather the quantitative data and a semi-structured interview was used to gather the qualitative information in both groups. In addition, demographic data was gathered to describe the ADHD sample.

Previous studies of self-perceptions and ADHD (reviewed in Chapter 2) have used either quantitative or qualitative methods alone. Because of the mixed results found in these studies, I chose a triangulated design for this research. Triangulation is a method used in research to incorporate the "combination of research strategies to achieve a multidimensional view of the phenomenon of interest" (Foster, 1997). It is the metaphorical use of terminology used to describe a navigational or surveying procedure that uses measurements from at least two known points to locate a third unknown point (Begley, 1996; Shih, 1998). Researchers use triangulation to achieve confirmation and/or completeness of data collected regarding a specific topic. Strategies used in triangulated research can include the use of: two or more investigators to analyze data, different

hypotheses to test a theory or generate a new one, two or more research methods, and/ or

two or more types of analysis on the same data set. Methodological triangulation can use

a between method or within method approach. Within method uses similar types of data

collection with the same population. For example a qualitative study could use

participant journal records and proceedings of a participant focus group to gather data. In

a between method approach data is gathered using different types of collection methods.

Frequently this involves quantitative and qualitative procedures (Begley, 1996).

Triangulation can help to eliminate biases that are inherent in any method of inquiry.

Qualitative and quantitative methods are complimentary and can add to the reliability and

validity of the study findings. When qualitative and quantitative methods are used it is

recommended that each method of data collection and analysis be conducted according to

the guidelines of its specific paradigm. Participants should be the same for the each

method used. Once data analysis for each concept under consideration is completed in

each research method, results are then scrutinized for convergent and/or divergent

outcomes with the purpose of blending the results to clarify the phenomenon (Risjord,

Dunbar, & Moloney, 2002).

This study used between method, participant, and investigator approaches.

Quantitative and qualitative research techniques were used to collect the data. Two

investigators separately examined the quantitative and qualitative data. Each participant

confirmed the analysis of interview data. The principal investigator blended the results

with consultation provided by an expert.

Triangulation of methods was selected to provide a richer understanding of the

self-perceptions of adolescents with ADHD. An iterative (two-stage) process was used.

The quantitative tool (SPPA) was administered before conducting the interview. Data

from the SPPA was submitted to a statistician for entry into SPSS and analysis. In an

effort to prevent the quantitative data from influencing the qualitative data collection, the

principal investigator was blinded to the results of the SPPA data analysis until the

qualitative data was collected and analyzed.

The qualitative data were collected and analyzed using phenomenological

methods. Phenomenology requires the investigator to analyze the data gathered from

each participant in a manner that creates a rich description of the essence of that person's

experience with the phenomenon of interest. While the researcher is able to grasp

similarities among the participants, the focus is on the individual and differences are

viewed as being as important as parallels. The choice of phenomenology was based on

an observation recorded by Munhall:

> … In casual conversations, "We are more alike than different" can be heard. Even if we were to base our theories on such an observation, the differences are probably the most important characteristics to consider when approaching patients, planning patient care, and developing nursing research ideas and projects. The similarities are easy, if indeed there are such entities. The differences are what challenge us and make all the difference in meeting the needs of patients. And the differences are paramount in our endeavor to understand individuals in their multiple realities, subjective worlds, life-worlds, and individual contingencies. (Munhall, 2001, p. 176.)

Munhall believes that consideration of individual differences often tips the balance

between a patient's compliance and noncompliance to plans of care.

The aim of this study was to generate information that will enable nurses to have

a deeper understanding of adolescents with ADHD and as a result, plan and provide care

that meets their needs. The combination of quantitative and phenomenological

approaches not only generated general descriptions of teens with ADHD, but also

provided information that can help nurses be alert to individual differences that can make or break plans of care.

<center>B. Setting, Participants, and Sample Size</center>

Setting

All participants were recruited from one high school, which encompasses students in grades 9 to 12. The school serves two small cities in southwestern Pennsylvania.

Participants

ADHD. A letter outlining the nature of the study was sent to every parent of a student in the school to request participation if they had ever been told that their child had ADHD. Parents were asked to contact me by phone. Parents of students with a diagnosis of ADHD already known to the school were contacted by phone. At this time I described the study, answered questions, and obtained verbal consent to be in the study. I mailed the parental consent and demographic questionnaire with a self-addressed stamped envelope. All ADHD parents were asked to complete the demographic questionnaire found in Appendix H. Once the signed informed parental consent was returned, I met with the students with ADHD individually to describe the study, answer questions and obtained the signed informed student assent. At this meeting the SPPA was administered.

Non-ADHD. Once I obtained parental and student consents to participate in the study, each student who had ADHD was matched with one participant without ADHD. The students were matched by gender and grade. Random selection was done using the class rosters. The number of participants needed from each roster was divided into the available students. The resulting quotient was used to count down through the roster to

select the potential participant. For example, if the result of the division was 15, every fifteenth student was selected. A letter was sent to parents requesting permission to allow the student to participate in the study. Only two parents responded. Therefore, follow-up phone calls were made to those who did not reply. The study was described and questions answered. If parents verbally agreed to allow their child to enter the study, I sent a new parental consent along with a self-addressed stamped envelope. When parents declined to participate or could not be reached after several attempts, random selection was again done until the needed numbers of participants were obtained. Once the signed informed parental consent was returned, I met with the students individually, explained the study, answered questions and obtained the signed informed student assent. At that time the SPPA was administered. Sample letters and consent forms are found in the Appendixes A, B, C, D, E, F, and G.

Sample size

The recruitment of an appropriate number of participants to allow the detection of differences between the two groups was very important. It was projected that if 8 to 10 participants with ADHD were enrolled in the study and were matched with 3 to 5 matched non-ADHD members, there would be 24 to 40 matched pairs of data. Twenty-four pairs of students would result in an 83% power of detecting a one-point difference in any of the 9 SPAA domain scores when an alpha of 0.05 is used in a two-tailed test. Forty data pairs would result in a power greater than 90%. Every effort was made to recruit as many students with ADHD as possible. However, a minimum of 8 to 10 participants with ADHD with the appropriate non-ADHD matches was necessary to have sufficient power for detection of significant differences in the quantitative data. The

recruitment of 21 ADHD and 23 participants without ADHD resulted in 23 matched pairs of information. The power of this sample to detect a significant difference was slightly less than 83 percent.

<div align="center">C. Instruments</div>

Self-perception Profile for Adolescents

I chose the Harter SPPA (1988b) as the tool to be used to gather quantitative data for this study because of its philosophical framework, its developmental appropriateness, its measurement of global and domain perceptions, its respectable reliability and validity scores, and its successful use in a variety of other studies. The SPPA is grounded in concepts found in James (1952) that purport that the evaluation of the self is developed as a result of the ratio of one's successes to one's aspirations in domains the person judges to be important, and Cooley's (1902) theory of symbolic interactionism and the use of the reactions of significant others in the development of self-perceptions. The tool measures the individual's perceived competence in various domains and allows the individual to reflect on the referent group used in the development of those perceptions to determine the importance attached to the domains.

The SPPA is one of a series of developmentally appropriate self-report questionnaires developed by Harter. In addition to the SPPA there are also self-perception profiles for children, college students, and young adults. All use the same format, and additional domains are added to successive versions to reflect the increasing complexity of life that accompanies the developmental stages. Harter asserted that the tools could be used in longitudinal studies. For example, a study that looked at participants as children and later as adolescents could use the SPPA for time one and the

SPPA for time two (Harter, 1988b). The four subscales of the SPPA are the self-perception profile, the social comparison scale, the importance scale, and the teacher's rating scale of the student's actual behavior. The teacher rating scale was not used in this study because the focus was on the self-perceptions of the participants, not the observations of teachers. The remaining subscales are described below.

The self-perception profile. The main portion of the SPPA is a 45-item self-report measure that measures an individual's assessment of personal adequacy in eight domains as well as a sense of global self-worth. The domains examined in this tool are:

1. scholastic competence—class work abilities;

2. social acceptance–peer approval;

3. athletic competence—sports ability;

4. physical appearance–acceptance of the way one looks;

5. job competence–work skills;

6. romantic appeal–attractiveness to a significant other;

7. behavioral conduct–doing the right thing and avoiding trouble; and

8. close friendship–ability to make close friends.

In addition, a separate score is developed for global self-worth. Harter emphasized that the global score is not to be interpreted as a measure of competence, but rather it is a "global judgment of one's worth as a person" (Harter, 1988b, p. 2). It is also important to note that the global score is computed by means of its own set of questions and is not a summation of the other scores.

The items developed to measure the various domains are designed in a manner that Harter believed reduces the likelihood of subjective bias. The respondent is asked to

choose between two opposing statements and then decide if it is *sort of true for me* or

really true for me. An example of opposing statements is, "Some teenagers like to go to

the movies in their spare time BUT Other teenagers would rather go to sporting events"

(Harter, 1988b, Appendix). Either choice is legitimized because each preference

represents 50% of teenagers. Once one of the opposing statements is chosen, the

respondent decides if that statement is *sort of* or *really true* for the person. Figure 2

demonstrates this. There are 5 items for each of the nine domains of the instrument. The

manual designates which items assess each domain. Harter attributed the term *positive* to

Figure 2 Harter SPPA Example

Really True for Me	Sort of True for Me			Really True for Me	Sort of True for Me
☐	☐	Some teenagers like to go to movies in their spare time	BUT	Other teenagers would rather go to sporting events	☐	☐
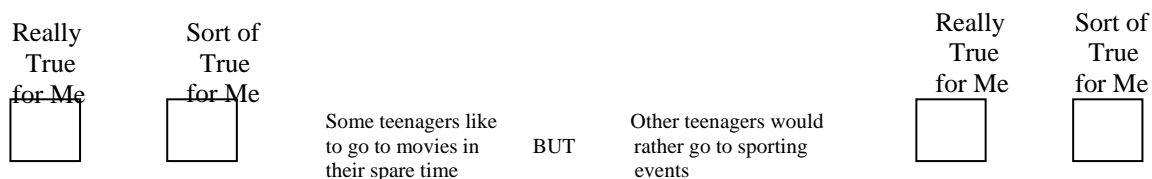
responses that indicate high levels of self-perception and *negative* to responses that

indicate low levels of self-perception in that domain. The positive response that is *really*

true is scored with a 4 (theoretically high self-perception), the *sort of true* receives a 3.

The *sort of true* from the negative response gets a 2 and the really true receives a 1 (low

self-perception). The five scores from each domain are averaged to obtain a mean score

for each domain. Domain items are randomized throughout the instrument. Also, the

sequence of positive and negative statements is changed randomly to eliminate bias.

    Social comparison scale. In addition to the self-perception profile, several other

sections can be administered to gather information that can contribute to a deeper

understanding of the adolescent. One gathers information about the social comparison

group used to determine a particular competency. Harter designated the item from each set of domain items that is most representative of the domain. After the main questionnaire is completed, respondents are asked to decide what referent group they were thinking of when they answered the item. This section can be administered as an additional paper-and-pencil response format in which respondents are asked to decide which of 3 predetermined groups influenced their decision. Alternatively, the information can be gathered in an interview situation.

Importance Scale. In an effort to gain information about the basis for the global self-worth, Harter devised a complementary instrument to determine the importance that respondents attach to each domain. Two items selected from each domain are paraphrased in terms of importance. Again each item on this instrument consists of two opposing statements and the participant has to decide in terms of *sort of true for me* and *really true for me*. Scoring is similar to the self-perception profile. According to Harter a score of 4 on an item is very important, 3 is sort of important, 2 and 1 are of low importance. A mean domain score is obtained for each area to obtain an importance score. Only importance scores above 3 are used. This is done as an interpretation of the James theory that asserts that only domains of importance have an influence on the global sense of self-worth. Low importance scores in areas of perceived low competence indicate that the person is able to discount these low competencies. Importance scores are subtracted from perceived competency scores from the corresponding competency tool. Some results will be positive and some will be negative. All these scores are added to obtain a discrepancy score. Low self-worth is found when there is a large negative discrepancy score, indicating that importance exceeds perceived competency.

Scoring

Interpretation of scores for the self-perception profile is norm-referenced because the scores allow one to see how a respondent's scores compare to those of other participants on the continuum of low to high self-perception. The manual provides score norms for four samples obtained from 641 students in grades 8 to 11 from mostly Caucasian lower-middle to upper-middle- class neighborhoods in the state of Colorado.

Reliability and Validity

Harter reported reliability and validity measures only for the self-perception profile. Four samples from the population described above were used for the calculation of reliability for this instrument. The Cronbach alpha was used to determine its reliability and consistency. Scores ranging between .8 and .9 demonstrate that the instrument is able to discriminate among the subscales of the instrument (Burns & Grove, 1997). Two of the early test samples yielded low scores in some domains. Test revisions were made and the fourth sample had alpha scores that ranged from .74 to .92. In studies using the Harter scales that were related to ADHD, only Dumas and Pelletier (1999) reported a Cronbach alpha score for their study. The ADHD scores were .81 and the non-ADHD scores were .87.

Validity was assessed using factor analysis. Validity testing is done to find out if the scores determined by a measurement instrument "are accurate, appropriate, and make sense" (Goodwin, 1997, p. 102). Determination of validity is essential to assure that judgments and actions based on instrument scores are appropriate and accurate. Factor analysis was used to determine if each subscale of the SPPA was indeed a separate entity. Factor analysis is used to determine construct validity with norm-referenced data

obtained from psychological tests (Burns & Grove, 1997; Waltz, Strickland, & Lenz, 1991). The procedure untangles the scores of a large number of variables and pinpoints groups of variables that are closely related. Results of factor analysis can be interpreted much like correlational scores (Burns & Grove, 1997). The minimal acceptable score is .30 (Waltz et al., 1991). For the SPPA, results of factor analysis ranged from .30 to .89 with most being above .50 (Harter, 1988b). These results demonstrate that the subscales measure the domains as presented. No measure of self-perception is without fault, but this tool has been rated as a sound instrument

Qualitative interview guides

The interview guide for the participants without ADHD consisted of four parts (Appendix J). The first question asked them to tell me about themselves, the second asked them to tell me what it was like to be a teenager, the third asked them to tell me what they knew about ADHD, and finally I asked them to draw a self-descriptive picture.

The interview guide for the participants with ADHD consisted of 4 parts. (Appendix I) The first question asked them to describe themselves, the second asked them to tell me what it was like to have ADHD, and the third asked them to draw a self-descriptive picture. The fourth question, which asked what it was like to be a teenager, was asked during the summary interview.

D. Procedures for Data Collection

The SPPA was administered first. This was usually at the time the assent was signed. Only one student with signed parental consent declined to participate. Sessions were held after school or during study hall time. In an effort to maintain consistent conditions of test administration, the tool was administered on an individual basis. Also,

because of the learning disabilities that are sometimes associated with ADHD, the

instruments were read to each participant. These procedures also were designed to help

the participants with ADHD maintain focus and keep on task in this phase of the data

collection. I administered all of the quantitative scales. As seen in Shealy (1989), social

comparison questions were asked following the question that Harter has designated as

most representative of each domain. Those are items 19 – scholastic domain, 29 – social

acceptance domain, 3 – athletic competence domain, 31 – physical appearance domain,

14 – job competence domain, 24 - romantic appeal domain, 43 – behavioral conduct

domain, 8 – close friendship domain, and 36 – global self-worth domain. The Harter

manual provides a sample script to aid in giving test instructions. This script emphasizes

that the tools are questionnaires not tests and as a result there are no right or wrong

answers. The introduction emphasizes that it is important to answer honestly. In

addition, I explained to each person the reason for my reading the items by saying, "This

is not a reflection of your reading ability, but because some participants may have a

reading problem and because this is a research study in which conditions have to be the

same for everyone, I will read the items." I asked that they read silently along with me as

we progressed. This seemed to convey the sense that this was an important scientific

project and all of the students indicated they understood. The sample item was reviewed

to acquaint the students with the format of the questionnaire before the actual items were

done.

Data collection was done during the school year. Shealy (1989) collected data

during summer vacation and believed that the inconclusive results of that study were

because the children were away from the pressures of school. One of Shealy's

recommendations was that future research should be conducted during the school year. Alexander (1999) postulated that children in special settings such as summer camps (Hoza et al., 1993) receive a lot of special attention that could influence self-perception research outcomes. Data collection began in January and was completed in early June.

After the quantitative tool was completed, I scheduled a time to meet with the participants to conduct the qualitative data collection. Individual interviews with ADHD and participants without ADHD using the interview guide were done to collect the data for the phenomenological aspect of this study. The aim of the interviews was to generate information about the experience of being a teenager with and without ADHD. The interviews were tape recorded and transcribed. All of the students were invited to participate in the interview, but 3 students with ADHD and 3 students without ADHD declined to do this.

The initial qualitative interviews were conducted after school. The students met with me in a private office and the interview guides were used. In the first three interviews, the participants were asked to draw a self-descriptive picture at the beginning of the interview. Analysis of the interviews showed that the pictures were directing the content rather than supplementing substance of the data collection. In the remaining interviews the drawing of the self-descriptive pictures was done at the conclusion of the interview. Sometimes the content of the pictures recapitulated what had been discussed in the interview, but at other times new information was revealed and explored in discussion that followed the drawing session. Most of these interviews lasted 20-30 minutes.

A stenographer transcribed the interviews. I reviewed the transcriptions and drafted a summary of the content. This was in an effort to adhere to the phenomenological framework of the study and gather the essences of the data. I then met with each student to review the summary, to determine if the student agreed with the content and accuracy of the summary, and to allow them to add any additional information. It also allowed me the opportunity to clarify or expand on issues raised in the initial meeting. The initial interviews with the students with ADHD were completed before the interviews with the participants without ADHD started. As this part of the data collection was underway I began to wonder what these participants knew about the disorder so I began asking them what they knew about ADHD. Also I realized that I was asking these participants what it was like to be a teenager, but I had not asked that question of the students with ADHD. I asked the additional questions to both sets of participants at the time of the summary interview or at a separate time if the summary was completed. As the interviews progressed, many common themes emerged, but I also was aware of many new themes that were unique to only a few of the participants. When the interview process was nearing an end I became concerned that saturation as I thought I understood it was not occurring.

As I reflected on this quandary I returned to the philosophical framework of the study – Phenomenology. I realized that this framework encourages the identification of common essences, but also allows room for examination of differences among the participants. In one of the last interviews I asked the participant what it was like to be a teenager. This response was unlike any other, but at the same time it expressed exactly what I was seeing. The participant said, "I think it is different for everyone. You just

have to do it. It depends on what you do, who you hang out with, how are your grades.

It depends on a lot of things. Varied circumstances." Across the study group these teens

ranged from valiant Don Quixote's battling the windmills of societal conventions, often

without the comfort of a faithful Sancho Panza, to carefree Sandra Dee's getting ready

for the next beach party. As the report of the data analysis is presented the reader will

become aware not only of the essences of the phenomenon, but also themes that make it

unique for each individual.

In addition, personal notes were made during and immediately after the

interviews. These notes described contextual details such as facial expressions and body

language that were not available on the transcript

After completing the SPPA, each participant received a $15.00 gift certificate to a

local music store. A $10.00 gift certificate was awarded at the completion of other

meetings. This incentive was offered in an effort to reward participation in the study.

E. Procedures for Data Analysis

A professional stenographer, who had signed a confidentiality statement

(Appendix M), transcribed qualitative data. The transcriptions were entered into the

qualitative data analysis program, Ethnograph. The analysis of the data involved a

combination of methods outlined by van Kaam (1959) and Munhall (2001). Munhall

decried the push to generalize the results of phenomenological inquiry. Rather she

encouraged the examination of each participant encounter as a unique entity. Recorded

interviews, transcripts of interviews, and field notes are studied and reviewed to develop

a rich descriptive narrative summary of the person's experience with the phenomenon of

interest. The participant is then asked to examine the summary for accuracy. The

researcher takes this opportunity to revise and clarify the summary. Munhall

acknowledges that similarities of experience will be seen from participant to participant,

but these similarities are mediated by the unique contextual experience of each person.

These contextual differences are not to be ignored and are to be used along with the

generalization of similarities in the final research report.

As I examined the qualitative data, the method described by van Kaam was used

to analyze the similarities found. Van Kaam (1959) outlined six steps for data analysis.

Originally these steps were:

1. Listing

2. Rough preliminary grouping

3. Reduction

4. Elimination

5. Tentative identification of descriptive elements

6. Final identification of descriptive elements

In a study of feeling understood, van Kaam (1959) noted that these steps can over

lap and do not follow a rigid fixed order. As a result, van Kaam collapsed the first four

steps into two. Steps one and two, entitled Listing and rough preliminary grouping,

involve an examination of every word of every participant. All concepts conveyed by

these words are retained whether or not the researcher feels they are important. This

helps to reduce researcher bias. Rough preliminary groups are then formed. These

became the codes that were placed in Ethnograph. For this study this will be designated

as Step One. In steps three and four, entitled Reduction and Elimination, the researcher

subjects the results of the first phase to two tests. The first test is to determine if any

particular expression found in the data has the potential to become a "necessary and sufficient constituent of the experience under study" (p.68). Van Kaam defines a constituent as "….a moment of the experience which, while explicitly or implicitly expressed in the significant majority of explications by a random sample of subjects, is also compatible with those descriptions which do not express it" (p. 68). Secondly, the researcher needs to determine if this expression also can be labeled without changing the meaning expressed by the participant. Items meeting these criteria are retained for the study. Those that do not are eliminated. For this study part of the data analysis will be designated as Step Two. In step five, entitled tentative identification of the descriptive constituents, the direct or indirect items that have a common link to the experience are clustered and given a label that is more abstract than the components of the cluster. This will be cited as Step Three. In step 6, entitled Final identification of the descriptive constituents by application, the researcher tests the core clusters against a random sample of the original statements of the participants to see if the cluster labels are expressed explicitly or implicitly. Discrepancies require reanalysis. The results are then verified by an independent judge. At this point van Kaam used the clusters to formulate a consensus statement or hypotheses about the phenomenon. This will be known as Step 4. Therefore in this study the steps of qualitative data analysis were:

1. Step 1: Listing and rough preliminary grouping

2. Step 2: Reduction and elimination

3. Step 3: Tentative identification of descriptive constituents

4. Step 4: Final identification of descriptive constituents.

In this study Munhall also was used for the end result in that the clusters of experiences common for each group will be used to provide a description rather than formulating an hypothesis. This description allows room for commonality as well as diversity among the participants.

To control bias several measures were taken. The bracketing of my personal experience with ADHD as outlined in Chapter 1 was the first step that was taken in controlling my preconceptions. Munhall recommends that in addition to the field notes, the researcher needs to keep a personal journal to detail personal insights, feelings, frustrations that arise during the research process. As the students told me their stories, I had to continually bracket my own self-perceptions and experiences. I was constantly amazed that they not only helped me to understand themselves, but also myself. This helped to contribute to the decentralizing that was necessary to reduce bias. Having the participants verify the accuracy of the summaries helped to reduce bias. Finally, a person experienced in qualitative research also examined the data to confirm the coding.

The quantitative data was analyzed using the SPSS statistical program. Descriptive statistics such as mean, median, range, and, standard deviation were calculated for the participants with ADHD and control participants for the purpose of comparing the results for each group. Additionally, paired t testing was done to determine differences in individual domain scores, the global self-worth score, and the importance score between the children with ADHD and their matched controls. Because of the various levels of measurements, the potential for skewed scores, and the possibility for unequal variances, it was expected that other kinds of statistical tests for paired data would be required for analyses. Domain and global self-worth scores were analyzed

separately, and importance scores were compared for each participant group.

Demographic data also was presented.

F. Procedures for Protection of Human Participants in Research

The Institutional Review Board of Duquesne University gave approval to conduct

the study (Appendix N). Permission to conduct the study was obtained from the School

Board (Appendix O). I described the study to parents and potential participants, allowed

for questions, and then asked them to sign a consent form if they agreed to participate.

All parents and participants were told that they might drop from the study at any time

with no penalty. It was planned that if participants in either group were found to be in

need of medical or psychological help, parents would be informed, referrals would be

made to appropriate sources, and I would do follow-up to determine if the referral had

been completed. However, no students demonstrated a need for outside help.

The confidentiality of participants' information was maintained at all times. No

participants were identified by name in the final report. The computer containing the

Ethnograph and SPSS files is password protected. All hard copies of the qualitative and

qualitative data will be maintained in a locked file cabinet in my home for 5 years after

completion of the study. At that time all information will be destroyed.

IV. RESULTS

A. Description of Participants

Students diagnosed with ADHD (n=28) were identified through a general mailing and school records. Two potential participants left the school before the study began, leaving a population of 26 participants. Written consent forms were then mailed to the remaining parents. Four parents did not return the consent. Follow-up phone calls and mailings were done, with no response. One student declined to participate after parental consent was obtained. The final study group consisted of 21 students with a diagnosis of ADHD and resulted in an 81% response rate.

Using the random method described earlier, 23 participants without ADHD were recruited as a control group for the quantitative portion of the study. The extra two students without ADHD were matched with two students with ADHD who already had been matched with another student. Students without ADHD were matched to the participants with ADHD by grade, sex, and the order in which the former were entered into the study.

Demographics of Participants with ADHD

The 44 participants, (students with ADHD = 21; Students without ADHD = 23) ranging in age from 14 to 19 years, were in grades 9-12 in a public high school (Table 2). Parents were asked to complete a demographic questionnaire (Appendix H) at the time the consent form was signed. Results from that questionnaire follow. The majority of the 21 participants with ADHD were boys (n=17).

Table 2. Distribution of Students

	Sex				Race				Total	
	ADHD		Non-ADHD		ADHD		Non-ADHD		ADHD	Non-ADHD
Grade	Boys	Girls	Boys	Girls	W[a]	B[b]	W	B		
9	9	1	9	1	8	2	8	2	10	10
10	3	1	4	1	3	1	4	1	4	5
11	4	0	5	0	4	0	5	0	4	5
12	1	2	1	2	1	2	1	2	3	3

Note a=White, b=Black

Eleven of the participants with ADHD lived in two-parent homes and 10 were from single parent homes. Fifteen students had been diagnosed with a comorbid condition; learning disability (n=5), depression (n=3), anxiety (n=2) bipolar (n=2), ODD (n=1), Perceptual Deficit Disorder (n=1), and psychosis (n=1). All but three of the students were diagnosed with ADHD between the ages of 4 and 8 years. A psychiatrist diagnosed 11 of them, a school psychologist diagnosed 3, and a family doctor diagnosed 1. No diagnosing person was indicated for the remaining 6.

Twelve of the participants took daily medication. Medications included Ritalin (n=2), Concerta (n=4), Adderall (n=2), Celexa (n=2), Paxil (n=1), and Zyprexa (n=1). Ten medications were taken once a day. Nine participants took their medication without a vacation period. Nine parents indicated that they supervised their children taking medication on a daily basis.

B. Qualitative Data Analysis

Description of Method

The aim of this study was to examine the self-perceptions of adolescents with ADHD using a phenomenological method and a framework of Symbolic Interactionism. Phenomenology, which examines the lived experience of individuals, seemed most

appropriate in order to arrive at a rich description of the self-perceptions of adolescents with ADHD. Symbolic Interactionism was chosen as a framework in an effort to determine the sources of self-perceptions. Phenomenology provides an examination of the lived experience of the participants. Symbolic Interactionism provides direction to discover how that lived experience affects self-perception.

van Kaam

The method of data analysis followed the guide lines established by van Kaam (1959). Van Kaam's method was modified in two ways. First, van Kaam used accounts of subjective experiences written by the participants. This study used accounts transcribed from interviews with the participants. Transcriptions of interviews is an acceptable adaptation of van Kaam's method (Boyd, 2001). Second, rather than arriving at only a general description of the phenomenon as prescribed by van Kaam, this study focused on general descriptions and particular differences, a method used by Munhall (2001).

The analysis of the data will be presented using the steps outlined by van Kaam.

Step 1: Listing and rough preliminary grouping

Step 2: Reduction and elimination

Step 3: Tentative identification of the descriptive constituents

Step 4: Final identification of the descriptive constituents.

Items eliminated will be presented at the end of the data analysis. In addition, final descriptive constituents will be presented at the end of the data analysis for each group of participants.

Coding of the data

  Because of the importance of the time frame for collecting data (before the end of

the school term) and in order to use time efficiently, data collection and preliminary

analysis occurred on an ongoing basis as students, both with and without ADHD, were

identified and interviewed, and interviews were transcribed. Analysis began as

interviews were completed in both subjects with and without ADHD. Listing and rough

preliminary grouping (coding) of the data began as transcripts were received and were

entered into Ethnograph. As categories arose in the data, they were described in an effort

to insure consistency in the groupings and subsequent data analysis. The descriptions

established for the codes can be found in Appendix K. Codes were used for both sets of

participants as the categories arose in the data. However, some codes were more

appropriate for only one of the student groups. Many sections of the transcripts

contained multiple codings. For example a student discussed feeling stupid because he

frequently forgot to do a chore and was always reprimanded by his father for forgetting

all or part of the job. This was coded as self-perception, attention, and parent relations.

Codes were used to search for and retrieve data groupings in Ethnograph during data

analysis.

  The data for the students without ADHD will be presented first because I believe

that it is important to have a picture of the lived experience of teenagers who do not have

ADHD before looking at the data for the teens with ADHD. In an effort to organize the

data, I identified five large categories. Data analysis will be presented in five sections for

each group of participants. The first four sections include: general descriptive

information, discussion pertaining to adolescence, discussion pertaining to self-

perception, and discussion pertaining to coping skills. A fifth section, referring to ADHD, will be presented for each group. However, the focus for the two groups was different. The non-ADHD participant responses were about their knowledge of ADHD, and the responses of the participants with ADHD were about their experience of having ADHD.

<div align="center">C. Participants without ADHD</div>

<div align="center">*Step 1: Listing and rough preliminary grouping*</div>

General Descriptive Information

When asked to describe themselves, initial responses varied. Reactions included statements such as, "I don't care what people think of me", "I like to be involved and try to do my best", "I hang out with friends and play paintball", "I am a majorette", "I like sports", "I am active", " I play (or like) sports", "I am multitalented", " I am a hard worker", "I am determined, kind, outgoing", I try to do the right thing", "I have anger problems", 'I like my job", " I drive my own vehicle", "I help with the fire department", I like to roller-blade, listen to music, go shopping at the mall, play basketball, football", I like to stay calm, but if I get mad, then I get really mad", "I like people that are responsible", or "I sing." Others gave an initial list of age, school grades, academic success, future goals, hobbies, and family structure (parents, siblings, etc.).

Sports and activities. As discussion progressed a multitude of topics arose. Students mentioned participation in sports and named roller-blading, football, basketball, baseball, softball, soccer, track, fishing, bike riding, and swimming. This type of content was coded as sports. Some participated in organized teams and others participated in pick-up games with friends. There was also discussion about activities such as

participating in the school band, chorus, and clubs, and singing in church. This type of

content was coded as activities.

  Family relations.   There was discussion about sibling relationships (mainly

conflict) relationships with grandparents, and uncles. One student mentioned that he felt

pressure to live up to family examples and traditions, but this also helped him to feel

secure because he knew that those exerting the pressure were also a support system and

"in my corner." This type of content was coded as family relations.

  Parent relations. Relationships with parents were also discussed. The teens

talked about having curfews, parents wanting to know where they were going, learning

right from wrong from parents, and pressure to do what is right—especially in making

decisions about the use of drugs and alcohol. All but one from this group said that they

avoided the use of chemicals. They discussed having consequences, such as getting

grounded, for infraction of family rules. Some appreciated that parents trusted them

more, but others wished that parents were more trusting. One teen talked about an

instance where he wanted to go to a party, but his mother would not let him go because

no parents were going to be there. The police were called to the party and some got into

trouble. As the discussion progressed he said he knew that going to the party was not a

good idea and he should have been able to make the decision without having his mother

step in. He acknowledged that he was grateful for his mother's intervention. The general

tone of discussion revolving around parent relations was that while there was minor

irritation about parental reins, for the most part the interactions were harmonious. Only

one teen was so unhappy with his mother that he was planning to move to his father's

house at the close of the semester. This type of discussion was coded as parent relations.

Peer pressure. Initially there were two categories—peer and pressure. However, it quickly became apparent that the two should be combined into one. Discussion in this category centered on "fitting in." This ranged from needing to wear the right clothes, having the right friends, having sex, or doing drugs. The most pressure seemed to be to have the right clothing. Several said that they were aware of this pressure, but were not affected by it. They did not care what others thought about them or that they wanted to be different. One upper classman said that he was not ready to have sex because he knew that he was not ready to be a father. Senior participants said that the pressure was felt most in the freshman and sophomore years, but as they progressed to the upper grades they found friends with like interests and values and did not feel the pressure to fit in anymore. One said that it was not easy to find a friend who "was not into everything", but that he eventually did. This type of discussion was classified as peer pressure.

Social relations. The teens frequently talked about "hanging out with friends." This involved going to the mall, going to the movies, trading cards, going to parties or dances, listening to music (which included styles such as alternative, rap, rock, and classical music), and having pick-up games of sports. This type of discussion was coded as social relations.

Social isolation. In sharp contrast, many also talked about the importance of having time alone. This time often was spent in the bedroom listening to music, or experimenting with make-up (girl). Others spent solitary time walking, "tinkering," doing woodwork, or watching movies. One teen said that she enjoyed being with her friends, but could not be "social" all the time.

School. Dialog coded as school covered several areas that included getting good grades, parent relations, and social relations. Students for the most part were concerned about getting good grades. In an effort to ensure good grades a student said, " I'm maintaining good grades…. Trigonometry is harder though. Sometimes I get lost and go see the teacher and she helps me."

There was pressure in the area of school from parents as well as the teens themselves. Teens concerned with grades were clear that this was necessary to get into the postsecondary field that they wanted. Some teens also talked about consequences imposed by parents such as getting grounded for getting poor grades or privileges for getting good grades. However one teen remarked that if he were to get the grades that his parents wanted, he would have to spend so much time studying that he would not have any time for a social life. He felt that he was doing his best and worked to achieve a balance between school and friends. School was the source of many types of social relations such as organized sports, band, choir, and academic competition teams such as mock trial and quiz bowl. Other social interaction involved talking in class. Those who liked to talk in class said that is was because they did not care about the class or school in general. They acknowledged that they did not get good grades. One teen noted that he keeps to himself in class because he learned that if he gets involved in talking in class his grades suffer. He saved socializing for non-class time.

Adolescence

During the interviews the participants were asked what it was like to be a teenager. Data related directly to adolescence will be discussed here.

Hard. In this section of the analysis the final cluster emerged immediately. When asked what it was like to be a teenager 8 of the 20 students stated a resounding,

"It's hard." An additional 4 students implied that adolescence was hard for them by saying that it was a stressful time, not fun, and it was a time of peer pressure. They then gave words to describe why it is a difficult age. The general topics discussed were similar to those discussed earlier such as parent relations, peer pressure, and school pressure. However, a unique topic of "stereotyping" was introduced in this discussion. Stereotyping was discussed only in relation to adolescence. Dialog will be presented here to support the impression that adolescence is hard. Stereotyping will be presented last.

The teens said parents contributed to the difficulties of adolescence because parents forgot what it was like to be a teen. Also, parents set expectations but did not take into account what teens have to face because times are different, especially with the use of computer technology. Others wished that parents would trust them more and would not be so suspicious.

One said,

> I think it's different than what everybody, or parents, perceive it as
> sometimes, 'cause we have to deal with a lot they never had to. Have a
> social life or have a certain look. It's just a lot of different pressures I feel.

Another said,

> Um, I guess being a teenager, a lot, (pause) like, people, older people, I
> guess real old people and then even some middle age people, they look at
> teenagers and they're, like, what are those kids thinking, what's wrong
> with those kids. Then they don't look back, like, when they were kids and
> it was the 60's or the 70's or whatever, and being weird then, and they
> were weird, why can't I be weird now. I got colored hair, I wear funny
> clothes, but I'm sure they wore funny clothes back then too. It's kind of
> interesting being looked at weird all the time, you know. Like my dad, my
> dad ever since I was, like, 12, has always criticized the way I think and the
> way I look. And then I found pictures of my dad when he was younger
> and he had big hair and bellbottoms, and it was real funny.

Still another said,

> Yeah. I don't think a lot of adults really steer you in the wrong direction, I
> think it's just 'cause they had the experience with it but, you know, I think
> sometimes they don't maybe understand the situation you're in 'cause it's,
> like, a different time you know, so it's totally different. Back then you
> might do something and it was okay back then, but today it's a big deal.
> Or you do it today and it's not a big deal, but back then it was. I think it's
> just all the time and stuff.

Students discussed pressure to fit in by having the right clothes, and pressure to do drugs.

> A lot of peer pressure, definitely. That's the first thing that comes to
> mind, because as a teenager you're experimenting…it's hard not to do
> things and to still fit in, which only so many people can do. Peer pressure.
> A lot of pressure goes on the way you dress too. You know. If you dress
> a certain way you might not be accepted.

Another said,

> Um, I can say it's a lot of peer pressure. Trying to fit in. Yeah. I'm sort
> of in the middle. Like, there's the, like, the high-end people and the low-
> end people, I'm just in the middle. I have friends with both classes. Like,
> my upper class friends like that…will pressure people in my age group. I
> was at the…we were playing video games last night at the one kid's house
> and they want me to try this grain alcohol, and, like, those ones were the
> ones that were drinking. They just kept saying, "Oh, you want one?"
> "No", 'cause I don't drink." "You sure you don't?" "No."

A senior said,

> …and then (in earlier grades) you want to be popular and fit in and be
> cool, and things like that. So you'll do anything. But once you're, like, in
> 12th grade you're older and you're, like, (pause) you already fit in."

These teens were clear about the difficulties that adolescents face because of

stereotyping. They complained that parents and other adults often think the worst of all

teens as a result of the publicity given to the bad actions of a few. They felt it was hard to

be viewed as an individual because of this.

> I think sometimes it's hard and stressful because you just have
> your people that think they're better. Then you have your people that keep
> to themselves. Everybody stereotypes people and judges them before they

get to know them. And it's hard because peer pressure, and people saying "Oh come on, you can do this", and just a lot of things. It means, like, I don't want people to think of me as what they see me as, but just to try and get to know me.

Another said, "If something happens, there's people who constantly think that we do wrong stuff. Sometimes it's right, yeah, but most of the times it isn't."

This type of expression was coded as hard or adolescence hard.

Easy. Three of the students initially said that adolescence was easy or fun for them and others talked about the good and bad aspects of being a teenager. The reason most expressed for adolescence being easy was that there were more privileges, the chief of which was learning to drive.

Um, you know, being able to go and have the freedom to do some things that I wasn't able to do before. Um, learning to drive, which I'm doing now. Um, just being able to do things that an adult…you know, just being able to be considered an adult now…you know. That's good. I like that.

Others said, "You get to drive. But bad in you just have to be in by 11 until you're 18. But you get to drive and you get to go places that your mom won't take you, like, the mall or something." "I get to go places without my mom and dad dropping me off. I get to hang out with friends." Teens appreciated not having to depend on parents to get to places such as friends' houses, the movies, or the mall.

Positive responses came from the participants without ADHD who also indicated that they appreciated having more independence and privileges. They also recognized that even though there were pressures associated with being a teen they did not yet have to assume many of the responsibilities of adulthood such as paying bills and supporting a family. Seniors from this group acknowledged pressures in earlier grades, but at this

point they had learned to ignore them and assert their own individuality. One said that being a teen was different for everyone because everyone faces different situations and each handles those situations his or her own way. Another summed up adolescence as a time of stress, responsibility, and fun.

Jobs. Several other topics emerged as they talked directly about adolescence. Issues included here were the world of work and their goals for the future. Many of the teens held part-time jobs. It was of interest to note that those who had jobs did not participate in organized sports, and vice versa. The teens had to choose how to spend their time. Jobs included being paid for chores at home, working in various fast food restaurants, supermarkets, doing yard-work, clothing sales, mechanics, delivering papers, and working in a cycle shop. They indicated that the money they earned paid for extras in their lives such as buying clothes, having a cell phone, buying a motor vehicle, paying for insurance, and buying hobby equipment. While many had no responsibilities attached to their income, others did. One said that his parents required him to work and he was proud of what he had been able to accomplish as a result. He had bought a decent truck and was able to maintain the insurance on that vehicle. The teens were beginning to face adult responsibilities as a result of their employment. Also by having to allocate their time they were starting to make independent choices that they would have to make as adults

Future goals. Another step toward adulthood involved discussion that was eventually coded as future goals. The most frequently mentioned goal was to go to college. From there the goals were varied and included teaching, marine biology, history, law, dentistry, psychology, math, and professional football player. Some wanted to go to

the military or to have a trade. One said he wanted a profession in which he was

challenged every day and another said that he was picking a field that he enjoyed because

he wanted to look forward to going to work every day. A few were even looking to the

time when they would be on their own and have a family of their own. They wanted to

have a good job so that they could support a family. The atmosphere for the most part

was an embracing of the future. However one student regretfully said, "You can't be a

kid forever, even though you might want to." He then gave a stoic accounting of how he

expected to be responsible for a house, car, insurance, taxes, etc. As the discussion

progressed he talked about how his parents worked very hard to provide for the family

and he did not remember them ever going out or having fun. He saw this as his eventual

lot in life and he was not sure he wanted that. These are his words.

> Well, it has its ups and its downs, and it's a lot…you can do more things.
> I remember when I was little and I would see all the kids playing football,
> but they were older than me. I always wanted to go play but my mom
> wouldn't let me 'cause I wasn't old enough. Now you can do those things.
> And I get to drive in a couple years. I mean, those are a lot of good things.
> It's just, I mean…has bad things, like, school's harder, and you gotta start
> getting jobs and money, and pretty soon you'll go to college and you'll
> have to move out, you know, buy a house, car, insurance, taxes, food, all
> that stuff. It all starts going through your mind once you get 15, 16. You
> don't really think about it when you're littler.
>
> It's a couple different issues. But mostly you don't have a lot of time as
> much time as you did when you were littler. When you're older your time
> is taken up on more things 'cause you have more things to do. There's
> more things and you have to be more responsible, and have to be able to
> take care of yourself in some situations. I don't know, it's just really
> different. You can't be a kid forever. Even though you wish you could.
>
> You always just have fun when you're a kid. When you're older you have
> to deal with bills, taxes and all that stuff, and you just don't have enough
> time to do anything. My parents barely go out anymore. They're always
> stuck at home with stuff to do. You gotta cook and clean and wash, and
> do all this pay bills, and do taxes, mail all the stuff, you know.

Self-perception

Students made direct and indirect references to their perceptions of self. They also talked about tactics that they use to maintain their perceptions of self.

Direct references. Direct references to self were taken from the original transcripts using a search for the words "I am" and "I'm." These responses covered a wide variety of responses, most of which were positive in nature. Positive responses were I'm good, happy, always smiling, cheerful, serious, laid back, strong, nice, a regular kid, well rounded, a go getter, patriotic, easy to get along with, courteous, active, kind, polite, responsible, outgoing, dedicated involved, social, not part of any group, good at school, smart, good at manual labor, and different. Negative responses included "I'm violent," "ready to fight," "bummed out," "messed up," "always getting into trouble," and "I'm not smart."

Indirect references. When students were asked to describe themselves, as presented earlier in the general discussion section, references to self could be interpreted as: "I am a family member"; "I am a good student"; "I am a person who has goals for the future"; "I am a social person"; "I am a person who likes most people"; "I am dedicated"; "I am loyal to family, heritage, and school"; "I am a person who tries to do the right thing"; "I am a hard worker"; "I am a sports fan"; "I am a person who does my best"; "I am an individual"; "I am a musician"; "I am a person who likes to help others"; "I am an employee"; "I don't have a boyfriend so I must be ugly"; and "I'm also a quiet storm because I don't start trouble, but I will surely finish it."

Coping Skills

Students talked about ways they had learned to deal with stressful situations. Several said that they had found that it was best to back off situations that could lead to conflict. One said that she just keeps things to herself or pretends that she does not notice her boyfriend flirting with other girls because "It usually turns out to be nothing." In a similar vein some said that they avoid situations that might lead to involvement with drugs or alcohol or say no when they are confronted with those situations. One student said that he was at a party where others were drinking and he pretended that he had fallen asleep. Others said that they chose activities that would not involve risky behavior. One student said that he became involved with collecting cards because, "It keeps me off the streets." One student deliberately chose a new group of friends when the old group began behaving badly toward other students. Another student said that he writes in his journal when he is upset and doesn't have anyone with whom to talk. Some talked about finding friends who had similar interests and behaviors. This type of discussion was coded as coping.

Knowledge of ADHD

When asked about ADHD, some of the students without ADHD said that they did not know anything about the disorder. Some guessed at what the disorder encompassed.

> Um, I'm not sure, but I thought if you had ADD or the hyperactivity thing,
> it was when you, like, crave attention and you just be real wired and go
> nuts and make people pay attention to you, and be real hyperactive and
> stuff. And they give you Ritalin or whatever.

Another said,

> They get Ritalin for it 'cause you can't pay attention or something.

Like, whenever you just daze off to somewhere else? Ah, all I know is
that you can't pay attention any. I never really looked into it. I never
really heard of it 'cause I didn't have it. I don't know.

Others said, "A tiny bit. We did something in biology last year on all kind of disorders,

and I learned a little bit about it, but not so in depth that I would know a lot about it."

"From what I know, I think I know, it's a disorder that whoever has it can have a short

attention span, and they can't, like, sit in one place for a while listening to the same

thing…" "Well what I think it means (pause) I don't know, (pause) like, when somebody

talks to you and you just don't pay attention." "You can't pay attention really; you can't

concentrate on one thing." "It's where you can't pay attention or you're just hyper." "I

really don't know anything about it. From what it sounds like to me, the person who has

this doesn't have…can't really pay attention, and I'm glad I don't have it."

Another said,

All I really know is that it's hard to stay focused really, for a certain
amount of time. I really don't know that much about it though. Just that
it's hard to, like, you're always walking around or doing something but I
really don't know that much about it.

Others reported their observations of friends and classmates.

I think it's if you're sitting somewhere, and there's this person with
ADHD sitting next to you, it's nothing bad, they could just pull out some
paper and start drawing weird things and not pay attention or anything.
They're just off in their own world humming and doing their own stuff.

Another said,

Uh, I can see the effects of it – one of my friends from Burger King has
ADD, and no one would say anything about it, 'cause that would be rude
and impolite to say something about it. But he sometimes loses attention
and you have to repeat things. Then he'd pick it up 5 minutes later what it
was, and he'd get all (pause) get real excited sometimes, and you could
just tell sometimes that something wasn't quite right.

Another said,

> It's pretty much the kids that I know that have it, they have a really short attention span, pretty much they do what they want to do, and they don't care what happens. They're all real good kids, but they just don't care. They don't care what happens to them. Most of them do get semi-okay grades, some could do better.

> A final group reported about first hand family experience with the disorder.

When participants discussed relatives who have ADHD there were angry undertones.

> Yeah, my brother has that. He's real, (pause) like, hyper. That's something I just can't stand because he'll be sitting there, (pause) like, whenever he takes his pills for it, it's kind of fine 'cause he's always just, like, chilled out, so whenever he doesn't he's, like, bouncing off walls, doing all this stuff, running around sometimes, and everything else. He'll just, like, if you're, like, close to the door and he wants to tell you something, he'll be, like, talking loud and stuff like that for some reason. I don't know. It's just weird because it was hard to do stuff with him, 'cause he'll get mad and start throwing stuff sometimes. He used to do that a lot. Sometimes he'd even, like, throw a chair at my mom, and stuff like that. But I think now they got him on a new medication, so he's basically chilled out.

Another said,

> Basically that's used to describe my cousin. He can't sit still. He always makes just dumb comments, trying to get attention all the time. He does idiotic things to get attention. He keeps bringing up stuff about him just to get attention. Like, we'll be sitting watching a presentation or something in the auditorium, and he'll be sitting in there drumming on his leg, or looking around when everybody else is faced toward the stage watching the presentation.

One student did not think that the disorder should be labeled because that is just the way

some behave.

> The way I see it, I don't think it should be really called a disorder, because I think every kid goes through it. Like, when they're younger, you know you run around, and you always gotta get into something. Or you're exploring and you find something. I think it's just a stage everybody goes through. I mean, you know, it could just be that's the way they are. Everybody has their own personality. Ain't nobody gonna act the way you want them to act, because you asked them to act that way. You act

your own self. God gave you your own personality to do what you do best. If that's what you do best, then I mean, go right on ahead and do it.

<div align="center">Step 2: Reduction</div>

Once the listing and rough preliminary grouping were completed, the data were reexamined to find areas that were similar and could be combined (reduced) without changing the basic meaning of any of the groups. The reduction followed the five sections that were established in step one.

General descriptive information

Sports and activities could be classified as the activities because activity was involved in both. Family relations and parent relations could be classified as family relations because they all involved family members. Activities, family relations, peer pressure, social relations, social isolation, and school involved some type of social interaction or lack thereof. The groupings were reduced to one entitled social interaction. It was apparent that this interaction occurred along a continuum that ranged from being alone, to being with one or a few persons, to being with large groups. The teens without ADHD seemed to move freely back and forth along the social interaction continuum as the situation or their desires warranted.

Adolescence

The discussion about work and future goals were eventually clustered as independence. The teens were making efforts to be responsible for themselves in someway in the present and were making plans for their final independence as adults. The clusters related to the climate (hard or easy) of adolescence were carried forward.

Self-perception

The analysis showed that students are able to directly or indirectly portray self-perceptions that can arise from a variety of sources of which can be school, friends, parents, and activities. They are who they are and seem to be comfortable with that person.

Coping Skills

Non-ADHD adolescents are able to develop ways of coping in order to maintain their self-perceptions. They seem to have a good idea of who they are and are able to choose friends and mechanisms to maintain that identity.

Knowledge of ADHD

Students without ADHD had various levels of knowledge about ADHD. This knowledge ranged from denying the existence of the disorder to guessing about the nature of the disorder to reporting first-hand experience with friends and family. Most of the knowledge was accurate but sometimes misinterpretation occurred. This group of data continued to be labeled as ADHD knowledge.

Step 3: Tentative identification of the descriptive constituents

The next step in the data analysis involved identifying the salient issues found in the reduced data that began to provide a description of the phenomenon. In some areas the descriptive terms were new and in others, the descriptions found in the reductions were carried forward.

General descriptive information

When the categories listed in this section were all clustered in the final analysis as social interaction, they represented the largest type of response given by this group. The

first major theme found in the data therefore was social interaction. It was apparent that this interaction occurred along a continuum that ranged from being alone, to being with one or a few persons, to being with large groups. The teens without ADHD seemed to move freely back and forth along the social interaction continuum as the situation or their desires warranted. The participants most often described themselves as social beings.

Adolescence

For the participants without ADHD, adolescence is a developmental period that while it has many similarities for the participants it is unique for each individual. It can be a period of stress, responsibility, and fun as the young people get ready to become independent and journey into adulthood.

Self-perception

Adolescents without ADHD in this study seem to be comfortable with the people that they were.

Coping skills

Adolescents without ADHD were able to develop ways of coping in order to maintain their self-perceptions. They had a good idea of who they were and were able to choose friends and mechanisms to maintain that identity.

Knowledge of ADHD

Peers know about ADHD and can recognize ADHD behavior. This behavior may or may not be tolerated by peers. Students who have family members with ADHD seem to be less tolerant than peers who do not have family members with ADHD. Discussion by the participants without ADHD revealed that the most recognizable ADHD behavior

is inattention. Hyperactivity is the next most recognizable symptom. Sometimes ADHD behaviors are seen as an attempt to get attention.

Step 4: Essential constituents for the lived experience of participants without ADHD

In step 4, the small sample size (n=23) allowed me to go back to reexamine the data from each participant rather than doing a random sample. Each interview was reexamined to ensure the accuracy of the analysis. The end result of the analysis of the data with the teens without ADHD was that it is a hard time of life for many. For others it is a time where difficulty and enjoyment achieve a balance. During this stage social interaction is of prime importance, and they are showing signs of moving towards independence and adulthood. They are comfortable with who they are and have found ways to maintain that perception of self. The final descriptive constituents for the participants without ADHD in this study are:

- Social interaction of various kinds occurs on a continuum along which the participants moved as they wished. The participants most often described themselves as social beings.

- Adolescence is a developmental period that, while it has many similarities for the participants it is unique for each individual. It can be a period of stress, responsibility, and fun as the young people get ready to become independent and journey into adulthood.

- Adolescents seem to be comfortable with the people that they were.

- Adolescents are able to develop ways of coping in order to maintain their self-perceptions. They have a good idea of who they are and are able to choose friends and mechanisms to maintain that identity.

- Peers know about ADHD and can recognize ADHD behavior. This behavior may or may not be tolerated by peers. Students who have family members with ADHD seem to be less tolerant than peers who do not have family members with ADHD. Discussion by the participants without ADHD revealed that the most recognizable ADHD behavior is inattention. Hyperactivity is the next most recognizable symptom. Sometimes ADHD behaviors are seen as an attempt to get attention.

D. Participants with ADHD

Step 1: Listing and rough preliminary grouping

General Descriptive Information

When asked to describe themselves, the initial responses of the participants with ADHD varied. Some talked about church activities; sports participation such as football, soccer, softball, skateboarding, and basketball; playing video games; and school activities such as band and JROTC. Others talked about their family and job. Some talked specifically about their perceptions of themselves. Their responses were:

- I am not good in school. I only have a C average.
- I think I am funny. I like to tell jokes.
- I have had poor health recently.
- I am an average kid with an attention problem. I am good at art.
- At first glance people think bad things about me because of the way I look and dress, but I do work hard to succeed. I wear black make-up and people think I am evil or different or a freak, but I am no different than anyone else.
- I am easy to get along with.

Sports and activities. As the discussion of how they described themselves progressed, a variety of topics arose. There were brief discussions about liking sports and playing pick up games of football, baseball, and basketball. Other sports activities included skateboarding and paintball. One student was briefly on the wrestling team but quit because it took up too much time. Another started playing softball, but dropped out also. This type of discussion was categorized as sports.

There was also discussion about activities. Some talked about sports related activities such as sports photography, collecting sports cards, and lifting weights. Others discussed participation in a church band, working on a bus that transported children to church activities, and participation in church youth group activities. Others talked about

journal writing, learning to play the guitar, and building models. Such pursuits were categorized as activities.

 Parent relations. The relationship between teens with ADHD and their parents varied from being supportive to adversarial. A student described trips that he makes with his father who is a truck driver and the support and acceptance he perceives from his parents:

> Sometimes my dad lets me go with him on days that I don't got school. It's a good time mostly. Me and my dad has a lot of time to talk and that. We help one another out sometimes. I help him unload sometimes whenever he's at a farm. I get to know a lot of new people, different people and states and that. We get to know each other good. Mostly (we talk about) just stuff. Like, about football, and how he's helping me out with it, lifting-wise and everything. Just regular stuff.

Later when talking about medication the unconditional acceptance of his parents was evidenced when he said, "My parents just figured out that that's just how I am, I can't stay in one spot, so they to okay me off of everything." A teen with ADHD whose supportive parents down play the importance of the disorder sees himself as much like other teens

> I think that my mom told me that it was nothing major, you just have problems sitting still and stuff like that, you know. I think that's about all that she really told me about it. It doesn't really affect my behavior. I'm good in school, I don't get sent to the principal's office or anything. I get yelled at like every teen… Overall, I'm a pretty happy kid. I like my life and everything. I get treated well.

Some parents manage the relationship with their teen with ADHD with a mixture of discipline and support.

> Oh, let's say my mom tells me to do something. If I don't do it right away, I'll forget about it. Like, other stuff that people tell me, I'll forget. (If I forget) she basically yells at me every so often. That's why she tells me to do it now instead of waiting to do it, so I'll remember.

This parent in addition to yelling is also giving direction. Later this teen also related how

his mother recognized his strengths and encouraged him to build on them. He was

talking about doing welding, building, and playing the guitar and said,

> Yeah. That's what my mom says too. 'Cause, she said that when I was
> playing my guitar, she said, "The reason you're picking it up so fast is
> 'cause you always do hands-on stuff", which I do. I do a lot of stuff with
> my hands.

Another student demonstrates that his parents exert pressure to do well academically, but

know how to provide support in his areas of strength. He said, "I know my parents and

my gram want me to do good in school and stuff, and I try. It's just hard."

Later when talking about his father he said,

> We do a lot of stuff together. We just got this new house we're gonna be
> putting a roof on, tearing the siding off, putting new stuff on, new
> electrical work and stuff. He's taught me all this stuff. I owe him for that.
> He's helped me out a lot. Yeah. Teaching me stuff. Kept me straight in
> line, like doing nothing bad, real bad. Everybody's bad, but not getting
> locked up and stuff.

 One student had been called stupid because he forgot to do chores at home. Here there is

little evidence of support. He said,

> Some people think, my dad (pause) whenever I do something (pause) I
> don't think he means, like, I'm dumb, but he calls me dumb a lot, yeah.
> When I do something wrong, he goes, "What, are you stupid or
> something?" So people think that's why I think I'm dumb. I don't know,
> because if I could see somebody else do it, and I try to do it, I make a
> stupid mistake, you know. I don't know. It doesn't make me smarter.

This student would like to think that he is not stupid, but states he is not able to do that

because his father has told him that he is stupid.

Another student demonstrated clearly the impact of his father's opinion that led

him to question his abilities.

Ah, um, I know that I (pause) there's people in my family that love me. Yeah. Well, I think that I'm pretty good at football, that's why I'm playing. But that's the only thing I've found that I'm good at. My dad says I'm good at…maybe I should look into nursing, 'cause he says that I'm helpful, you know, and stuff like that.

When asked what makes him feel bad about himself the participant said,

Um, that I'm not more like other people, more (pause) that I don't get As and Bs and stuff like that, and that ah, that when people say that I probably won't go to college because of my grades. My dad says that. He doesn't say it like (pause) he just says, I mean, you probably won't be able to go to a real good college because your grades aren't very great and my stepbrother says that to me also. It's not that (pause) it's just when they say (pause) they don't say it meanly, it's just that (pause) I mean, they're probably right, I won't go to a great college like I want to go to 'cause of my grades.

One teen with ADHD talked about the strife that exists with her mother.

Because if I actually did hurt all the people that made me mad, then my mom would probably be dead right now. I learn to ignore her. In one ear, out the other. I just sit there and I'm, like, "yes, yes, um hum, yes I'll get right on that.

When asked what causes problems with her mom she replied, "Well l, I pierced this (pointed to lip). Yes, my upper lip. And she didn't like that. And I loved it. She made me take it out." Later in the interview she talked about counseling her peers who have problems with their parents and said that parents make rules because they care about their children, but she had some difficulty accepting that interpretation for herself.

Well, whenever it comes to my mom's point of view I think she cares too much, because it's, like, I've wanted to get a piercing since I was in sixth grade. I've written letters to her asking her, and my dad said if, (pause) like, before he died (pause) said he would sign for it and everything if my mom just allowed me. And, like, everyone in my grade has a piercing. It's not that uncommon. She just doesn't want to give me one. That's (pause) I had given her pros and cons. I had done practically everything that I could…

Another teen talked about the arguments with his mother, which he describes as

"hitting each other with words." The choice of the word "hit" is interesting—as if

he equates the pain of arguing with the pain of a physical slap.

> Um, she hits me and I hit her, so I just stay away from her, and she stays
> away from me. (We hit with) words not with hands. Sometimes she's
> like, "Go to your room", and I'm, like, "No, I don't want to." "Go to your
> room now." I'm, like, "No." That's pretty much it. She thinks I'm a
> freak. 'cause, she just, like, called me a freak. I'm, like, "All right, I'm
> going out", and she's, like, "You're dressed like a freak." I'm, like, "I
> don't know, what are you talking about?" She'll say, "You're a freak",
> and I say "No I'm not", then we're arguing again. She doesn't like me.
> She told me. I was, like, "Mom, I don't like you", and she was, like, "I
> don't like you either." Then when we were, like, in the store, I was, like,
> "Mom, can you buy this for me", and she was, like, "No, I don't like you,
> I'm not buying nothing for you anyway." And I'm, like, "Yeah you will,
> you'll buy me some clothes." She was serious. She doesn't like me.
> Would you like me if you were my mom?

In his self-descriptive picture this teen depicted himself as a piece of trash (Appendix L).

Family relations. One student discussed conflict with her brothers. She

indicated that she stood out from the norm of the family and felt that she

embarrassed them. However in her summary interview after she discussed a

particularly stressful event, she indicated that her older brother had told her that

he loved her and was going to help her meet some new friends. She also said that

even though she often picked on her younger brothers, she would fight anyone

that tried to hurt them. Difficulties with relationships extended beyond the

parents and family to peers and social relations.

Peer pressure. One teen talked about pressure to fit in by wearing certain

types of clothing. No other references to peer pressure were made

Social relations. References to peers were found more in situations that related to

social relations. Many of the teens with ADHD saw themselves as different from their

peers while others said they were "just like any normal kid." At this age it is important to

be perceived as being like peers, not different. For those who saw themselves as

different, some of this was a deliberate attempt to stand out from the group through the

use of extreme hair color, make up, and dress. As one teen put it,

> Well, I'm the only one in the family that's ever done anything really
> weird, like, dye my hair red, pink and purple and blue. I'm the only one in
> the family that wears, like, the punk, I wear really weird clothes ….I don't
> really care what people think about me, so I'm the kind of person that can
> go out there and do the dumbest things and not get embarrassed by it. So,
> but my family gets embarrassed by it. There are some things that you
> have to give up for other things.

Another, who at first said she was not different, acknowledged that she was different

based on the reactions of peers. She said,

> I don't know. I mean I guess when you, like, get a first glance at me and
> you automatically think bad things because of the way I look and the way
> I dress, but I do work hard and do the best of my ability to succeed.

When asked why her dress would make people think she does bad things she

replied, "There's a lot of black make-up and people think I'm evil, or people think

I'm just different or a freak or something. But really I'm no different than anyone

else." When asked how she knew that others saw her as a freak or evil she said

that she had been told this to her face. As she continued, she noted that there

were some advantages to being different. She said,

> It's not bad to be different. It's a lot more fun than it's cracked up to
> be….Well, you're not expected to be an example. The group I'm in of
> friends in class, and you're not expected to be head of the class, like to get
> 4.0s and stuff like that.

However, others believed that they were different even though they wanted to be like

others. When asked what makes him feel bad a participant replied, "Um, that I'm not

more like other people, more…that I don't get As and Bs and stuff like that, and that ah,

that when people say that I probably won't go to college because of my grades." When talking about being different one said, "I know I'm not like all of them, not the same as everyone else, but there's nothing I can do about it." This perception of being different had an effect on social interactions.

Many of the teens with ADHD expressed the fact that they had few friends and were lonely. This loneliness was also seen in the types of social interaction that were chosen or imposed on them. One teen perceived herself as an outcast and described that perception as follows:

> So I wrote about what I knew, and that was being an outcast, and not being accepted, how I felt alone, and just things like that. I mean, people would talk to me to my face, but then they'd go behind my back and so pretty much I shut everybody out. Then I do have some friends that are from different school cliques or whatever. We get along well, but I wouldn't be able to go to the movies with them 'cause I'm different from them…. Well, because they probably wouldn't want to be seen in public with me, that's the way I look at it…. It really is, it's lonely to not be able to call somebody and say, "Hey, I did this today," or "Hey, I'm really sick", you know, be able to tell them what's going on.

One indicated that while he did have friends, there were times during which he felt lonely. He said, "Some kids don't even like being around me because I have that (ADHD)." His self-descriptive picture clearly showed this. It consisted of a group of stick figures in a circle all saying "Ha, Ha, Ha." In the center of the circle was a solitary stick figure with a sad face (Appendix L). This represented the participant. He said that this made him feel lonely.

One very sad teen talked about the ways in which she helps fellow classmates with their feelings, but when I asked her if she had anyone with whom to talk about her feelings she replied, "My dog." Fortunately this teen was also receiving professional psychological help. Another alluded to being lonely at an earlier age but said, "But I

have more friends now." He said that he had a steady girlfriend now because, "I don't want to be alone." One indicated that he had many friends when he was younger, but as he got older, he preferred to be alone. However, he was the only one who said that.

When not able to satisfactorily interact with peers, the students with ADHD often chose types of social interaction that allowed them to be anonymous. Many were involved with various video games, Internet fantasy games, and Internet chat rooms

One ADHD student talked about how much he liked a video game called "Grand Theft Auto." When questioned whether he felt that this game had the potential to influence the steeling of care he replied, "Like, in any other game you can't do that, and it's fun and it makes you wanna not do it 'cause it shows you that you can get caught by the cops and stuff." Another ADHD boy related that the only area of life in which he perceived himself as competent was playing video games.

Some played video games that had Internet extensions and allowed interaction with others playing the game online. However for one teen those groups were just as fleeting as those in the real world because the groups dissolved after leaving cyberspace. In fact he said that he preferred to go "solo" because it honed his strategy skills. This same teen referred to the addictive nature of Internet and video games, "It's addictive, literally; so addictive that people will call it 'Ever Crack' (instead of Ever Quest). It literally is that addictive. It doesn't 'cause physical or mental harm, but (pause). It's a video drug."

The Internet provided another form of social interaction in the form of chat rooms. One female student said that she had a trusted male friend with whom she chatted regularly. She felt that she could tell him anything and not be rejected.

I do a lot of Internet chatting and things, and do have people in other countries. I have a friend in Canada who I call every once in a while and we talk, and he sits there and he listens. He's basically just someone that you can always go to him if I need to talk, and that's nice, because we've never met each other, yet we know that we're friends, and I can trust him and he can trust me. That's what I would like to have here, but people don't want to get to know me because I'm different or whatever.

However, she revealed at a later interview that this trust had been betrayed and the

perceived safety of the Internet was not what she thought.

Actually, he decided to turn on me just a little bit, and talk with some of my friends and stuff, and didn't think of the backlash it would have on me, and the backlash it had is that I can't trust him anymore. Finding that I couldn't trust him, actually found another one. And he's really funny, and definitely someone that I could be having problems with, 'cause they don't live around here obviously, but if I have problems here they can call me and I can talk to them about. And it's a lot different than the first one. It's definitely a healthier relationship than the other one I had. It's almost kind of like we fought a lot about just simple things, like, disagreeances, and just little, little altercations and stuff. Then this one is so much better cause when we fight, we actually get to talk about it, and it's not like that.

An ADHD boy found that he spent hours after school chatting with friends from camp.

It's an instant messenger thing that I just talk with all my friends and stuff. I just talk for hours. 'Cause, like, I go to camp. I have friends up at camp that I don't talk to that much. When they get on, me and them are talking for hours. I just don't even think about doing homework, I'm just connected and just talking 'cause I haven't talked to them for a while.

At the time of the summary interview, two of the students noted some changes in their

social relations. One girl was excited that she had been invited to the prom.

'Cause I'm doing new things and people are treating me different, and I mean, I'm going to prom. It's definitely something I wasn't expecting. I found out about a month ago I was gonna go. And that's something I never thought would happen. Me, this little freaky girl, scary girl, going to prom. I'm, like, wow. Like, I didn't go buy a black dress, and that was a big step too. It was, like, I was back here and then I stepped up and actually started life.

Another student found that he could gain acceptance by extending himself and talking to others. He said, "It feels good because I'm actually being accepted for once." When asked what made the difference he replied, "I (pause) don't know. Maybe because I went up and talked to the people. I started talking to the ones that were making fun of me and everything. We played cards in gym and stuff." This type of discussion was categorized as social relations.

School. When students with ADHD talked about school a few said they were getting good grades, more said that they did not like school, but most discussed some type of difficulty. Problems centered on reading difficulties, difficulties with lecture classes, and problems with homework. When talking about reading students often indicated said "I am not a good reader" and that they did not like to read. The reading problems related to not remembering what had been read and embarrassment when asked to read aloud in class. Some said that they would get nervous and "mess up." Then "people stare at you or talk about you if you don't know some words." As a result many students with ADHD did not like to read.

In addition to having reading problems, many students said that they did not get good grades. One area of difficulty was in lecture classes. Students said that they had difficulty paying attention in this type of class. It was also hard to pay attention if the student was not interested in the subject matter. One student said he "would rather be doing rather than sitting." Several students said they learn better with hands on activities, one on one learning situations, and repetition. One student said it clearly, "I can't learn from talking, better you do it and show me."

Another difficulty centered on homework and class assignments. Several said that they put off doing homework and often forgot about doing it. This often happened with topics that were not "interesting." Assignments then started to pile up and the students then began to feel overwhelmed and paralyzed. At this point it became hard for the students to keep up. The following excerpt from an interview illustrates this clearly.

> I get really frustrated, and if I have more than one thing to do I just push it aside and don't do it. Like, if I can't do something or if I'm trying to read and I'm not interested in it. Like, if I'm reading a book and not interested in it, I can't really comprehend it. I'll just read and read and read, and I still can't get it. It just overwhelms me and frustrates me, so I just kind of push it aside. I'm frustrated if I have more than one thing to do, like, in a subject, like, in my English class we're doing, like, five different things, and I'm so behind in everything because there's too much to do and I don't know where to start, so I just brush it aside, I know it's the wrong thing to do, but…. I'm too frustrated and usually distracted.

> I've always felt overwhelmed, but I had more help to help me, I was in learning support classes. But now I just have English and history and those are regular classes. In history I don't get anything, I can't comprehend it at all. I'm so not interested in it, and it just makes it harder to pay attention and concentrate and comprehend any of it. In English there's a million things to do. We have our research paper, we have vocabulary, we're reading The Hobbit, and a demonstration speech or something, and I haven't done anything. I'm trying. Like, I'm doing vocab and I'm trying to work on The Hobbit, but it's kind of not interesting. This time my mom is going to help me with the demonstration speech and my research paper. So, like, if I have, like, too much to do, like, such as my research project, there was so much I had to do and I didn't know where to start and it was just overwhelming and frustrating, so I pushed it aside and walked away from it. And overall, that's not the right thing to do because I still had it to do, but it helps me for that minute.

When this participant returned for the summary interview, I asked her how her research paper was coming along. She replied,

> Well, it's still not finished, but I'm narrowing down to my notes and everything. So whenever (pause) it's pretty much done, just like the little things that I need to do, so it's narrowed down to, not like 800 things to do (pause) I just tried taking everything (pause) doing one thing at a time and then moving onto the next thing until it got finished.

She indicated that her learning support teacher helped her to break down the

project into manageable steps and focus on doing one step at a time.

Another student described a similar overwhelming school experience.

> Well, if I have something that I need to do, like, something big, then I start
> worrying about getting it done, getting it started, so I'll be able to do it
> right, and worry about, like, (pause) just how to do it and if I can do it…
> And then it gets all…it just   becomes one struggle in my mind that's
> laziness…and I just struggle.

When asked to say more about the struggle with laziness he replied, "I get caught

up in not doing it but wanting to. Like, I'm not trying my hardest on things. I

don't know where to start on it." At the time of the summary interview he was

asked about the progress of his research paper and he said,

> Well, I talked to Ms. _____, and got a (pause), like, a sample
> of a rough outline written up. So, (pause) it's moving. The next thing is
> to refine the outline a bit more, and get it all set up, and then using the
> information I have, I print it out to use.

ADHD Symptoms

Much of the strife and difficulty found in the lives of the participants with ADHD

can be related to the nature of the disorder that includes problems with impulsivity,

hyperactivity, and inattention. Ten of the students directly or indirectly described one of

symptoms of the disorder when asked to describe themselves, even before being asked

what it was like to have ADHD. The impact of the syndrome will be discussed in the

following section.

Students had a variety of responses when asked what it was like to have ADHD.

Some of the responses related to their general feelings about the disorder and others

related to the symptoms. General feelings will be discussed and then responses related to

characteristics of the disorder will follow.

Some of the initial responses that set the tone for the general feelings of many of

the participants included

- It takes me longer because of distraction.
- It sucks
- It is hard
- I can't use it as a crutch
- I can't do much about it.
- I keep it to myself. If people know, they look at you funny—like something is wrong with you.
- I am slow. It takes a long time to figure things out.
- Having ADHD is the same as being a normal kid except I'm mixed up a lot and it is hard to pay attention. It takes me longer to do things that others do quickly. It is hard to have more than one thing at a time to do.
- I am really no different than anyone else, but my friends are smarter.

Impulsivity. As seen in the literature, review impulsivity of ADHD in

adolescence is characterized by deficient impulse control that can lead to serious life

difficulties because of poor decision making with regard to sexuality, substance use,

driving, and other high-risk behaviors (Robin, 1998). The participants did not discuss

risky behaviors; rather, impulsivity in this study was manifested as verbal outbursts,

decision-making problems, and physical behavior (leaping before looking). Sometimes

the latter was difficult to distinguish from hyperactivity, and decision-making was often

linked to physical behavior. The important link for this study was the effects of

impulsivity on self-perception.

Sometimes verbal outbursts led to physical problems. When asked what caused

him to get into trouble, a student replied, "Fighting and arguing with other people. Kids

will come up to you, saying that you said stuff and you didn't, so it just gets you mad and

then you start fighting and hitting." Another discussed his verbal outbursts and the

inability to control them. He said, "Then I get ticked off and tell her to shut up, and get sent to the office." Still another said, "No, I always shout out obscene things, like 'you smell' and they kind of don't like me for it." When asked why he said those things, he said,

> I don't know. I just do it sometimes and it's been a real problem in school since I'm, like, to Ms. _____, I said, "Why didn't you pass me on this test?" and she's, like, "Because you didn't study", and I'm, like, "Yeah, I did", and she's, like, "No you didn't", and I'm, like, "Eat a Twinkie." So things come out of my mouth but I don't want them to. There's nothing I can do. They just roll out. I have language control problems. I'll be walking down the hallway and I drop the F-bomb, and someone, like, yells at me.

Some talked about the problem with decision-making. This teen perceives herself as someone who does not make sound decisions because of her ADHD.

> I mean today it's difficult, especially with all the choices that I have to make every day. I don't really…I don't make them as well as anyone else does because of my ADD and stuff. Like, if you ask me…when it comes to peer pressure or something…if I was asked to smoke a cigarette, which I do anyway, but when first was, honestly I was, like, "Okay." Like it didn't phase me, I didn't think it was a bad decision. And I still do that. Like, I'll make a decision and not think of the consequences of the action because I can't. And I'll be like…I'll start to think, and then I'll be like "Ohhh, that's okay, I'll just do it anyway." Like, I flip off the handle at my parents' and stuff like that because I don't realize that I'm being wild or anything like that.

Another discussed her decision making in a hypothetical way.

> I'm not afraid to do things like, if someone says, "Hey, why don't you jump on that ice and see if it's thin or not", I'll be like, "Okay, whatever." I'll go up there and I'll jump on it, and if it's not thin then I'll be, like, "How cool", but if I fall through I'll just sit there and laugh at myself.

This alludes to possible physical injury because of a poor decision.

The following student is an example of making poor decisions coupled with hyperactivity. This student leaps before looking on a consistent basis and seems to take pride in the fact that he has had numerous accidents.

> I had like 20 some broken bones. Last year I was biking. I was doing BMX with one of my friends on a mountain bike, and they're not made for BMXing and I was doing it, and I was gonna jump this one, and this kid was being a show-off. So I went to the end of the road and went real fast to hit the jump, and I hit it too fast and I went long and I went between two trees, and I came down on my front tire first, and I cracked three ribs, I messed my whole chest and back 'cause I went between the two trees. My whole shirt and all the stuff was torn up. I had to get stitches.

> First broken bone was when I was about 8 or 9. I was going to a birthday party and I was happy. I was running down the stairs, and my cat was on the stairs and I didn't see him 'cause he was small, and I was running down the stairs and I saw him there, and I was gonna step on him if I didn't do something. So I tried to hop down like four stairs, I missed and I punched the solid oak door trying to stop myself, and I shattered my two bones, and there's a small bone that goes here and splits out and helps you move your fingers, I broke that one and the two main joints. I'm glad my dad was in the military 'cause he knew what he was doing. He just went out and got cardboard and duct tape, and we taped it.

Impulsivity can lead to positive perceptions, but for the following student it is a double-edged sword because negative perceptions can also result. This student describes her impulsivity as being spontaneous. She is proud of her spontaneity. She said, "I'm still just spontaneous and no one ever knows what I'm going to do next. That's why I chose to say I'm such a good wrestler because I can think of things like that and do them." But then she recognizes the down side of verbal and physical impulsivity.

> Off pills I feel really weird because I'm, like, so hyper and I just say stuff that I don't really want to say, like, while I'm out with my friends and, like, I do something really stupid. Then later on I feel embarrassed because of it, because it's like I'm practically drunk, 'cause I don't know what I'm doing, I'm just doing it.

The above impulsive description is also liked to hyperactivity, which will be discussed next.

    Hyperactivity. Although physical hyperactivity may diminish with age, signs of hyperactivity may manifest internally in adolescence, often in the form of restlessness. Adolescents may feel confined if they are in a classroom for long periods or have to sit at a desk for long periods (Robin, 1998). Of those with ADHD who did talk about hyperactivity, most saw it as a problem when they were younger that they have learned to manage. This control seemed to help them feel better about themselves. One student described how he made hyperactivity work for him and contributed to his positive self-perception.

> Yeah, I use my self-control but I mean…I can't find the word (pause) well like my hyperness… I use that on the (pause) I play track 'cause I run track now. On the field I use that because before I used it in practice, but now I'm learning to tone it down and use it on certain things.

However 6 other students saw hyperactivity as a continued problem and it seemed to have an influence on their self-perception. One defined himself in terms of the disorder by saying, "I'm hyper." He described himself as spending time running and yelling through the town and having difficulty sitting in class. Another student said that he has learned to sit in his chair in class, but that sometimes he needs to get up and move around. Fortunately his special education teacher recognizes this need and allows him to get up and walk around class for a few minutes thus helping to maintain a positive self-perception.

    A girl with ADHD provided a vivid description of her hyperactive behavior when she does not take her medication and it is clear that she perceives herself as being out of control.

> Whenever I don't take my pills, oh my God, I get really, really hyper. Like, I'm bouncing off the walls. And it's not, like, much during the day, but at night I can't get to sleep. I'm, like, bouncing around, I'm laughing, and talking on, like, blah blah blah non-stop, yeah, most of the time I don't even make sense whenever I'm talking. I just start talking and then I start laughing and then I start talking again, and it's like "what am I saying." I get really hyper. I can't sleep. I just bounce off the walls. I bounce off the couch. I just keep on going on like the Energizer Bunny. I just can't stop being hyper. And then I usually take a sleeping pill or something, and then I can calm down a little bit, and then yeah, but if I don't take my pills for an extended period of time, you can tell.

Another saw himself as a person who needs to be constantly on the move. He said, "Yeah, I know that I move a lot and I can't help moving. Yeah, I always move my fingers or something. I always got to be moving." He went on to describe a schedule that included a variety of after school activities that were school and church related. He saves late night as time to do his homework. Another also sees himself as a person who needs to keep moving. He said, "I have to be up walking around, or I get stir-crazy. It's rather hard to sit in my seat. And my hands are shaking."

Inattention. Symptoms of inattention can be manifested as procrastination; daydreaming; leaving a task undone because another activity has been started; becoming bored with mundane, repetitive activities; having problems with organization and forgetfulness; being late for commitments; and becoming hyperfocused on one item or topic while overlooking other details (Robin, 1998). In this study, inattention could be seen as not being focused, forgetting, having time management problems, having problems being organized, and becoming overwhelmed. Students in this study had a variety of names for their periods of inattention that included being in a trance, zoning out, la-la land, daydreaming, or dream world. Participant references to inattention were so pervasive that it was difficult to separate inattention data from other categories. As a

result, hints regarding inattention have already been presented. In fact, 10 students talked about inattentive problems even before they were asked to talk about their experiences of having ADHD. This facet of the disorder was seen in many situations that include general discussion, social interaction, work activities, and family relations, but most vividly in school interactions.

A few students were very articulate in describing their inattention. In the course of the interview, one said

> I always do dumb things. I don't think. My brain is going faster than I am moving. I am not concentrating on what I am doing. I am always rushing. I forget things. My brain is always thinking about something else. Ten minutes seems like 2.

When initially asked to describe themselves students talked about getting overwhelmed because of taking on too many activities at once and then forgetting to do important tasks, having a problem with being focused and forgetting to do homework, losing their train of thought in class and getting into a dream world without even realizing, having a concentration problem, and being lazy. Inattention was also a double-edged sword for some because they thought that it contributed to creativity but it also had negative impacts. The double-edged aspect of inattention will be discussed first and then will be followed by the negative effect. A discussion of positive aspects of inattention will be presented last.

Several teens with ADHD described themselves as being creative. The first of the students presented here discussed inattention in school that not only led to being creative but also to having bad grades. He said

> Having Attention Deficit Disorder, it's kind of a part of my art, like, um, at school, back whenever I was in sixth and seventh grade, I did most of my work on lined paper while I was not paying attention. And I actually

did more in school than I did at home. Art. And, I uh, I had bad grades.
There was this one time in sixth grade reading class where I was in the
middle of working on a flipbook in my journal, and the teacher took the
thing and threw it in the trashcan.

Another said, "I just like doing that. I'll be in science, and I'll just start drawing

dots on a paper and drawing designs and stuff. Just do the designs. That's

basically it. Talk to my friends and do designs on paper." Another said that

inattention is the start of her creativity but it also throws up roadblocks to

finishing an idea.

> Well a lot of times when I go into a little trance type of thing when I'm not
> paying attention to anything, I get some of my drawing ideas, my poetry
> ideas. I think about things that people say and opinions and stuff like that.
> And a lot of times when I come out of it I'll write it down. Especially if
> it's a poem, and it's like I have had stuff published, and drawings that
> have been winning contest entries and stuff like that, and it helps me build
> up confidence in me. So, it does help me be more of who I am (creative).

> I see myself as a person who has a really active imagination, and I have a
> lot of ideas. But I think another thing that I don't realize is that it takes me
> so long to put out those ideas because I'll have an idea, oh I wanna go do
> this, but then things get in front of me and I can't get there. And I never
> get there. Say that I, this is really general; I want to go burn a CD on my
> computer. We leave the TV on for my dog, because he watches it, that's
> weird I know. He watches Animal Planet. But we'll leave it on for him
> and if I see something, I'm on my way to the computer room, and I'm
> stuck sitting watching the TV because it just is like "come sit on the couch
> and feed off me.

Attention problems can lead to time management difficulties as can be seen as this teen

continues.

> So I sit there for an hour and I'm, like, "holy crap", and then I realize that,
> or, like, I had to go somewhere that night, and so I decided I have to go
> someplace, and I will sit there and I will do everything else before I get
> ready. I'll sit on the couch for an hour and a half, knowing that I have to
> leave in 10 minutes, before I take a shower and leave. I did that this
> morning. But, just so many things get in my way, and if the original thing
> does get done, it's, like, late.

From this description, one can sense the frustration of this teen as she starts out to finish a creative idea but becomes sidetracked. She would like to follow through but the road blocks thrown up by her inattention create a perception that she doesn't measure up, and that whatever she does or wherever she goes she is late. It almost negates the positive perception that she is creative.

The teens with ADHD know that they drift off while they are with their friends. One said.

> Like yesterday my friends were talking and we were all in a group and hanging out, and they just start talking and I just go off doing something, like, if we're on the road and a car comes by I'll watch the car, see who's, like, in the car, see what kind of car they have. Then I'll go back to my friend, like, "What'd you say?" I don't pay attention to them. I'm more doing my own thing, look at my own stuff,

As he continues he talks about arguments that result when he does not pay attention while with his friends.

> It's just really hard. Like, when you're hanging out with your friends it's, like, really hard, cause they think you're paying attention to them, and, like, dissin' them, and you just turn around and go "what'd you say" or something, then they get upset with you. Then your temper starts to flare, 'cause then you're in this stupid fight over it. It's just annoying at times.

Inattention can lead to problems at work. Teens relate that they forget to follow through with instructions or routines and end up questioning their competency.

> Yeah, I got in trouble a couple times at work. I made a turkey sandwich with no turkey (laughs). Yeah. Just dumb things like that. 'Cause I'll be thinking about afterwards or before wards, or something else and I'll make a sandwich, and I'll do something wrong. I always do, mix it up. That's why I got out of fast food. Can't handle that.

As he continues, he talks about a plan to get another job, but the problems created by inattention color his self-perception of work competency and he quickly begins to wonder if he can succeed with this idea.

Dunkin Donuts. That's easy. I can see that. Like they would tell me do things and I'd say, "Okay I'll do it." Then an order would come in, I'd do the order, and I'd forget she told me to do it. Then I'd get in trouble.

Another teen echoes the problems with forgetting at work. He said, "…,like, at Taco Bell a couple times, I would get the pan of meat, and we're supposed to drop some on, but I'll be doing something and it'll totally slip my mind and stuff…,like, that kind of thing." Another teen is thinking about getting a job, but wonders if inattention will cause problems at work.

Inattention can be seen in discussions relating to interactions with parents. Students talked about forgetting to complete chores or even start them. Earlier it was seen that one parent encourages her son to do something "right away" so that he does not forget. Another parent has placed a sign by the sink so that his son remembers to clean the drain after doing the dishes.

I just didn't even know how (pause) just, like, dumb little things. Like, when I'm done washing dishes I always forget to clean the drains out, you know. He has a sign written right in front of me, but I always forget to. But yeah, I always forget to do that. And, like, the dirty laundry, I have to take that down. It's right in the middle of the hall, and I always walk right past and forget it. I get in trouble for that a lot too. Stuff like that. I never forgot to go to work; I'm pretty consistent with big things. With small things sometimes, homework or dirty clothes or clean my room, I hear you say it 10 times but I never… Well, I forget the garbage bag every time. I come walking back in, and until I see my dad standing there looking at me, and I know he's gonna tell me about it, I can remember, otherwise I'll forget it every time.

Some students talked about problems with inattention when parents were talking to them. As can be seen from the dialog they believe that they are not deliberately inattentive.

I'm talking to my parents, or they're talking to me, and I just start thinking about something else, then I forget half the stuff they said. Then I try to remember it, but I don't know what they said, you know?

When asked if that was the same as "tuning out" the student replied,

I'm not doing it on purpose. I'm not, like, "I don't like what he's saying, so think about something else." If I didn't like what he was saying I would tell him. It's just the way my brain works. I can't help it.

Another described the inattention with parents in this way

"Hey, you just told me to go start the laundry and I'm still sitting here." I don't even realize that my mom would ask me that. I don't think I hear her. But she says she said it, and I either just wasn't listening or just didn't want to get up and go do the laundry. I'm either watching TV, I'm on the computer, dazed or off in la-la land, or anything.

Another talks about trying to be organized at home and the way in which inattention frustrates her attempts. She said, "I wanna be organized, I can think about being organized, but to be organized is completely different. I can be organized for maybe a day or two, but then I'm not completely unorganized." She goes on to say that the disorganization is in more than just at school

Other ways. Like, my room, I've been trying to clean that for, like, 2 months. Laundry, I'm really bad at laundry. My laundry's been setting in my basement for a month. It's clean, I just can't (pause) I can only do something for so long. I just can't get it all. Yeah, like, I clean my room, it looks nice, all my clothes are in my closet. Then, I still have laundry downstairs, and then I'll start putting more of them in my closet, and just throw them on my bed, or leave them in the basket, and I'm throwing dirty clothes in the basket over top of the clean clothes. And I'm, like, washing everything again, and it makes more laundry…

Problems with inattention were most often discussed in relation to school. Some problems with inattention at school could be seen in the earlier discussion of school. Students gave examples of extraneous sources of distraction in class, which included a student walking past them in class, someone tapping a pencil, or movement outside the class that was visible from the class windows such as passing traffic, a truck making a delivery, or students walking in the hall. Sometimes they just wander off with out any outside stimulus.

> Um, sometimes I, like, start focusing on something, then I won't really notice that I'm not focusing on something, then I'll get behind, then when I, like, notice something that was, say it was on the floor, I realize that I got off track, then I got back on track. Actually today in math class we were going over something and I paid attention to the first part, then I kind of got off track, and then I realized that I didn't do something, and then I didn't look at something, and I didn't know how to do it.

Inattention clustered around problems with reading, class time, and homework.

Reading and inattention were linked when students talked about having problems with reading comprehension. They had to reread the assignments several times because they could not remember what they had read. This was mostly because they became easily distracted and could not concentrate on the subject matter. This occurred most often with topics that were not of interest to the student. Goldberg (2001) noted that those with ADHD have problems with inattention when not interested in the topic. Students often could not remember what was read even with several attempts at rereading. As a result many said that they did not like to read. Their words follow.

> I'd be sitting there and I'd just stare at the book for, like, twenty minutes, and she'd call on me and I'd be, like, "what." She'd have to explain to me where we were and, like, at the time I didn't realize that was what was happening, it's just that I was zoning out. So people would be like "Man, you're so stupid." And I'd be, like, "I'm not stupid, I'm just not all there." Nobody understands that.

Another said, "Well for starters, I can't be able to read and pay attention at the same time, so I don't like to read a lot. I try to pay attention in class, and although, it's also kind of hard."

Another said,

> Like, if I can't do something or if I'm trying to read and I'm not interested in it. Like, if I'm reading a book and not interested in it, I can't really comprehend it. I'll just read and read and read, and I still can't get it. It just overwhelms me and frustrates me, so I just kind of push it aside. I can't remember reading either. I'll read a whole paragraph and won't

remember, unless it's something I actually want to read, I can't remember it.

When in class, the participants were clear about what helped learning and what caused problems. Several said that they learned best with hands on activities. Several were part of a vocational technical program and acknowledged that they liked working with their hands.

> Yeah, if there's more hands-on. I'm not, I can't learn from people talking, I have to learn by you do it and show it to me and let me do it, or explain to me how to do it. Otherwise, I don't know. I always feel I'm dumb. I don't know. I guess it's 'cause I have that ADHD.

Another said,

> Yeah, I'm better hands-on. Like, if I'm doing hair, it's a lot easier than, like, we have our theory work, like, our tests and clusters and stuff, then the practical work, working on hair and stuff. But, it seems to be a lot easier to do, because I'm doing it. So if I'm sitting there reading and answering questions it's harder. It's more easier hands-on type of thing.

Some said that they had teachers in regular education classes who were more "entertaining" than others and they could pay attention more in those classes. However, if they were not interested in the class or if the teacher relied on straight lecture, problems developed. Students admitted that they were easily distracted by an outside stimulus described earlier or became bored and just drifted off without realizing it. As a result they got only bits and pieces of the class presentation if anything at all. They became embarrassed if called on in class and they did not know what had been happening. One student indicated that he was often able to figure out what he had been missed but others said that they were not able to do that and they found it hard to keep up with the class. One student illustrated this clearly when he said that he realized that he had missed most of class and felt he could not ask the teacher for help. He believed that the teacher would

not be willing to help if he admitted that he was not paying attention. He said that rather

than admit that he does not pay attention in class he tells his parents that he can't

remember what has happened in class. They have offered to help him at home, but he

knows that maintaining attention at home would be as difficult as in class. He said,

> Usually when I forget stuff I just don't do it. I don't like to ask people to
> remind me 'cause then I feel, like, stupid or something you know. It's not,
> I don't know, it's not that bad, it's just hard to remember things. It's hard
> to focus you know. Like, I'll be in class, and the teacher is teaching, and
> I'll just daze off, and then I come back to what's going on, and I just
> missed 20 minutes, and I can't ask him to repeat everything he said in 20
> minutes, so that puts me behind a whole day in class. I do that, like, every
> day in three of my classes, so I'm always falling behind. I tell people, I
> pay attention, I just don't understand it, I can't remember it. They don't
> understand that, they (pause) like, my parents or my relatives. They say,
> "Why can't you do better in school?" I tell them I pay attention, I just
> can't remember. They say, "Bring it home, we'll tell you." How are they
> gonna know? They could tell me as good as the teacher, I just can't
> remember.

Another student said,

> It's, like, I can't pay attention in class. I doodle so much, I'll just sit there
> and be doodling, and, like, I don't really pay attention. I'll be doodling the
> stupidest thing, even if, stupidest isn't a word–sorry about that, I always
> use words that aren't really words, I'll be doing the dumbest thing and try,
> but I just sit there and draw it, I can't stop because I'm telling myself "stop
> it, you need to pay attention," but I just can't. Because some classes bore
> me, like, the ones I already know.

Inattention poses problems at home when students have homework. Many admit

that they do not do their out of school assignments. They either forget what needs to be

done or they procrastinate. The forgetting is usually the result of getting distracted with

TV, Internet, and video games. They may get started, but then become distracted by

something. Also, some have trouble sticking to any activity for any length of time. The

dialog presented earlier shows that as the unfinished assignments pile up, students begin

to push everything aside because they become overwhelmed and do not know how to attack the problem.

Their descriptions show a pattern of drifting in and out while in lecture classes or reading. When this happens the student misses part of the content. Missing part of reading content makes the student think that reading skills are lacking and reading just can't be done. In class one student realized that he had missed part of the lecture and was embarrassed to ask for a repeat. Many already think they are stupid or dumb to begin with and saying that they missed part of the class or covering up by saying they don't understand would only confirm that perception. So they just keep quiet and continue to miss more class content as attention problems cause them to drift in and out of focus. After a while they have missed so much that they begin to feel overwhelmed and begin to see no way out. The more the student gets behind in class or with class assignments the more frustrated, overwhelmed, and paralyzed the student feels.

Some have attributed this inertia caused by inattention to laziness. This discussion was presented earlier but bears repeating at this stage because it vividly represents the dilemma faced by the students.

> Well, if I have something that I need to do, like, something big, then I start worrying about getting it done, getting it started, so I'll be able to do it right, and worry about, like, (pause) just how to do it and if I can do it. And then it gets all (pause) it just becomes one struggle in my mind that's laziness (pause) and I just struggle. Because it's (pause) I get caught up in not doing it but wanting to. Like, I'm not trying my hardest on things. I don't know where to start on it.

Another talks about a similar difficulty. She does not say she is lazy; but if procrastination, disorganization, and being overwhelmed continue to be an issue she may begin to think of herself as lazy

And, right now I've been worried about the research paper that I have to do. I don't know where to start on it. I have a stack of papers, I've read some and highlighted things, but that's as far as I got. I'm kind of, like, lost in the whole thing, and I don't know where to start. I have a hard time getting organized. I wanna be organized, I can think about being organized, but to be organized is completely different.

Adolescence and ADHD

During the interviews the participants were asked what it was like to be a teenager. Data related directly to adolescence will be discussed here. The discussions related to adolescence referred to the general climate of this developmental stage, the world of work, and future goals.

Hard. When asked what it was like to be a teenager 11 of the participants with ADHD immediately talked about the difficulties in much the same way as the participants without ADHD. The general topics discussed were similar to those discussed earlier such as parent relations, peer pressure, and school pressure. However, the topic of stereotyping also was introduced in this discussion. Discussion related to the fact that teens saw adolescence as hard will be presented first. Stereotyping will be presented last.

As presented with the group without ADHD, the teens with ADHD said parents contributed to the difficulties of adolescence because parents forgot what it was like to be a teen. Also, parents set expectations but did not take into account what teens have to face because times are different.

Being a teenager is tough. It honestly is. It's, uh…it's not what my parents went through, or anybody else older than I am. Being a teenager today is more difficult, because there's more stuff out there. Obviously there's peer pressure, and everything. I mean, yeah, there was stuff back then, like, with my mom, and being a hippy and stuff. I mean today it's difficult, especially with all the choices that I have to make every day.

Teens with ADHD were clear about the difficulties adolescents face because of

stereotyping. They complained that parents and other adults often think the worst of all

teens as a result of the publicity given to the bad actions of a few. They felt it was hard to

be viewed as an individual because of this. A participant with ADHD said,

> I don't know. People, like adults, they look at you and just like, they think
> you act a certain way because you're a teenager, but really you don't.
> You're just being you. Yeah. They want you to be the way they want you
> to, and it's like, you're not gonna turn out like that. Then if you don't,
> then it's like they talk about you.

Another said, "Sometimes it's hard 'cause you get classed in a category, sort of they say

like all teenagers do the same thing, they all go partying…"

Some seemed to be asking to be looked at for who they are rather than who others

think they are because of the ADHD. A girl with ADHD said,

> I don't know. I mean I guess when you like get a first glance at me and
> you automatically think bad things because of the way I look and the way
> I dress, but I do work hard and do the best of my ability to succeed.
> There's a lot of black make-up and people think I'm evil, or people think
> I'm just different or a freak or something. But really I'm no different than
> anyone else. The real me is just someone that is trying to get out. It's
> someone that's completely different from the way I look on the outside.
> That they're trying to get out and they can't because people won't let me.
> People only see me for what's on the outside. And that's a shame because
> that limits me to one group of people, and I wanna be able to be out there
> and be with so many other different kinds of people, but they're not
> willing.

A boy with ADHD indicated that those with the disorder should not be stereotyped by the

condition. He said,

> And besides, who cares about all this ADHD thing? What really counts is
> on the inside. Like, for instance, people are, like, 70/30. Like, there's 70%
> of things that are on the inside, and 30% of things are on the outside. You
> just gotta look deep inside. That's what I'd say. What matters is what's
> on the inside. That's what I think.

Easy. None of the students with ADHD volunteered thoughts about adolescence as an easy time of life, but were able to talk about the good times of the age when specifically asked. They said they liked being able to do things that they could not do when younger such as staying out later, dating, hanging out with friends, and having more parent trust and less "bossing around" by parents. Some said that they thought an adolescent "perk" was being able to drive, but a few thought that they would not be ready to drive at the age of 16 because of inattention problems. They thought that 18 years of age would be more appropriate. Others thought that they were able to pay close attention when they were behind the wheel.

Job. Five of the students with ADHD held part-time jobs, which included cooking in fast food restaurants and working in grocery stores and a deli. As noted earlier, some talked about attention problems on the job. One student said that he did not stay in a job very long because he would get bored and quit "because working takes up too much of my time." However his conversation indicated that having a job contributed to being overwhelmed with trying to manage work, sports, a girlfriend, and school. He chose to focus on the girlfriend so he quit his job and dropped out of sports. Two students who worked in grocery stores said that problems with inattention were few because they were doing hands on activities and were "always on the move." One student who had applied for several jobs, but had not been hired was afraid to work with money because, "It takes a while to figure that out and I might mess it up. I don't want that." In contrast a student who worked in a deli said that the routine of the job helped with her problems of inattention and the repetition of waiting on customers, learning to weigh the meat and cheese, and making change helped her to learn to do the job

accurately. Finally one student was wondering if it was possible to hold a job because she was afraid that, "I will mess up and zone off for a while."

Future goals. A few had specific goals for the future that included auto mechanics, masonry, welding, cosmetology, herpetology, computer technology, EMT, and psychology. The latter two were chosen because the participants liked to help people.

Several of the teens talked about adolescence as a transition stage. They said it was maturing age or a time to get ready for adulthood during which they were expected to learn "stuff about life." However, one said, "I can't remember half the stuff you are supposed to know." Another said, "I keep thinking about the future." Another said,

> I am trying to figure out what I'm gonna do, what I am gonna do in life for a living. How am I going to live? How am I going to get money? Instead of thinking about these questions I just don't deal with them.

Another was worried about life after graduation from high school and having to be on her own. A young man said that he knew he had to get motivated to get the skills he needed to be an adult, but "I am having trouble getting motivated and I worry about making money. I want to make it in the world and not be poor or anything. I want to be able to support a family." One said he wanted to find something that would provide a good income and allow adequate time off to pursue hobbies.

Self-perception

Discussion relating to self-perception was often difficult to delineate as a stand-alone cluster. As a result, just as signs of inattention were found in other sections of the data analysis, indications of self-perceptions also have been seen in other parts of the analysis. Some of the topics will be reintroduced here. When a search of the original

transcripts was done for "I am" or "I'm," many negative as well as some positive

statements were found. The literature talks about negative self-perceptions of those with

ADHD, but rarely mentions the positive. Granted, the negative can have profound effects

as will be seen as this part of the analysis is presented. However, I believe it is also

important to look for the positive, which can serve as a starting point and provide

building blocks in a plan of care. Negative followed by positive examples of self-

perception will be presented here.

    Negative self-perception. As discussed earlier, students with ADHD saw

themselves as different from their peers. This difference was not of a quantitative nature

such as measuring differences in height. Rather, it was of a qualitative nature and

frequently conveyed the sense that the students with ADHD perceived themselves to be

inferior to their peers. This sense of inferiority could be seen in discussions of a general

nature, academics, family relations, and relationships with peers. Students made general

references to their negative self-perceptions. Discussion included a student who would

like to think he is good at doing something but decided that is not the case. He said,

> I'm not good at anything really. I mean, I don't know, I'm okay at a lot of
> things. I'm not, like, good at anything. I do all kinds (pause) I play bass,
> and, like, technique, I have good technique, but, like, theory or knowing
> what I'm playing and how to put together different scales and stuff, I don't
> know as much of the theory. And, like, sports, I'm pretty good at sports,
> but there's kids that are better than me too. So I mean, I'm just an average
> kid, I'm not…I'm good at everything I guess, I'm just not really good at
> anything.

Another student is sure that not only is he not good and anything, he is worthless

as a person. When asked to talk about his self-descriptive picture (Appendix L)

he said

> It's a piece of garbage…. 'Cause I feel like a piece of trash…. Because, everything's higher than me. Like, I have no talent, I can't do anything….Because I'm not good at anything. I'm not good at sports, I'm not good at anything. I tried them all. In football I can't run, so that's out of the question there. I can't swing a bat, so that uh (pause) I can't run so no soccer, I can't skate so no hockey.

When students with ADHD talked about school, they saw themselves as slower than others and not as smart. Some students with ADHD saw themselves as lazy. This was clearly seen in the previous discussion of inattention where the students equated procrastination, a characteristic of inattention, with being lazy.

In addition to seeing themselves as lazy, some saw that they were slower than others. Again this perception seems to be related to inattention. One student said,

> 'Cause I don't catch on to things like the other people do. I mean, I catch on, but not right away. Like, I wish I could…if somebody asks, like, what's, like, a math question or something, like, real fast, then I would have to sit there and think of the question, like I wish I could just blurt it out and know the answer. But I would have to think about it a couple of minutes.

Another said,

> Not that the simple things are really hard, but things that normal people do, people that don't have ADD or ADHD, things that they do really quickly, like, they could probably sit there and solve a math problem really quickly, but it takes me longer because things distract me. Like, instead of doing a math problem today, I listened to the person talking next to me. Just simple things like that distract me.

The student recognized that problems with inattention were at the root of the problem of doing things more slowly than others, but the following student did not. She said, "I'm slow. Like, if I'm doing an assignment, it takes a long time to figure what I'm doing. It's, like, it's pointless. I'm still sitting there like a lump."

Also some students with ADHD perceive themselves as being not as smart as their peers. In discussing the reactions of others towards her, a student tried to explain

away a perception of being stupid. She said, "…it's just that I was zoning out. So

people would be, like, "Man, you're so stupid." And I'd be, like, I'm not stupid, I'm just

not all there." Nobody understands that." Another said, "I always feel I'm dumb. I

don't know. I guess it's 'cause I have that ADHD."

Several students said that they were just like everyone else, but quickly gave an

example of how they were very different. The following student demonstrated this when

he said, "I'm really no different than the rest of my friends that doesn't (have ADHD). I

do the exact same things that they do, but they're a little bit smarter than me." The

following student says that the determination of who is smart and who isn't, is grades.

> Everyone, like, my age should play sports and do good at sports and stuff,
> and they're smart….Yeah, well, maybe not some kids, maybe the fat kids,
> but um, just about everyone. You know? That's what I just could say,
> either they're athletic or they're smart. I'm not smart. Smart kids get good
> grades. I don't.

In discussing her participation in a school project the following student demonstrates that

she is so used to doing poorly that when she does a good job she does not think she is

worthy of praise.

> I don't have any confidence. I have, like, no self-confidence, but I'm
> building it up now. But I still don't think I deserve all the credit that I get,
> and if I do do something really good, I won't take any credit and I'm like
> humble as heck. I can't do anything and take credit for it.

Along the same line another student said, "I am not deserving of praise…I am not used to

doing something right."

Parents and other family members often contributed to the negative self-

perceptions of teens with ADHD. One teen said,

> Some people think, my dad (pause) whenever I do something (pause) I
> don't think he means, like, I'm dumb, but he calls me dumb a lot, yeah.
> When I do something wrong, he goes, "What, are you stupid or

something?" So people think that's why I think I'm dumb. I don't know, because if I could see somebody else do it, and I try to do it, I make a stupid mistake, you know. I don't know. It (ADHD) doesn't make me smarter.

Another echoes a similar perception, " Um, that I'm not more like other people, more (pause) that I don't get As and Bs and stuff like that, and that ah, that when people say that I probably won't go to college because of my grades." When asked who said that he replied, " Um, my dad. He doesn't say it, like, (pause) he just says, I mean, you probably won't be able to go to a real good college because your grades aren't very great…"

Reactions of family members contributed to this teen's self-perceptions, "Even though my family doesn't really like me that much, but I don't really mind. Well, because I'm so different. I'm, like, the black sheep out of all of my family." One student acknowledged that the disorder contributes to self-perception when he said, " So, rather than try and fix it, might as well just accept it 'cause it helps me be who I am."

Students often compared themselves to their peers and made comments such as " I am not like all of them" or " I am not the same as everybody else." One student was very articulate about her relationship with other teens. She said,

> So I wrote about what I knew, and that was being an outcast, and not being accepted, how I felt alone, and just things like that. I mean, people would talk to me to my face, but then they'd go behind my back and so pretty much I shut everybody out. I was just, like, "You're never gonna see me for who I am so don't even bother." And that's the way I felt for a really long time. The real me is just someone that is trying to get out. It's someone that's completely different.

Her self-descriptive picture showed this very clearly (Appendix L). She portrayed herself dressed in black with a sweatshirt hood pulled down over her eyes. She said this represented her attempt to shut others out in an effort to protect her from being hurt.

When we met for the summary interview she was very excited about a change in her

relationships with others. When asked what made the difference, she said that she started

thinking about what she had said in the initial interview and she decided to make some

changes. She started talking to others more and perceived herself as being accepted

more. She said, "But, I'm…from going to just hide in the corner, sit by yourself loner

girl, to hey I'm going to prom, come see me at promenade."

As the summary interview progressed I asked her how her self-descriptive picture might

be drawn now. She said

> I think if I did it now I'd probably be wearing sunglasses. Because I've let
> stuff filter through, like, the sun. I've let the sun in. And I want to shade
> it just a little bit, because I don't want everybody, just certain people to
> pay attention to me. Certain groups. I don't want everybody. And yeah,
> I'll let you see a little bit, 'cause you can see through my shades. You
> couldn't see through my hood. You can see through my shades. So, I'm
> just letting people understand.

When asked if the sunglasses would ever come off she replied, "I think so. I think

eventually I'll get smaller and smaller frames, and then finally they'll just have to

come off, 'cause they'll be so small. But yeah, I think they'll come off."

Positive self-perceptions. Just as the former discussion shows a student's efforts

to improve her self-perceptions, other students were able to talk about themselves in

positive terms. Positive statements often clustered around things that were related to an

activity of some sort. Some talked about abilities with sports such as football or

wrestling. They would say, "I am good at sports, or I am athletic." Others saw

themselves as helpful because they liked to take care of others. Some talked about their

ability to build or make things.

Coping Skills

Throughout the discussion students provided snippets of ways they found to deal with ADHD. They never dwelled on this topic and it was a type of off hand or incidental conversation. Ways of coping that were discussed included isolating from the group, using professional counseling, attempting to conquer the symptoms, accepting of the disorder, engaging in concrete activities, using defense mechanisms, and learning to take things step by step.

Two students found that they could protect themselves by not letting anyone get too close or by learning to laugh at themselves and making a joke when ADHD behavior called attention to them. One student said she used defense mechanisms to help to protect her self-perception.

> Defense mechanisms, I use those a lot. Like, if someone starts making fun of me, then I start making fun of myself. Then it gives them no reason to make fun of me, 'cause I'm doing it for them. Then they usually inquire about me. I feel like if I can make fun of myself then I'm okay, because I know what I'm saying isn't true. And, I don't really like to cry out in public, so sometimes in the evening whenever I'm taking a shower or something, I have a little cry, and I think about my day and what's made me sad and what was good about it, and that kind of stuff. I just try to keep everything to myself.

Five of the students indicated that they had received professional individual or family counseling. Students saw the benefits of this type of help as learning techniques to deal with the disorder such as sports participation to deal with hyperactivity, helping with parent communication, building confidence, overcoming anxiety, and venting of feelings. One senior student whose parents had never allowed her to take medication was able to use family counseling sessions to help the parents understand the need for medication. When she became 18 years of age she was able to consent for her own treatment and

asked to be placed on medication just as the study was beginning. At the time of the summary interview she talked about her joy at being able to focus on her schoolwork for the first time in her life. She noted that she spent 3 hours reading for a "boring" report. She was amazed that she was able to accomplish the task and even found some things that were "interesting."

Just as this student had found a way to conquer the symptoms of ADHD others found different ways to achieve this goal. Some were "willing" themselves to deal with the symptoms. They said, "I am forcing myself to pay attention in class" or "I am controlling my hyperactivity by running track." " I have had a change in attitude and I made myself learn self-control." "I am learning that I cannot give up and I have to keep on trying." Although brief, the snippets conveyed the energy that the students were exerting to learn to deal with the disorder. Some whose efforts were successful said that they felt "triumphant" in overcoming the "challenge" presented by the disorder. This success helped to build confidence and positive self-perception.

Others learned to deal with the disorder by accepting it. They said

- There is nothing that I can do about it.
- Rather than trying to fix it I need to accept it until they find a cure.
- Acceptance and understanding (of the disorder) comes with maturity.
- ADHD makes me who I am.
- In spite of ADHD I can still learn.
- I would not want to be anybody else. I am familiar with myself. I know me well.

Still others found concrete activities to deal with problems presented by their ADHD. One student built models to help keep him out of trouble that might result from impulsive behavior. Doing a task "right away" or "writing things down" helped to avoid forgetting important tasks, events, or people.

An activity that was closely related to writing things down, but not as concrete, was trying to take things one step at a time to avoid feeling overwhelmed. One student said that when she did not understand her schoolwork her mother helped her break it down into steps.

> Like, if people are talking and I don't know what they're talking about, even though they think I do, I don't. I ask them to break it down, and they look at me, like, "why." And I'm, like, "'cause I'm not really catching on to it." They just gotta break it down, and I can pay attention.

The senior students who were overwhelmed with their research report were helped to learn the process one step at a time. Another student said, "You have to learn to take things as they come. Just take things one step at a time so you don't get overwhelmed."

Finally several students routinely wore black clothing. They gave several reasons for doing this. One who was concerned about peer pressure to dress in a certain way said that wearing all black clothing solved the problem of wearing colors that might not match. Another said that he just felt more comfortable in all black. A third who had dealt with anxiety said that he felt invisible when he wore black.

Step 2: Reduction

Once the listing and rough preliminary grouping were completed, the data were reexamined to find areas that were similar and could be combined (reduced) without changing the basic meaning of any of the groups. The reduction followed the five sections that were established in step one.

General descriptive information

Sports and activities were combined into one category of activities. Parent relations and family relations were combined into family relations. As the analysis progressed, activities, family relations, social relations, and school all involved some type

of social interaction or lack thereof. The participants with ADHD did not freely move along the social interaction continuum and were found mostly in solitary pursuits or marginally involved with peer groups. Relationships with peers, family and schoolmates were often marked with difficulty and strife.

ADHD symptoms

There is difficulty and strife in social interaction. Symptoms of ADHD, particularly inattention, lead to frustration, being overwhelmed, and becoming "paralyzed". Problems with learning often are a result.

Adolescence and ADHD

Adolescence is a time of difficulty for the students with ADHD in this study. The ADHD contributes to this difficulty. Some of the students with ADHD have concrete plans for the future, but most do not.

Self-perceptions

Negative self-perceptions are more numerous and more devastating than positive self-perceptions. Positive self-perception was related to being active not sedentary. The disorder and the reactions of others contribute to the construction of the self-perceptions.

Coping skills

Some students intuitively or with outside help learned ways to cope with the disorder. A variety of coping mechanisms were used and coping skills often were unique for the individual.

Step3: Tentative identification of descriptive constituents.

The next step in the data analysis involved identifying the salient issues found in the reduced data that began to provide a description of the phenomenon. In some areas

the descriptive terms were new, and in others, the descriptions found in the reductions were carried forward.

General descriptive information

In the final analysis when the general descriptive discussion was clustered as social interaction I realized that all of the subsections of social interaction of the students with ADHD were marked with strife or some type of difficulty. They are marginally involved with peers.

ADHD symptoms

The characteristics of ADHD pervasively invade all areas of the life of those affected by the disorder. Inattention is the symptom that leads to most problems at this age. The students were used to dealing with hyperactivity at younger ages and have difficulty handling the inattention that is now at the forefront.

Adolescence and ADHD

The students with ADHD are thinking about what they have to do to make the transition to adulthood, but usually have no concrete plans for that transition.

Self-perceptions

The disorder and the reactions of others contribute to the development of the self-perceptions. The majority of the students with ADHD are not comfortable with who they are and they see themselves as inferior to their peers. They struggle to make themselves more acceptable.

Coping skills

Many of the students with ADHD have developed coping skills that revealed

signs of resilience.

   Step 4: Essential constituents of the lived experience of Participants with ADHD

In step 4, the small sample size (n=21) allowed me to go back to reexamine the

data from each participant rather than doing a random sample. Each interview was

reexamined to ensure the accuracy of the analysis. The end result of the analysis of the

data with the teens with ADHD was that:

- They are often alone or are marginally involved with their peers
- Their social interactions are marked with difficulty and strife.
- The disorder invades all areas of their life
- Inattention is the most pervasive of the symptoms they experience.
- They are just beginning to think about adulthood and are not sure how they will succeed as adults.
- The disorder and the reactions of others mold the self-perceptions of the teens with ADHD
- They struggle to be more like their peers.

The hopeful part of the analysis is that many of the teens with ADHD have

developed coping skills that provide hints of resilience. The individual constituents for

the participants with ADHD are:

- The general descriptive discussion was clustered as social interaction and all of the subsections of social interaction of the students with ADHD were marked with strife or some type of difficulty. They are marginally involved with peers

- The characteristics of ADHD pervasively invade all areas of the life of those affected by the disorder. Inattention is the symptom that leads to most problems at this age. The students were used to dealing with hyperactivity at younger ages and have difficulty handling the inattention that is now at the forefront

- The students with ADHD are thinking about what they have to do to make the transition to adulthood, but usually have no concrete plans for that transition.

- The disorder and the reactions of others contribute to the construction of the self-perceptions. The majority of the students with ADHD are not comfortable with

who they are and they see themselves as inferior to their peers. They struggle to make themselves more acceptable.

- Many of the students with ADHD have developed coping skills that revealed hints of resilience.

Elimination

The van Kaam method of phenomenological data analysis (van Kaam, 1959) requires the elimination of data that do not meet the criteria of being necessary to the experience and Munhall (2001) urged the retention of unique experiences. I found that these were not necessarily opposing approaches. I was able to include commonalities as well as unique experiences in the presentation of the data analysis. However, there were a few categories that while they would be important to consider in planning individual care, they did not contribute to the overall substance of the study. Only one student discussed his abuse of chemical substances. Two students discussed grief over the death of someone important to them. Some students with ADHD discussed their thought content when they were not paying attention. The information did not add to the significance of the other data pertaining to inattention. Some talked about their lives when they were diagnosed with ADHD as children, but much of that content did not add to this study. One student commented about his poor health. A few talked about liking to eat or to cook. Only one student talked about not liking to go to the school nurse to take medication. A few students talked about sleep patterns.

<div align="center">E. Quantitative Data Analysis</div>

Quantitative data were collected from the same sample of students. Twenty-one students with ADHD and 23 students without ADHD were recruited. The majority of the participants were boys (ADHD n=17 and non-ADHD n=19). Students without ADHD

were matched to students with ADHD by grade, sex, as they were entered into the study. Two of the students without ADHD were matched with students with ADHD that had already received a match.

Quantitative data were collected in order to provide a more complete understanding of the self-perceptions of adolescents with ADHD. Data collection, designed to be triangulated with the qualitative data, used the Harter Self-perception Profile for Adolescents (SPPA) to assess the participants' perceived competence in domains of scholastic competence, social acceptance, athletic competence, physical appearance, job competence, romantic appeal, behavioral conduct, and close friendship. In addition, questions to determine the individual's perception of self-worth are included. The SPPA uses a scale of 1 (the poorest self-perceptions) to 4 (the highest self-perceptions). The SPPA was read to each participant individually in order to avoid problems with reading disabilities. Quantitative data were collected prior to qualitative data and forwarded to a statistician for analysis. This was done to blind the researcher to the quantitative results and prevent the results from influencing the qualitative data collection. Answers were scored according to the key provided with the research tool and scores were grouped according to the domain key supplied with the tool. Information was entered into a statistical program and means were calculated for each participant in each domain.

The data analysis was designed to compare mean domain scores of each group and to compare mean domain scores with the perceptions of global self-worth. The domain mean comparison was done to determine how the students with ADHD and students without ADHD were alike and how they were different. The comparison of

domain scores with the global perception of self-worth was done to determine if any domain had influence on the formation of the global perception of self worth. Means were compared using the paired t test. Examination of the descriptive statistics revealed that the samples were not approximately normal; therefore the Spearman correlation was used when correlating the data.

The first set of analyses was designed to compare the mean domain scores of the participants with and without ADHD. When global perceptions of self-worth means were subjected to the paired t test, it could be seen that the self-perceptions of students with ADHD were significantly different from students without ADHD (Table 3). Differences in means (Table 3) for the global self-worth scores were statistically significant ($t = 2.62$, p = .02) between the students without ADHD (mean=3.3) and the students with ADHD (mean=2.8). Results indicate that students with ADHD had poorer global perceptions of self-worth than their peers without ADHD. Social acceptance was significantly different ($t = 2.24$, p =.04) between the students with ADHD (mean=2.8) and the students without ADHD (mean= 3.3) with the students with ADHD having a poorer perception of their competence in social acceptance. The students with ADHD appeared to experience poorer self-perceptions in all domains. Although there were no significant differences in means for the remaining domains, (scholastic competence, athletic competence, physical appearance, job competence, romantic appeal, and behavioral conduct) the participants with ADHD had lower raw scores than their peers in those domains. The perception of the ability to make close friends also was not significant ($t = 1.5$, p =.15). Again the teens with ADHD had lower raw scores (Table 3).

Table 3.

t Tests of Mean Domain Scores of the Self-perception Profile for Adolescents (with

Ranges)

Domain	ADHD	Non-ADHD	*t* - Value	p-Value
Scholastic Competence	2.5 (1.4, 3.6)	2.8 (1.6, 4.0)	1.47	.16
Social Acceptance	2.8 (1.4, 4.0)	3.3 (2.4, 4.0)	2.24	.04*
Athletic Competence	2.7 (1.0, 3.8)	2.8 (1.6, 4.0)	0.33	.75
Physical Appearance	2.6 (1.0, 4.0)	2.9 (1.6, 4.0)	1.37	.18
Job Competence	3.0 (2.2, 4.0)	3.2 (2.0, 4.0)	0.39	.70
Romantic Appeal	2.7 (1.2, 4.0)	2.9 (2.0, 4.0)	0.88	.39
Behavioral Conduct	2.6 (1.0, 3.6)	2.6 (1.0, 4.0)	0.22	.83
Close Friendship	3.1 (1.0, 4.0)	3.5 (1.8, 4.0)	1.50	.15
Global Self-worth	2.8 (1.2, 3.8)	3.3 (2.2, 4.0)	2.62	.02*

*p<.05

The calculation of effect size for the *t* test reinforced the significant findings for

the SPPA. The effect size showed a large effect for the domains of social acceptance and

Table 4.

t Tests of Mean Domain Score Differences for the Self-perception Profile for Adolescents

	ADHD		Non-ADHD		
Domains	*M*	*SD*	*M*	*SD*	Effect Size (*d*)
Scholastic Competence	2.5	.67	2.8	.68	.44
Social Acceptance	2.8	.72	3.3	.53	.80**
Athletic Competence	2.7	.70	2.8	.79	.13
Physical Appearance	2.6	.79	2.9	.60	.43
Job Competence	3.0	.66	3.2	.61	.31
Romantic Appeal	2.7	.65	2.9	.55	.33
Behavioral Conduct	2.6	.72	2.6	.70	0
Close Friendship	3.1	.81	3.5	.65	.55*
Global Self-worth	2.8	.73	3.3	.53	.79**

*Moderate effect size
**Large effect size

global self-worth. In addition to having a large effect size, that effect was equal in size.

The domain of close friendship had a moderate effect size (Table 4).

In an effort to determine if a relationship existed between the global self-worth

and the SPPA domains, means were correlated. Both Pearson and Spearman correlations

were done and the results were similar for each method. Spearman correlations will be presented because the sample does not approach a normal distribution. Spearman correlations are often preferred when the sample is small (Polit, 1996). Spearman correlations revealed that the participants without ADHD had significant correlations between their perceptions of global-self worth and their perceptions of scholastic competence ($r_s=.66$, $p=.001$), social acceptance ($r_s=.55$, $p=.007$), physical appearance ($r_s=.72$, $p=.000$), romantic appeal ($r_s=.45$, $p=.034$), and behavioral conduct ($r_s=.66$, $p=.001$). Domains of athletics ($r_s=.36$, $p=.094$), job competence (r_s .38, $p=.071$), and friendship ($r_s=.36$, $p=.09$) approached significance.

When the correlations of the global means for the participants with ADHD were examined, there were fewer significant correlations than were seen with their peers without ADHD (Table 5). Significant correlations between the global and domain mean were seen in the domains of physical appearance ($r_s=.68$, $p=.001$) and friendship ($r_s=.55$, $p=.01$). Of the remaining domains, social acceptance ($r_s=38$, $p=.09$) and athletics ($r_s=.39$, $p=.08$) approached significance.

In this examination of the data for those without ADHD it can be seen that all of the domains have significance or near significance to perceptions of global self-worth. On the other hand, students with ADHD have only four domains that have significance or near significance to global perceptions of self-worth. Both groups had highly significant correlations in the domain of physical appearance (Table 5). This result is consistent with other studies reporting that physical appearance was the domain that was most likely to predict self-perceptions (Rosenberg, 1986a).

Table 5.

Spearman Correlations Between Perceptions of Global Self-worth and the Self-perception Profile

for Adolescents Domains

Domain	ADHD SPPA		Non ADHD SPPA	
	Spearman	Significance	Spearman	Significance
Scholastic	-.049	.834	.657	.001*
Social	.379	.090	.548	.007*
Athletics	.393	.078	.358	.094
Physical Appearance	.679	.001*	.716	.000*
Work	.150	.517	.383	.071
Romance	.218	.342	.449	.032*
Behavior	.332	.141	.663	.001*
Friendship	.551	.010*	.362	.090

*p <.05

The importance tool found in the SPPA is based on the Jamesian theory that the

importance one attaches to a domain modifies self-perceptions of competence in that

domain. The items in the importance tool are stated in a similar way to those of the

SPPA but they add the word important. For example an item on the SPPA is phrased,

" Some teenagers have a lot of friends." On the importance tool that statement is

phrased, "Some teenagers think it is important to have a lot of friends." The importance

tool was used in this study to determine the importance that the two groups attached to

the various domains, how that "importance" was alike or different for the participant

groups, and if any domain contributed more than other domains in the formation of

global perceptions of self-worth. When subjected to the paired t test, no significant

differences in importance were found between the two groups in any domains.

Importance was almost the same for the domains of scholastic competence ($t =.10$,

p=.92), athletic competence ($t =.21$, p=.83), and romantic appeal ($t =.23$, p=.82) in both

groups, indicating that these domains were as important to the teens with ADHD as they were to the participants without ADHD (Table 6).

Table 6.

t Test of the Importance Tool Means for the Self-perception Profile for Adolescents (with Ranges)

Domain	ADHD	Non-ADHD	*t* Value	p-Value
Scholastic Competence	3.5 (1.0, 4.0)	3.5 (1.5, 4.0)	.10	.92
Social Acceptance	2.3 (1.0, 4.0)	2.5 (1.5, 3.5)	.73	.47
Athletic Competence	2.5 (1.0, 4.0)	2.6 (1.0, 4.0)	.21	.83
Physical Appearance	2.7 (1.0, 4.0)	2.8 (1.5, 4.0)	.48	.64
Job Competence	3.7 (2.5, 4.0)	3.5 (2.0, 4.0)	1.18	.25
Romantic Appeal	3.4 (2.0, 4.0)	3.3 (2.0, 4.0)	.23	.82
Behavioral Conduct	3.3 (1.0, 4.0)	3.0 (1.0, 4.0)	1.14	.27
Close Friendship	3.3 (1.0, 4.0)	3.6 (2.0, 4.0)	1.39	.18

Table 7.

t-Test of Mean Differences for the Importance Tool of the Self-perception Profile for Adolescents

	ADHD		Non-ADHD		
Domains	*M*	*SD*	*M*	*SD*	Effect Size (d)
Scholastic Competence	3.5	.78	3.5	.70	0
Social Acceptance	2.3	.95	2.5	.73	.24*
Athletic Competence	2.5	1.0	2.6	.95	.10
Physical Appearance	2.7	.76	2.8	.74	.13
Job Competence	3.7	.45	3.5	.55	.40*
Romantic Appeal	3.4	.71	3.3	.61	.15
Behavioral Conduct	3.3	.90	3.0	.84	.34*
Close Friendship	3.3	.73	3.6	.61	.45**

* Small effect size
** Moderate effect size

Again, the calculation of the effect size for the *t* test of the importance means reinforced the results. The effect size for the Importance Tool revealed a moderate effect for the difference seen in the domain of close friendship (Table 7).

As with the SPPA domain means, the domain importance means were correlated with the perception of global self-worth. This was done in an effort to determine if the importance placed on a domain had any effect on the perception of global self-worth. There were no significant results for the participants without ADHD. This may indicate that all domains are equally important in the formation of self-perception. For the participants with ADHD the only significant result was for the domain of friendship (r_s=.45, p=.039). This could signify that the ability of the participants with ADHD to make and keep close friends was more important than their matched peers in the formation of their perceptions of global self-worth (Table 8). For the participants with ADHD, the domain of friendship was the only domain that had significant correlations with perceptions of global self-worth for both the SPPA and Importance Tool.

Table 8.

 Spearman Correlations Between Perceptions of Global Self-worth and the Importance Tool of the Self-perception Profile for Adolescents

	ADHD Importance		Non-ADHD Importance	
Domain	Spearman	Significance	Spearman	Significance
Scholastic	-.005	.983	.173	.429
Social	.305	.178	-.065	.767
Athletics	.038	.869	.167	.447
Physical Appearance	.308	.175	-218	.318
Work	.375	.094	.163	.457
Romance	.240	.296	.082	.711
Behavior	.303	.181	.312	.147
Friendship	.453	.039*	-.128	.561

*p<.05

The referent group questionnaire found in the SPPA is based on the Symbolic Interaction tenet that self-perceptions are built from the reactions of significant others. The questionnaire was used in this study to determine possible referent groups that would be important to the development of the self-perceptions of the participants. Harter designated one question from each SPPA domain that most represented that domain. In this study the referent group questions were asked as the representative question arose in Table 9.

Referent Group Data for the Self-perception Profile for Adolescents

		Which of these groups were you thinking about?							
		Parents		Teachers		Friends		Classmates	
		ADHD	Non-ADHD	ADHD	Non-ADHD	ADHD	Non-ADHD	ADHD	Non-ADHD
(a)	How well you do at school.	12	9	**12**	**15**	3	0	3	1
(b)	How popular you are	0	0	0	0	**13**	**13**	11	12
©	How well you do at sports.	6	6	1	0	**9**	**14**	6	3
(d)	How good looking you feel you are.	3	1	0	0	**11**	**13**	9	9
(e)	How well you do on a paying job.	**13**	**21**	3	1	5	0	1	0
(f)	How romantically appealing you feel you are.	1	0	0	0	**14**	**17**	5	8
(g)	How able you are to make and keep close friends.	3	1	0	1	**18**	**22**	4	0
(h)	How much you like yourself as a person.	9	5	1	0	**12**	**16**	2	3
(i)	How you rate your behavior.	**14**	**19**	8	2	4	4	1	0
Totals		61	62	25	19	**89**	**99**	42	36

Note - Highest totals in bold

the SPPA. Students were asked to indicate which group (parents, teachers, friends, or classmates) they were thinking about when answering the question. The response tabulations follow (Table 9).

The responses for each group mirror one another in that the highest number of responses (mode) per question for both the teens with and without ADHD fell in the same referent groups. For example when thinking about how well they did in school both groups most often selected teachers as a referent group. Friends were the referent group most often selected when determining perceptions of popularity. Overall, friends and parents were the groups most often selected. The least used referents were classmates, followed by teachers. Classmates were never the group chosen most often. Parents are used most often when rating behavior, teachers when rating school performance, and friends were most often chosen in the remaining domains.

The quantitative and qualitative data will be compared and triangulated in the next chapter. The comparison will seek to determine how the two groups of participants were alike and how they differed. The triangulation will determine whether or not the two methods of data collection supported or clarified one another.

V. DISCUSSION

A. Introduction

In this chapter, data from the preceding chapter will be triangulated and the results for the two groups will be compared. The discussion will elaborate on the results of the data collection. As I was collecting and analyzing the qualitative data, there was always the nagging concern about whether or not the qualitative and quantitative date would support or negate one another. The reader is reminded that I was blinded to the results of the quantitative data until the qualitative had been analyzed. I knew that my role as the researcher was to look at the results of both methods and to make them into one regardless of the final results. Much to my surprise the data triangulated itself. My role became that of articulating the emerging results.

Sections in this chapter will include triangulation of methods, comparison of the participant groups, and conclusions. A model that describes the results of inattention will be introduced. Also, I will present some brief comments about the data.

Comments about the Method

The sequencing of the data collection was hectic at times and it was necessary to keep a detailed schedule to make sure that all students proceeded through all aspects of the study. I also planned to match the students by academic track, but this added a dimension that complicated the random selection of the students without ADHD.

At the time of the summary interview many students seemed to be impressed with what they had said, that someone had taken the time to analyze what they said, and

the fact that what they said was considered important. It was as if the summary gave validation to their words. Some would just shake their heads not so much in disbelief, but in surprise that what they said was important. One student said, "You mean I said all that?" So, I showed her the transcript.

The analysis of the data related to students without ADHD was relatively straightforward because the boundaries of the various categories were clear. However, the boundaries of the data for the students with ADHD categories were blurred. As a result, some of the categories were more difficult to delineate and there were numerous instances where the categories overlapped.

B. Findings

Triangulation

The quantitative and qualitative data collected for this study could stand alone in providing answers as to the self-perceptions of adolescents with ADHD. However, each data set serves to complement the other in providing a more complete the picture of the lived experience of teens with ADHD. That picture would be incomplete if either of the data sets were viewed alone because the quantitative and qualitative data support, as well as help to clarify one another. The quantitative data demonstrate the degree to which the global self-perceptions of adolescents with ADHD differ from their matched controls. The qualitative data demonstrate the lived experiences of the teens with ADHD.

Similarly, the quantitative data demonstrate the degree to which the social interactions of teens with ADHD differ with their matched peers. The qualitative data demonstrate why those interactions differ with those of their peers.

Conversely, the quantitative data clearly show particular referent groups for the teens with ADHD. The qualitative data show that parent input has an effect on self-perceptions, but it was not clear from the qualitative data for the participants with ADHD the extent to which they relied on friends and classmates for self-perception input. The quantitative data found in the referent group questionnaire demonstrate this. Furthermore, the quantitative data show that both groups of participants use similar referent groups for input for the formation of self-perceptions. If only the referent group questionnaire was used, one might conclude that the teens with ADHD are not much different from their peers. If they use the same referent groups, why is there such a difference in their self-perceptions? Could it be that they receive different messages from those groups? The qualitative data clearly delineate the difference in the messages. Here one can see that the picture is very incomplete if either data set was viewed alone. Not only is the picture more complete with both, but also there is a back-and-forth interaction within the data sets that is necessary to complete that picture.

It is interesting that the participants with ADHD chose friends as a referent group in much the same manner as their peers, while in the qualitative interviews it was apparent that the participants with ADHD were involved in solitary pursuits or were only marginally involved with peers. The qualitative findings reflect evidence found in the literature that those with ADHD have few friends (Bagwell et al., 2001). This finding causes some conflict between the two sources of data. Could it be that teens with ADHD use a definition of a friend that is different from the participant without ADHD? The domain of friendship will be reintroduced as this discussion continues.

Comparison of the participant groups

This section will compare the groups of participants who were alike in some respects and very different in others. The areas of comparison will include the areas of adolescence, referent groups, domain importance, parent relations, peer pressure, the world of work, future goals, school, social relations, and self-perception. Further evidence of triangulation will be seen as this discussion progresses.

This sample of teens with and without ADHD was very similar in only three areas, one found in the qualitative data and two found in the quantitative data. In the qualitative portion of the study, both groups were most alike when they talked about adolescence. They were very emphatic when they said that adolescence was a hard time of life. They talked about their desire for parents to be more understanding about the different times in which these adolescents were growing-up. The groups decried the stereotyping that occurs with teens and they asked that they be understood for themselves. This was the only area in the qualitative data in which the discussions were the same.

In the quantitative data, the groups were most alike in their choice of referent groups in the formation of self-perceptions in various domains. The second similarity between the groups in the quantitative data was found when looking at the results from the importance tool. The importance tool was used to gather data about the importance that the teens attached to their perceived competence in the domains of the SPPA (scholastic, social acceptance, athletics, physical appearance, work, romance, close friendship, and behavior). There were no significant differences between the groups in domain importance when the data were subjected to the paired t test.

However, a single difference arose when the importance tool means for each domain were correlated with the mean for the global perception of self-worth found in the SPPA. When this correlation was done, the domain of friendship had significant importance to the perception of global self-worth for the participants with ADHD. The teens with ADHD talked about being different from peers and not having friends; but without the correlated data, the strength of this finding of importance and its potential to influence self-perception would not have been fully understood.

In regard to the role of importance, the qualitative data showed hints of the function of importance when students with ADHD talked about doing better in classes that interested them and not caring about how well they did in classes that were not of interest. It could be seen that lack of interest equated with lack of importance.

Adolescence

When examining the relationship of adolescence to this study it was difficult to determine the role of this developmental period. As the data analysis progressed, I had difficulty integrating the data collected concerning adolescence. After much reflection I realized that adolescence provides the context in which self-perceptions are developing. I saw it as the background music for the dance of life that unfolds in this developmental period. Sometimes this music is a lilting waltz and at other times it is a cacophony of sound. The students without ADHD were mostly going about the business of being a teenager, while the students with ADHD had the difficulty of dealing with ADHD in addition to being a teen. The teens without ADHD had opened the door to adulthood and had their faces set in that direction. The teens without ADHD were making plans for life after high school (e.g., going to college, entering the world of work, or assuming adult

responsibilities such as getting married and having a family). On the other hand the teens with ADHD only were peering through the door to adulthood that seemed only slightly ajar for them. They were not sure what to do to get the door completely open. A prime example is the comment by a student with ADHD that he was not sure he would be able to remember what to do as an adult. Few of them had concrete plans for life after high school. They were just beginning to think about becoming adults. This reflects Robin's (1998) notation that teens with ADHD lag behind non-ADHD peers in adolescent developmental tasks.

Future goals

The qualitative data showed that the teens were very different with regard to their future goals. The teens without ADHD were making plans for moving beyond high school into adulthood. The teens with ADHD were concerned about their ability to function as adults and were only tentatively thinking about that transition. When thoughts about adulthood became overwhelming, the teens with ADHD put the thoughts aside.

Job

When the participants talked about having a job, the teens without ADHD were employed more often and in a greater variety of jobs than the teens with ADHD. Several of the teens with ADHD were only thinking about getting a job and others were wondering if their ADHD would interfere with their ability to hold a job. There was an indication that the teens with ADHD did not stay at a job for any length of time. They left either because they had poor work performance or because the time that it took to be on the job contributed to a sense of being overwhelmed.

Social acceptance

Social interactions were very different as seen in the results of the quantitative and qualitative data analysis. The results of the paired *t* test revealed that the teens with ADHD had statistically poorer perceptions of their competence in social acceptance than their peers without ADHD. Calculation of the effect size of the *t* test for the SPPA supported this finding. Also, correlation of the domain of close friendship with the global perception of self revealed that there is a significant relationship between the two domains. Findings in the area of friendship and social acceptance point to the disparity the teens with ADHD feel between themselves and their peers.

The qualitative data showed that the teens without ADHD moved freely along a social interaction continuum that ranged from being alone to going to parties. They were as comfortable spending time alone when needed as they were hanging out with a group of friends.

Also, in the qualitative data the teens with ADHD were seen mostly in solitary pursuits or only marginally involved with peers. The teens with ADHD talked about their perceptions of being different from their peers and they were seen most often in solitary or anonymous pursuits such as video games or Internet chat rooms. Perhaps this type of interaction may be an effort to maintain a positive self-perception and to satisfy the need for social interaction that was lacking because of the awareness that that they were different and outcasts from their peer groups. Several of the participants with ADHD clearly said that they perceived themselves as being different from their peers. One of the girls said that she felt like an outcast and talked about being friendly with other students, but was never included in after school activities. Perhaps the students

with ADHD believed that they were unworthy of face-to-face peer interaction. As stated

earlier, the literature shows that persons with ADHD have fewer friends than their peers

(Bagwell et al., 2001). Interactions such as playing video games or using Internet chat

rooms seemed to be an effort to find friends in alternative venues. There is literature that

suggests that this type of contact allows the person to be anonymous, in charge, and have

a feeling of safety (Yang, 2001).

Much of the literature about video games discusses the violent nature of these

games, but there is disagreement about whether or not these games influence violent

behavior (Funk & Buchman, 1996). I questioned one of the students about his favorite

game that was very violent. His response led me to understand that it helped him to vent

angry feelings and allowed him to see that violence had legal consequences. In

reviewing the transcripts, I got the impression that this is a way the participants with

ADHD made up for peer interaction that was lacking on a face-to-face basis. This may

be perceived as a less hurtful or safer way to interact.

Peer pressure

Discussions of peer pressure were very different between the groups. The teens

without ADHD talked freely about pressures to do drugs, drink alcohol, have sex, and

wear certain types of clothing. There was only one reference to peer pressure by the

teens with ADHD and this was in the area of dress. Could it be that there was so little

social interaction with peers, that peer pressure was not an issue?

Parent Relations

Parent relations were very different for the two groups of participants. The students without ADHD talked about their parents in terms of setting boundaries or curfews, demonstrating trust, and allowing them to be more independent (e.g., driving). In sharp contrast, the participants with ADHD reports of their interactions with parents, even those who were supportive, showed a pattern of being more directive in day-to- day activities such as properly cleaning the sink, emptying the garbage, how to do well in sports, and doing things right away to avoid forgetting. Robin (1998) cautioned parents of adolescents with ADHD that these teens need more supervision and direction than peers. Student reports of interactions with parents show that parents have learned this concept. However, student reports show that some parents are more supportive than others.

School

School experiences for the two groups were very different. When correlated with the global perception of self, the domain of scholastic competence did not show any significance. However, when the SPPA means were subjected to the *t* test, results showed that the domain related to academic competence approached significance, with the students with ADHD having poorer self-perceptions in this area.

The qualitative data supports this outcome. The participants without ADHD saw school as a stepping-stone to the future. They realized the need to get good grades and they felt comfortable asking for help when materials presented in class were not understood. They tried to balance social life with school.

On the other hand, the teens with ADHD talked about learning difficulties in many areas. These difficulties were often related to or the result of inattention in class. When they missed class material they were reluctant to ask for help because they knew that they had not been paying attention. They had problems paying attention when reading assignments and often forgot or delayed doing homework. As assignments piled up and they got further behind they quickly became overwhelmed and did not know how to get caught up. They knew the importance of getting good grades but did not see themselves as capable of having academic success. They were clear that hands-on learning activities were best because they can remain focused for longer periods of time.

Self-perception

In a review of self-perception literature, Harter (1999) reported several desired outcomes related to developing positive self-perception. The development of the sense of self provides a set of expectations that provide a guide to appropriate behaviors such as social behavior and self-regulation. Positive self-perceptions such as pride allow the individual to have investment in being competent and provide motivation to achieve ongoing success. Positive self-perception gives meaning to experience and stimulates actions by providing encouragement, standards, and plans. It energizes the individual to follow goals and helps to give the desire for self-improvement. Harter also noted that behaviors that maintain self-esteem decrease the likelihood that the person will be ignored or rejected. In the discussion of the results of the data analysis it can be seen that teens without ADHD have more positive self-perceptions and seem motivated to pursue their goals. On the other hand, the teens with ADHD do not seem energized to move towards adulthood.

Differences between the groups were seen most vividly in the area of self-perception–both in the quantitative and the qualitative data. When the qualitative data was examined for evidence of self-perception I had two very different impressions and experiences. I examined data from the teens without ADHD first and I quickly became very frustrated and concerned because information regarding self-perception did not stand out. Consultation described below helped, but the self-perception data did not stand out. This led to the final descriptive constituent that showed that the adolescents without ADHD seemed to be comfortable with the person that they are. However, when the results of the correlation of the SPPA domains with the global perception of self were seen, it became more apparent why the self-perception did not stand out. All of the domain scores were significant or approached significance when correlated with perceptions of global self-worth. In addition, when the domains from the importance tool were correlated with the global perception of self-worth there were no domains of importance that significantly correlated with global self-worth. The results demonstrated that domains contributed equally in the construction of the global sense of self-worth. These two correlations can be interpreted as a demonstration of the harmony that is necessary to have among the domains to achieve an integrated sense of one's identity (Harter, 1989, 1990; Marsh & Yeung, 1998). Self-perception did not stand out in the qualitative data for the teens without ADHD because it was well integrated in all domains.

When I examined the data for the students with ADHD, references to self-perception and other topics—especially inattention—were numerous and closely linked. When the data analysis was presented it was often difficult to decide the best category to

use. The quantitative data analysis of the SPPA means revealed that the ADHD group had a statistically significant lower score in the global perception of self-worth. As stated earlier a search was done of the original qualitative transcripts in an effort to find references to self, searching for the words "I'm" or "I am." This search was done after consultation with a grounded theory (qualitative nursing research) expert (personal communication with E Olshansky, July 21, 2003).

The results yielded fewer items for participants without ADHD. Most of references from the participant without ADHD were positive in nature. The search of the data of the participants with ADHD for "I'm" or "I am" yielded more than two times as many items as the teens without ADHD. Most were negative in nature and it was apparent that the teens with ADHD were not happy with themselves. There was no apparent explanation for the more numerous "I'm" references by the ADHD. In addition, references to self were seen in almost every section of the data. Correlation data for the teens with ADHD supports these self-perception findings. There were fewer domains that significantly correlated with global self-worth and the domain of "friendship importance" was the only domain that was significant. This is an indication that the structure of the self-perceptions of teens with ADHD has not yet reached stability and maturity.

In their qualitative study of the self-perceptions of adolescents with ADHD, Krueger and Kendall (2001) theorized that the teens with ADHD incorporated the disorder into their perception of self. Similarly, in a study of women with infertility, Olshansky (1987) theorized that women adopted their state of infertility as their perception of self. This self-incorporation of their disorder was so pervasive that when

they were finally able to conceive, they referred to themselves as pregnant infertile women. This tendency for self-incorporation of the disorder was also seen in the current study of teens with ADHD. This tendency was vividly seen when the students with ADHD said that they were so used to doing poorly that when they did a good job it was hard to accept the fact that they had done well.

The search as, described above, yielded more responses for the teens with ADHD and more were negative. As stated earlier, references to inattention and self-perception were often closely linked and as a result many references were double coded. When the teens with ADHD talked about not being able to read, being slow or lazy, and feeling overwhelmed and inadequate, it was clear that their perceptions of self were directly related to ADHD in general, and inattention in particular. The one pervasive characteristic of the phenomenon of having ADHD was inattention and it became the way the teens with ADHD saw and described themselves. I could not find any evidence of this finding in the literature.

When all of the data were entered into Ethnograph, the extent of problems caused by inattention was seen when a scan was done for the code "attention." All of the participants with ADHD made some reference to problems of maintaining attention while only two of the participants without ADHD had references to inattention.

Coping and resilience

Both groups talked about ways in which they coped with the various issues of adolescent life. The coping styles of the teens without ADHD involved not getting involved in risky situations or backing away from conflict. The coping mechanisms of the teens with ADHD in this study involved ways they had learned to deal with the

disorder. This involved isolating themselves from peers, having professional counseling, attempting to conquer the symptoms, accepting the disorder, and learning to take things step-by-step. In addition the teens with ADHD showed signs of resiliency

Importance

Significant differences between the group means were not found when examining the Jamesian concept of importance using the *t* test. The correlation data for the teens without ADHD showed that all importance domains were equally correlated with perceptions of global self-worth. This can be interpreted that the domains were equally important in the building of self-perception. References to importance were seen in the qualitative data. The students without ADHD saw adolescence as an important time to get ready for adulthood. They saw school and getting good grades as an important stepping-stone in this preparatory period.

Students with ADHD also knew that adolescence was an important time to get ready for adulthood, but they were not yet ready to proceed on to the path necessary to get there. In fact when thoughts of adulthood became overwhelming, the students with ADHD put them aside. Importance was seen for the students with ADHD when they said that it was easier to pay attention in situations that interested them. It could also be implied that the importance of their desire to be accepted by their peers and the lack of success therein led to the difference when the means for the importance tool were subjected to the *t* test and revealed a moderate effect size for the domain friendship. This finding was further confirmed when the importance domain means were correlated with the global perception of self and the domain of friendship had significance. This was the only group and domain that had a significant correlation for either group of participants.

In light of the fact that quantitative studies have not conclusively validated the modifying nature of importance to self-perception (Marsh, 1995; Pelham, 1995a, 1995b), it may be that importance in the realm of self-perception is best examined in a qualitative or triangulated research design.

Symbolic Interaction Theory

Just as references to self-perception were hard to find in the qualitative data for the participants without ADHD, so also there was difficulty in finding comments that related to symbolic interaction. In sharp contrast, the data for the participants with ADHD included many such references. Parent reactions (as reported by the students) had positive as well as negative influence. Some were able to accept their children as they were. The reactions of some parents of teens with ADHD caused their children to think they were stupid, freakish, or not able to be successful. It was as if the parents were trying to fit the teens into a mold that the parents thought was acceptable—a mold into which the teens with ADHD could not fit. Teens with ADHD also felt the sting of the reactions of their peers who called them stupid to their face, noticed periods of inattention in times of social interactions, or just did not include the teens with ADHD in activities. At school they did not feel comfortable asking for help with material that was lost due to inattention. Students did not say that teachers had put them down, but one can suspect that the reluctance was the result of earlier response of educators. It may be that the reactions of important others smoothly socialized the teens without ADHD because they had more of an ability to conform to the mold. Symbolic interaction may have had more of an impact on the teens with ADHD because the disorder made it difficult to conform,

they saw themselves as different, and try as they might, they never could quite measure up.

C. Conclusions

Teens with ADHD perceive themselves in terms of their disorder. "They are the ADHD and the ADHD is them" (Krueger & Kendall, 2001). They have dealt with hyperactivity when they were younger, but since the hyperactivity is decreasing they now have to deal with the inattention that has come to the forefront. Inattention is pervasive in many areas of their life and strongly affects their sense of self. Because of this new event, the emergence of inattention, they perceive their shortcomings as flaws in themselves and do not understand that inattention is at the root of the problem. They know that they are different from their peers and perceive that because of this difference they are not as worthy. They know that they do not measure up with friends, parents, and teachers. They are often lonely. They lag behind their peers on the pathway to adulthood. They have many of the same concerns as their peers, but they have to deal with ADHD in addition. In spite of the difficulties, many have developed coping mechanisms that contribute to their resiliency.

Important conclusions from this study

In my examination of the literature for ADHD I found only one study (Krueger & Kendall, 2001) that looked at the self-perceptions of adolescents with the disorder. In the current study I not only looked at those self-perceptions, but also looked at the sources of the perceptions and found clues as to how those sources influence self-perception. Many researchers look at various characteristics related to a disorder such as ADHD, but do not go on to investigate the impact of that disorder on the person. For example, studies cited

earlier indicated that persons with ADHD have fewer friends, however this study found clues to the negative impact of being friendless on the perception of self. Research, cited earlier, has shown that hyperactivity diminishes with age; while inattention is a symptom of ADHD that comes to the forefront during the teenage years. No studies were found that addressed the impact of inattention on the perceptions of self. The results of this study show that inattention has a direct impact on the perceptions of self for the teens with ADHD who participated. If teens with ADHD are to reach adulthood having achieved a healthy balanced perception of self, the importance of the issues related to inattention need to be considered.

One study found quantitative results for teens without ADHD similar to those found in this study. However, much self-perception research explores which domain (scholastic competence, athletic competence, social acceptance, physical appearance, etc) contributes most or can predict global perceptions of self. This study found that domains contributed equally to the global self-perception. Could it be that a balance of interest among the domains is essential to the development of a balanced and mature perception of self?

In the qualitative portion of the study it was noted that teens without ADHD who had a relative with ADHD seemed to have less tolerance for the family member with ADHD than the peers without ADHD. Other researchers have noted that siblings of those with ADHD often feel victimized and the sibling with out ADHD is often pushed to the background in the family dynamics. Parenting a child with ADHD takes a great deal of energy and the sibling without ADHD not only has to put up with the behavior of the child with the disorder, but also is often the brunt of acting out behavior. Parents often

are so focused on the child with the disorder that the needs of other children are often overlooked. Researchers have recommended that all members of the family receive psychological counseling and support when one family member has ADHD (Kendall, 1999, 2000).

Step-by-step getting in and getting out

In the qualitative data I became aware of the step-wise progression of the academic problems caused by inattention in classroom settings (Figure 3).

Figure 3 Model of Inattention
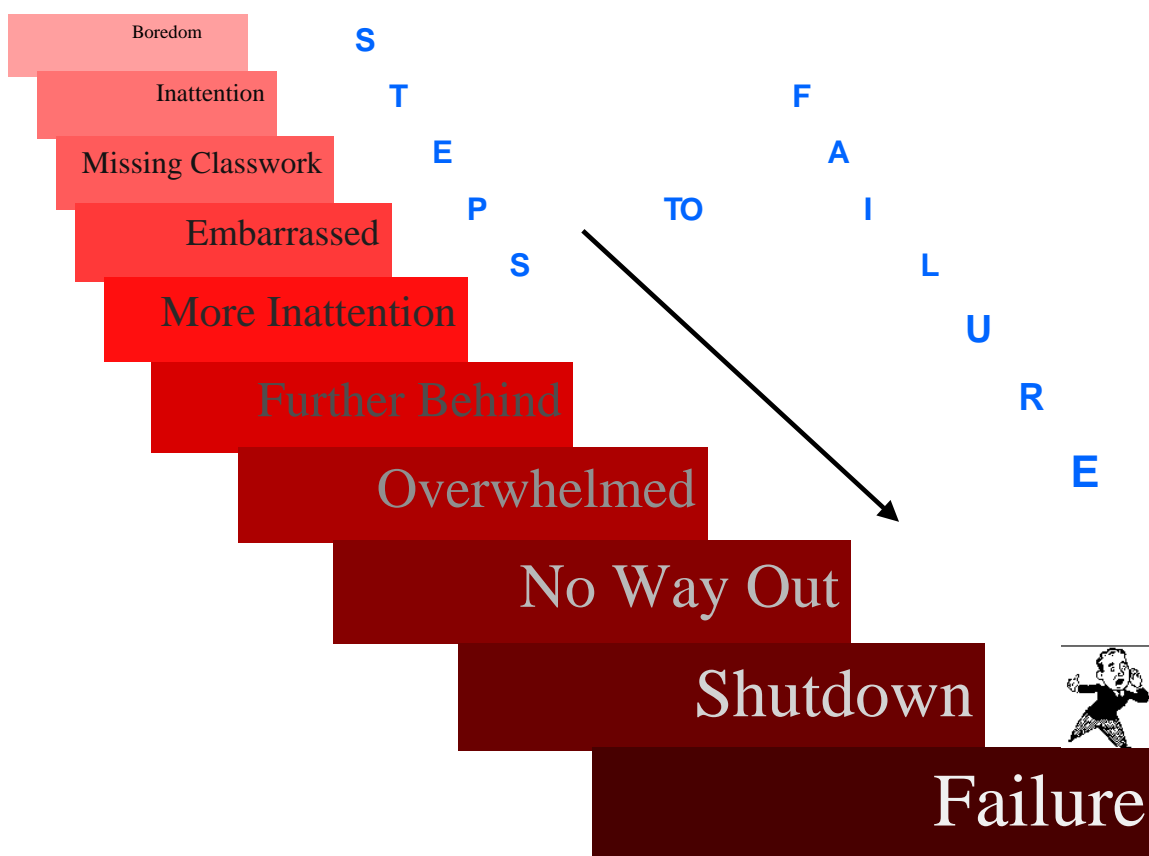
Students became inattentive either because of boredom or distraction. They showed a pattern of drifting in and out of contact with the lecture content. They were embarrassed to ask for help to recover the material that they had lost. As a result they

became bewildered in the class, became more inattentive, fell more behind, quickly

became overwhelmed, failed tests, and saw no way out of the dilemma. They gave up.

Also, some students talked about a step-wise fashion that they had developed to get out of

such dilemmas. One student said that he had learned to take life events one step at a time

to avoid becoming overwhelmed. Another said that her mother helped her to break her

class work into steps

Finally the senior students with ADHD said that their special education teacher

had helped them to successfully complete the senior research paper by breaking the

process into manageable steps. As a result of this discussion I was able to develop a step-

wise model of the negative results of inattention in classroom activities. It shows the

downward progression of the results of inattention but is constructed in such a way as to

allow intervention by nurses, educators, or parents at any point to help the student take

the necessary steps to achieve success.

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VI. LIMITATIONS, IMPLICATIONS, RECOMMENDATIONS

Limitations, implications for nursing practice and recommendations for future research will be discussed in this chapter.

A. Limitations

The following factors restrict the generalizability of the study:

1. Only senior high school students with ADHD were studied.
2. Participants were recruited exclusively in one geographical area of the United States.
3. There was no control for misdiagnoses or comorbid conditions.
4. The students were not evenly distributed by grade level or gender.
5. Demographics were not collected for the participants without ADHD.

B. Implications for Nursing Practice

Implications for nursing practice are based on the literature review, my personal philosophy of nursing, and the findings of this study. In the methods section a quote by Munhall was cited. It is a powerful statement and bears repeating at this point.

> …In casual conversations, "We are more alike than different" can be heard. Even if we were to base our theories on such an observation, the differences are probably the most important characteristics to consider when approaching patients, planning patient care, and developing nursing research ideas and projects. The similarities are easy, if indeed there are such entities. The differences are what challenge us and make all the difference in meeting the needs of patients. And the differences are paramount in our endeavor to understand individuals in their multiple realities, subjective worlds, life-worlds, and individual contingencies. (Munhall, 2001, p. 176.)

For many years my personal philosophy of patient care has been that nurses should not be educated to only care for patients who fit a particular mold. I agree with Munhall's position that this type of care is easy. Rather, preparing nurses to make a

difference when interacting with the patient who does not conform to the norm is what nursing education, research, and planning of care need to address. The purpose of this study was to provide nurses with a clearer understanding of adolescents with ADHD (students who often do not fit the mold) and as a result, plan and provide care that meets their needs. This triangulated study not only generated general descriptions of teens with ADHD, but also may help nurses to recognize individual differences that can impact plans of care.

School nurses can work with teachers and parents to help them understand the nature of the disorder. School nurses, with parental permission, can inform teachers of the students' disorders and help them to understand the nature of the disorder—especially inattention—in class. Nurses and teachers can work together to develop ways to help students maintain attention or get the material that was lost during inattentive periods. There is literature to help us understand how to assist students with problems related to inattention and homework (Robin, 1998), but I have not been successful in locating techniques for increasing attention in the classroom.

In addition, school nurses can use the findings of this study to help students to understand the nature of the disorder, especially inattention, and help to develop skills to deal with the disorder. Frame (2003) developed an empowerment model, which has been designed for preteens, but can be easily adapted to any age. The goal is to teach those with ADHD to accept themselves and learn to speak up for themselves. In addition, school nurses can find ways to help students with ADHD develop the necessary social skills to help them to become more comfortable in the social milieu. This cannot be a one-size-fits-all approach but rather must look at each individual.

By understanding the nature of the disorder, school nurses can help adolescents with ADHD in the senior high school setting find appropriate sources of support that will enable them to be more successful in high school and postsecondary endeavors. For example, this study found that the teens with ADHD do not stay long in a job setting or are lagging behind their peers in obtaining employment. Referring the teens with ADHD to a community resource such as the Office of Vocational Rehabilitation to learn successful job skills and sources of appropriate post high school support can help them make a more successful transition to adulthood.

To further the promotion of positive self-perceptions, nurses must help to identify the student's natural coping skills and help to build on them. In addition nurses must help those with chronic conditions such as ADHD break the tendency to think of themselves in terms of the disorder, but rather to learn to perceive themselves as unique individuals who happen to have a chronic condition.

Finally, I asked the students with ADHD how they would like to be treated. Students wrote their replies and I told them that I would not look at the responses until I had made my own recommendations. This is what they wrote.

Overwhelmingly, they asked to be treated as normal people by medical and educational professionals. This request for normal treatment seemed to be a request to 'treat me first as a person and then consider the special needs of my disorder.' One student wrote, "Get to know me for who I am, not the way I look." The student went on to say, "Talk slower and explain things in detail. Be open to my ideas of how to help." Another echoed that sentiment, "I am older now and I know what I need to do." Perhaps

the students were saying that they were trying to divorce their perceptions of self from their disorder and felt that medical professionals were keeping the marriage alive.

In addition to wanting to be treated as a normal person, some of the teens with ADHD had some advice to give to other teens with the disorder. The basis of this advice was to be open about the disorder and to keep trying to overcome the obstacles presented by the disorder. One wrote

> It is important to accurately describe for the doctors what is going on in your head and how you feel about it. The doctors need the info so they can make educated decisions about what course of treatment they should take.

A student who did not give up on herself and eventually put herself on medication wrote this

> I should have gotten help a long time ago. I used to beg and cry to my dad to help me but he just didn't understand. It's hard for someone without ADD to understand what it is and how someone is with it. That's how my dad was and now that I got help he wished he would have done something a long time ago to help me.

Another wrote, "I just keep on pushing myself to do what I think I need to do to get better." A student asked that others—including health care and educational professionals—be more open-minded about the disorder. She wrote,

> It's very hard to have ADD. You feel like you're stupid, like, you can't accomplish anything, like, everything you do is wrong. I think depression has a lot to do with ADD. Someone who has ADD and can't accomplish anything, feels low about themselves and gets depressed. I just think people should try more and be open minded about ADD.

Another asked that doctors treating her for the ADHD would understand inattention and not "yell at me for not paying attention."

In addition to asking others to be open-minded, a student asked that parents let schools know that their child has the disorder.

> When someone has ADD and nobody else knows people and teachers always say they are slackers or they're lazy or just don't feel like doing it. But it's not that. It's that you just can't focus on something long enough to complete it.

She also encouraged diagnosis and treatment at an early age to prevent the struggles that she endured.

Finally a student who acknowledged his difficulty paying attention class asked this of his teachers

> I don't understand things the way some people do, so if I get stuck on a problem, I can't go any further without help. What else can I do but ask for help? And when I asked the teachers, they say things like, "Pay attention and you'll know how to do it." But it's not, like, I'm not listening. I hear every word. I just don't get it.

> Sometimes when I'm in class and I'm given an assignment to do, if I don't understand it, I usually turn to a friend for help. I see a lot of other people helping each other and working together, so I think it's okay to do, but there has been many times where as soon as I start asking for help the teacher assumes that I'm cheating and gives me no credit. I would like to be treated fairly. If no one is aloud [sic] to help each other then that is okay. But if others are helping each other, don't treat me differently because you think I'm a slacker or something.

The student may hear what the teacher is saying but his lack of focus causes difficulty with comprehension. He needs the teacher to understand his difficulties. He can be helped to learn to articulate his needs in terms of his inattention. When he sees other students asking classmates for help and he is penalized for a similar action, it may be that he does not recognize when it is appropriate to ask others for help. Cantwell (1996) noted that persons with ADHD have difficulty picking up on social cues. This student also needs to learn when it is appropriate to ask other students for help and when it is not.

In addition to implications for nursing practice it is important to note that

the teens with ADHD want health care professions to

- First accept them for who they are and where they are in the

 developmental period of adolescence

- Listen to what the teens think and allow them to have input into their

 plan of care.

- Make sure that instructions have been clearly received.

C. Recommendations for Future Research

Recommendations for future research fall into two categories—intervention

research and further investigation. This study could be replicated in other populations

(schools, geographic locations, ethnic groups, etc) to see if the results are similar.

Frame's (2003) intervention technique has been tested with elementary children and

found to improve self-perceptions. It seems to be adaptable for older age groups, but it

has not been tested. Other intervention strategies to help persons develop a perception of

self that is separate from their chronic condition should be designed and tested.

Strategies to help maintain attention in various settings should be developed and tested

In this study the findings in regard to friendship and adolescents with ADHD have

generated several areas for future research. The significance and relationship of the

domain of close friends to self-perception needs further investigation. Also the meaning

of friendship to teens with ADHD and their peers needs to be investigated to determine if

the two groups define friendship differently. Because the teens with ADHD in this study

used interactions such as video games and Internet chats to compensate for a lack of face-

to-face social interaction, further study can be done to better understand the consequences of such interaction.

Recent research has suggested that the stability of self-perception occurs only as the person ages (Crocker & Wolfe, 2001; Trzesniewski, Donnellan, & Robins, 2003). Others who have done self-perception research with children with ADHD have suggested that self-perceptions found in the summertime may be different from perceptions of self during the school year (Alexander, 1999; Shealy, 1989). Research should be done with the same group of students during the school year and during the summer to determine if there is a difference in self-perception.

Qualitative data analysis demonstrated that school issues played a large part in the lives of the teens. It could be that this finding was because the study was conducted in a school. The study could be replicated outside of a school setting during the school year to determine if school does play such an important role in the lives of teens with ADHD.

This research revealed signs of resilience and coping among the participants with ADHD. Further research should be done to determine the nature and extent of the resilience and successful coping mechanisms of adolescents with ADHD.

The literature review pointed to the lack of research into the nature of the disorder with girls (Goldman et al., 1998). Further research needs to be done to better understand how ADHD affects adolescent girls.

In addition to attending regular public high school, many of the participants—both with ADHD and without ADHD—were students at the local career and technical high school. The director of that school has wondered if students with ADHD are purposely sent to the technical school because they cannot succeed in regular education

classes. The director has also wondered if these students are different from students with

ADHD who do not attend technical high school. Research into vocational education and

its association with self-perceptions of students with ADHD would be helpful.

Finally, as I conducted the data collection and analysis for this study, I became

aware of the importance of clinical research by a school nurse. Each time I reviewed the

qualitative data, I become more overwhelmed at the depth of response that was provided

by many of the students. Perhaps students were more open because I was the school

nurse and it is possible that a researcher from the outside would not have obtained the

depth of response found in this study. School nurses need to understand the nature of

their unique relationship with students and become more involved in research. They may

be the only ones able to gain new insights in many areas related to student health and

well-being.

APPENDIXES

APPENDIX A
Letter to parents to recruit Participants with ADHD

Date

To: Parents/Guardians of _____High School Students
From: Patricia M. Bitar, RN, School Nurse

Dear Parent/Guardian,

        I am in the final phase of a PhD program in Nursing at Duquesne University. I am interested in what high school students, especially those who have Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD), think about themselves. I will be doing a research project to find out this information. Very few persons have looked at teenagers in high school who have ADHD and I think it is important to have this information. Students who participate in the study will be asked to complete a self-perception questionnaire and may also be asked to participate in two interviews designed to gather more information about their self-perceptions. Students who participate in the study will receive a gift certificate to Media Play. The results of this study will help school nurses, teachers, psychologists, and doctors to better understand the teen with ADHD. Also, the information gained from this project can help these teens better understand themselves.

        Some parents have told the school that their child has ADHD, but others may not have passed this information on to the school. In an effort to have as many participants as possible for the study, I am sending this letter to all parents. If you have ever been told that your child has ADHD or ADD, I would appreciate it if you would contact me.

        Please be assured that no student will be admitted to the study unless you and your child sign a consent form. All responses will be kept confidential and no student will be identified by name in the analysis of the data. Responding to this letter does not mean that you have given consent for your child to participate in the study.

        If you have any questions, you may contact me at   724-335-6778.

Sincerely,

Patricia M. Bitar, RN
School Nurse

APPENDIX B
Letter to parents to recruit participants without ADHD

Date
To: the parent/guardian of _____
From: Patricia M. Bitar, RN, School Nurse

Dear _____

       Earlier this school year I mailed home a letter asking parents to tell me if they have ever been told that their child had Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD). I have several students who have agreed to participate in the study. However, the study will have much more meaning if I have student participants who do not have ADD or ADHD for comparison. Your child has been randomly selected and it would be very helpful if your child could act as a contrast student. Students who participate in the study will be asked to complete a self-perception questionnaire and may be asked to participate in an interview designed to gather more self-perception information. A gift certificate to Media Play will be given to all participants.

       Please be assured that no student will be admitted to the study unless you and your child have signed a consent form. All results of the study will be kept confidential and no student will be identified by name in the data analysis. Responding to this letter does not mean that you have agreed for your child to participate in the research project.

       If you want your child to participate or if you have any questions, please contact me at 724-335-6778.

Sincerely,

Patricia M. Bitar, RN
School Nurse

APPENDEX C
Consent cover letter

November 11, 2002

Dear _____

     Thank you for agreeing to allow _____ to participate in my doctoral study: The Self-perceptions of Adolescents with Attention Deficit Hyperactivity Disorder. I am enclosing the consent form for you to sign. I have enclosed a demographic questionnaire for you to complete. Please return both the signed consent and the questionnaire in the enclosed stamped self-addressed envelope.

     I will talk with _____ after I receive your written permission. If you have any questions please call me at 724-335-6778.

Sincerely,

Patricia M. Bitar RN

APPENDIX D
Parent informed consent form
CONSENT TO PARTICIPATE IN A RESEARCH STUDY
(Parent Consent)

TITLE:	The Self-Perceptions of Adolescents with ADHD
INVESTIGATOR:	Patricia M. Bitar, RN, MNEd (724) 335-6778
ADVISOR: (if applicable:)	L. Kathleen Sekula, RN, PhD School of Nursing (412) 396-4865
SOURCE OF SUPPORT:	This study is being performed as partial fulfillment of the requirements for the doctoral degree in Nursing at Duquesne University.
PURPOSE:	You are being asked to allow your child to participate in a research project that seeks to gather information about how young people with ADHD see themselves. The information will be collected by using a questionnaire that asks high-school students to look at themselves in several settings such as school, relationships with persons their age, sports, etc. It will take about 30 minutes to fill out the answers. In addition, I may interview your child during a second meeting. With your permission, the interviews will be taped and transcribed. The interview is expected to take an additional 30-45 minutes. All meetings with your child will be in a private room. In addition, you will be asked to complete a brief form that is called a demographic questionnaire. These are the only requests that will be made of you.
RISKS AND BENEFITS:	There is not greater than minimal risk to your child. It is hoped that the information from this study will help doctors, nurses, teachers, and others who work with teens with ADHD to understand them better. It can also help the teens understand themselves better.
COMPENSATION:	Participants who complete the questionnaire and participate in the interview will receive a $15.00

gift certificate to Media Play for the first meeting. A $10.00 gift certificate will be awarded for subsequent meetings. However, participation in the project will require no monetary cost to you.

CONFIDENTIALITY: Your child's name will not be identified in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your child's response(s) will only appear as anonymous summaries of the results. All materials will be destroyed in 5 years.

Confidentiality cannot be maintained if the student indicates that he/she is being hurt, is planning to hurt someone else, or is in need of help. Appropriate referrals will be made in any of these situations.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my child's participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to have my child participate in this research project.

I understand that should I have any further questions about my child's participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

_____   _____

Parent's Signature   Date

_____   _____

Researcher's Signature   Date

APPENDIX E
<u>Student with ADHD informed assent form</u>
ASSENT TO PARTICIPATE IN A RESEARCH STUDY
(Student with ADHD Assent)

TITLE: The Self-Perceptions of Adolescents with ADHD

INVESTIGATOR: Patricia M. Bitar RN, MNEd
                                        (724) 335-6778

ADVISOR: (if applicable:)   L. Kathleen Sekula, RN, PhD
                                        School of Nursing
                                        (412) 396-4865

SOURCE OF SUPPORT: This study is being performed as partial fulfillment
                                        of the requirements for the doctoral degree in
                                        Nursing at Duquesne University.

PURPOSE: You are being asked to participate in a research
                                        project that seeks to gather information about how
                                        young people with ADHD think about themselves.
                                        The information will be collected by using a
                                        questionnaire that asks high-school students to look
                                        at themselves in several settings such as school,
                                        relationships with persons their age, sports, etc. It
                                        will take about 30 minutes to fill out the answers.
                                        In addition, you will be asked to allow me to
                                        interview you. The interviews will be taped and
                                        transcribed. The interview is expected to take an
                                        additional 30-45 minutes. To protect your privacy,
                                        you will be identified only by number on the
                                        questionnaire and recorded tapes.

                                        These are the only requests that will be made of
                                        you.

RISKS AND BENEFITS: There is no greater than minimal risk to you. . It is
                                        hoped that the information from this study will help
                                        doctors, nurses, teachers, and others who work with
                                        teens with ADHD to understand them better. It can
                                        also help the teens understand themselves better.

COMPENSATION: Participants who complete the questionnaire and
                                        participate in the interview will receive a $15.00
                                        gift certificate to Media Play for the first session. A

$10.00 gift certificate will be awarded for subsequent meetings.   However, participation in the project will require no monetary cost to you.

CONFIDENTIALITY: No personal identification will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your response(s) will only appear in statistical data summaries. All materials will be destroyed after 5 years.

Confidentiality cannot be maintained if the you indicate that you are being hurt, are planning to hurt someone else, or are in need of help. Appropriate referrals will be made in any of these situations

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

_____   _____
Participant's Signature   Date

_____   _____
Researcher's Signature   Date

APPENDEX F
CONSENT TO PARTICIPATE IN A RESEARCH STUDY
(Parent Consent for Participants without ADD/ADHD)

TITLE:	The Self-Perceptions of Adolescents with Attention Deficit Hyperactivity Disorder
INVESTIGATOR:	Patricia M. Bitar RN, MNEd (724) 335-6778
ADVISOR:	L. Kathleen Sekula, RN, PhD School of Nursing (412) 396-4865
SOURCE OF SUPPORT:	This study is being performed as partial fulfillment of the requirements for the doctoral degree in Nursing at Duquesne University.
PURPOSE:	You are being asked to allow your child to participate in a research project that seeks to gather information about how young people think about themselves. The information will be collected by using a questionnaire that asks high-school students to think about themselves in several settings such as school, relationships with persons their age, sports, etc. It will take about 30 minutes to fill out the answers. In addition, I may interview your child during a second meeting. With your permission, the interviews will be taped and transcribed. The interview is expected to take an additional 30-45 minutes. All meetings with your child will be in a private room. These are the only requests that will be made of you and your child.
RISKS AND BENEFITS:	There is no greater than minimal risk to your child. It is hoped that the information from this study will help doctors, nurses, teachers, and others who work with teens to understand them better. It may also help the teens understand themselves better.
COMPENSATION:	Participants who complete the questionnaire and participate in the interview will receive a $15.00 gift certificate to Media Play for the first meeting. A $10.00 gift certificate will be awarded for

subsequent meetings. However, participation in the project will require no monetary cost to you.

CONFIDENTIALITY: Your child's name will not be identified in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your child's response(s) will only appear as anonymous summaries of the results. All materials will be destroyed in 5 years.

Confidentiality cannot be maintained if the student indicates that he/she is being hurt, is planning to hurt someone else, or is in need of help. Appropriate referrals will be made in any of these situations.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent for your child to participate at any time.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my child's participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to have my child participate in this research project.

I understand that should I have any further questions about my child's participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

_____   _____

Parent's Signature   Date

_____   _____

Researcher's Signature   Date

APPENDIX G
ASSENT TO PARTICIPATE IN A RESEARCH STUDY
<u>(Student Assent for Participants without ADD/ADHD)</u>

TITLE:	The Self-Perceptions of Adolescents with Attention Deficit Hyperactivity Disorder
INVESTIGATOR:	Patricia M. Bitar RN, MNEd (724) 335-6778
ADVISOR: (if applicable:)	L. Kathleen Sekula RN, PhD School of Nursing (412) 396-4865
SOURCE OF SUPPORT:	This study is being performed as partial fulfillment of the requirements for the doctoral degree in Nursing at Duquesne University.
PURPOSE:	You are being asked to participate in a research project that seeks to gather information about how young people think of themselves. The information will be collected by using a questionnaire that asks high-school students to look at themselves in several settings such as school, relationships with persons their age, sports, etc. It will take about 30 minutes to fill out the answers. In addition, you may be asked to allow me to interview you. The interviews will be taped and transcribed. The interview is expected to take an additional 30-45 minutes. To protect your privacy, you will be identified only by number on the questionnaire and recorded tapes. These are the only requests that will be made of you.
RISKS AND BENEFITS:	There is no greater than minimal risk to you. It is hoped that the information from this study will help doctors, nurses, teachers, and others who work with teens to understand them better. It may also help the teens understand themselves better.
COMPENSATION:	Participants who complete the questionnaire and participate in the interview will receive a $15.00 gift certificate to Media Play for the first session. A $10.00 gift certificate will be awarded for

subsequent meetings.   However, participation in the project will require no monetary cost to you.

CONFIDENTIALITY: No personal identification will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your verbal response(s) will only appear as anonymous statements. All materials will be destroyed at the end of 5 years.

Confidentiality cannot be maintained if the you indicate that you are being hurt, are planning to hurt someone else, or are in need of help. Appropriate referrals will be made in any of these situations.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY ASSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board (412-396-6326).

_____   _____
Participant's Signature   Date

_____   _____
Researcher's Signature   Date

APPENDIX H
Demographic Questions
(To be answered by parents of participants with ADD/ADHD)

Age of your child _____

Current grade in school _____

How many parents are living in the home at this time? _____

Race of your child ____White ____Black ____Bi-Racial ____Hispanic____Other

How old was your child when you learned that he/she had Attention Deficit Disorder/ Attention Deficit Hyperactivity Disorder?_____

Who made the diagnosis? ____Family Doctor, ____School Psychologist
_____Psychiatrist, _____Other, please explain_____

Have you ever been told that your child has any other condition(s) ____Yes_____No
        If you said yes, please name the condition._____

Who made the diagnosis? ____Family Doctor, ____School Psychologist
_____Psychiatrist, _____Other, please explain_____

If necessary, would you allow me to contact any of the above persons to get information about the diagnosis? _____Yes _____No

Does your child take daily medication? _____Yes_____No. If you said yes, what
        medication(s) does he/she take?_____

How often is the medication taken? _____Once a day _____Two times a day
_____Three times a day _____Other (please specify the number of times a day____)

Does you child have *vacation periods* when the medicine is not taken regularly?
_____Yes _____No. If yes when are these vacations? _____

To your knowledge, when the medication is supposed to be taken, does your child take it as it is prescribed? _____Yes _____No

If the medication is not taken as prescribed, what is the reason?
_____
_____

How often do you supervise your child's medication and when it is taken?
____Never ___Once a month___Once a week ___Once a day___More than once a day

APPENDIX I

Interview guide and probes-Participants with ADHD

Tell me about yourself?

What is it like to have ADHD?

      What parts of your life are affected by ADHD?

      Do you remember how you felt when you first learned that you had ADHD?

      How are things going now?

Is there anything else you would like to tell me?

What is it like to be a teenager?

<div align="center">Prompts</div>

Go on

Tell me more about that

Could you give me an example?

How do you feel about that?

Draw a picture to describe yourself

What makes you feel better about yourself?

What makes you feel bad?

What are you good at?   What causes you to have problems?

APPENDIX J

Interview guide and probes-Participants without ADHD

How would you describe yourself?

What is it like to be a teenager?

What do you know about ADHD?

Is there anything else that you would like to tell me?

Probes

Go on.

Tell me more about that

Could you give me an example?

How do you feel about that?

Please draw a picture to describe yourself.

Appendix K

Ethnograph Rough Listings

Acceptance-accepting a situation as it is or for what it is.

Activities-active participation in something such as a sport-as opposed to just watching

ADHD-general comments about the disorder

ADHD Adolescence-relationship of adolescence and ADHD

ADHD Knowledge-comments by participants without ADHD about their knowledge of

the   disorder.

ADHD Positive-positive comments about the disorder.

Adolescence-general comments about adolescence

Adolescence hard-comments about the difficulty of being an adolescent

Anger-comments about being angry-related to temper, but temper is the expression of

anger in overt behavior, or labeled as temper by the participant

Anxiety-conscious recognition of feelings of anxiety

Attention-comments that relate to the symptoms of inattention such as being off task,

zoning out, forgetting, putting things off. Inattention might be a better code word, but the

limitation of letters in the entry of code names seemed to make this word make more

sense.

Behavior-comments by the participants about their behavior

Black-references by the participants to their choice of black clothing.

Caffeine-belief that consumption of too many caffeinated beverages leads to

hyperactivity.

Challenge-I put this in so that I could find a comment about a participant's choice of chained jewelry. Also in the summary an ADHD participant talked about viewing the disorder as a challenge to overcome.

Change-refers to a change that participants noticed about themselves between the first interview and the summary interview.

Church-reference to any participation in church related activities-I want to see if this participation is related to self-perception valance.

Comedian-self-description of being a jokester.

Comorbid-reference to comorbid conditions

Consequences-reference to the consequences, outcomes or result of behavior

Content-thought content of the participants when they "zone out" or are inattentive.

Coping-comments that reflect attempts to normalize, deal with, or overcome problems.

Counseling-active participation in professional mental health care.

Creative-production of original art, ideas, actions, etc

Denial-comments relating to not having or recognizing ADHD.

Determined-conscious expression of being strong-minded or having a dogged persistence to reach a goal.

Different-standing out in some way from peers-expressed consciously or by description

Driving-any reference to driving a car. This seems to be an important activity for teens and I made it a separate category from general activities.

Drug use-reference to the use of illegal substances either by the participant or peers.

Early Diagnosis-comments about feelings, behavior, etc when ADHD was first diagnosed.

Embarrass-comments of being embarrassed or causing embarrassment.

Family relations-interactions between teens and family members other than parents.

Food-comments about eating or cooking

Future goal-comments about specific life choices after high school such as future

occupation, further education, etc.

Grief-expressions of sadness because of a loss

Health-comments about general state of health

Helping-comments about coming to the aid of another person

Hyper-comments relating to hyperactive behavior such as being constantly on the go,

needing to be busy, preferring hands on activities, etc

Impulsive-behaving, speaking, or other activities that reflect the lack of conscious

forethought and is done with out consideration of consequences.

Internet-communicating with peers via some type of Internet activity such as email,

instant messaging, etc

Interests-comments that expressed a liking for an activity, but no active participation in

the activity.

Job-work related comments.

Late Diagnosis-some participants were recently diagnosed

Lazy-comments about being lazy.

Lonely-expressions of loneliness.

Medication effect-expressions of the noticed effects of medication

Medicine-prescribed medication

Military-some participants said they would enter the military after high school for a variety of reasons. Probably could be a part of future goals, but I wanted to be able to pull this out directly without looking at all the future goal references.

Negatives-perceived negatives attached to ADHD

Normalcy-perceptions of normalcy by the participants.

Overwhelm-being overwhelmed by a project or situation or having problems with organization to achieve a goal.

Parent relations-interactions between parents and teens.

Peer-comments about peer pressure.

Piercings-comments about body piercing

Positives-advantages of ADHD

Pressures-expressions of the perceived pressures of adolescence

Reading-comments about reading problems-might also be related to inattention or could be coded as school, but it just seemed to be different from those two.

Responsible-comments about being or wanting to be responsible or having responsibilities.

Rules-comments about the positives and negatives of the rules of society.

School-specific comments about school or learning in school or classroom behavior

School nurse-comments about school nurse-I had to make this a separate category-may be a bias-but was relevant to taking of medication in school.

Self-perception-statements that directly or indirectly expressed how the participants saw themselves-I am happy, I am lazy, etc

Sleep-comments about sleep patterns

Slow-recognition that the participant is not as quick as desired or as quick as peers. Related to self-perception but I made it a separate category for data retrieval.

Social interaction-social interaction with peers.

Sports-participation in sports activity.

Stereotyping-comments about teens being stereotyped by adults **-**perceptions of adolescents that adults expect them to behave in a certain way-this can be positive or negative stereotyping.

Stupid-feeling stupid or being called stupid-again related to self-perception

Talent-active recognition of having a talent or special ability.

Temper-anger as labeled by the participant, also acting out of anger.

**Time Management-**problems with time management

Transition-comments about the need to get ready for adulthood, or that the purpose of adolescence is to get the person ready to be an adult.
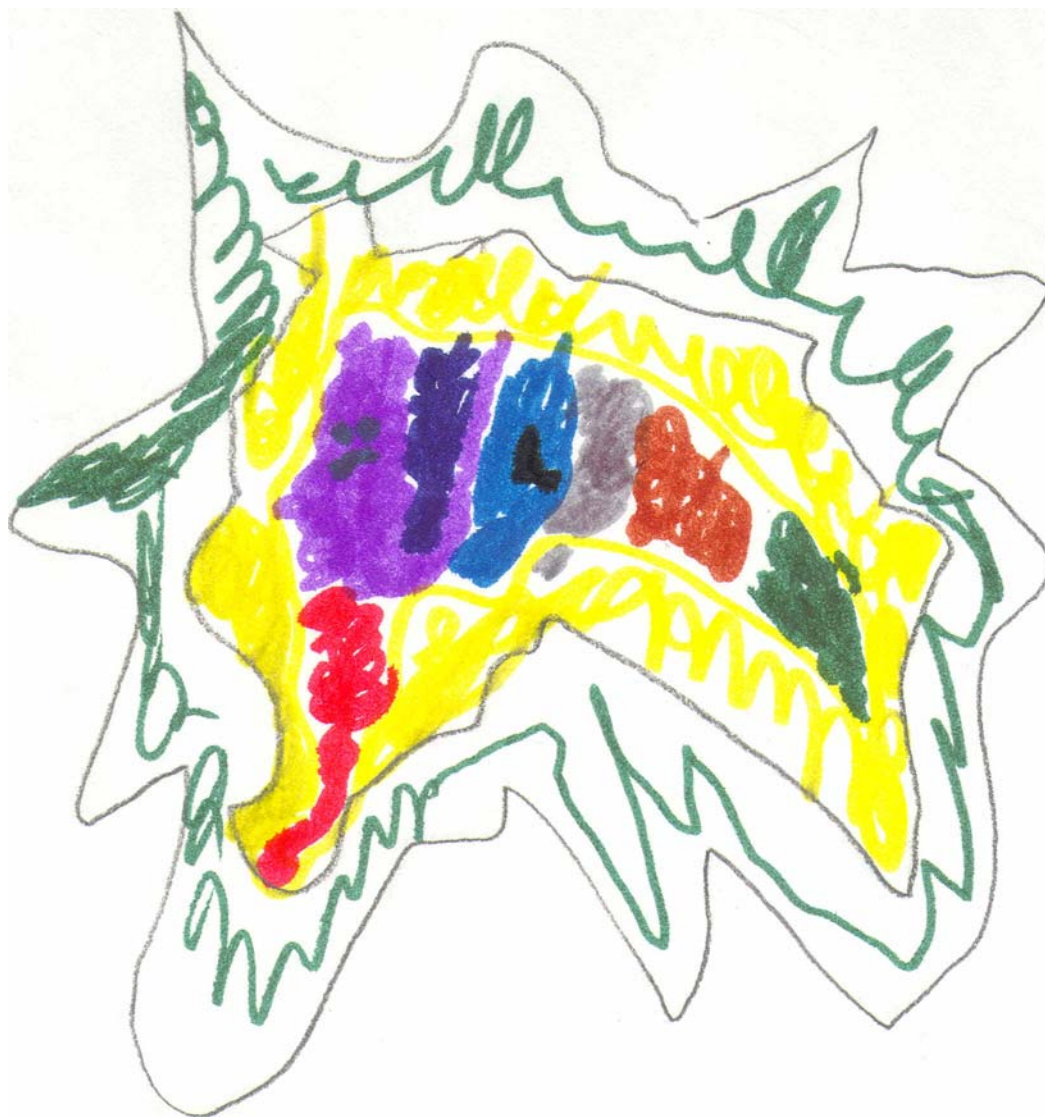
Trouble-consequences of misbehavior as labeled by the participants

Values-value statements, what is important to the participant

Video-using video games

Appendix L
<u>Self-descriptive pictures</u>
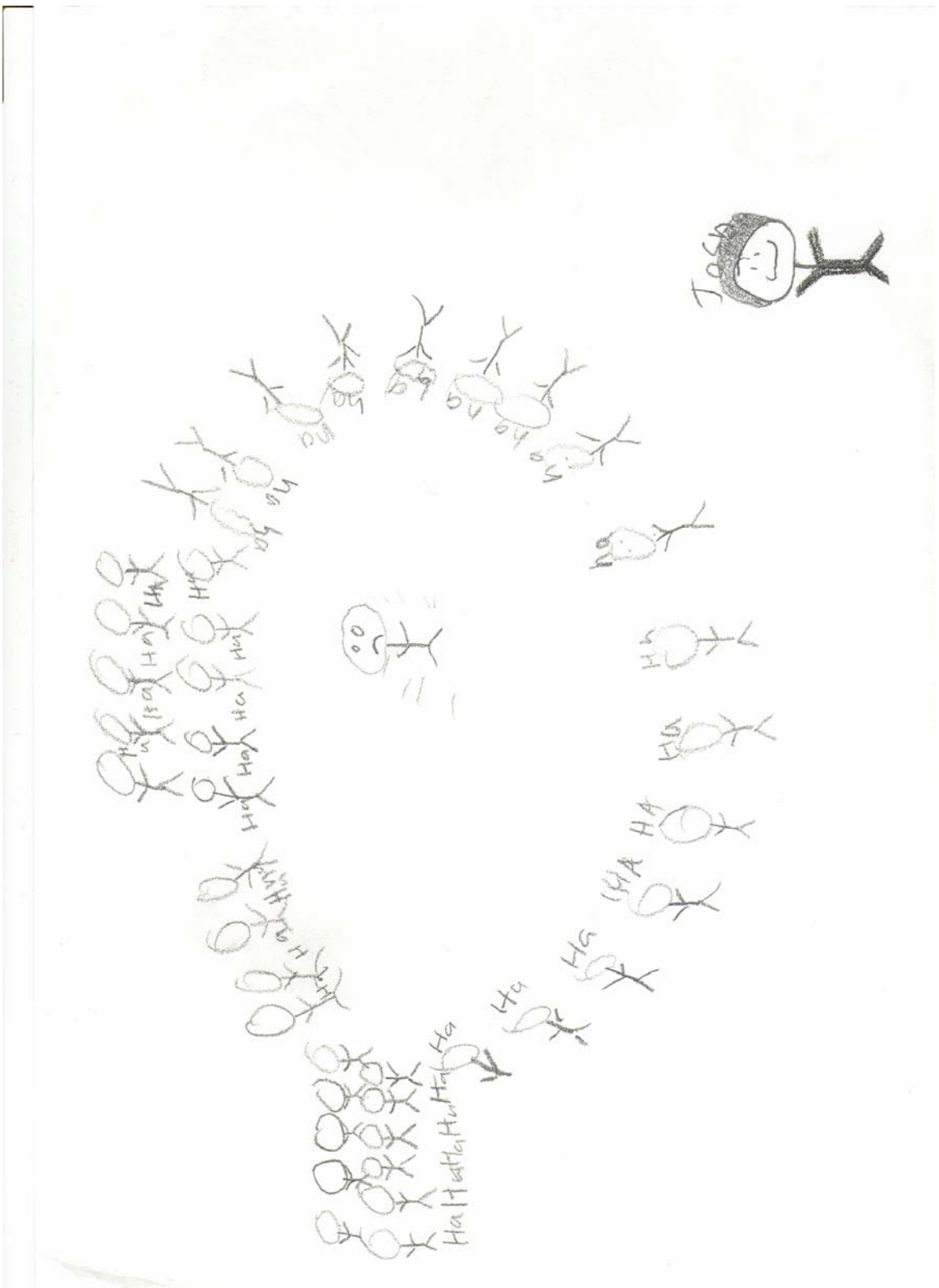
Appendix M

Paula Weaver
314 Yockey Road
Apollo, PA 15613

I fully understand that all material transcribed for this study is confidential.

Paula Weaver

Paula Weaver, Transcriptionist

January 31, 2003

Date

Appendix N

DUQUESNE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
403 ADMINISTRATION BUILDING ◆ PITTSBURGH, PA 15282-0202

Dr. Paul Richer
Chair, Institutional Review Board
Phone (412) 396-6326 Fax (412) 396-5176
e-mail: richer@duq.edu
web site: http://www2.duq.edu/research/policies.cfm#human

September 27, 2002

Ms. Patricia Bitar
266 White Oak Drive
New Kensington, PA 15068

Re: **The self-perceptions of adolescents with attention deficit hyperactivity disorder**
       Protocol #02-51

Thank you for submitting the revisions requested by the IRB at its 9/18/02 meeting.

Consequently, your research, in which you will research and interview children with attention deficit
hyperactivity disorder, approved under the federal Common Rule, specifically section 45-Federal Code
of Regulations #46.404 (research with minors not involving greater than minimal risk).

Please remember that in accordance with those federal regulations, you must produce two original
signed copies of the assent and consent forms, one set for you and one set for parents/guardians. The
first page of the assent and consent forms should be on Duquesne University letterhead.

This approval must be renewed in one year as part of the IRB's continuing review. You will need to
submit a progress report to the board at the address shown above. It should detail the number of
subjects whose involvement has been completed and the number yet to be completed.

If, prior to the annual review, you propose any changes in your procedure or consent process, you must
inform the board of those changes and wait for approval before implementing them.   In addition, if
any procedural complications or adverse effects on subjects are discovered before the annual review,
they immediately must be reported to the IRB Chair before proceeding with the study.

When the study is complete, please provide the IRB with a summary, approximately one page. Often
the completed study's Abstract suffices.   Please keep a copy of your research records, other than those
you have agreed to destroy for confidentiality, over a period of three years after the study's completion.

If you have any questions, feel free to contact me at any time.

Sincerely yours,

Paul Richer, Ph.D.
Chair, IRB – Human Subjects
Duquesne University

C: Dr. Kathleen Sekula
        Dr. Linda Goodfellow
        Office of Research
        IRB Files

Appendix O

New Kensington-Arnold School District
701 Stevenson Boulevard
New Kensington, Pennsylvania 15068
Telephone: (724) 335-8581
Fax: (724) 337-6519
http://nkasd.wiu.k12.pa.us

Thomas J. Wilczek
Superintendent
twilczek@wiu.k12.pa.us

Joanne Cecchi
Administrative Assistant/Federal Coordinator
jcecchi@wiu.k12.pa.us

October 23, 2002

L. Kathleen Sekula, R.N., PHD.
Duquesne University School of Nursing
600 Forbes Avenue
Pittsburgh, PA   15281

Dear Dr. Sekula:

This letter is to inform the Duquesne University School of Nursing that the New Kensington-Arnold School District is consenting to the research necessary as part of Pat Bitar fulfilling her requirement at the university.

I am both proud and happy for Pat's success so far and I commend her for her determination as to reaching her educational goal. She continues to be a shining star on our staff. I'm confident her work will be done in the utmost professional manner to which Pat displays on a daily basis.

Sincerely,

Thomas J. Wilczek
Superintendent

TJW: cb

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