AN ABSTRACT OF THE DISSERTATION OF


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LINDA S. GAY

Sixty-five male volunteers from a court mandated domestic violence treatment program were administered a questionnaire to assess for the presence of adult attention deficit hyperactivity disorder (ADHD) behaviors. The questionnaire included copies of the Wender Utah Rating Scale (WURS) and the Attention Deficit Scales for Adults (ADSA), as well as demographic information and diagnostic questions assessing previous professional diagnoses. Results indicated that 93.8% met or surpassed Wender’s suggested cutoff score of 36 indicating the presence of ADHD symptoms, and 64.6% met or surpassed the higher suggested cutoff score of 46. Twenty-three percent (15) of the participants met the criteria suggesting the presence of adult ADHD behaviors as measured by the ADSA. A factor analysis of the WURS resulted in participant scores loading on four factors suggesting a combination of ADHD and conduct disorder (CD) behaviors. Results are discussed in light of previous research indicating the WURS’ difficulty in clearly discriminating among disruptive behavior disorders. Implications for
consideration of adult ADHD as a possible predisposing factor in the perpetration of violence are discussed. Treatment suggestions specifically targeting male DV perpetrators are offered, such as increased use of experiential exercises, minimizing distractions, increasing awareness of potential sensitivity to sound levels, and inclusion of stress reduction techniques. Limitations of this study are discussed in light of instruments utilized, question wording, and study design. Suggestions are made for further research with other DV groups from which results are generalizable to the larger DV perpetrator population.
An Investigation of the Presence of Adult Attention Deficit Hyperactivity Disorder Behaviors in a Population of Court Mandated Domestic Violence Perpetrators

by

Allan R. Mandell

A DISSERTATION

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APPROVED:

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Dean of Graduate School

I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

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Allan R. Mandell, Author
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DEDICATION

This dissertation is dedicated to my step-father, Walter F. Headrick, without whose continued support and encouragement, none of this would have been possible. Thanks for having faith in me and my abilities.
An Investigation of the Presence of Adult Attention Deficit Hyperactivity Disorder Behaviors in a Population of Court Mandated Domestic Violence Perpetrators

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a commonly diagnosed condition in childhood. The disorder is characterized by a constellation of behaviors, most notably inattention, impulsivity and hyperactivity (American Psychiatric Association [APA], 1994; Jackson & Farrugia, 1997; Wender, 1987). Because of its link with brain damage in the early 1900s ADHD emerged from the evolution of diagnoses such as, “brain damage” and “brain damage syndrome” (Brancialeone, 1988, p. 1). In the 1960s, the term Minimal Brain Dysfunction (MBD) was introduced, resulting from a position taken by some neurologists who believed the presence of behavioral symptoms alone should not imply “brain damage,” (Brancialeone, 1988, p. 1). Because the APA found a lack of evidence for brain dysfunction as a definite etiological factor, the Diagnostic and Statistical Manual of Mental Disorders-II (DSM-II) employed the diagnoses of “hyperkinesis” or “hyperkinetic reaction of childhood or adolescence” (APA, 1968; Brancialeone, 1988, p. 3).

The publication of the DSM-III in 1980 brought the new title of “Attention-Deficit Disorder (ADD) with/without Hyperactivity” for the same categorical disorder. The rationale underlying this change was that attentional problems were a more distinct and constant feature of the disorder than hyperactivity (Brancialeone, 1988; Routh, 1983). When the DSM-III-R was published in 1987, the diagnosis was changed to Attention-
Deficit Hyperactivity Disorder (ADHD), because of a lack of evidence for Attention-Deficit Disorder without Hyperactivity as a diagnostic category (APA, 1987; Brancaleone, 1988). The publication of the DSM-IV saw a continuation of Attention-Deficit Hyperactivity Disorder as a primary diagnostic category, with subtypes of Combined Type, Predominantly Inattentive Type, and Predominantly Hyperactive-Impulsive Type (APA, 1994). For the purposes of simplification, throughout the body of this work the author uses the terms ADD and ADHD interchangeably, unless specifically noted to the contrary.

Besides the primary symptomatic triad of inattention, impulsivity and hyperactivity, secondary dimensions of cognitive attributions/locus of control, stressful home environment, social behavior/aggression, and/or poor academic achievement are also frequently present with ADHD, either alone or in some combination (APA, 1987; APA, 1994; August, Stewart & Holmes, 1983; Brancaleone, 1988). Additionally, conduct disorder, oppositional defiant disorder, and antisocial behaviors are frequently comorbid with ADHD (APA, 1987; APA 1994; Brancaleone, 1988), and are defined by the presence of such antisocial behaviors as, negativistic, defiant, disobedient, and hostile behavior, loss of temper, blame, excessive anger, aggressive conduct toward others, theft, deceitfulness, lack of empathy, and property destruction.

While a clear link exists between ADHD and aggressive behavior (Cadoret & Stewart, 1991; Murphy, Pelham & Lang, 1992; Hinshaw & Melnick, 1995) the bulk of research has not focused on aggression as a correlate of behavior associated with ADHD. When aggression is addressed with respect to ADHD, it is frequently done so in relation to treatment with stimulant or other medications (Pelham, et al., 1991; Murphy, et al.,
1992; Matier, et al., 1992) or is approached from a psychophysiological perspective, focusing on specific neurological function and impairments (McBurnett, et al., 1993).

It has been clearly established that a significant number of children with ADHD will also exhibit behaviors consistent with aggression and/or antisocial behavior (APA, 1994; Barkley, 1990). What then is the course of that combination, and how is it likely to affect the child later in life? Research has shown that ADHD does not necessarily disappear when a child reaches puberty, and in fact symptoms of the disorder continue to manifest into and through adulthood (Ward, Wender & Reimherr 1993; Shaffer, 1994; Jackson & Farrugia, 1997.) Do the aggressive and/or antisocial behaviors ameliorate, remain relatively constant, or increase over time? If they do not diminish, then how do they manifest themselves in adulthood? Violence in our society is currently receiving substantial attention, particularly the area of domestic violence. Does some portion of the population of male domestic violence perpetrators exhibit symptoms consistent with ADHD in adulthood?

Statement of the Problem

Domestic violence (DV) directly affects approximately 21% to 28% of women in the United States (Dutton, 1995a). In spite of the high incidence of DV, there presently exists no single theory which adequately explains contributory factors (Gelles, 1993). Current theories range from those citing external factors as responsible for creation and maintenance of the DV problem to theories focusing on intrapersonal characteristics of the DV perpetrator. In truth some combination of external and internal factors is probably
responsible. As with many other psychological and social problems, DV needs the benefits of continued research to illuminate the contributory factors and provide a more thorough understanding of the DV process. Thus, it is with this in mind that the current study is undertaken.

Over the course of several years, direct observation of DV perpetrators in treatment groups revealed that some of them apparently exhibited behaviors consistent with an adult ADHD profile, yet nothing had been written on this in the literature. As a therapist, I noticed the presence of behaviors such as impulsiveness, mood lability, stress intolerance, low frustration threshold, volatile temper, distractibility, difficulty focusing or attending, and occasionally overactivity. Each time these behaviors occurred, I would wonder if ADHD played some vital role in the creation and maintenance of DV? If some of the DV perpetrators exhibit ADHD behaviors in sufficient acuity and number, such that they would qualify for a diagnosis of adult ADHD, then implications for intervention and treatment would be profound. For many, stimulant medication might be the first step. Social skills training, emotional awareness training, and stress management techniques would all be useful interventions with DV perpetrators. Another useful intervention would be educating the DV perpetrator about adult ADHD. However, perhaps the most profound treatment implication would be preventive intervention with male children diagnosed as having ADHD. Helping them develop appropriate social skills, stress coping strategies, conflict resolution skills and increasing emotional awareness might diminish the number of DV perpetrators in the world. This knowledge would be valuable in enhancing the theoretical base of domestic violence to inform prevention and treatment.
Statement of Purpose

The purpose of this study is to determine the presence of behaviors consistent with adult Attention Deficit Hyperactivity Disorder in a population of male domestic violence perpetrators enrolled in a court mandated treatment program in northern Nevada. The findings of this study may be of significance to both treatment providers for domestic violence perpetrators, and to treatment providers for children diagnosed with ADHD.

Research Question

The research question for this study is: Do a significant number of male domestic violence perpetrators enrolled in a court mandated treatment program in northern Nevada, exhibit a behavioral profile consistent with adult attention deficit hyperactivity disorder?
Background of the Problem


It is well known that attention deficit hyperactivity disorder (ADHD) is frequently comorbid with aggression (Amery, Minichiello & Brown, 1984; McGee, Williams & Silva, 1984a; 1984b; Hinshaw, 1987; Matier, et al., 1992; Murphy, Pelham & Lang, 1992; Sanson, Smart, Prior & Oberklaid, 1993; Satterfield, Swanson, Schell & Lee, 1994; Hinshaw & Melnick, 1995), conduct disorder (CD) (APA, 1994; Matthys, Walterbos, Njio & van Engeland, 1989; Politano, Edinger & Nelson, 1989), and oppositional defiant
disorder (ODD) (APA, 1994). Additionally, Downey, Stelson, Pomerleau and Giordani (1997), Gualtieri, Ondrusek and Finley (1985), Hechtman (1989), Jackson and Farrugia (1997), Roy-Byrne, et al., (1997), Stein, et al. (1995), Vitelli (1996), Ward, Wender and Reimherr (1993), Weiss, Hechtman, Milroy and Perlman (1985), Wender (1998), Wender, Reimherr, Wood and Ward (1985), Whiteman and Novotni (1995), and the Diagnostic and Statistical Manual of Mental Disorders-IV (APA, 1994) clearly indicate that ADHD persists into adulthood for many children affected by the disorder. Behaviors reported anecdotally, observed by professionals, and measured in research studies on adult ADHD include: aggressive behavior, volatile temper, a history of failed relationships, employment instability, low self-esteem, social skills problems, stress intolerance, and humiliation or denigration of others (Jackson & Farrugia, 1997; Kane, Mikalac, Benjamin & Barkley, 1990; Wender, 1998). Many of these behaviors can be found in male domestic violence perpetrators. However, these behaviors alone or in combination are not sufficient to infer the presence of adult ADHD in male DV perpetrators.

The Diagnosis of ADHD

Attention deficit hyperactivity disorder (ADHD) is a disorder characterized by a symptomatic triad of inattention, hyperactivity and impulsivity occurring at greater frequency and acuity than is developmentally appropriate. An ADHD diagnosis requires onset of symptoms prior to the age of seven. Additionally, there must be evidence of significant impairment in social, academic, or occupational functioning in two or more settings (e.g., home and school). The Diagnostic and Statistical Manual of Mental
Disorders-IV (APA, 1994) lists detailed criteria an individual must meet for an ADHD diagnosis, and the reader is referred there for more detailed information.

The DSM-IV reported that ADHD is prevalent in 3 to 5% of the population (APA, 1994). Other estimates have placed the prevalence range from approximately 2% (McGee, et al., 1990), to 6.5% (Pelham, Nagy, Greenslade & Milich, 1992), to a high of 16.2% (Bird, Gould, Yager, Staghezza & Canino, 1989). Estimates of the ratio of affected males to females range from 4:1 to 9:1 (APA, 1994; Heilveil & Clark, 1990). For many, symptoms usually attenuate in late adolescence or adulthood. However, a minority of ADHD children will experience the full complement of symptoms into mid-adulthood (APA, 1994). Some children diagnosed with ADHD will experience some of the symptoms into adulthood without attenuation (APA, 1994; Wender, 1998). In contrast, one study reported that as many as 30% of children diagnosed as having ADHD continue to display the full syndrome into young adulthood (Stein, et al., 1995). Wender (1998) estimated that fully one-third of children with ADHD will have symptoms persist into adulthood. Jackson and Farrugia (1997) estimated that between 30 and 50% of children diagnosed with ADHD will continue to exhibit disruptive symptoms throughout their adult lives. These studies clearly indicate that ADHD does not necessarily disappear in adulthood.

ADHD is frequently comorbid with Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD). The comorbidity of Conduct Disorder and Oppositional Defiant Disorder with ADHD is estimated to affect 40 to 50% of children diagnosed with ADHD (APA, 1994). Additionally, aggressive behavior is frequently found to be present in children diagnosed as having ADHD (Amery, Minichiello & Brown, 1984; McGee,
McGee, Williams and Silva (1984a) investigated the behavioral dimensions of hyperactivity and aggression in 949 seven year old children in New Zealand. Using a variety of instruments and rating scales across multiple sources, with repeated measures two years apart, researchers assessed behaviors of children on variables of aggression, hyperactivity, and aggression combined with hyperactivity. The results supported the existence of hyperactivity and aggression as separate behavioral domains. Three groups clearly emerged in the study: Those who were aggressive without symptoms of hyperactivity, those who were hyperactive without the symptoms of aggressive behavior, and those who exhibited symptoms of hyperactivity and aggression.

In a study by Dodge and Somberg (1987) aggressive and non-aggressive boys aged 8 to 10 years old viewed videotaped vignettes of a provocateur demonstrating hostile, accidental, prosocial or ambiguous behaviors. Vignettes were viewed under relaxed and threatening conditions, and the participant was instructed to record responses to queries about the vignette on an answer sheet. The relaxed condition consisted of the experimenter asking the participant to sit in front of the television monitor and answer questions in response to viewing the vignettes. The threatening condition consisted of the experimenter telling the participant that another boy was going to be brought in to help. Then the experimenter left the room to get the other boy. While gone, the experimenter
played an audiotape that was heard in the participant’s room through a speaker, of a conversation between the experimenter and confederate boy, wherein the confederate expressed dislike for the experimenter and anyone with whom he would have to work. The confederate boy intimated he would get into a fight with the participant. The experimenter returned without the other boy, explaining that the other boy was in a bad mood, and would not be joining them just yet. In the interim, the experimenter engaged the participant in viewing more vignettes, asking for responses as before.

The results of Dodge and Somberg (1987) indicated that aggressive boys attributed hostile intentions to the provocateurs more frequently than the non-aggressive boys. In fact, the aggressive boys responded more frequently with hostile attributions under the threat condition, than during the relaxed condition. Non-aggressive boys did not. This implies that under conditions where an aggressive boy feels threatened, he is more likely to misinterpret accidental or ambiguous cues from an individual, and attribute hostile intentions to that individual’s actions. Another result was that non-aggressive boys were more accurate at interpreting cues associated with accidental intentions than were aggressive boys. Interpretation of prosocial cues was not significant for either group in either condition. Thus it would appear that even under threatening conditions, aggressive boys still correctly interpret prosocial cues.

A final result of the Dodge and Somberg (1987) study was the strength of the behavioral response related to the cue interpretation being stronger for the aggressive boys than for the non-aggressive boys. Thus, aggressive boys showed more intense negative responses than non-aggressive boys to those cues interpreted as hostile. While Dodge and Somberg’s study did not specifically address ADHD behaviors, comorbidity of ADHD and
aggression has previously been established (Amery, Minichiello & Brown, 1984; McGee, Williams & Silva, 1984a; 1984b; Hinshaw, 1987; Matier, et al., 1992; Murphy, Pelham & Lang, 1992; Sanson, et al., 1993; Satterfield, et al., 1994; Hinshaw & Melnick, 1995). Therefore, I believe it is reasonable to assume that these findings could be applied to aggressive children diagnosed as having comorbid ADHD, particularly considering the behavioral difficulties exhibited in the presence of both disorders. This is strengthened by the findings of McGee, Williams and Silva (1984a) who established that hyperactivity and aggression are separate domains, as well as by the DSM-IV (APA, 1994) which recognizes aggression as a frequent comorbid variable with ADHD.

If aggressive behaviors in childhood persist into adulthood, I believe Dodge and Somberg's (1987) findings suggest that aggressive males are more likely than non-aggressive males to misinterpret ambiguous and accidental situations as hostile, particularly when feeling threatened. Additionally, I believe their responses would have a greater chance of being negative and more intense than non-aggressive adults. This belief is based on the findings of Barkley (1990), Downey, et al., (1997), Wender, et al., (1985), and Wender (1998), who acknowledge that aggressive behaviors are frequently found in adults diagnosed as having ADHD. These aggressive behaviors are often described as a hot temper or hostile behavior. For example, Downey, et al. reported that 38.7% of the adult ADHD participants in their study reported having a “Hot or explosive temper” (p. 34).

Other studies in support of Dodge and Somberg (1987) found that aggressive children tend to attribute hostile intentions to ambiguous cues of individuals, and frequently make errors in their interpretations of the intentions of others in response to
accidental provocations (Dodge, Murphy & Buchsbaum, 1984; Dodge, Pettit, McClaskey & Brown, 1986). Thus, I believe that cue misinterpretations and hostile attributions by an individual whose behaviors are frequently aggressive suggests an increased likelihood of conflict resulting in negative verbal responses and/or physical aggression. It seems reasonable to me that a continuation of these patterns into adulthood could lead to an individual who experiences difficulties with interpersonal relationships, and someone prone to using negative verbal responses and physical aggression in response to misinterpretation of ambiguous or accidental cues.

In a study by Madan-Swain and Zentall (1990), second and third grade children diagnosed with ADHD were found to make fewer positive social statements than non-ADHD peers in structured play settings. ADHD children who were disliked by their peers made more negative statements with accompanying negative physical interactions, than ADHD children who were liked by their peers, and non-ADHD children. Thus, it seems reasonable to ask the question, if children with ADHD who are disliked by their peers have higher rates of negative verbal and aggressive physical behavior than children with ADHD who are liked, what happens to these children as they become adults? The circular nature of negative responses resulting in social ostracism, which result in more negative responses, leads one to the conclusion that these children may be likely to become marginalized, suffer from low self-esteem, and have difficulty forming and maintaining lasting healthy relationships. In fact, Barkley (1990), Wender, et al. (1985), and Wender (1998), and Whiteman & Novotni (1995) support this position with their acknowledgment that adults diagnosed as having ADHD typically suffer from low self-esteem, and experience difficulties creating and maintaining lasting healthy intimate relationships.
Sanson, et al. (1993) examined the early childhood characteristics of hyperactive, aggressive, and hyperactive-aggressive eight year old children. The longitudinal study initially began with a sample of 2,443 four to eight month old infants from Victoria, Australia. Using a variety of third-party report measures, participants were sampled again at 18 to 24 months, 32 to 36 months, 44 to 48 months, five to six years, and seven to eight years of age. From the original sample, four groups emerged: (a) Hyperactive (H) group (N=65; 39 boys, 26 girls), (b) aggressive (A) group (N=57; 35 boys, 22 girls), (c) hyperactive and aggressive (H+A) group (N=60; 48 boys, 12 girls), and (d) comparison (C) group (N=70; 49 boys, 21 girls).

Results for the children at four to eight months of age indicated that the H+A group showed more negative temperamental and behavioral characteristics and had more negative maternal ratings than the H group (Sanson, et al., 1993). This was not true for the comparison between the H+A group and the A group. Also the H+A group had more colic than the other three groups. At 32 to 36 months of age, the H+A group was significantly more irritable, reactive and aggressive, and exhibited more behavior problems than the H group. The H+A group continued to have more negative maternal ratings.

At 44 to 48 months the H+A group was significantly more inflexible and aggressive than the H group, and more hyperactive and aggressive than the A group (Sanson, et al., 1993). At 5 to 6 years the H+A group received the most negative ratings on all variables, including cooperation-manageability, inflexibility, persistence, aggression and maternal ratings. Teacher ratings for these children clearly differentiated the clinical groups from the control groups, with the H group demonstrating greater levels of hyperactivity than the C group, and the H+A group exhibiting more hostile-aggressive
behavior than the H group. Results of the data at 7 to 8 years of age showed that the C group differed from the three clinical groups on temperamental characteristics, maternal ratings, and on three environmental measures (more negative life events, greater perceived life difficulties and lower socioeconomic status [SES]). The H group was more inflexible and less persistent than the C group, and the H+A group was more inflexible, had more negative maternal ratings, and had fewer children in the family than the H group. Authors reported a notable trend indicating that teachers gave the most negative ratings for behavior and school performance to the H+A group, followed by the A group, and then the H group.

It is clear from Sanson, et al.'s (1993) findings that the aggressive children (H+A and A) consistently received the most negative ratings of all four groups, and exhibited more difficult temperaments and behaviors from infancy than the other two groups. Findings also indicated a stability of problems over time, from infancy to middle childhood. The authors suggested it is likely that the aggressive children's temperamental and behavioral difficulties were met with fewer maternal (parental) nurturing behaviors due to the increased stress experienced by the parent. I believe, in a recursive manner, an aggressive child’s behavioral challenges may invite more negative and intense responses from parents, which would serve to exacerbate the child’s condition, and so forth (Boscolo, Cecchin, Hoffman & Penn, 1987). Thus it becomes easy to see how both genetic and environmental factors might recursively shape the child and the family, contributing to a strained or dysfunctional child-parent relationship. Furthermore, the acuity of presenting problems at the time of referral for diagnosis would likely be intensified in the previous scenario, over a child who received sufficient nurturance,
support and positive responses from parental figures (Dinkmeyer, McKay & Dinkmeyer, 1989). Thus it seems reasonable to me that an aggressive child who received few positive responses and a paucity of nurturance, might have an increased likelihood of responding in inappropriate ways, particularly with aggression.

In a study conducted by Murphy, Pelham and Lang (1992), high-aggressive (HA) ADHD boys were compared with low-aggressive (LA) ADHD boys in response to provocation during a competitive game. Participants were told that another boy in an adjacent room was playing against them in a reaction time game, in which they and their opponent could punish one another with bursts of white noise when one or the other won a trial. There were 10 selectable intensities of white noise ranging from 41 dB to 113 dB. In reality the participant received pre-programmed bursts of white noise at one of the 10 intensities. Results indicated that at the high level of provocation, the high-aggressive boys responded with more peer-directed aggression than the low-aggressive boys. Thus, it appears that the high-aggressive boys have lower thresholds for provocation and are more likely to respond with aggression (Murphy, et al., 1992). Additionally, I believe it is noteworthy that more intensely aggressive responses occurred in response to loud audio provocations, particularly in light of conflict resolution strategies, and interpersonal relationship dynamics.

In the second part of the study (Murphy, et al., 1992), participants were tested on three social information processing tasks. The first task presented four hypothetical stories to each participant who was then asked to imagine himself and a peer in a situation in which he experienced a negative outcome. After each story, the participant was asked four questions to assess attributions concerning the peer’s intentions, hypothetical
behavioral responses, and two questions regarding expectations of future interactions with the peer. The responses were scored as hostile, neutral, or benign/benevolent.

The second task involved the participant listening to nine audiotaped interviews with an unfamiliar boy who described behaviors (three positive, three neutral and three negative/hostile statements) he had displayed toward children in his class (Murphy, et al., 1992). The participant was then asked to recall the statements, and was judged on recall proportions of total items, last items and statement type.

In the third task the participant was presented with six ambiguous hypothetical stories in which a peer may have committed a hostile act toward the participant (Murphy, et al., 1992). After each story, the participant listened to as many audiotaped clues as necessary, each containing one piece of condemning and exonerating evidence, before judging the peer’s innocence or guilt.

In each of the social information processing tasks, no significant difference was found between groups with respect to cue misinterpretation (Murphy, et al., 1992). This contradicts the previous study by Dodge and Somberg (1987). Three major differences seem apparent between the two studies which I believe may account for the disparate results. Firstly, Dodge and Somberg presented videotaped information to the participants. Murphy, et al.’s participants received only verbal information. Having visual and auditory information portraying realistic situations may make a difference, with respect to cue misinterpretation, since it involves more senses than auditory information alone. Secondly, Dodge and Somberg’s study compared aggressive boys to non-aggressive boys. Murphy, et al.’s participants were all categorized via screening, as either high-aggressive
or low-aggressive. It may be that there are no significant differences between low-aggressive and high-aggressive boys in this type of process.

Finally, Dodge and Somberg’s (1987) participants heard what they were led to believe was a hostile peer in an adjacent room threatening to engage in physical aggression with the participant. The participant’s in Murphy, et al.’s (1992) study were only asked to imagine a scenario in which a peer was acting in a threatening manner. It is my opinion that the difference here may lie in the fact that the former participants responded while in an emotionally aroused state of feeling threatened. This state of arousal may partially be responsible for the differing outcomes. I consider Murphy, et al.’s methodology to be flawed, creating a problem with construct validity (Borg, Gall & Gall, 1993). What construct the authors were measuring is at issue. Thus for me, the results from Dodge and Somberg’s study are more credible, since imagining a threat and experiencing one are substantially different processes, barring the presence of Post Traumatic Stress Syndrome (APA, 1994).

Another study by Lucker, Geffner and Koch (1996) examined the perception of loudness in ADHD children. The authors compared a group of 22 ADD children age 6 years to 12 years to a group of 23 non-ADD children of the same age range on their perception of loudness. Both groups were given a hearing test to determine that their hearing was within the normal range. Using human speech as the sound, researchers found that the children diagnosed with ADD perceived a significantly lower decibel level as comfortable than the non-ADD children. Children in the ADD group also perceived the tolerable level to be significantly lower than the non-ADD children. Furthermore, the
dynamic range of the children with ADHD was significantly narrower than children in the non-ADD group.

The results indicate that if children with attention deficits were to listen to speech at levels judged to be comfortable and uncomfortable for the children without ADD, the former group would find the listening levels too loud. As such, one can conclude that children with ADD may be overly sensitive to sounds which are judged to be normally tolerable by children without ADD (p. 187).

The authors (Lucker, et al., 1996) also reported parental and teacher anecdotal reports of ADD children’s responses to loud noises. Behavioral responses described as oversensitive compared to non-ADD children were expressed in the forms of ear covering, increased distractibility, agitation, increased hyperactivity, and a loss of concentration. Thus, I believe that in situations where noise levels (such as speech, background noise, etc.) are judged by persons without ADD as being comfortable, someone with ADD might find the level too loud and respond as previously described.

The results of Lucker, et al.’s (1996) study are notable. When viewed in light of the studies by Dodge, et al. (1984), Dodge, et al. (1986), Dodge and Somberg (1987), and Sanson, et al. (1993), a picture begins to emerge. I believe the picture suggests that children diagnosed with ADHD and comorbid aggression might be prone to misinterpret ambiguous or accidental cues as hostile, and respond aggressively to speech levels deemed tolerable to non-ADHD children, particularly if the child with ADHD is feeling threatened. Knowing that ADHD symptoms persist into adulthood (APA, 1994), when placed in the context of an interpersonal relationship in which an adult male with comorbid ADHD and aggression is arguing with his significant other about his misinterpretation of an event, it
becomes plausible to see how the behavioral response could result in physical aggression. This seems especially fitting if he perceives a threat of potential loss of the relationship.

In a study conducted by Coie, Dodge, Terry and Wright (1991), authors investigated the role of aggression in peer relations of children. Observations of videotaped play groups of seven and nine year old black males (N=131) suggested that instrumental aggression was characteristic of highly aggressive, rejected boys. I believe this suggests that highly aggressive boys are more likely to use instrumental aggression to meet their needs, which in turn leads to social rejection by peers, and continues a recursive pattern of aggression and rejection. If highly aggressive boys learn to believe that difficult or frustrating problems can be resolved through aggressive actions, even at the expense of social rejection by peers, then it seems to me that this may become the operative mode of choice when lacking alternative strategies. This raises the question of what happens to these boys when they become adults? Repeated patterns of behavior leading to goal acquisition in childhood would be expected to be continued problem resolution strategies, unless ameliorated by increasing pressures for peer acceptance in adolescence, or supplanted by therapeutic intervention strategies. I believe, however, that socially rejected adolescents would tend to group together, with social rejection as their common bond.

Heilveil and Clark (1990) conducted a study to examine the personality correlates of ADHD children. Using the Conners Parent Rating Scale and the Roberts Apperception Test for Children (RATC), with a sample of 52 ADHD children (44 boys and 8 girls) aged 6 to 15 years, researchers assessed participants. The results indicated that ADHD children in the sample had more difficulty than non-ADHD children identifying problems. This finding supports conclusions drawn by Dodge and Somberg (1987), as previously
discussed, and is supported by behavioral characteristics of adults diagnosed as having ADHD (Barkley, 1990; Wender, et al., 1985; Wender, 1998; Whiteman & Novotni, 1995). The combined data suggest that difficulties with problem identification and sequencing are persistent problems for both children and adults diagnosed as having ADHD.

Another finding from Heilveil and Clark (1990) was that even when ADHD children were able to identify problems, they were often unable to solve them. This is also supported by Wender (1998) and Whiteman and Novotni (1995). Authors did not speculate about possible reasons for this; however in light of the DSM-IV (APA, 1994) diagnostic criteria for ADHD, three criteria might be directly related to this finding:

1. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions);
2. Often has difficulty organizing tasks and activities;
3. Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework) (p.84).

Was it that children in this study were unable to solve problems because the measure required a sustained mental effort beyond their abilities? Or do Heilveil and Clark’s (1990) findings that the children were unable to solve the problems explain the above DSM-IV criteria? Or is it that the children were distracted, and thus unable to solve the problems. Since the authors report nothing of the environment in which the study occurred, it becomes difficult to draw conclusions beyond speculation.

Heilveil and Clark (1990) reported children in the sample showed significant depression. Depression is a behavioral correlate frequently associated with ADHD (APA,
1994); therefore this finding might serve to confirm an ADHD diagnosis. Authors also reported that participants were less able to rely on external support systems, viewing them as unavailable or unresponsive to their needs. Additionally, participants in the study demonstrated significant aggressivity and feelings of rejection, but had limited resources to cope with these feelings. Wender (1998) and Whiteman and Novotni (1995), indicate that adults diagnosed as having ADHD typically have lower thresholds for stress tolerance, and are thus more likely to be adversely affected by levels of stress deemed tolerable by non-ADHD persons.

The authors (Heilveil & Clark, 1990) didn’t indicate whether or not the participants were taking stimulant or other psychotropic medications during the administration of the instruments, nor did they provide demographic information about the sample. Additionally, they provided little information about the methodology, particularly as it relates to screening for comorbid psychiatric disorders. Their argument for generalization was that since the RATC and Conners Parent Rating Scale are standardized instruments, the results can be generalized to a larger population, using the normative sample as the comparison group. If the results of their study were not supportive of currently recognized behavioral correlates of children with ADHD, they would have been more suspect. However, Heilveil and Clark’s results lend confirmatory support to existing knowledge about ADHD children, and serve as supportive data, suggesting the RATC might be a useful instrument in ADHD assessment and diagnosis.

A related study by Lufi and Parish-Plass (1995) examined variables of persistence, anxiety and locus of control, in a sample of boys ranging in age from 7 to 13 years. Researchers administered the Locus of Control Scale for Children, The Persistence Scale
for Children, and The Revised Children's Manifest Anxiety Scale to a group of 28 unmedicated ADHD boys, and 83 non-ADHD control boys. Results suggested that ADHD children in this study had a higher external locus of control and demonstrated lower levels of persistence than the non-ADHD group. The authors attributed the high external locus of control to the fact that ADHD children encounter repeated academic failures and social difficulties and come to believe there is little they can do to alter the outcomes. Literature reporting features of adults diagnosed as having ADHD support the finding of a high external locus of control for many ADHD adults (Wender, 1998; Whiteman & Novotni, 1995).

Persistence was presented as the antithesis of impulsivity and was defined by the authors as, “...the ability to sustain one’s activity for an extended period of time” (Lufi & Parish-Plass, 1995, p. 97). Conversely, they defined impulsivity as the inability, “...to delay reaction over a short period of time” (p. 97). However, persistence/impulsivity as defined by Lufi and Parish-Plass presents a problem when compared to the diagnostic criteria for ADHD (APA, 1994). The DSM-IV (APA, 1994) clearly delineates between inattention/distractibility and impulsivity, and defines two of the criteria for inattention as, “(b) often has difficulty sustaining attention in tasks or play activities, [and] (h) is often easily distracted by extraneous stimuli” (p. 83-34). Either of these criteria could appear to represent impulsivity according to the authors definition. The DSM-IV criteria for impulsivity are, “(g) often blurts out answers before questions have been completed, (h) often has difficulty awaiting turn, [and] (i) often interrupts or intrudes on others (e.g., butts into conversations or games).” Therefore, I believe distractibility may have been misinterpreted by the authors as impulsivity according to their definition. It seems to me
that a closer examination of operational definitions of selected variables is in order, to
insure uniformity in assessment and diagnosis.

Schweitzer and Sulzer-Azaroff (1995) conducted a study investigating self-control
and choice in a sample of 10 ADHD boys and eight non-ADHD boys. Participants
engaged in a task that offered immediate smaller or delayed larger rewards (coins), and
measured their activity level via actometers. Results indicated that the ADHD children
chose delayed larger rewards significantly less often than non-ADHD children. In fact, as
the phases of the experiment progressed, ADHD children chose immediate smaller
rewards more frequently than in previous trials. Additionally, the children diagnosed with
ADHD showed greater motor activity than the non-ADHD group, which is consistent
with a diagnosis of ADHD (APA, 1994).

I believe the selection of immediate smaller rewards by ADHD children is
significant and has implications for life decisions and interpersonal relationships. An
impulsive male who is unable to delay gratification for larger rewards may make choices
that serve to keep him unsuccessful. Continuous and frequent failure may result in low
self-esteem (Jackson & Farrugia, 1997; Wender, 1998; Whiteman & Novotni, 1995) and
greater frustration, and may contribute to a perceived external locus of control as
previously suggested by Lufi and Parish-Plass (1995).

ADHD, Conduct Disorder, and Oppositional Defiant Disorder

There has been a significant amount of research focusing on ADHD comorbid with
Conduct Disorder (August, Stewart & Holmes, 1983; Loeber, Green, Keenan & Lahey,
1995; Shapiro & Garfinkel, 1986; Walker, Lahey, Hynd & Frame, 1987; Vitelli, 1996). The DSM-IV (APA, 1994) recognizes Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD) as possible comorbid disorders to ADHD. Diagnostic criteria include aggressive behaviors as salient features of both ODD and CD (APA, 1994). This is particularly relevant in establishing the relationship between ADHD, aggression, CD and ODD. It is this relationship, particularly between ADHD and aggression, that I wish to highlight.

Matthys, Walterbos, Njio and van Engeland (1989) studied person perception in children with Conduct Disorder (CD) from an object-relations theoretical framework. Using written descriptions of themselves and others, children described another child they liked, one they disliked, an adult they liked, and one they disliked, and then described themselves. The significant finding was that the children with CD described themselves with more negative affective statements than a control group of non-CD children and did so more in interaction with others, suggesting a higher degree of egocentricity. The higher frequency of negative affective statements used to describe themselves would appear to be a reflection of lower self-esteem. Thus it would appear to me from these findings that CD children are more egocentric and have lower self-esteem than non-CD children.

A study utilizing the Children’s Depression Inventory to investigate differences and similarities between Conduct Disordered and Affective Disordered children (N=228) yielded results suggesting that affectively depressed children may not act out their depression (Politano, Edinger & Nelson, 1989). Authors made his distinction to highlight how the behaviors of children diagnosed as having CD are different than those with severe
clinical depression. They reported that the children in their study diagnosed as having CD saw themselves as more intellectually inferior, felt a greater sense of defeat, felt as though nothing was fun, felt upset more often, and were less likely to want to be with other people. This contrasts with the affectively disordered group which reported feeling a greater sense of sadness and isolation, and a greater sense of self-loathing than the CD group. Thus children in this study diagnosed as having Conduct Disorder had more difficulty with academic endeavors. I believe this finding suggests these children may be less likely to earn degrees leading to higher paying jobs, particularly in light of their experiencing a greater sense of personal defeat. I see this then, being compounded by their perceptions that nothing is fun, by frequent feelings of being upset, and by chosen social isolation, which may recursively reinforce failure in social relationships, leading to support for their perceptions. A person in this situation may very well exhibit a high external locus of control, blaming others for their situation (Lufi & Parish-Plass, 1995).

ADHD in Adults

A body of literature emerging over the past decade has suggested that ADHD persists into adulthood for a significant portion of the individuals who are affected by the disorder in childhood (Downey, et al., 1997; Gualtieri, Ondrusek & Finley, 1985; Hechtman, 1989; Roy-Byrne, et al., 1997; Jackson & Farrugia, 1997; Ward, et al., 1993; Vitelli, 1996; Weiss, Hechtman, Milroy & Perlman, 1985; Wender, 1998; Wender, et al., 1985; Whiteman & Novotni, 1995). Prevalence ratings suggest that from 30 to 50% of those who experienced ADHD symptoms in childhood will continue to be affected by
ADHD symptoms throughout their adult lives (Jackson & Farrugia, 1997; Roy-Byrne, et al., 1997; Wender 1998). Barkley (1990) reported prevalence figures as high as 70%. Wender (1998) estimated that as a minimum, fully one third of children diagnosed with ADHD will experience symptoms throughout adulthood. With current U.S. Bureau of Census (1998) population estimates of over 269,000,000 people, and a conservative ADHD childhood prevalence rate of 3% of the population, this suggests that approximately 8,070,000 children are affected by symptoms of ADHD. Using a conservative estimate of 30% for prevalence rates in the U.S. adult population yields a figure of 2,421,000 adults in the United States affected by symptoms of ADHD. The more liberal figures (5% and 50%) would suggest childhood prevalence rates of 13,450,000 and adult prevalence rates of up to 6,725,000. Even when utilizing the conservative estimates, the resultant figures are notable: ADHD persists into adulthood for many affected by the disorder in childhood, impacting minimally over 2,000,000 adults in the United States.

Similar to ADHD in childhood, Jackson and Farrugia (1997) characterize adult ADHD as a symptomatic triad of inattention, impulsivity, and hyperactivity. Secondary characteristics include physical and mental restlessness, avoidance of intimacy, a history of failed relationships, distractibility, low self-esteem, self-loathing, less efficient social skills, immature personality traits, a sense of underachievement, learning disabilities, unstable and inconsistent work histories, incarceration, substance abuse and gambling issues. Authors also point to the comorbidity of other psychiatric disorders with adult ADHD, such as conduct disorder, oppositional defiant disorder and antisocial personality disorder.
Symptoms may include rebelliousness, volatile temper, hostile attitude, humiliation and denigration of others, and attraction to and involvement in dangerous activities.

Kane, et al., (1990) report presenting complaints by adults with ADHD including, difficulty in finding and holding jobs, low level of job performance, poor academic performance at school not reflecting intellectual level, concentration problems, disorganization, inability to establish and maintain a routine, lack of discipline, depression, low self-esteem, forgetfulness, and confusion. In a follow-up study by Mannuzza, Gittleman, Bonagura, Konig and Shenker (1988) which examined male ADHD participants without comorbid disorders, researchers found that late adolescent participants continued to have adjustment difficulties, had a high incidence of abusive verbal behavior toward teachers, a high incidence of being fired from jobs, and were frequently involved in pranks and theft.

Ratey, Greenberg, Bemporad and Lindem (1992) studied 60 adult patients referred from three private-practice psychiatrists, and subsequently diagnosed as having adult ADHD via systematic evaluation procedures. Authors reported that the participants shared common characteristics including impulsivity, low self-esteem, self-loathing, physical and mental restlessness, disabling distractibility and a sense of underachievement. They also reported that learning problems were frequently present. Additionally, many of the participants reported feeling overwhelmed by routine demands in life, such as filling out paperwork, felt their ability to concentrate improved under stress, often overvalued significant others, often overreacted to others, and demonstrated identity confusion. Authors concluded that these individuals had not previously been diagnosed with ADHD.
because they presented with atypical symptoms or had utilized compensatory strategies to disguise their deficits.

Vitelli (1996) studied a sample of 100 adult male maximum-security inmates for the prevalence of ADHD and CD. The author obtained a criminal and developmental history and administered the Wender Utah Rating Scale (WURS) to retrospectively assess ADHD. Results indicated that 63% of the participants met the DSM-IV criteria for childhood CD. Twenty four percent of the participants reported receiving medication for ADHD as children, and 17% reported being assessed for behavior problems as children without receiving treatment. Of this 41% (24%+17%), 92% met DSM-IV criteria for childhood CD.

The WURS correctly identified 95.8% of the participants treated for childhood ADHD and 70.58% of those assessed for childhood behavior problems. However, 59.8% of participants not reporting a history of childhood disruptive behavior in childhood exceeded the WURS cut-off score. Additionally, 80.9% of the participants with a history of childhood CD exceeded the cut-off score. A history of childhood ADHD did not, however, contribute significantly to adult criminality. The only significant predictor of adult criminality emerging from this study was the presence of childhood CD. I believe the fact that the WURS over-identified CD inmates as also having ADHD may be due less to the limitations of the WURS and more to undiagnosed ADHD in childhood, particularly in light of the high incidence of CD and ADHD comorbidity. Still, there is some behavioral overlap between ADHD and CD. Further research needs to be conducted investigating the relationship between the two.
Fischer, Barkley, Edelbrock and Smallish (1990) conducted a prospective study, spanning eight years, to investigate the outcome of ADHD in adolescence, particularly as it pertained to academic, attention and neuropsychological problems. Participants were 158 ADHD children and 81 non-ADHD control children between 4 and 12 years of age. All were screened for IQs above 80 and each member had to be free of other psychiatric disorders, and gross sensory and motor disorders. All participants were administered a battery of instruments upon admission to the study, and again at eight years hence. Results indicated that the ADHD group continued to exhibit academic difficulties as expressed by problems with basic reading recognition, written spelling, and arithmetic skills, and greater impairment in academic adjustment as demonstrated by more grade retentions, suspensions/expulsions, and school drop-outs. The ADHD group also continued to exhibit problems with attention and impulse control as reflected by vigilance tasks and behavioral observations. Finally, the ADHD group showed no significant difference from the control group in tests of neuropsychological functioning as demonstrated by continuous performance tasks and verbal fluency tasks. The authors suggest this finding may be due to the choice of instruments employed to measure the variable. They also suggest it may be that these variables attenuate during adolescence. Thus there appears to be a stability of academic, attentional, and impulsivity difficulties over time in persons diagnosed as having ADHD.

In a study by Robins and Price (1991) to predict adult disorders from childhood conduct problems, authors utilized a sample of 19,482 people interviewed for a National Institute of Mental Health (NIMH) Epidemiologic Catchment Area Program (to assess outcomes). The 10 DSM-III psychiatric outcome disorders were somatization, phobia,
panic disorder, obsessive-compulsive disorder, depression, mania, alcohol use disorder, drug use disorder, schizophrenia, and antisocial personality disorder. Results indicated an increase in all disorders as the number of CD symptoms increased. Additionally, and perhaps most importantly, CD most strongly predicted antisocial personality disorder, followed by alcohol/drug use disorders. It has been reported that as many as 85% of the DV perpetrators were under the influence of alcohol and/or other drugs at the time an abuse incident occurred (Straus & Gelles, 1990).

**Domestic Violence Background**

Defining violence and abuse is a difficult task at best. Should only physical violence be considered, or should verbal and emotional abuse be included as well? This is one of the dilemmas faced by researchers when studying domestic violence.

Straus, Gelles and Steinmetz (1980) differentiate between normal violence, defined as, “an act carried out with the intention, or perceived intention, of causing physical pain or injury to another person” (p. 20), and abusive violence, defined as, “an act which has the high potential for injuring the person being hit” (p. 22). Examples of normal violence range from spanking or slapping for discipline, to murder, ostensibly justified. Abusive violence was exemplified by punching, kicking, biting, using hard objects to hit another person, and beating the other person up. While these were the generic definitions used by the authors in their study, I believe both can be seen as physically abusive, and therefore will not be used here.
It seems that some authors avoid directly defining abuse or domestic violence, and thereby never contend with inherent difficulties in operationalizing the concept (Hampton, et al., 1993). Instead, they use the terms as though there were universal understanding and agreement on what abuse and violence are. Still others offer several definitions or unclear definitions, pointing out the difficulties inherent in inclusively defining violence and abuse, and the lack of consistency and agreement among researchers and other professionals (Dutton, 1995a; Steinmetz, 1977).

In a survey of violence in 2,143 American homes, Straus, et al. (1980), reported that a physical assault against a woman occurred in 28% of all American households. In light of their differentiation between normal violence and abusive violence, it seems to me the findings may underestimate the amount of physical assault.

Domestic Violence Theories

There are several theories used to explain DV and spousal abuse. I will cover feminist theory, exchange theory, resource theory, social learning theory, social conflict theory, ecological theory, general systems theory, and theories addressing intrapersonal factors (e.g., Beasley & Stoltenberg, 1992; Dutton, 1994), which I believe to be most salient and relevant to this paper.

Lenore Walker (1979) in her classic book, The Battered Woman, dispelled many myths about abused women and provided a theoretical framework for viewing interpersonal violence that include, "The Cycle Theory of Violence." Providing data debunking the myth that only a small percentage of the female population was affected by
spousal abuse, Walker cited research indicating figures as high as 57.4% of 500 women represented in divorce actions in Brooklyn during 1976 had been the victims of physical assaults by their estranged husbands in the previous four years.

Walker also dispelled the myths that battered women are masochistic, crazy, uneducated with few job skills, that middle class women don't get battered as often or as severely as poor women, that women from underrepresented populations (minorities) are battered more often than white women, that battered women deserve to get beaten, and that religious beliefs will prevent battering. She also addressed and dispelled the myths that batterers are violent in all their relationships, that they are psychopathic personalities, that they are not loving partners, that they also beat their children, and that alcohol causes battering. Additionally, she challenged the myths that battered women can always leave home, that batterers will stop the violence once they get married, and that children need their father, even if he is violent.

Walker's (1979) early description of a batterer has many of the salient behaviors and characteristics included in the more refined descriptions nearly two decades later (e.g., Beasley & Stoltenberg, 1992; Dutton, 1995a). She describes a batterer as having low self-esteem, as being a traditionalist believing in male supremacy and stereotypical gender roles, as failing to take responsibility for his actions, and instead blaming others for his actions, as extremely jealous, as having a dual personality (nice guy/bad guy), as using alcohol and battering to cope with severe reactions to stress, and believing his abusive actions should not have negative consequences (p. 36).

An enduring pattern that emerged from Walker's (1979) work was the "Cycle Theory of Violence," now often called "The Cycle of Violence." What Walker noticed
was a pattern of behavior with three distinct phases: (a) the tension-building phase, (b) the explosion or severe battering incident, and (c) the calm loving respite or honeymoon phase. During the tension-building phase, verbal arguments and minor battering incidents occur, to which the woman responds with de-escalating behaviors designed to keep her from getting more severely beaten, such as becoming more compliant, more nurturing, and denial of the incident or accepting that somehow she deserved the beatings. The second phase is characterized by the batterer's lack of response to previously de-escalating behaviors. In an uncontrollable rage, the batterer discharges the tensions that have built up in the previous phase. This phase is likely to be particularly brutal and may result in hospitalization of the victim and intervention by law enforcement officers. In phase three, the batterer, fearing loss of his significant other, becomes extremely contrite, loving and giving. In his efforts to make it up to her, the batterer may buy flowers, expensive gifts, or even take her on expensive vacations. The giving behavior in this phase is described as overkill, because the size, quantity and/or value of the gifts is often excessive. Over the course of time, as the relationship begins to feel more secure again, the cycle repeats.

Walker (1979) was instrumental in illuminating the plight of the battered woman and in providing useful and accurate information to the general populace, as well as the mental health field. Her Cycle of Violence theory has been refined and is used by many intervention programs.

Perhaps the most widely known theory is the view held by feminists that DV is the result of a patriarchal system that oppresses women and glorifies violence toward them. Dobash and Dobash (1980) suggest that in a patriarchal society in which women are not afforded equal status and opportunity, and one in which the resident laws and residual
attitudes reflect a history of male dominance, oppression of women is a clear consequence. They assert that women have fewer resources and reduced access to power. In such a society, the roles of women are subservient to men, and men are seen as decision-makers, protectors and wage earners. The recent spate of nostalgia and rhetoric by the conservative Christian Right calling for a return to traditional family values is an expression of a desire to continue a patriarchal family structure, headed by the husband, and nurtured by the wife who is seen as supportive of her husband without challenging his authority (Christian Coalition, 1998). This structure is an example of societal forces that foster and maintain DV, justified by the traditional position of males in families and in society at large. Therefore, a women who seeks equality of opportunity in life is seen as challenging the male privilege and right to be dominant. Thus abusive actions taken by an adult male against his female significant-other in retaliation to a challenge to his dominance are seen as justifiable and perhaps even necessary discipline.

There is evidence to support a patriarchal influence on DV (Choi, Callaghan & Murphy, 1995). It is clear that in the United States the social, political and economic systems are predicated on a patriarchal system, in which males have privilege. This is a largely western Eurocentric perspective which has been perpetuated since the first European explorers landed in North America. The question that arises is that given the more liberal and open society in which Americans live today, to what extent does the influence of patriarchy facilitate, support and maintain DV?

The Exchange Theory (Gelles, 1983) suggests that men abuse their wives because they can. It is presented as a cost-benefit proposition in which a perpetrator will continue to abuse a family member to get his needs met for as long as the benefits outweigh the
costs. This pattern is supported by nuclear family structures where abused marital partners are isolated from extended family members. What happens in the privacy of the home is not open to the scrutiny of others, because there is a lack of face to face contact between the abused and extended family members.

While the Exchange Theory does not specifically relate itself to the feminist perspective as presented by Dobash and Dobash (1980), the connections are inescapable. That a man may abuse his wife because the consequences of his actions do not outweigh the risk of abusing her is clearly supported by the fact that the consequences in a patriarchal society are minimal.

The Resource Theory (Warner, et al., 1986) posits that a female partner’s power in a marital relationship is positively related to the aggregate of her resources (money, material possessions, property, privilege, etc.). Therefore, if the wife is working in the home as a homemaker, and the husband is the wage earner, she has minimal resources and thus little decision-making power. Conversely, if the male partner is unemployed and the female partner works outside the home, she is going to have more decision-making power in the relationship and, thus, greater equality. This theory also appears to be an outgrowth of a patriarchal model.

Social Learning Theory (Viano, 1992) maintains that violence and aggression are socially learned behaviors and manifest themselves in a social context. In a marital relationship for example, stressors created by financial shortfalls, marital tension, or other factors might lead to violence if the perpetrator has a propensity toward violence which he learned as a socially acceptable response to seemingly unresolvable stressors. The abuse would be facilitated by alcohol or other drugs, and the sum and magnitude of the stressors
impacting the couple. Therefore, learning that violence is an acceptable response to stressful situations in an intimate relationship might come from witnessing/experiencing verbal and physical abuse as a child, observing violence in the media or some other venue, and the tacit endorsement of violence as an acceptable solution by society at large.

The Social Conflict Theory (Retzinger, 1991) maintains that threatened or broken bonds existing in intimate interpersonal relationships as well as threatened or broken community bonds lead to conflict. The structure of bonding is mediated by emotion and shame. Escalation of conflict occurs as the result of alienation, evoking unacknowledged shame. Unacknowledged alienation and shame lead to anger, rage and abusive, pathological conflict. Healthy conflict works to reestablish new bonds, rather than to destroy them in rage. While this theory is interpersonal in nature, it has merit. The threat of loss (broken bond) of an intimate relationship because of a suspected sexual impropriety or casual flirtation has resulted in many a violent rage, sometimes couched by other theories as jealousy (Dutton, 1995a); it may be that jealousy is secondary to the threatened loss.

The Ecological Theory of violence (Grabarino, 1977) is based upon the ideas that people have a relationship with their environment, that human development occurs in interacting and overlapping systems, and that environmental quality is important to the health of the members of the system. The author also indicates that there must be cultural/societal support for the use of physical force against women and children, and the family system must be isolated from family and community support systems. Therefore, individuals under stress or those with personality problems are more likely to react in abusive ways. Children with developmental problems, pose greater challenges than those
without, and are more likely to be abused as a result. When the relationship between spouses is strained, there is an increased likelihood of spouse abuse as well as child abuse. When community resources are limited, the risk of abuse is increased.

The General Systems Theory (Giles-Sims, 1983; Straus, 1973) proposes that violence is created and maintained by systems (individual, family, societal) via positive and negative feedback loops. Impacting the level of violence in the system are personal variables such as witnessing/experiencing violence as a child, individual psychopathology, legitimizing cultural and societal norms, and sexist organization of the society in which the family lives. Giles-Sims identified six temporal stages leading to wife battering which are: (a) establishing the family system, (b) the first incidence of violence, (c) stabilization of violence, (d) the choice point, (e) leaving the system, and (f) resolution of more of the same pattern. While this theory is perhaps the most encompassing, a feminist criticism of systems theories centers on the assumption that power is not distributed equally in the family system, therefore individual contributions toward maintaining violence are not equal (Goldner, Penn, Sheinberg & Walker, 1990).

Each of the previous theories of DV is representative of a more systemic viewpoint. That is to say, each considers the influence of societal and cultural values to have the greatest impact upon perpetrator attitudes. They largely find fault with external forces shaping attitudes that foster and maintain violence. There is little mention of the possible role of intrapsychic factors in the prediction of DV. Some theorists place the major focus on the psychopathology of the perpetrator, regardless if the factors responsible for the psychopathology are environmental, biological, or some combination of both.
Rosenbaum and O'Leary (1981) administered a battery of instruments to a group of 52 abused wives, a group of 20 abusive husbands, a group of 20 maritally dysfunctional nonviolent couples, and a group of 20 maritally satisfied couples. The instruments were designed to measure marital adjustment and satisfaction, conservatism/liberalism and sex role stereotypes, alcoholism, and two measures of assertion, in addition to demographics. Their results indicated three variables differentiating abusive husbands from non-abusive husbands with marital difficulties. These were that the abusive husbands were more likely to have witnessed parental DV in their families of origin, they were more likely to have been abused as children, and they were less assertive with their wives.

Beasley and Stoltenberg (1992) present findings that some DV perpetrators exhibit psychopathological patterns of behavior. In a study to investigate the incidence of personality disorders in a group of male domestic violence perpetrators, authors compared the scores of 35 males in non-battering relationships to those of 49 males in abusive relationships on a battery of inventories. Results indicated that batterers had significantly higher scores on the Millon Clinical Multiaxial Inventory - II (MCMI-II) for subscales of Narcissism, Antisocial Personality, Schizotypal Personality, Borderline Personality, and Aggressive/Sadistic behaviors. Batterers also exhibited more anger than non-batterers and reported witnessing more marital violence (verbal and physical) in their families of origin than non-batterers. Additionally, batterers reported greater rates of unemployment, lower incomes, less education, and fewer intact marriages and families than non-batterers.

In a study to examine the roots and makeup of the abusive personality, Dutton (1994) administered a battery of popular instruments to 120 male DV perpetrators in treatment for wife assault. The partners of 43 of these men were interviewed for
corroborating data. Another group of 44 demographically similar males who were not batterers and 33 of their partners were also included in the study as a comparison group. Using a discriminant analysis to determine the variables which best described the batterers and discriminated them from the non-batterers, the author found that a profile of the abusive male could be composed from self-report scores on measures of borderline personality organization. Additionally, the author found a significant incidence of experiential factors in the perpetrators family of origin which contributed to the profile. These were paternal rejection, coldness, and physical abusiveness.

An unexpected finding was the passive-aggressive-avoidant profile emerging from the MCMI-II. The author reported on a previous study by Robert, Ryan, McEntyre, McFarland and Lips (1985) in which this profile on the MCMI-II was considered as an essential diagnostic for Vietnam veterans with post-traumatic stress disorder (PTSD). In reporting on another study by Byer, Nelson, Miller and Krol (1987), the author indicated that the passive-aggressive-avoidant profile was replicated with a sample of physically/sexually abused women diagnosed with PTSD. Dutton (1994) went on to differentiate wife assaulters from these two groups by showing that wife assaulters had a significantly higher score for antisocial personality characteristics and a significantly lower score for anxiety. The author suggests that family of origin factors, such as physical abuse, may be reflected as a PTSD profile in the MCMI-II.

Hastings and Hamberger (1988) conducted a study to investigate the personality characteristics of DV perpetrators. Using a sample of age matched batterers divided into 35 non-alcohol batterers (NAB), 29 alcohol batterers (AB), and an age matched comparison group of 43 non-alcohol using, non-violent males divided into 22 maritally
discordant (MD) and 21 maritally satisfied (MS), authors administered participants the Millon Clinical Multiaxial Inventory (MCMI), the Novaco Anger Scale (NAS), and the Beck Depression Inventory (BDI). Results indicated a relationship between unemployment and assault for the NAB group, but not for the AB group. There was also a significant relationship between educational level and group membership. Authors found that approximately half of the NVC group had college degrees, whereas 20-35% of the batterers had not completed high school, and none had college degrees. Batterers had significantly higher rates of marital separation and divorce. A notable finding was that batters with alcohol problems (AB) were significantly more likely to have witnessed and/or experienced abuse as children than NVC or NAB group members, and there was no significant difference between the NAB and NVC group on these variables.

In measures of personality disorders, authors reported that batterers scored higher on measures of borderline personality symptomatology, negativistic behaviors and passive-aggressive tendencies. They also reported that batterer scores indicated they were more moody, sullen, sensitive, over-reactive to rejection, experienced greater conflict and confusion about identity issues, and had less control over affective states. Furthermore, authors indicated that batterers tended to report more somatic complaints, higher levels of anxiety, and more depression than non-batterers. Finally, members of the AB group scored higher on schizoidal/borderline measures, whereas NAB members scored higher on dependent/conforming measures.

From the information gathered from their study, Hastings and Hamberger (1988) explained how batterers can avoid detection by most individuals in normal social settings. They suggested that in superficial interactions batterers may appear completely
appropriate, non-disordered, and even charming. They suggested that a casual observer might conclude that batterers are typical males. This conclusion may explain why the literature has traditionally painted abusers as typical, everyday males that one may encounter in any given setting. In many ways they may be able to mask the psychopathology, because it emerges primarily under the perception of threat of loss in interpersonal relationships with a love interest. Additionally, a batterer who appears charming in a social situation might be explained by the manipulative nature of borderline personality organization. His charming demeanor may in fact reflect a coping strategy to fit in with others and to get his needs met.

In a subsequent study, Hamberger and Hastings (1991) replicated most of the same findings with a similar sample. The most notable differences were related to an additional community-identified group of batterers added at the last minute who did not appear to have as much in common with the batterers as with the non-batterers. Authors caution this may be the result of a the small number of participants (n=28) in the community-identified group. I believe there may in fact be another explanation for this phenomenon. The main batterer group was identified mainly by court-referral. However the community-identified group was not identified via the typical DV channels (i.e., court referral). It is unclear how these individuals were identified, but authors report the results of administering the conflict tactics scale (CTS) to each of them indicated each had engaged in violence in the previous two years, albeit minimally at the level of a shove. It may be that a qualitative difference in the level of violence is accounted for by a different psychological composition. There is evidence to support this position.
In a study conducted by Dutton and Starzomski (1994) to investigate the psychological differences between court-ordered and self-referred DV perpetrators, participants were administered a battery of instruments, including instruments to assess personality characteristics, anger, trauma symptoms, family of origin issues (abuse and abandonment), jealousy, and level of verbal and physical abuse in their intimate relationship(s). Results indicated that self-referred batterers scored higher on measures of borderline personality organization, on measures of anger, and on measures of trauma symptoms. Additionally, they presented as more emotionally volatile, and more verbally abusive than court-referred batterers. Authors explain this difference by the fact that borderline personality organization is characterized by a proclivity for intense, unstable relationships, and cyclically recurring anger that is impulsively acted out, followed by attempts to avoid the experience of being alone. They posit that the self-referred batterer is in the tranquil phase of the cycle of violence (Walker, 1989) in which he is attempting to avoid the loss of the relationship. In a state of contrition and resigning to the pressures of his wife, he agrees to seek treatment. In fact, they found that self-referred batterers exhibited more resentment and anger at being in treatment than the court-referred batterers. Thus it appears that the findings of Hamberger and Hastings (1991) may be attributable to qualitative personality factors reflected in the level of abuse of the community-identified group. Additionally, the fact that the community-identified group did not self-refer, but were in some other way identified, leads to the conclusion that these men were qualitatively different on psychological measures than self-referred and court-referred batterers.
Summary

The previous literature review sought to bring together the domains of ADHD and DV in an effort to pique the curiosity of the reader, and raise the possibility that these two domains may have a common link. What happens to male children with ADHD when they grow into adults? From the literature we know that up to 50% of them continue to display symptoms of the disorder in adulthood. This suggests that aggressive ADHD boys as adults would be more likely to exhibit low thresholds for provocation, and would be more likely to react aggressively to provocation (Murphy, et al., 1992). It would also suggest that ADHD adults have lower thresholds for tolerable audio stimulation (Lucker, et al., 1996), and that responses to loud noise while feeling threatened would likely be intensely aggressive (Murphy, et al., 1992). Additionally, from the work by Heilveil and Clark (1990), it would be suggested that adults with ADHD will have more difficulty identifying problems in their relationships than non-ADHD adults, and more difficulty solving them, as well as fewer resources to cope with feelings of rejection. Some of these suggestions gain support from the work by Kane, et al., (1990), and Mannuzza, et al., (1988) which indicated that adults with ADHD continue to have adjustment difficulties, exhibit a higher incidence of abusive verbal behavior than non-ADHD adults, exhibit academic and job performance instability, and are more disorganized, and confused than non-ADHD adults.

The previous literature review has already highlighted ADHD symptoms such as impulsivity, explosive temper, low self-esteem, and interpersonal relationship instability. These are reported as being present in DV perpetrators as well. For example, Beasley and
Stoltenberg (1992) reported impulsivity as a characteristic of the DV perpetrators in their study, which they related to BPD. Hastings and Hamberger (1988) reported that batterers in their study were over-reactive to rejection, and experienced greater conflict and confusion about identity issues, and had less control over affective states. Ratey, et al., (1992) report these same characteristics in a group of adults with ADHD. Therefore, it seems reasonable to investigate the presence of adult ADHD behaviors in a population of male DV perpetrators. The presence of these behaviors indicating adult ADHD would add new information to the existing theory base, and ultimately improve understanding of the DV process.
METHODOLOGY

Study Design

This study is descriptive (Borg, Gall & Gall, 1993; Gay, 1987) utilizing a questionnaire format to assess the presence of behaviors consistent with adult ADHD. Borg, et al., clearly differentiate this type of study from survey research, because it focuses on providing information related to characteristics and behaviors of the participants, rather than assessing attitudes.

The instrument is a combination of 19 demographic and assessment questions preceding the Wender Utah Rating Scale (WURS) and the Attention-Deficit Disorder Scale for Adults (ADSA). Following this, there are an additional five questions directly related to adult ADHD and comorbid disorders, and a sixth question soliciting additional comments (see Appendix).

Two forms of the questionnaire were utilized. One form presented the WURS in part II and the ADSA in part III. The other form presented the ADSA in part II and the WURS in part III. This was done to determine the presence of presentation effect or order effect (Solso & Johnson, 1984).

The Wender Utah Rating Scale (WURS) is a retrospective self-report instrument designed to be used as an aid in identifying adults with ADHD (Rossini & O'Connor, 1995; Stein, et al., 1995; Ward, et al., 1993). A crucial criterion for diagnosis of adult ADHD is verification of the presence of the disorder in childhood or adolescence (APA, 1994). Although the WURS Parent’s Rating Scale was designed to fulfill this function, it
was found that parents of adult clients are often unavailable or unwilling to provide the
information. In an effort to overcome this hurdle, Ward, et al., (1993) created the Wender
Utah Rating Scale, “...for adult patients to use to describe their own childhood behavior”
(p. 885). It consists of 61 self-report items answered retrospectively about the respondent
between the ages of 6 and 10. Responses are marked on a five point scale of "not at all or
very slightly (score=0)", "mildly (score=1)", "moderately (score=2)", "quite a bit
(score=3)", and "very much (score=4)."

The WURS was normed on a sample of 81 adult patients (45 men and 36 women;
mean age 30.7, SD=5.7) previously diagnosed, and with a known history of having
ADHD, 100 non-disordered patients (50 men and 50 women; mean age 42.5, SD=5.4),
and 70 outpatients (23 men and 47 women; mean age 39.8, SD=9.9) diagnosed as having
unipolar depression, but no history of ADHD. The ADHD participants were also required
to have persistent attentional problems in combination with other ADHD symptoms at the
time of the study. Participants were excluded if they had previously been diagnosed as
having a major mental health diagnosis, such as schizophrenia, schizophreniform disorders,
borderline personality disorder or bipolar disorder. The unipolar depression group was
included, because people with this diagnosis typically display several symptoms similar to
those of adults with ADHD. Those symptoms include, “...decreased concentration and
forgetfulness, restlessness (agitation), affective lability, irritability (hot temper), and poor
stress tolerance” (Ward, et al., 1993, p. 886). Including this group would offer insight
into the WURS’ ability to discriminate between adult ADHD and another disorder that
could be confused with adult ADHD.
Internal reliability for the WURS was determined via split-half reliability correlations comparing odd/even item groups in the non-disordered participants. Authors reported that the Spearman-Brown corrected correlation was $r = .90$ ($p < .0001$, $N=100$). Validity was measured by calculating Pearson correlation coefficients between WURS scores for the non-disordered group and their parents' ratings ($r = .49$, $p < .0005$, df=98), and the ADHD group and their parents' ratings ($r = .41$, $p < .0005$, df=65). Authors remarked that these correlation coefficients are notable, because the agreement between scores came from participants and their parents--two different groups.

Another test of validity reported by the authors came from a previous study in which they evaluated the ability of the WURS to predict treatment outcomes of participants in a placebo-controlled methylphenidate study (Ward, et al., 1993). The study replicated previous findings in support of the validity of the scale, showing significance between the mean WURS scores of participants who responded to the drug ($M = 70.3$, $SD = 12.5$) and participants who didn’t respond ($M = 59.7$, $SD = 15.6$), $t (36) = 2.13$, $p < .025$ (one-tailed).

Participants in the two comparison groups were screened to eliminate anyone with a diagnosis of ADHD, thereby keeping the ADHD group unique (Ward, et al., 1993). Participants were instructed to rate each item according to the previously described scale. Mothers of each participant were given a parent rating scale consisting of ten items, and were asked to rate their child's behavior when she/he was between six and ten years of age. Mothers (when available) were chosen over fathers, because the authors suggested they were more likely to have spent the greatest amount of time with the child during the ages of six to ten.
Results indicated that 25 of the 61 items on the WURS showed the greatest mean difference between ADHD participants and the comparison groups, and were statistically significant (p<.0001, one-tailed) (Ward, et al., 1993). Therefore these 25 items were used in the analysis of the data. Authors reported that scores on 23 of the 25 items were significantly higher for the ADHD group than for the group with unipolar depression (p<.001, one-tailed). The mean total scores of the ADHD group compared with the non-disordered group were significantly higher, t (179) = 23.8, p<.0005 (one-tailed), as well as compared to the unipolar depression group, t (149) = 11.56, p<.0001 (two-tailed). The unipolar depressed group had significantly higher scores than the non-disordered group, t (168) = 6.68, p<.001 (two-tailed).

Using cutoff scores as diagnostic delimiters, authors reported that a cutoff score of 36 or higher correctly identified 96% of the adults previously diagnosed as having ADHD, and 96% of the non-disordered participants (Ward, et al., 1993). A cutoff score of 46 correctly identified 86% of the participants previously diagnosed as having ADHD, 99% of the non-disordered participants, and 81% of the unipolar depressed participants.

Another study conducted by Rossini and O’Connor (1995) investigated internal consistency and reliability (temporal stability) of the WURS with a group of 83 participants (66 women, 17 men). The WURS was administered to participants two times, four weeks apart. Results indicated good internal consistency with alpha values of .89 for the full WURS form (all 61 questions), and .88 for the short WURS form (the 25 questions used to determine cutoff scores for clinical diagnosis). Additionally, the authors reported that there were no significant differences in group means for either form of the scale on retesting, suggesting good reliability (temporal stability).
In a study conducted by Vitelli (1996), the author reported that a high percentage (67%) of a sample of adult maximum-security inmates exceeded the WURS cutoff score. The author found that the WURS correctly identified 95.8% of the inmates treated for childhood ADHD, and 70.58% of those assessed for childhood behavior problems. Still, more than 59% of the sample not reporting a disruptive behavior disorder in childhood exceeded the cutoff score. Additionally, more than 80% of those identified with childhood CD exceeded the cutoff score on the WURS. The author concluded that while the WURS identified inmates with disruptive behavior disorders, it failed to discriminate between CD and ADHD.

The Attention Deficit Scales for Adults (ADSA) (Triolo & Murphy, 1996) is a 54 item instrument designed to assess adults for ADHD behaviors and symptoms as they presently exist. Participants are asked to endorse one of five categories for each item. The categories are “Never,” “Seldom,” “Sometimes,” “Often,” and “Always.” Eleven items are presented in reverse order to assess for response consistency. There are also some items worded with slight variations to check response consistency. The 54 items are sorted into nine content subscales labeled as follows: (a) Attention-focus/concentration, (b) Interpersonal, (c) Behavior-disorganized activity, (d) Coordination, (e) Academic theme, (f) Emotive, (g) Consistency/long-term (h) Childhood, and (i) Negative-social. Although a total score is derived from the instrument, scores in the subscale categories can point to alternative diagnoses, the symptoms of which overlap ADHD.

The normative group consisted of 306 volunteer participants screened for IQs above 80, 17 years of age or older, no childhood history of attention or hyperactivity problems, no reported history of drug and/or alcohol abuse, and no history of felony
conviction (Triolo & Murphy, 1996). The mean age of the normative group participants was 33.95 years (SD=11.61), the mean IQ was 111.88 (SD=8.67), and 45.4% were male, while 54.6% were female.

The clinical group was comprised of 87 participants all previously diagnosed as having ADHD (Triolo & Murphy, 1996). Authors reviewed participant histories, conducted diagnostic interviews, and conducted collateral interviews with significant others. The mean age for the clinical group was 35.07 years (SD = 11.18), and the mean IQ was 107.67 (SD = 10.83). The four point difference between the mean IQs for the normative (M = 111.88) and clinical group (M = 107.67) proved statistically significant (t = 3.11, p<.002) [degrees of freedom not reported by authors]; however, the authors caution interpretation of the results. Authors report no significant differences between groups on age or socioeconomic status. No data is available about the gender of the clinical group participants.

The ADSA total score difference between groups of 45 points was statistically significant, t (117.45) = -15.52, p<.000, spanning approximately two standard deviations (Triolo & Murphy, 1996). Four subscales identified, using a step-wise discriminant analysis, were sufficient to correctly classify 88.86% of the participant pool. These were: (a) Consistency/long-term, (b) Attention-focus/concentration, (c) Behavior-disorganized activity, and (d) Negative social. Of the 306 participants in the normative group, 278 (90.8%) were identified correctly as non-disordered, and 73 (82%) of the clinical group participants were correctly identified as ADHD.

Reliability data using a split-half correlation yielded r = .812, p<.001 [degrees of freedom not reported by authors] (Triolo & Murphy, 1996). A Cronbach alpha analysis
for internal consistency yielded a significant alpha of .8912 for the 54 items [significance level and degrees of freedom not reported by authors]. Two independent raters were recruited to check the reliability of the items within each subscale. Interrater reliability was .7329. The authors report Cronbach alpha coefficients conducted on the nine subscales yielded low coefficients on the Academic theme subscale (subscale 5) ($\alpha = - .1124$) and the Childhood subscale (subscale 8) ($\alpha = .0196$). As a result, they suggest caution when interpreting the results of these two subscales.

An analysis of internal consistency for both the WURS and the ADSA for the sample used in this study resulted in strong reliability coefficients for individual items on both instruments. Cronbach alpha for the WURS was .9387, and for the ADSA it was .9277, suggesting strong internal consistency for the participants in this study. However, an analysis of the nine subscales of the ADSA found that for subscale 1 alpha=.8057, for subscale 2 alpha=.5808, for subscale 3 alpha=.7898, for subscale 4 alpha=.6823, for subscale 5 alpha=.1394, for subscale 6 alpha=.8780, for subscale 7 alpha=.4812, for subscale 8 alpha=.2649, and for subscale 9 alpha=.6647. The fact that the full scale ADSA shows good internal consistency, while subscales 2,4,5,7,8, and 9 do not is likely due to multicolinearity. Each subscale shares one or more questions with another subscale, and of the 54 questions, only 29 are unique to a single subscale. Subscale 5 is comprised of only two questions, one of which it shares with another subscale. Subscale 7 has no question unique to that scale. As it happens, the three subscales with the greatest number of unique questions are subscales 1, 3, and 6, which also have the greatest internal consistency for the sample used in this study.
The ADSA was only able to correctly identify 82% of the ADHD group, and 90.8% of the non-disordered group (Triolo & Murphy, 1996). However, used in combination with the WURS at cutoff scores of 36, the likelihood of correctly identifying persons with ADHD and non-disordered persons should increase.

**Sampling**

Using purposive sampling, participants in this study were drawn from a population of male domestic violence (DV) perpetrators enrolled in a for-profit treatment program in northern Nevada. Each participant was court mandated to the treatment program and participated voluntarily. The total sample size was 69 participants. Participants have been restricted to males because the majority of DV perpetrators are male (Beasley & Stoltenberg, 1992; Dobash & Dobash, 1992; Dutton, 1995a; 1995b; Hampton, et al., 1993; Viano, 1992; Walker, 1989), and ADHD affects at least four times as many males as females (APA, 1994).

**Procedure**

At the beginning of a group session, court mandated members of therapeutic treatment groups for DV perpetrators were verbally invited to participate in the study in lieu of attending the regularly scheduled group meeting. Those who volunteered remained in the group room, and those who chose not to participate were escorted to another room in the building where they met with the group therapist.
Six groups of male domestic violence perpetrators made available by their therapists participated in this study. Group sizes ranged from 11 to 16 members. Seven members had not been arrested for domestic violence and were voluntarily enrolled in the domestic violence treatment program. Since they didn’t meet the screening criterion of court mandated treatment, they were excluded from participation. Three group members who met the criteria for inclusion in the study chose not to participate. The remaining 69 group members chose to participate in the study.

I administered the questionnaire in a group setting, ensuring sufficient space between participants to ensure privacy and confidentiality. For one of the DV groups, the questionnaire was administered by the group therapist who had observed the process in four previous groups. This was done because groups five and six were both conducted on the same night and at the same time, but in different locations. Each participant was given a large manila envelope with the informed consent form on the outside, and parts I, II, III and IV of the questionnaire inside. Participants were told the instrument takes 30-45 minutes to complete, and each one was given a pencil to use for completing the instrument. Participants were instructed to follow along as the questionnaire administrator read the informed consent form to them. All agreed to the terms of the informed consent. Subsequently they were instructed to open the envelope, take out part I of the questionnaire and complete it. Those not agreeing to the terms of the informed consent would have been asked to return the unopened envelope to the test administrator, and return to the therapeutic group.

Next, each participant was instructed to place the completed section in the manila envelope when finished, and to wait for further instructions. When everyone had
completed part I, they were instructed to take part II out of the envelope and listen as the test administrator read the instructions and the first two questions aloud to ensure clarity. They were instructed to place part II in the envelope when completed and await further instructions. When all participants had completed part II, they were instructed to take part III out of the envelope and listen as the test administrator read the instructions and the first two questions aloud to ensure clarity. They were then instructed to place the completed part III in the envelope when finished and to await further instructions. When everyone had completed part III, they were instructed to remove part IV from the envelope and listen as the test administrator read the instructions aloud. They were then instructed to place part IV in the envelope when completed, and return it to the test administrator. When the participant returned the manila envelope to the test administrator, he was given the informed consent sheet from the front of the manila envelope and dismissed. Any questions were answered after all materials had been returned. Should any participant have decided he no longer wished to participate, his questionnaire would have been sealed in the envelope and destroyed; however this never occurred.

The names and signatures of the participants were unnecessary in this study, as each questionnaire was uniquely numbered. Participants were instructed that by completing the questionnaire and returning it to the administrator they were giving their informed consent to participate in the study. This eliminated the need for a link file and diminished the likelihood that confidentiality of any participant could be violated.

Each part of the questionnaire was administered separately to ensure understanding of the instructions, particularly those relating to parts II and III. This
procedure was also intended to avoid participants changing answers on parts II and III, based upon information encountered on part IV.

One group received form “A” of the questionnaire, and the next group received form “B” of the same instrument in an alternating fashion. This was done to test for presentation effect of the two ADHD scales. Three groups received form “A” and three groups received form “B.”
RESULTS

The findings in this section are organized under the subheadings of demographics, incidence of violence, general violence, incidence of arrest for DV, childhood experience of abuse, employment, educational level and violence, employment stability and ADHD, WURS outcome, ADSA outcome, adult ADHD, further analyses of the ADSA and WURS, and the ADSA and adult ADHD.

Sixty-nine participants were sampled for this study. Four were sampled at the time of their first treatment session. Data from four of the 69 participants was excluded in the analysis. One case had a large portion of the questionnaire incomplete, another had numerous inconsistent responses, and two others were non-mandated group members who failed to disclose this fact in the initial screening. Each of these four participants was from a different group. The remaining 65 participants comprised the data set used in the analyses that follow.

Group and Questionnaire Form Homogeneity

A comparison of forms A and B of the questionnaire to the WURS total clinical score ($t [63] = 1.618, p = .111$, 2-tailed) and to the ADSA total clinical score ($t [63] = .175, p = .862$, 2-tailed) indicated no presentation effect. An analysis of variance comparing the WURS total clinical score and the ADSA clinical score by group membership also proved insignificant, $F (5, 59) = .796, p = .557$, and $F (5, 59) = .306, p =$
.907, respectively (2-tailed), suggesting that the groups are homogeneous on these variables.

Demographics

The age range for the population was 18 to 67 (M =34.17, SD = 9.41), and 75.4% were Caucasian (see Table 1). Population statistics for Washoe County, Nevada, (Greater Reno-Sparks Chamber of Commerce, 1998) indicate that 91.4% of the area population is Caucasian.

Table 1: Ethnicity of Participants

<table>
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<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
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<tr>
<td>African American</td>
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<td>4.6</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>6</td>
<td>9.2</td>
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<tr>
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<td>1.5</td>
</tr>
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<td>3.1</td>
</tr>
<tr>
<td>Native</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>6.2</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

Twelve participants (18.5%) reported completing 11 grades or less, 37 (56.9%) reported completing the twelfth grade, and 15 (23%) reported completing more than 12 grades (see Table 2).
Table 2: Highest Grade Completed

<table>
<thead>
<tr>
<th>Grade</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
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<tr>
<td>11</td>
<td>7</td>
<td>10.8</td>
</tr>
<tr>
<td>12</td>
<td>37</td>
<td>56.9</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>6.2</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>16</td>
<td>5</td>
<td>7.7</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>98.5</td>
</tr>
</tbody>
</table>

Note: One participant did not complete this information

Twenty-four respondents (36.9%) spent 12 years attending school. Eleven respondents (16.9%) spent 11 or fewer years in school. Twelve respondents (18.5%) spent 13 years in school, and 18 (27.7%) spent 14 or more years attending school (see Table 3). In later data, 17 participants indicated they repeated one or more grades.

Table 3: Number of Years Spent Attending School

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>11</td>
<td>7</td>
<td>10.8</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>36.9</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td>18.5</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>7.7</td>
</tr>
<tr>
<td>15</td>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>16</td>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>3.1</td>
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<tr>
<td>18</td>
<td>4</td>
<td>6.2</td>
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<tr>
<td>20</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: 17 Participants (26.2%) indicated repeating one or more grades.
Thirty-nine participants (60%) reported earning a high school diploma, 15 (23.1%) reported earning a Graduate Equivalent Diploma (GED). One person reported earning an A.A. degree, 15 (23.1%) earned vocational/technical degrees/certificates, eight (12.3%) reported earning some other degree or certificate, and four (6.2%) reported earning a bachelor's degree. No one reported earning a graduate degree (see Table 4).

Table 4: Degrees or Certificates Held by Participants

<table>
<thead>
<tr>
<th>Degree or Certificate</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Diploma</td>
<td>39</td>
<td>60</td>
</tr>
<tr>
<td>Graduate Equivalent Diploma (GED)</td>
<td>15</td>
<td>23.1</td>
</tr>
<tr>
<td>A. A. Degree</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>4</td>
<td>6.2</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vocational/Technical</td>
<td>15</td>
<td>23.1</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Thirteen of the participants (20%) reported being single, 21 (32.3%) were married, three (4.6%) were separated, 11 (16.9%) were divorced, and 17 (26.2%) were living with their partner or in a committed relationship (see Table 5). Nineteen of the respondents (29.2%) indicated they had never been married, 30 (46.2%) had been married once, 10 (15.4%) had been married twice, and five (7.7%) had been married three or more times.

Table 5: Current Relationship Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Married</td>
<td>21</td>
<td>32.3</td>
</tr>
<tr>
<td>Separated</td>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>Divorced</td>
<td>11</td>
<td>16.9</td>
</tr>
</tbody>
</table>
Thirty (46.2%) participants had no children living in the home, 13 (20%) had one, 11 (16.9%) had two, and 11 (16.9%) had three or more children living in the home. Over half (50.8%) had no children living in the home for whom they were financially responsible, 15 (23.1%) had one child, and 15 (23.1%) had two or more. Nine (13.8%) participants reported two or more children living outside the home for whom they were financially responsible, 10 (15.4%) reported one, and 44 (67.7%) reported none. A bivariate correlation between the variables of number of children living outside the home for whom the participant was financially responsible and the number of times engaged in physical violence with a domestic partner showed a modest relationship, r (62) = .269, p = .035. Correlations for the number of children living in the home and the number of children living in the home for whom the participant was financially responsible compared with the number of times engaged in physical violence with a domestic partner were not significant, r (64) = .078, p = .541, and r (63) = .173, p = .175, respectively.

### Incidence of Violence

Ten (15.4%) participants reported never engaging in physical violence with a domestic partner (dvtimes), 20 (30.8%) reported one time, 13 (20%) reported two times,
12 (18.4%) reported between 3 and 7 times, and nine (13.8%) participants reported engaging in physical violence with a domestic partner 10 or more times.

To investigate if these 10 men might in fact be different than the rest of the group, the variable dvtimes was recoded into a dichotomous variable (dvcut) to delineate the 10 that had reported no violence toward a domestic partner from the others that had. In t-test analyses, this variable was then compared to the WURS total clinical score, to the ADSA total clinical score, and to all nine of the ADSA subscales. Results showed no significant difference between the means of those who reported never engaging in physical violence with a domestic partner, and those who reported engaging in physical violence with a domestic partner one or more times on measures of ADHD. Additionally, these 10 men were compared to the rest of the group on the variable of genviol (number of times engaged in physical violence with someone other than a domestic partner since age 18). The results also showed no significance, t(63) = .185, p = .854 (2-tailed). Results of chi-square analyses between dvcut and each reported family diagnosis and self-reported professional diagnosis also proved insignificant (famadhd; χ²(1) = .220, p = .639; famanxiety; χ²(1) = .004, p = .950; famborderline; χ²(1) = .000, p = 1.00; fambipolar; χ²(1) = .000, p = 1.00; famcd; χ²(1) = .000, p = 1.00; famanxiety; χ²(1) = .000, p = 1.00; fambipolar; χ²(1) = .000, p = 1.00; famalcohol; χ²(2) = .851, p = .653; famld; χ²(1) = .585, p = .444; famschizo; χ²(1) = .000, p = 1.00; selfadhd; χ²(1) = .000, p = 1.00; selfanxiety; χ²(1) = .000, p = 1.00; selfborderline; χ²(1) = .004, p = .950; selfbipolar; χ²(1) = .000, p = 1.00; selfcd; χ²(1) = .147, p = .702; selfdepression; χ²(1) = .000, p = 1.00; selfalcohol; χ²(1) = .331, p = .565; selfld; χ²(1) = .000, p = 1.00; selfschizo; χ²(1) = .000, p = 1.00).
Further analyses of these 10 men to investigate how they might differ from the rest of the group was done using t-tests. Comparing dvcut to age, number of times arrested for DV, number of times law enforcement has intervened without arrest, number of times married, number of years spent attending school, and number of times changed jobs in past 5 years, the t-tests all failed to reach significance, $t(62) = 1.71, p = .091$; $t(62) = 1.39, p = .169$; $t(62) = 1.00, p = .318$; $t(62) = 2.52, p = .802$; $t(63) = 1.93, p = .058$; $t(62) = 1.51, p = .136$, respectively, 2-tailed). However, when dvcut was compared with the number of children living in home, number of children living in home for whom respondent was financially responsible, and highest grade completed, all relationships reached significance ($t(63) = 4.80, p = .000$; $t(62) = 4.93, p = .000$, and $t(62) = 2.89, p = .005$, respectively, 2-tailed). An investigation of the frequency distribution of these variables revealed that 80% of this sub-group of 10 men had no children living in the home, 90% had no children living in the home for whom they were financially responsible, and 50% completed 14 or more grades, while 30% completed only grade 12, 10% completed only grade 11, and one participant failed to respond to this question.

A chi-square analysis of dvcut compared to ethnicity revealed a significant relationship, $\chi^2(5) = 13.14, p = .022$. As it emerged, seven of the 10 (70%) were Caucasian, two (20%) were American Indian/Alaskan Native, and one was listed as "Other."
General Violence

Twelve (18.5%) participants indicated they had engaged in physical violence with someone other than a domestic partner one time since the age of 18. Nine of the participants (13.8%) reported an occurrence rate of two times, 17 (26.2%) reported between 3 and 10 times, five (7.7%) reported between 10 and 15 times, and 10 (15.4%) reported engaging in physical violence with someone other than a domestic partner more than 15 times since age 18. A bivariate correlation analysis between the number of times engaged in physical violence with a domestic partner, and the number of times engaged in violence with someone other than a domestic partner since age 18 was significant ($r = .223$, $p = .077$, 2-tailed), but the correlation coefficient was too small to be meaningful. Because age may be a factor in the frequency of general violence since age 18, a t-test was conducted for age and the frequency of general violence since age 18 split dichotomously at 10 or more times. The results were insignificant, $t (62) = 1.05$, $p = .296$ (2-tailed). Therefore, age does not appear to be a factor in the frequency of violence with someone other than a domestic partner.

Incidence of Arrest for DV

Fifty-three (81.6%) participants indicated that they had been arrested for domestic violence (DV) only one time, nine (13.8%) were arrested twice, and two (3%) reported being arrested for DV five or more times. One participant did not respond to the question. Eleven (16.9%) of the participants reported that law enforcement intervened one time without arresting them, seven (10.8%) reported two interventions, and 15 (23%)
reported three or more interventions by law enforcement without arrest. Thirty one people (47.7%) reported that law enforcement had never intervened without arresting, and one person did not respond to the question.

The results of the law enforcement intervention leading to arrest may be due to current laws in the catchment area for the participants in this study. Since 1995, a law enforcement investigation of a reported DV incident in which there is evidence of any physical abuse, results in one or both parties being taken to jail. Evidence to support a claim of DV will lead to the offender being remanded to treatment (Nevada State Legislature, 1998). With this in mind, an investigation of the relationship between age and the number of times law enforcement intervened without arrest for DV was conducted to see if perhaps older men in the study had more law enforcement interventions without arrest. The results were insignificant for both a bivariate correlation ($r = -.025$, $p = .845$, 2-tailed) and a t-test using a dichotomized version of the number of times law enforcement intervened without arrest as the grouping variable, $t (62) = .308$, $p = .762$ (2-tailed). These findings suggest that older males who perpetrated DV prior to the recent laws were not the reason for the high number of law enforcement interventions without arrest.

Childhood Experience of Abuse

Fifty-one (78.5%) participants reported witnessing verbal abuse while growing up, while 36 (55.4%) reported witnessing physical violence while growing up. In this study there was no question asking for differentiation between witnessing abuse and experiencing abuse, the assumption being that if they experienced abuse, they also
witnessed it. Since witnessing or experiencing physical and verbal abuse as a child is predictive of DV perpetration as an adult (Dutton, 1995a; 1995b; Hampton, et al., 1993; Viano, 1992), t-tests were conducted to investigate the relationship between participants who witnessed verbal abuse as children with the number of times they engaged in physical violence with a domestic partner, and with the number of times they engaged in physical violence with someone other than a domestic partner since age 18. Results were insignificant for either instance, \( t (62) = .806, p = .423 \), and \( t (63) = .701, p = .486 \), respectively (2-tailed). Analyses of participants who witnessed physical violence as children compared to number of times engaged in physical violence with a domestic partner, and to number of times engaged in physical violence with someone other than a domestic partner also were insignificant, \( t (62) = .356, p = .723 \), and \( t (63) = .836, p = .407 \), respectively (2-tailed). Thus it appears participants who witnessed verbal or physical abuse as children were no more likely to have more frequently engaged in physical violence than those who didn’t witness verbal or physical abuse as children.

**Employment, Educational Level and Violence**

Fifty-one (78.5%) of the respondents were employed at the time they were arrested for DV, and 59 (90.8%) of the respondents were employed at the time they completed the questionnaire. Thirty-five (53.8%) of the respondents changed jobs three or more times during the past five years, 18 (27.6%) changed jobs one or two times, and 11 (16.9%) had not changed jobs during the past five years.
It has been reported that batterer unemployment is a factor that significantly increases the likelihood of wife assault (Dutton, 1995a; Straus & Gelles, 1990). A t-test was utilized to examine the relationship between employment status at the time the participant was arrested for DV and the number of times engaged in physical violence with a domestic partner. The results failed to reach significance for this population, $t (61) = .757$, $p = .452$ (2-tailed). An examination of the distribution of scores indicated that 51 participants (78.5%) were employed at the time of arrest for DV. An investigation of the relationship between those participants who had changed jobs three or more times in the past five years (employment stability) and the number of times engaged in physical violence with a domestic partner also proved insignificant, $t (62) = 1.20$, $p = .233$ (2-tailed). It appears then that neither participant employment at the time of arrest, nor the frequency of job changes in the past five years affects the frequency of physically violent incidents with domestic partners for this group of DV perpetrators.

Analyses of the relationships between educational degree/certificate and frequency of all violence, between children in and out of the home and frequency of all violence, and between witnessing abuse and frequency of all violence showed no significance (see Table 6). Similarly, analyses of the relationships between employment status at the time of arrest for DV compared with all violence, and the relationship between the number of times changed jobs in the past five years and all violence proved insignificant (see Table 6).
Table 6: Analyses of Variables Compared with Violence

<table>
<thead>
<tr>
<th>Degree or Certificate**</th>
<th>Frequency of violence with domestic</th>
<th>Frequency of violence with someone other</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>partner since age 18</td>
<td>than domestic partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>SEM</td>
<td>df</td>
<td>t-ratio</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>SEM</td>
</tr>
<tr>
<td>A. A. degree</td>
<td>10.0</td>
<td>*</td>
<td>1</td>
<td>*</td>
<td>62</td>
<td>1.25</td>
<td>3.0</td>
<td>*</td>
<td>1</td>
<td>*</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>1.75</td>
<td>2.36</td>
<td>4</td>
<td>1.18</td>
<td>62</td>
<td>1.52</td>
<td>2.75</td>
<td>2.22</td>
<td>4</td>
<td>1.11</td>
</tr>
<tr>
<td>GED</td>
<td>4.27</td>
<td>5.68</td>
<td>15</td>
<td>1.47</td>
<td>62</td>
<td>0.500</td>
<td>5.47</td>
<td>7.20</td>
<td>15</td>
<td>1.86</td>
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<td>High school diploma</td>
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<td>4.41</td>
<td>38</td>
<td>.71</td>
<td>62</td>
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<td>39</td>
<td>1.04</td>
</tr>
<tr>
<td>Voc./Tech. Degree/certificate</td>
<td>5.20</td>
<td>7.24</td>
<td>15</td>
<td>1.87</td>
<td>62</td>
<td>1.32</td>
<td>4.27</td>
<td>7.77</td>
<td>15</td>
<td>0.97</td>
</tr>
<tr>
<td>Other degree/certificate</td>
<td>2.75</td>
<td>4.23</td>
<td>8</td>
<td>1.5</td>
<td>62</td>
<td>0.553</td>
<td>3.75</td>
<td>2.19</td>
<td>8</td>
<td>0.77</td>
</tr>
<tr>
<td>1 or more children living in home</td>
<td>4.15</td>
<td>5.28</td>
<td>34</td>
<td>.90</td>
<td>62</td>
<td>.766</td>
<td>4.94</td>
<td>6.01</td>
<td>35</td>
<td>1.02</td>
</tr>
<tr>
<td>Financially responsible for 1 or more children in home</td>
<td>4.87</td>
<td>5.53</td>
<td>30</td>
<td>1.01</td>
<td>61</td>
<td>1.72</td>
<td>5.10</td>
<td>5.55</td>
<td>31</td>
<td>1.00</td>
</tr>
<tr>
<td>Financially responsible for 1 or more children outside home</td>
<td>4.58</td>
<td>5.63</td>
<td>19</td>
<td>1.29</td>
<td>60</td>
<td>0.830</td>
<td>3.79</td>
<td>4.17</td>
<td>19</td>
<td>0.96</td>
</tr>
<tr>
<td>Witnessed verbal abuse</td>
<td>3.96</td>
<td>5.52</td>
<td>50</td>
<td>.78</td>
<td>62</td>
<td>0.806</td>
<td>5.75</td>
<td>6.73</td>
<td>51</td>
<td>0.94</td>
</tr>
<tr>
<td>Witnessed physical violence</td>
<td>3.89</td>
<td>4.83</td>
<td>36</td>
<td>.80</td>
<td>62</td>
<td>0.356</td>
<td>6.06</td>
<td>7.23</td>
<td>36</td>
<td>1.21</td>
</tr>
<tr>
<td>Employed at time of arrest</td>
<td>3.48</td>
<td>4.89</td>
<td>50</td>
<td>.69</td>
<td>61</td>
<td>0.757</td>
<td>5.67</td>
<td>6.95</td>
<td>51</td>
<td>0.97</td>
</tr>
<tr>
<td>Changed jobs 3 or more times in the past 5 years</td>
<td>4.46</td>
<td>5.62</td>
<td>35</td>
<td>.95</td>
<td>61</td>
<td>1.26</td>
<td>6.80</td>
<td>7.19</td>
<td>35</td>
<td>1.22</td>
</tr>
</tbody>
</table>

*Cannot compute SD or SEM for N=1 **Graduate degree not reported N=0. p>.05 for all cases (2-tailed).
Thirty respondents (46.2%) spent 13 or more years in school, yet only 15 completed more than 12 grades. Also, 17 participants indicated they repeated one or more grades.

**Employment Stability and ADHD**

Since employment instability is frequently a correlate of adult ADHD (Barkley, 1990; Wender, 1998; Whiteman & Novotni, 1995), t-tests were utilized to investigate the relationship between those participants who had changed jobs three or more times in the past five years, and the WURS total clinical score or the ADSA total clinical score. When using the WURS as the dependent variable, the analysis was not significant, \( t (62) = 1.63, p = .107 \) (2-tailed). However, when using the ADSA as the dependent variable, the relationship reached significance for this population, \( t (62) = 2.97, p = .004 \) (2-tailed). Therefore, participants who had changed jobs three or more times in the past five years were more likely to have high total clinical scores on the ADSA (see Table 7).

**Table 7: Analyses of Employment Stability and Clinical Scores**

<table>
<thead>
<tr>
<th></th>
<th>Changed jobs 3 or more times in past 5 years</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>SEM</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WURS</strong></td>
<td></td>
<td>63.25</td>
<td>20.60</td>
<td>35</td>
<td>3.38</td>
<td>62</td>
<td>1.63</td>
</tr>
<tr>
<td><strong>ADSA</strong></td>
<td></td>
<td>149.72</td>
<td>24.01</td>
<td>35</td>
<td>4.06</td>
<td>62</td>
<td>2.97*</td>
</tr>
<tr>
<td><strong>ADSA Subscales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub1</td>
<td></td>
<td>34.40</td>
<td>6.87</td>
<td>35</td>
<td>1.16</td>
<td>62</td>
<td>2.69*</td>
</tr>
<tr>
<td>Sub2</td>
<td></td>
<td>24.20</td>
<td>4.01</td>
<td>35</td>
<td>.68</td>
<td>62</td>
<td>2.09*</td>
</tr>
<tr>
<td>Sub3</td>
<td></td>
<td>66.52</td>
<td>9.24</td>
<td>35</td>
<td>1.56</td>
<td>62</td>
<td>3.57*</td>
</tr>
<tr>
<td>Sub4</td>
<td></td>
<td>5.77</td>
<td>2.31</td>
<td>35</td>
<td>.39</td>
<td>62</td>
<td>1.10</td>
</tr>
<tr>
<td>Sub5</td>
<td></td>
<td>5.39</td>
<td>1.24</td>
<td>35</td>
<td>.21</td>
<td>62</td>
<td>.816</td>
</tr>
<tr>
<td>Sub6</td>
<td></td>
<td>26.90</td>
<td>7.25</td>
<td>35</td>
<td>1.23</td>
<td>62</td>
<td>2.29*</td>
</tr>
</tbody>
</table>
Table 7: Continued

<table>
<thead>
<tr>
<th>ADSA Subscales</th>
<th>Changed jobs 3 or more times in past 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Sub7</td>
<td>31.77</td>
</tr>
<tr>
<td>Sub8</td>
<td>4.91</td>
</tr>
<tr>
<td>Sub9</td>
<td>18.49</td>
</tr>
</tbody>
</table>

*p < .05 (2-tailed)

An analysis of the relationship between participants who had changed jobs three or more times in the past five years and each of the ADSA subscales reached significance for Subscale 1, $t\ (62) = 2.69, p = .009$ (2-tailed); subscale 2, $t\ (62) = 2.09, p = .040$ (2-tailed); subscale 3, $t\ (62) = 3.57, p = .001$ (2-tailed); subscale 6, $t\ (62) = 2.29, p = .025$ (2-tailed); subscale 7, $t\ (62) = 2.67, p = .010$ (2-tailed); and subscale 9, $t\ (62) = 2.59, p = .012$ (2-tailed) (see Table 7).

WURS Outcome

Utilizing the cutoff scores suggested by Ward, et al., (1993), a frequency distribution of the WURS total clinical scores revealed that 61 (93.8%) participants scored 36 or greater, and 42 (64.6%) participants scored 46 or greater (see Table 8). Using the more conservative figure, this would suggest that 64.6% of this population would likely have had a behavioral profile consistent with a diagnosis of ADHD as children between the ages of six and ten years. Next using the DSM-IV (APA, 1994) upper prevalence limits of childhood (5%) and Wender’s (1998) upper prevalence limits of adulthood (50%) for comparison, the prevalence of adult ADHD (15 participants) in this study is 7.5 times that of the general population.
Table 8: Distribution of WURS Cutoff Scores

<table>
<thead>
<tr>
<th></th>
<th>Cutoff of 36</th>
<th></th>
<th>Cutoff of 46</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than cutoff</td>
<td>4</td>
<td>6.2</td>
<td>23</td>
<td>35.4</td>
</tr>
<tr>
<td>Cutoff or greater</td>
<td>61</td>
<td>93.8</td>
<td>42</td>
<td>64.6</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

**ADSA Outcome**

An investigation of the ADSA total clinical scores indicated that 16 (24.6%) of the participants scored at least one standard deviation above the mean for the norming group on this instrument. Six of those (9.2%) scored two standard deviations or more above the mean. According to the authors, scores of one standard deviation or greater suggest a possibility of ADHD, and scores of two standard deviations or greater strongly suggest that the individual is experiencing serious symptoms (Triolo & Murphy, 1996). However, the authors caution that all nine subscales must also be evaluated to discriminate between ADHD and the presence of other psychological disorders.

An evaluation of the nine ADSA subscale scores to determine which participants scored above the mean in the clinical range, and which ones scored below the clinical range revealed the following: Nine participants (13.8%) scored one standard deviation or greater on subscale 1 (attention-focus/concentration); twenty-one participants (32.3%) scored one standard deviation or greater on subscale 2 (interpersonal), suggesting relationship problems, and seven (10.8%) scored two standard deviations above the norm; thirteen participants (20%) scored one standard deviation or greater on subscale 3.
behavior/disorganized activity), suggesting overactivity and/or disorganization; eleven participants (16.9%) scored one standard deviation or greater on subscale 4 (coordination), suggesting clumsy/accident prone behavior; twenty-six participants (40%) scored one standard deviation or greater on subscale 5 (academic), suggesting academic difficulties; fifteen participants (23.1%) scored one standard deviation or greater on subscale 6 (emotive), suggesting emotional difficulties, excitability, irritability and emotional lability; seventeen participants (26.2%) scored one standard deviation or greater on subscale 7 (consistency/long-term) suggesting the presence of ADHD symptoms for some time, focusing on individual task persistence, sequencing and goal completion; four participants (6.2%) scored one standard deviation or greater on subscale 8 (childhood), suggesting ADHD difficulties in childhood; twenty participants (30.8%) scored one standard deviation or greater on subscale 9 (negative-social), suggesting negative social interactions, and half of those (10) scored two or more standard deviations above the norm. Ultimately, 15 participants met the criteria suggesting adult ADHD for this sample of men.

Adult ADHD

An evaluation of the 15 participants whose ADSA profiles are suggestive of adult ADHD resulted in the following findings: Fourteen (93.3%) scored above the higher cutoff score of 46 on the WURS, while one individual scored above the lower cutoff score of 36. Twelve (80%) scored one standard deviation (SD) above the norm on the ADSA total clinical scale, and three (20%) scored two SD above the norm. On the subscales
used for identification of ADHD behaviors, seven (46.6%) scored one SD above the norm on subscale 7, and three scored two SD above the norm. Five (33.3%) just missed the cutoff. On subscale 1, seven (46.6%) scored one SD above the norm, and two (13.3%) scored two SD above the norm. Six (40%) scored below one SD. Ten (66.6%) participants scored one SD above the norm on subscale 3, and one scored two SD above the norm. Four (26.6%) scored below one SD. On subscale 9, five (33.3%) scored one SD above the norm, four (26.6%) scored two SD, and six (40%) scored below one SD.

Five (33.3%) of the 15 reported receiving an ADHD diagnosis from a professional, four (26.6%) reported that a family member had received an ADHD diagnosis, and six (40%) reported that a family member had been diagnosed with depression (see Table 9).

Table 9: Frequency of Self-Reported and Familial Behavior Disorders

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Number Self-Reporting Disorder</th>
<th>Number Reporting Family Member with Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention Deficit Hyperactivity Disorder</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Borderline Personality Disorder</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Conduct Disorder</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Depression</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Drug/Alcohol Problems</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Oppositional Defiant Disorder</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Tourette’s Syndrome</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

T-test analyses comparing self and family diagnoses against each of the nine ADSA subscales for these 15 men revealed only one significant relationship between family members diagnosed with depression and subscale 7, consistency/long-term $t (13) =$
2.21, \( p = .045 \) (2-tailed). Subscale 7 was the best predictor of adult ADHD for those individuals who scored one standard deviation or more on the ADSA total clinical score. Therefore, in this group, those who had family members diagnosed with depression were more likely to meet the criteria for adult ADHD on subscale 7 of the ADSA. In fact, three of the 15 clinically significant participants having a family member diagnosed as having depression, also self-identified as having been diagnosed with ADHD. Four of the 15 clinically significant participants reported a family member with ADHD, and three of those self-identified as having been diagnosed with ADHD as well.

An investigation between participants self-reporting ADHD and the WURS total clinical score proved significant, \( t (63) = 4.45, p = .000 \) (2-tailed). An analysis of the relationship between self-reported anxiety and the WURS total clinical score was also significant, \( t (63) = 2.47, p = .016 \) (2-tailed), as were self-reported depression, \( t (63) = 3.00, p = .004 \) (2-tailed), bipolar disorder, \( t (63) = 2.31, p = .024 \) (2-tailed), schizophrenia, \( t (63) = 2.00, p = .05 \) (2-tailed), and self-reported alcohol/drug problems, \( t (63) = 2.28, p = .026 \) (2-tailed). No other self-reported disorders were significantly related to the WURS total clinical score.

An analysis of the relationship between the WURS total clinical score and family members diagnosed with ADHD, \( t (63) = 2.74, p = .008 \) (2-tailed), bipolar disorder, \( t (63) = 2.99, p = .004 \) (2-tailed), and depression, \( t (63) = 3.65, p = .001 \) (2-tailed), all proved significant. No other family diagnoses were significantly related to the WURS total clinical score.

An examination of the relationships between self-reported disorders and the ADSA total clinical score resulted in significance for ADHD, \( t (63) = 3.10, p = .003 \), anxiety
disorder, $t (63) = 2.02, p = .047$, borderline personality disorder, $t (63) = 2.17, p = .033$, and self-reported alcohol/drug problems $t (63) = 2.86, p = .006$ (all 2-tailed). No other self-reported professional diagnoses reached significance with the ADSA total clinical score.

Total clinical scores for the ADSA compared to family diagnoses of ADHD, $t (63) = 3.04, p = .003$ (2-tailed), bipolar disorder, $t (63) = 4.23, p = .000$ (2-tailed), and depression, $t (63) = 3.77, p = .000$ (2-tailed) were also significant. No other relationships between family diagnoses and ADSA total clinical scores proved significant.

A comparison of participants who reported receiving a professional diagnosis of ADHD with participants who had a family member(s) with the same diagnosis yielded significant results, $\chi^2(1) = 1.56, p = .000$, as did participants who received a diagnosis of Learning Disability as compared to family members with the same diagnosis, $\chi^2(1) = 14.61, p = .001$.

Further Analysis of the ADSA and WURS

An investigation of the ability of the nine ADSA subscales to predict WURS clinical scores of 46 and greater was conducted using a stepwise logistical regression analysis. Problems encountered with multicolinearity (likely due to the overlap of individual items for more than one subscale) limited analysis possibilities.

Subsequent to the attempted stepwise logistical regression analysis, a factor analysis was performed on the WURS using an oblique rotation method. Because of problems with multicolinearity, the first attempt using 25 iterations failed to produce a
satisfactory solution, so the number of iterations was raised to 50. This produced a matrix
with variables loading on four factors. All variables loading at .40 or greater were utilized
in the analysis, while those loading at less than .40 were not considered. Additionally,
each factor had to load on at least four variables to be considered. The choice to discard
variables loading at less than .40 was based upon a study by Stein, et al. (1995), in which
the authors examined the factor structure of the WURS and discarded variables loading at
less than .40, considering them too weak to include in the analysis. Since the intent was to
compare the variable loading on the WURS for this study to that of Stein, et al., their
criteria for factor inclusion were used.

In their analysis, Stein, et al. (1995) found factor loading resulted in five subscales
that accounted for 71% of the variance. The emergent subscales were labeled as Conduct
Problems (Sub1), Learning Problems (Sub2), Stress Intolerance (Sub3), Attention
Problems (Sub4), and Social Competence (Sub5).

Four factors explaining 46.76% of the variance for the individual scores on each
item of the WURS emerged in the factor analysis of the DV population used in this study
(see Table 10).

Table 10: Comparison of Factor Analysis Subscale Loading for the WURS

<table>
<thead>
<tr>
<th>Items</th>
<th>Stein, et al Subscales**</th>
<th>Current Study Factors***</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Active, restless, always on the go</td>
<td>Sub1 Sub2 Sub3 Sub4 Sub5</td>
<td>Fac1 Fac2 Fac3 Fac4</td>
</tr>
<tr>
<td>2. Afraid of things</td>
<td>.10 .02 .31 .41 -.42</td>
<td>* * * *</td>
</tr>
<tr>
<td>3. Concentration problems, easily distracted</td>
<td>-.04 .20 .20 .67 -.06</td>
<td>.20 .53 * .14</td>
</tr>
<tr>
<td>4. Anxious, worrying</td>
<td>.01 .10 .45 .04 .25</td>
<td>* .86 * -.21</td>
</tr>
<tr>
<td>5. Nervous, fidgety</td>
<td>-.03 -.07 .42 .37 .09</td>
<td>* .48 * .23</td>
</tr>
<tr>
<td>6. Inattentive, daydreaming</td>
<td>.00 .15 .12 .60 -.01</td>
<td>-.11 .38 * .49</td>
</tr>
</tbody>
</table>
Table 10: Continued

<table>
<thead>
<tr>
<th>Items</th>
<th>Stein, et al Subscales**</th>
<th>**</th>
<th>Current Study Factors***</th>
<th>**</th>
<th>**</th>
<th>**</th>
<th>**</th>
<th>**</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Hot or short tempered, low boiling point</td>
<td>.42 .07 .49 -.13 -.01</td>
<td></td>
<td>.73 .13 .14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Shy, sensitive</td>
<td>.04 .17 .50 .00 .05 .36</td>
<td></td>
<td>-.11 .69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Temper outbursts, tantrums</td>
<td>.36 .12 .50 .03 -.03 .03</td>
<td></td>
<td>.63 .22 .17 .11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Trouble with stick-to-it-iveness</td>
<td>.05 .03 .12 .63 .08 .01</td>
<td></td>
<td>*.0 * .59</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Stubborn, strong-willed</td>
<td>.41 -.05 .22 .19 -.08 .47</td>
<td></td>
<td>*.0 * *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Sad or blue, depressed, unhappy</td>
<td>.25 .07 .39 -.06 .44 .44</td>
<td></td>
<td>*.0 .87 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Uncautious, daredevilish, pranks</td>
<td>.46 .05 -.01 .34 -.29</td>
<td></td>
<td>.18 -.21 .14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Not getting a kick out of things, dissatisfied with life</td>
<td>.29 .01 .42 -.07 .40</td>
<td></td>
<td>.16 .44 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Disobedient with parents, rebellious</td>
<td>.68 -.08 .01 .21 .04 .44</td>
<td></td>
<td>-.26 *.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Low opinion of myself</td>
<td>.20 .09 .25 .09 .54 .69</td>
<td></td>
<td>*.0 *.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Irritable</td>
<td>.37 -.06 .49 -.07 .13 .50</td>
<td></td>
<td>-.27 -.13 .13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Outgoing, friendly, enjoy company</td>
<td>-.15 .01 -.00 -.10 -.52</td>
<td></td>
<td>*.0 *.18 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Sloppy, disorganized</td>
<td>.12 .01 -.12 .64 .04 .28</td>
<td></td>
<td>*.0 *.87</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Moody, ups and downs</td>
<td>.35 .01 .39 -.05 .25 .73</td>
<td></td>
<td>.25 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Feel angry</td>
<td>.37 .06 .51 -.03 .16 .46</td>
<td></td>
<td>.38 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Have friends, popular</td>
<td>-.13 -.09 .01 .08 -.65</td>
<td></td>
<td>.11 -.11 -.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Well organized, neat, tidy</td>
<td>-.01 -.02 -.20 -.55 .14</td>
<td></td>
<td>*.0 *.19 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Acting without thinking, impulsive</td>
<td>.28 .05 .26 .39 -.17 .10</td>
<td></td>
<td>.16 *.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Tendency to be immature</td>
<td>.16 .12 .14 .42 -.01</td>
<td></td>
<td>.17 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Feel guilty, regretful</td>
<td>.17 .10 .41 .07 .31 .32</td>
<td></td>
<td>.72 -.10 .0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. Losing control of myself</td>
<td>.20 .11 .60 .04 -.03 .65</td>
<td></td>
<td>.18 *.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Tendency to be or act irrational</td>
<td>.32 .05 .38 .23 .02 .58</td>
<td></td>
<td>*.0 *.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Unpopular with other children, didn’t keep friends for long, didn’t get along</td>
<td>.09 -.03 .15 .18 .46 .10</td>
<td></td>
<td>*.0 *.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Poorly coordinated</td>
<td>-.07 -.09 .06 .06 .40</td>
<td></td>
<td>*.0 .30 -.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Afraid of losing control of self</td>
<td>.19 .01 .37 .00 .19 .12</td>
<td></td>
<td>.25 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Well coordinated, picked first in games</td>
<td>-.13 -.16 -.12 .12 -.52</td>
<td></td>
<td>*.0 *.12</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>34. Ran away from home</td>
<td>.41 .25 -.04 -.08 .02 .32</td>
<td></td>
<td>.13 .13 .0 **</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>35. Getting into fights</td>
<td>.53 .10 -.08 .06 -.07 .87</td>
<td></td>
<td>*.0 *. **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Teased other children</td>
<td>.58 .00 .01 .02 -.04 .05</td>
<td></td>
<td>*.0 *.0 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. Leader, bossy</td>
<td>-.41 -.14 .20 .06 -.31</td>
<td></td>
<td>.69 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>38. Difficulty getting awake</td>
<td>.19 .13 .07 .18 -.03 .16</td>
<td></td>
<td>.05 -.17 .11</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>39. Follower, led around too much</td>
<td>.18 .18 -.03 .04 .42 .13</td>
<td></td>
<td>.31 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. Trouble seeing things from someone else’s point of view</td>
<td>.48 .01 .19 .06 .07 .49</td>
<td></td>
<td>.31 .17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. Trouble with authorities, school</td>
<td>.58 -.02 -.06 .33 -.02 .59</td>
<td></td>
<td>-.24 *.0 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>42. Trouble with police, booked, convicted</td>
<td>.41 .15 -.18 .03 .09 .55</td>
<td></td>
<td>-.13 -.27 -.13 -.27</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>43. Headaches</td>
<td>-.07 .08 .30 -.05 .01 .24</td>
<td></td>
<td>*.0 *.15</td>
<td></td>
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<tr>
<td>44. Stomachaches</td>
<td>-.04 .01 .13 .19 .03 -.18</td>
<td></td>
<td>.29 *.0 **</td>
<td></td>
<td></td>
<td></td>
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Table 10: Continued

<table>
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<tr>
<th>Items</th>
<th>Stein, et al Subscales**</th>
<th>Current Study Factors***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sub 1</td>
<td>Sub 2</td>
</tr>
<tr>
<td>45. Constipation</td>
<td>.00</td>
<td>-.05</td>
</tr>
<tr>
<td>46. Diarrhea</td>
<td>-.05</td>
<td>.04</td>
</tr>
<tr>
<td>47. Food allergies</td>
<td>-.02</td>
<td>.00</td>
</tr>
<tr>
<td>48. Other allergies</td>
<td>-.06</td>
<td>.03</td>
</tr>
<tr>
<td>49. Bedwetting</td>
<td>.06</td>
<td>.08</td>
</tr>
<tr>
<td>50. Overall a good student, fast learner</td>
<td>.05</td>
<td>-.48</td>
</tr>
<tr>
<td>51. Overall a poor student, slow learner</td>
<td>.05</td>
<td>.73</td>
</tr>
<tr>
<td>52. Slow in learning to read</td>
<td>-.13</td>
<td>.92</td>
</tr>
<tr>
<td>53. Slow reader</td>
<td>-.14</td>
<td>.85</td>
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<tr>
<td>54. Trouble reversing letters</td>
<td>.14</td>
<td>.53</td>
</tr>
<tr>
<td>55. Problems with spelling</td>
<td>.01</td>
<td>.59</td>
</tr>
<tr>
<td>56. Trouble with mathematics or numbers</td>
<td>.06</td>
<td>.29</td>
</tr>
<tr>
<td>57. Bad handwriting</td>
<td>.13</td>
<td>.10</td>
</tr>
<tr>
<td>58. Able to read pretty well, but never really enjoyed reading</td>
<td>-.08</td>
<td>.47</td>
</tr>
<tr>
<td>59. Did not achieve up to potential</td>
<td>.11</td>
<td>.28</td>
</tr>
<tr>
<td>60. Repeated grades</td>
<td>.04</td>
<td>.37</td>
</tr>
<tr>
<td>61. Suspended or expelled</td>
<td>.33</td>
<td>.14</td>
</tr>
</tbody>
</table>

Notes: Underline indicates significant factor loading. Question 33 not included in study because it is specific to females. Accounted for variance: Factor 1 = 30.65%, Factor 2 = 8.15%, Factor 3 = 4.95%, and Factor 4 = 3.01%. Total accounted for variance = 46.76%.

*Scores too small to be reported by statistical program

**Sub1=Conduct Problems, Sub2=Learning Problems, Sub3=Stress Intolerance, Sub4=Attention Problems, and Sub5=Social Competence. ***Factor 1=Conduct/Mood Problems, Factor 2=Stress Intolerance, Factor 3=Learning Problems, Factor 4=Attention Problems

Factor 1 loaded on 16 variables and most closely matched Stein, et al.’s (1995) subscale 1 (Conduct Problems), with which it matched on eight of the variables. The additional eight variables for factor 1 were all suggestive of mood lability, conduct problems/antisocial behaviors. Factor 2 loaded on 10 variables and most closely matched Stein, et al.’s subscale 3 (Stress Intolerance), with which it matched on four of the variables. The additional six variables for factor 2 were suggestive of self-concept and distractibility. The five variables for subscale 3 with which factor 2 did not match were all
loaded on factor 1, as were suggestive of conduct problems/antisocial behaviors. Factor 3
loaded on five variables and most closely matched Stein, et al.’s subscale 2 (Learning
Problems), with which it matched on all five variables. Subscale 2 also included loading
on two variables not included in factor 3, suggesting the respondent was a poor student
and slow learner. These two did not load on any of the four factors for the present study.
Factor 4 loaded on five variables and most closely matched Stein, et al.’s subscale 4
(Attention Problems), with which it matched on four variables. The one variable on which
factor 4 did not match was a variable suggestive of impulsivity. Additionally, subscale 4
included three variables on which factor 4 did not load, suggestive of disorganization,
distractibility and overactivity.

Using Stein, et al.’s (1995) subscale description for categorization of factors, the
following descriptions seem to apply to the four factors for the current sample: Factor 1 is
suggestive of conduct/mood problems and antisocial behaviors, factor 2 is suggestive of
stress intolerance and frustration, factor 3 is suggestive of learning problems, and factor 4
is suggestive of attention problems. Factor 1 loaded the heaviest, and accounted for
30.65% of the variance. Factor 2 accounted for 8.15% of the variance, factor 3 accounted
for 4.95% of the variance, and factor 4 accounted for 3.01% of the variance. Thus it
appears that the greatest amount of variance in the WURS for the DV participants used in
this study was explained by variables that suggest conduct problems, mood problems and
antisocial behaviors. An arrangement of variables to form a factor suggesting stress
intolerance and frustration accounted for the next highest amount of variance, followed by
a factor suggesting learning problems. The final factor used in this analysis accounting for
the smallest level of explained variance is suggestive of attention problems.
A factor analysis of the ADSA responses using an oblique rotation failed to find a satisfactory solution in 25 iterations. Raising the number of iterations to 50 still failed to achieve a satisfactory solution. This failure is believed to be the result of multicollinearity problems in the ADSA scale itself.

The ADSA and Adult ADHD

Fifteen of the participants in this study met the clinical criteria for the ADSA suggesting adult ADHD. In an attempt to better understand these 15 men (hereinafter referred to as the adult ADHD group), several analyses were performed. A chi-square analysis comparing the adult ADHD group to the non-ADHD group on the variables of witnessing verbal abuse and physical violence as children showed no significance ($\chi^2(1) = 1.53, p = .215$, and $\chi^2(1) = .013, p = .909$, respectively, 2-tailed). Thus, the adult ADHD group was no more likely to have witnessed verbal abuse or physical violence as children, than the non-ADHD group.

Further analyses compared both groups on the variables of employment at time of arrest, $\chi^2(1) = .110, p = .485$, relationship status, $\chi^2(5) = 8.48, p = .131$, earning a high school diploma, $\chi^2(1) = .090, p = .764$, earning a GED, $\chi^2(1) = .001, p = .979$, ethnicity (race), $\chi^2(1) = 3.97, p = .553$, self-reported drug and/or alcohol problems, $\chi^2(1) = 1.54, p = .214$, treatment for a drug and/or alcohol problem, $\chi^2(1) = 1.87, p = .171$, but all were insignificant on any of these variables. A comparison of both groups to participant-reported family diagnoses yielded no significant findings.
An analysis of the adult ADHD group to the non-ADHD group on the variables of number of times engaged in physical violence with a domestic partner, $t (62) = 3.45, p = .004$, number of times changed jobs in the past 5 years, $t (62) = 2.77, p = .007$, and the WURS total clinical score all reached significance $t (63) = 4.39, p = .000$ (2-tailed).

However, converting the number of times engaged in violence with someone other than a domestic partner since age 18 (genviol) to a dichotomous variable by using a cut point of 10 or more times, and comparing that to the WURS total clinical score for all participants yielded a significant result, $t (63) = 3.03, p = .004$ (2-tailed). Fifteen participants had a genviol frequency of 10 or more times. Six of those were also members of the adult ADHD group. All but two of the 15 men in the adult ADHD group reported engaging in physical violence with someone other than a domestic partner 1 or more times since age 18.

Fifty participants in this study fell below the clinical cutoff score on ADSA total score scale. Therefore they were not considered to have met the criteria suggesting adult ADHD symptomatology. Yet of this group of 50, 46 (92%) met or surpassed the WURS cutoff score of 36, and 28 (56%) met or surpassed the WURS cutoff score of 46. A t-test revealed that the 15 participants meeting the ADSA clinical criteria for adult ADHD had significantly higher WURS total clinical mean scores, $t (63) = 4.39, p = .000$ (2-tailed) ($M=79.13, SD=21.14$) than the 50 participants not meeting the ADSA clinical criteria for adult ADHD ($M=54.43, SD=18.46$).
DISCUSSION

Information in the discussion section is presented under the subheadings of research hypothesis, unexpected findings, cautions, limitations, implications, suggestions for further research, and concluding thoughts.

Research Hypothesis

The research hypothesis will be explored from four dimensions: General results, WURS results, WURS factor analysis results, and ADSA results.

General Results

Results of this study confirmed the hypothesis that a significant number of male domestic violence perpetrators enrolled in a court mandated treatment program in northern Nevada, exhibit a behavioral profile consistent with adult attention deficit hyperactivity disorder as measured by the Attention Deficit Scales for Adults (ADSA). The fact that 15 participants in this study met the clinical criteria suggesting adult ADHD on the ADSA, represents a substantially larger number than would be expected in the population in general. Using current prevalence rates from the DSM-IV (APA, 1994), 3-5% of the general population are expected to have ADHD. This would suggest that no more than two and four of the participants in this study would have had ADHD as children. Similarly, current prevalence rates for adult ADHD are that 30-50% of children with ADHD will go on to exhibit symptoms of the disorder into adulthood (Jackson &
Farrugia, 1997; Wender, 1998). This would suggest that no more than one to two of the participants in this study would be expected to exhibit symptoms of adult ADHD.

Using the general population upper prevalence limits for childhood (5%) and adulthood (50%) as comparisons, the prevalence of those meeting the criteria for adult ADHD as measured by the ADSA in this study is 7.5 times that of the general population (APA, 1994; Jackson & Farrugia, 1997; Wender, 1998). It is clear therefore, that these results far surpass what would be expected. Thus, it appears there is a subgroup (23%) of male DV perpetrators in this sample that could be classified as having adult ADHD. This finding is new and has not previously been reported in the literature. The finding suggests a link between ADHD and DV for this sample of men. The implications for this finding will be discussed at a later point in this paper.

WURS Results

The WURS results were strongly supportive of the presence of adult ADHD in the group of men in this study. In fact, the WURS results were so high they could be viewed with suspicion. How can one make sense of them? In the following paragraphs, the WURS results will be explored relative to a variety of factors (e.g., familial psychopathology, violence, employment, etc.), followed by a brief summary.

In order to receive a diagnosis of adult ADHD, the individual in question must have had the disorder in childhood. Using the WURS to investigate the presence of childhood symptoms of ADHD, resulted in 93.8% of the participants in this study reaching a clinical cutoff score of 36 or greater, and 64.6% reaching a clinical cutoff score of 46 or
greater (cutoff scores suggested by Ward, et al., 1993). Using the more liberal childhood prevalence rate of 5% (APA, 1994) and the more conservative cutoff score of 46, still suggests that over 12 times as many participants in this study would have met the criteria for a diagnosis of ADHD as children than would be expected in the general population.

Since the WURS seems to suggest the presence of ADHD and CD behaviors in this sample as children, one might reasonably expect to find supportive evidence in the DSM-IV diagnostic questions in Part IV of the questionnaire. Six of the participants meeting the ADSA total clinical score for ADHD in this study, self-identified as having received a professional diagnosis of ADHD at some point in their lives. However, none of the participants meeting the ADSA criteria for ADHD identified themselves or any family members as having ever been diagnosed with CD. This may be because ADHD is a more commonly known diagnosis and is frequently treated with medication. Conduct Disorder however, is not treated with medication. Additionally, ADHD is treated as a disease, whereas CD is viewed as a behavioral problem. Behavioral problems are often treated with classroom management strategies, psychotherapy and counseling, rather than with medication, and the diagnosis may be less frequently shared with the client than is the case with ADHD. Therefore, in light of the suggested presence of CD and ADHD behaviors from the high scores on the WURS, it is still likely that both are present for this group.

What about the presence of other disorders in this group that may have confounded the WURS results? Ward, et al. (1993) reported that a group of individuals qualifying for a diagnosis of Borderline Personality Disorder (BPD), who were not used in their norming study, also had elevated WURS scores. The authors suggest this is due to symptom overlap (e.g., affective lability, volatile temper, and impulsivity) between ADHD
and BPD. Dutton (1994), Beasley and Stoltenberg (1992), and Hastings and Hamberger (1988) suggest BPD is a personality characteristic found in some DV perpetrators. It seems reasonable then, that some portion of the men in this study were really reporting symptoms of BPD on the WURS. Since the WURS does not seem to be able to clearly delineate ADHD and CD, it may not clearly delineate BPD either, particularly considering the findings of Ward, et al., (1993).

Another possible explanation for the WURS results is that many of those exceeding the cutoff score might actually have had a behavioral profile consistent with a diagnosis of ADHD as children. This explanation gains support when considering that 23% of the participants also met the ADSA criteria suggesting a behavioral profile consistent with a diagnosis of ADHD as an adult. Taking into account Wender’s (1998) prevalence rate that at least one third of the children who qualify for an ADHD diagnosis will continue to display symptoms in adulthood, the ADSA results suggest that 69% of the sample would have had a behavioral profile consistent with ADHD as children. When using the more conservative WURS cutoff score of 46, 64.6% of the sample in this study fall into this category. This would seem to support the position that ADHD in fact explains the high WURS scores.

Investigating further, the DSM-IV reported that persons diagnosed as having ADHD have high familial incidences of mood and anxiety disorders (APA, 1994). Hampton, et al. (1993) reported that parental depression is associated with physical child abuse. If persons with ADHD have a high familial incidence of mood disorders, then it may well be that they are more likely to witness physical and verbal abuse, and go on to engage in patterns of physical and verbal abuse as adults. This line of reasoning seems
more relevant when considering that the only significant association between the DSM diagnostic variables from the questionnaire (Part IV, questions 1-5) and the nine subscales of the ADSA was between the reported incidence of familial depression and subscale 7 (consistency/long-term). Of the ADSA's four predictive subscales, subscale 7 was reported by Triolo & Murphy (1996) as the strongest predictor of ADHD. This then, would suggest that individuals with ADHD who had a parent with clinical depression would be more likely to witness abuse. Research suggests (Dutton, 1995a; Straus & Gelles, 1990) that individuals witnessing violence in the home as children are at greater risk for becoming abusers themselves. This reasoning then would add support the position that high WURS scores of participants in this study were attributable to ADHD symptoms, since they are enrolled in a treatment program for DV.

Subscale 6 (emotive) of the ADSA is comprised of 10 questions, four of which are suggestive of CD/Antisocial behaviors as well as emotional/mood problems. A total of 15 participants scored one standard deviation or greater above the norm on this scale. Twelve of those individuals met the criteria for a diagnosis of ADHD on the ADSA, and three did not. In light of the high frequency of clinically significant WURS scores, and the reported inability of the WURS to differentiate between CD and ADHD (Vitelli, 1996), subscale 6 of the ADSA may be more suggestive of CD/Antisocial behaviors. This then would add support for the position that the high WURS scores of participants in this study were attributable to a combination of CD and ADHD symptoms.

A study by Politano, et al., (1989) investigating aspects of CD found that children diagnosed as having CD reported feeling as though nothing was fun in their lives. If this is accurate, and if the current group under study reflects a high incidence of behaviors
consistent with a childhood diagnosis of CD, then one might expect high scores on WURS question 14 (As a child I was dissatisfied with life), and correspondingly high scores on ADSA question 39 (Life seems boring). In fact, just the opposite appears to be true. Over 73% of the participants in this study responded to WURS question 14 with "not at all/slightly" or "mildly". Less than 14% responded with "quite a bit" or "very much" to this question. This suggests that the majority of participants in this study did not believe they were dissatisfied with life as children between the ages of 6 and 10. Similarly, over 54% of the participants responded with "never" or "seldom" to ADSA question 39. Less than 17% responded "often" or "always." This suggests that as adults, most of the participants in this study do not find life boring. In light of these findings, there are several possible explanations.

Firstly, it may be that the participants in this study had difficulty remembering whether or not they were dissatisfied with life between the ages of 6 and 10 years. While it might be easy to remember whether or not one was easily distracted, it may be that the concept of dissatisfaction is too general and difficult to discern at that early age. Wender (1998) supports this position by reporting that adults with ADHD are more able to report specific behaviors as a child, rather than general behaviors or states of being.

Secondly, Politano, et al.'s (1989) study examined children, not adults. It is not clear whether adults who were diagnosed with CD as children still find life boring. Thirdly, it may be that this variable is not a good criterion for the diagnosis of CD. Fourthly, it may be that an assessment of related behaviors might be a better way of assessing this variable, suggesting that construct validity may be an issue, in terms of the way in which the question was structured.
Finally, it may be that the responses on the WURS by the participants in this study are suggestive of other disorders diagnosed in childhood, particularly ADHD. However, in combination with the other evidence previously presented, it seems more likely that the high WURS scores of participants in this study were attributable to a combination of CD, ADHD and perhaps even BPD symptoms.

The significant findings that self-reported anxiety, depression, bipolar disorder, schizophrenia, and alcohol/drug problems were related to the WURS total clinical score seems to be indicative of symptom overlap of ADHD with other disorders, and of the WURS difficulty in discriminating ADHD from some other disorders such as CD (Vitelli, 1996). The DSM-IV is clear that people diagnosed as having ADHD, and those diagnosed as having CD often have co-occurring substance abuse problems (APA, 1994). Therefore it is likely that these findings suggest the presence of both ADHD and CD behaviors in the men in this study.

The presence of a significant relationship between the familial prevalence of ADHD, bipolar disorder, and depression with the WURS total clinical score seems to be supportive of the presence of ADHD behaviors in childhood for those having high WURS total scores. This assertion is made because of the familial incidence of these disorders in persons diagnosed as having ADHD. This line of thinking adds support for the position that the high WURS scores were attributable to the childhood presence of ADHD behaviors for the participants in this study. However once again, there is nothing that precludes the familial occurrence of any of the above disorders with CD or BPD. Support for this position comes from the DSM-IV, which reports that families with members having mood disorders or ADHD are more likely to have members with CD (APA, 1994).
It would seem then, that the WURS reported inability to discriminate between ADHD and CD (Vitelli, 1996) may suggest the presence of both in the men in this study as children.

A significant relationship was found between those participants who engaged in violence with someone other than a domestic partner (genviol) 10 or more times since age 18, and the WURS total clinical score. This finding suggests that those with higher WURS total clinical scores were more likely to have had a greater frequency of violent behavior with someone other than a domestic partner subsequent to age 18. Fifteen participants had a genviol frequency of 10 or more times. Six of those were also members of the adult ADHD group. All but two of the 15 men in the adult ADHD group reported engaging in physical violence with someone other than a domestic partner 1 or more times since age 18. These findings suggest a pattern of physical violence outside the domestic relationship for all but two of the participants meeting the ADSA criteria suggesting adult ADHD. Interpretation of this finding is difficult, however. These findings might be more suggestive of CD than ADHD, even though ADHD is frequently characterized accompanied by a “short fuse,” or a “low boiling point” (Wender, 1998, p.127). One of the common symptoms of CD is the initiation of “frequent physical fights” (APA, 1994, p. 86), which would lend support for the position that CD accounts for this finding. However, the mood lability associated with ADHD may also account for the results. The fact that six of these violent men also met the ADSA clinical criteria for adult ADHD, and that all but two of the adult ADHD group had engaged in physical violence with someone other than a domestic partner 1 or more times since the age of 18 may have a different explanation. Could it be that the men in the adult ADHD group were more violent as
children, than other adults with ADHD? If so, this would suggest the presence of comorbid CD.

While none of the participants in this study meeting the criteria for adult ADHD reported self or familial occurrences of CD, there is evidence to support the presence of those behaviors accounting for at least some portion of the high WURS scores. For example, of the participants not meeting the adult ADHD criteria, two reported having been diagnosed with CD, and four reported a family member who had been diagnosed with CD. Also, fifteen (23%) of the participants in this study scored greater than one standard deviation on subscale 6 of the ADSA. Additional support comes from Vitelli (1996), and associated features and symptoms of the disorder, and the familial prevalence of other disorders (APA, 1994). Evidence for some portion of the high participant scores on the WURS coming from symptoms of BPD is also supported in the literature (Dutton, 1994; Beasley & Stoltenberg, 1992; Hastings & Hamberger, 1988). Finally, evidence to support that some portion of the high participant WURS scores is attributable to adult ADHD comes from Wender's (1998) suggested adult ADHD prevalence rate of one third; from the incidence of personal and familial disorders and their association with subscale 7 of the ADSA; and from the lack of evidence related to participants finding life boring as children.

WURS Factor Analysis

An examination of the factor analysis of the WURS suggests that conduct problems/mood problems/antisocial behaviors account for the greatest amount of variance
in the scores. This finding supports that idea that the WURS does not discriminate well between ADHD and CD/Antisocial Personality disorders (Vitelli, 1996). Further strength for this argument comes from the high comorbidity of CD with ADHD, and symptom overlap (APA, 1994; Wender, 1998; Whiteman & Novotni, 1995). Thus it appears that the high WURS scores of the participants in this study may be attributable to a combination of CD and ADHD symptoms.

Stress intolerance accounted for the second largest amount of explained variance among the four factors. Stress intolerance has been reported by Wender (1998) as a variable common to many with a diagnosis of adult ADHD, and in childhood is reported by the DSM-IV as low frustration tolerance (APA, 1994). There appears to be no data to support the presence of stress intolerance with CD/Antisocial persons without comorbid disorders such as ADHD. Thus this finding is further support for the argument that the high WURS scores of participants in this study were attributable to a combination of CD and ADHD symptoms.

Learning problems accounted for the third largest amount of explained variance among the four factors. Learning problems are frequently a significant feature of a childhood ADHD diagnosis, but are not specifically related to CD/Antisocial persons, except as comorbid disorders. CD is reported to co-occur in 10-25% of persons with learning disorders (APA, 1994). ADHD is reported to have a similar comorbidity prevalence rate with learning disorders of between 10-25%. However, the questions included in this factor are suggestive of ADHD symptoms, such as “slow reader,” “slow in learning to read,” and “able to read pretty well, but never really enjoyed reading” (see Table 10). Therefore, this finding would also seem to lend support to the argument that
the high WURS scores of participants in this study were attributable to a combination of CD and ADHD symptoms.

The final factor which accounted for the fourth largest amount of explained variance was attention problems. In addition to attention problems, the fourth factor also contained variables suggesting impulsivity. This combination independent of the other three factors might be suggestive of a mood disorder, and/or borderline personality disorder. The ability to concentrate, focus and attend can be directly affected by the current state of events affecting one’s life. For example, someone in the midst of a bitter divorce might appear inattentive, distant, and/or absent minded to others. However, in the presence of the other three factors, and particularly since it had the lightest loading, this finding would seem to add support once again to the position that the high WURS scores of participants in this study were attributable to a combination of CD and ADHD symptoms.

The greatest amount of variance in WURS total scores (30.65%) for participants in this study was accounted for by 16 variables subsumed under factor 1 with the categorical heading of conduct problems/mood problems/antisocial behaviors. If the high number of participants scoring above 36 or 46 on the WURS were retrospectively reporting symptoms of ADHD, one might expect factors 4 (attention problems), 3 (stress intolerance) and 2 (learning problems) to account for the greatest amount of variance. In fact they only account for roughly half as much variance (16.11%) as factor 1. This strongly suggests that the high scores on the WURS are attributable to CD behaviors, followed by behaviors consistent with ADHD. Thus it seems reasonable that some of the participants in this study as children had behaviors consistent with a diagnosis of CD,
some had behaviors consistent with a diagnosis or ADHD, and some had behaviors consistent with a comorbid diagnosis of CD and ADHD. It still may be that some exhibited behaviors consistent with BPD, however the only overlapping symptoms between ADHD and BPD that were assessed in this study were impulsivity, hot-temper, mood lability and relationship difficulties. Since these symptoms are common to both, and since symptoms unique to BPD were not measured, it would be difficult to conclusively say whether or not BPD symptoms were present in some portion of the participants in this study as children.

Since the high WURS scores seem to indicate the presence of ADHD, CD and possibly BPD symptoms in a large portion of the participants in this study, the next step is to investigate the results of the ADSA for supportive or disconfirmatory data.

ADSA Results and Adult ADHD

The results of the ADSA suggest that symptoms consistent with an adult ADHD behavioral profile were present in a significant portion of the men in this study. What follows then, is a further explanation of those findings.

The evaluation of the nine ADSA subscales for the 16 participants scoring one standard deviation or more above the mean on the ADSA total clinical scale revealed clear evidence that 14 had a behavioral profile consistent with adult ADHD. One of the participants scored greater than two standard deviations above the norm for several of the subscales, and exhibited a pattern more suggestive of mood disorders than of ADHD. This participant was not included in the adult ADHD group. Another participant scored
high on all the subscales and the ADSA total clinical score, suggesting the presence of several disorders. He reported having been professionally diagnosed as having depression, borderline personality disorder, bipolar disorder, anxiety and ADHD. Because he reported having been diagnosed with ADHD his profile was added to the other 14 participants meeting the adult ADHD criteria, as this was considered confirmatory evidence of the existence of ADHD. Therefore 15 participants (23%) met the ADSA criteria suggesting the presence of adult ADHD.

The low percentage (23%) of this study’s participants meeting the ADSA criteria for a profile consistent with a diagnosis of ADHD when compared to the number surpassing the cutoff scores on the WURS may be due to multiple factors. Firstly, the literature suggests that fewer than 50% of children with ADHD will continue to exhibit symptoms into adulthood (Jackson & Farrugia, 1997; Wender, 1998). There are several reasons for this. It has been suggested that over the course of the disorder, symptoms tend to ameliorate as a natural part of the maturation process (Wender, 1998; Whiteman & Novotni, 1995). It has also been suggested that individuals with ADHD learn coping strategies that mask the symptoms in adulthood (Ratey, et al., 1992; Wender, 1998; Whiteman & Novotni, 1995). Others have suggested that the overdiagnosis of ADHD is suggestive of substantial misdiagnosis (Barkley, 1990; Campbell, 1990). Regardless of the reasons, more people with ADHD exhibit symptoms of the disorder in childhood than in adulthood. Thus, it may be that the figure of 23% is actually well within the expected range of adults exhibiting symptoms consistent with a diagnosis of adult ADHD in this study and not low at all.
Secondly, the ADSA instrument itself may not discriminate ADHD in childhood as clearly as it might. This was evidenced by the low incidence (6.2%) of participants scoring above one standard deviation on subscale 8 (childhood). In fact, subscale 8 uses only two questions to establish the presence of ADHD in childhood, both of which relate to academic performance as children. This does not seem to be an adequate assessment of the incidence of childhood ADHD symptoms, in that this finding is in contrast to the high incidence (64.6%) of participants in this study reaching or surpassing the WURS cutoff score of 46. Therefore, it is important to consider the possibility that a higher number of the men in this study really did exhibit symptoms consistent with an ADHD profile in childhood than the ADSA was able to measure. It is also interesting to note that three of the four participants scoring one standard deviation or greater on this subscale also met the ADSA criteria suggesting adult ADHD.

Thirdly, 30.8% of the participants scored one standard deviation or greater on the negative-social subscale (subscale 9). This subscale reflects some CD/antisocial personality characteristics, such as fighting in public places, finding oneself in dangerous situations, exhibiting an oppositional nature, and demonstrating a lack of patience with others. Dutton, (1995a; 1995b), Hampton, et al. (1993), and Viano (1992), reported antisocial tendencies as a personality attribute of some batterers. The high WURS scores in this study reflecting ADHD and CD behaviors, supports this finding. Therefore, it seems reasonable that some portion of the men in this study scored high on this subscale. This same line of reasoning applies to subscale 2 (interpersonal), on which 32.3% of the participants scored one standard deviation or greater. Domestic violence perpetrators by definition, have interpersonal relationship difficulties.
Fifty participants in this study fell below the clinical cutoff score on the ADSA total score scale. As a result, they were not considered to have met the criteria suggesting adult ADHD symptomatology. Yet of this group of 50 men, 46 (92%) met or surpassed the WURS cutoff score of 36, and 28 (56%) met or surpassed the WURS cutoff score of 46. If both groups had high WURS clinical scores, then was there any differentiation between them on the WURS? The results of the t-test reported earlier revealed that the 15 participants meeting the ADSA clinical criteria for adult ADHD had significantly higher WURS total clinical mean scores (M = 79.13, SD = 21.14) than the 50 participants not meeting the ADSA clinical criteria for adult ADHD (M = 54.43, SD = 18.46), t (63) = 4.39, p = .000 (2-tailed). The difference between mean WURS scores for these two groups suggests a quantitative difference between groups, but does it also highlight a qualitative difference? Would those meeting the criteria for a childhood diagnosis of ADHD emerge with significantly different total WURS scores than those meeting the criteria for CD, or CD comorbid with ADHD? This may in fact be true for the participants in this study, since the results show that those meeting the ADSA criteria for a diagnosis of ADHD had WURS total scores roughly 25 points higher than those not meeting the criteria. However, there is no reliable way to clearly identify the others as CD or BPD using the instruments in this study.

Forty percent of the 15 men meeting the criteria suggesting adult ADHD on the ADSA also had a previous professional diagnosis of ADHD, lending confirmatory support to the presence of adult ADHD. Additional supportive evidence comes from the finding that four of them reported a family member with ADHD, six reported a family member as having been diagnosed with depression, and one reported a family member diagnosed as
having bipolar disorder. These findings are supported by the fact that there is a link between ADHD and the occurrence of familial mood disorders and familial ADHD (APA, 1994; Wender, 1998).

The finding that a significant relationship exists between the ADSA total clinical score and the incidence of self-reported anxiety disorder, and borderline personality disorder is notable. Five participants self-reported a diagnosis of anxiety disorder, and three reported a diagnosis of BPD. The DSM-IV (APA, 1994) reports a general population prevalence rate of 2% for BPD, which suggests the self-reported incidence for this study is at more than twice as great as would be expected in the general population. Dutton (1994; 1995a) and Beasley and Stoltenberg (1992) suggest that prevalence rates for BPD in male domestic violence perpetrators may be as high as one-third. Their figure would suggest that the finding for this study is low, and would seem to indicate that many of the participants in this study might be undiagnosed. This lends support for the position that BPD accounts for some portion of the high WURS total clinical scores found in this study. The DSM-IV prevalence rate for generalized anxiety disorder is approximately 5% of the general population. Therefore, the self-reported incidence of anxiety disorder among the participants in this study was slightly less than twice the prevalence rate for the general population. Both of these findings must be interpreted with caution. The question for self-reporting anxiety disorder in this study did not differentiate among the many disorders listed under the general heading of anxiety disorder in the DSM-IV. Additionally, it is quite reasonable to assume that some of the participants in this study have experienced anxiety over the course of their lives, and may have sought treatment for it, particularly considering the interpersonal relationship problems they’ve experienced.
The finding that a significant relationship exists between the incidence of self-reported alcohol and drug abuse problems and high ADSA total clinical scores is supportive of current knowledge about adult ADHD (Wender, 1998). However, it is also important to note that estimates of substance abuse in DV perpetrators run as high as 85% (Straus & Gelles, 1990). Additionally, the DSM-IV (APA, 1994) reports that substance abuse is common among individuals diagnosed as having CD.

The finding of a significant relationship between participants who had changed jobs three or more times in the past five years, and ADSA subscales 1, 2, 3, 6, 7, and 9 adds support for the presence of ADHD, CD and possibly BPD behaviors. It suggests they were more likely to have a behavioral profile suggesting attention-focus/concentration problems (subscale 1), interpersonal relationship problems (subscale 2), impulsivity, hyperactivity and disorganized behaviors (subscale 3), subtle ADHD symptoms that have persisted for a long time (subscale 7), and negatively expressed social problems (subscale 9), such as found with CD and BPD. Thus, the resultant behavioral profile likely represents a mixture of individuals from this study representing ADHD, CD and BPD. This would seem to be supported by the results of the WURS as well.

The previous ADSA results provide strong support for the presence of adult ADHD in some of the men in this sample. This is particularly true of the incidence of familial ADHD and depression, and the antecedent confirmatory diagnoses of ADHD for 40% of the 15 men meeting the ADSA criteria suggesting an adult ADHD diagnosis. Also, the presence of CD and BPD characteristics for the men in this study, continues to gather support from the results on the ADSA subscales.
The finding of the relationship between participants self-reporting a diagnosis of ADHD with participant reports of familial ADHD was not unexpected. It merely confirmed existing knowledge on the occurrence of ADHD in families (APA, 1994). This was also true of the relationship between participants self-reporting a diagnosis of learning disability with participant reports of familial learning disabilities. Again, it merely supported existing knowledge about learning disorders (APA, 1994).

Since 30 respondents (46.2%) spent 13 or more years in school, yet only 15 completed more than 12 grades, this finding suggests that some of the respondents repeated grades. This appears to be validated, as 17 participants indicated they repeated one or more grades. There is some question as to whether or not this figure is actually higher, because the WURS question which illuminates this fact is answered on a five point scale, for which the lowest value response is “Not at all or very slightly.” Some of the respondents may have failed only one grade and therefore considered the question applied only “very slightly” to them. Academic difficulties are often comorbid with ADHD as well as CD. Therefore, the fact that 50 of the participants in this study completed only 12 grades or less may suggest academic disinterest or difficulties, thus lending support for the presence of adult ADHD and CD in the participants in this study. On the other hand, it may be that economic factors, family expectations, and/or cultural factors kept these men from completing more years of school.
Unexpected Findings

A few unexpected findings emerged from this study. The lack of a significant relationship between participant self-reported learning disabilities, or the familial incidence of learning disabilities, and the presence of adult ADHD was surprising, because learning problems are often associated with ADHD (APA, 1994). However, this finding may have other significance. The DSM-IV (APA) reports comorbidity of CD and learning problems. Since only one participant meeting the ADSA criteria suggesting adult ADHD reported the presence of a learning disability (a family member), the position that some participants with high WURS clinical scores may have actually been reporting CD symptoms gains credibility.

For the men in this study, there appears to be no relationship between employment and frequency of violence, whether with a domestic partner or with someone else. This finding is contrary to reports by Dutton (1995a), who found a significant relationship between unemployment and the incidence of domestic violence. This might best be explained by economic factors. Since before the last presidential election, the national economy in the United States has been thriving, and unemployment has been at an all time low (Clinton, 1994; 1995; 1996; 1997; 1998). This perspective is supported by findings from Straus & Gelles (1986; 1990) who reported a decline in severe violence in the period just prior to their study, and also reported the referent period for their study as one of the most prosperous years of the previous decade. Thus it may be that in times of national economic prosperity, unemployment is perceived as a temporary inconvenience, and the stress created by employment termination may have less impact.
The finding that no significant relationship exists between participants who had changed jobs three or more times in the past five years and the frequency of physically violent incidents may have a simple explanation. Only four participants reported earning a bachelor’s degree, and all other participants had less than a four year degree. Therefore, it is likely that most of the participants in this study held non-professional jobs. Since Nevada has experienced a strong economy for the past several years, and since the construction industry in northern Nevada has been growing during that time, it may be that some of the participants held construction related jobs. If this were the case, then frequent job changes would not be unexpected, particularly if changing jobs is interpreted as changing job sites. Thus, it could be that the participants in this study had relatively stable employment patterns, and question wording, rather than employment instability accounts for this finding.

The significant relationship between employment instability as measured by participants who reported changing jobs three or more times in the past five years, and the ADSA total clinical score would seem to suggest a pattern of employment instability for those with clinically significant ADSA total scores. As it turns out, 10 of the 15 participants meeting the ADSA criteria suggesting adult ADHD reported changing jobs three or more times in the previous five years. Wender (1998) suggests that not only is employment instability a correlate of adult ADHD, but many persons with adult ADHD choose jobs in which they work with their hands (e.g., construction, heavy equipment operation, skilled trades), rather than with numbers and words. This explanation supports the above finding of the relationship between employment stability and physical violence, and adds additional support for the presence of ADHD in this sample.
The significant relationship between participants who had changed jobs three or more times in the past five years and ADSA subscales 1, 2, 3, 6, 7, and 9 suggests the presence of attention/focus/concentration problems, interpersonal relationship problems, behavior-disorganized activity problems, emotional problems, and negative-social problems for these participants (see Table 7). According to analyses performed by Triolo & Murphy (1996), the four subscales which best identify ADHD in adulthood were subscale 7 (consistency/long term), subscale 1 (attention-focus/concentration), subscale 3 (behavior-disorganized activity), and subscale 9 (negative-social). Subscale 7 suggests that subtle symptoms, such as difficulty achieving goals, completing tasks, following sequences, maintaining long-term relationships, distractibility and frustration, have been present for a long time; subscale 1 suggests difficulties attending, focusing and concentrating; subscale 3 suggests a pattern of disorganization and/or overactivity, and subscale 9 suggests a pattern of negative social interactions. Each of these four subscales was significantly related to those participants who had changed jobs three or more times in the past five years. This finding then suggests the presence of adult ADHD behaviors, and adds support for the position that adult ADHD is present in this sample at a level greater than found in the general population. The presence of significance on subscales 2, 6, and 9 could also indicate the presence of behaviors associated with CD and BPD.

The 10 men reporting no incidence of physical violence with a domestic partner were investigated to determine if they were somehow different from the rest of the participants in the study. They did not appear to be significantly different on variables of total WURS clinical score, total ADSA clinical score, or number of times they engaged in physical violence with someone other than a domestic partner. Nor did they appear to
differ from the rest of the participants on the occurrence of self-reported or familial disorders, age, number of times arrested, or any other variables, except ethnicity/race, number of children in the home, number of children in the home for whom the participant was financially responsible, and highest grade completed, which are subsequently discussed.

If having children in the home, and having the increased responsibility of being financially responsible for children living in the home can be considered stressors that would increase the likelihood of DV in the home, then perhaps the 10 men who reported zero incidences of physical violence with their domestic partners were being truthful in their responses. This position is supported by the previous findings that eight of the men had no children living in the home, and nine had no children living in the home for whom they are financially responsible. Straus and Gelles (1990) point out that financial stressors are related to the incidence of spousal abuse. However, the presence of children in the home does not by itself relate to the incidence of spousal abuse. It is also important to again mention that denial of abuse is common among batterers (Dutton, 1995a; 1995b; Sonkin, et al., 1985). It is also important to point out that these 10 men may have been verbally abusive without engaging in physical violence with their domestic partner, or may have been physically violent to objects (e.g., dishes, furniture, personal possessions, etc.) without becoming physically violent with their partner. This could explain their response. However, it is unlikely that they were mandated to treatment without having engaged in some form of physically abusive behavior toward a domestic partner.

It is interesting to note that the 10 men reporting no incidence of physical violence with a domestic partner had a higher mean number of years of education than the other 55
men in this study. While educational level does not appear to directly relate to the incidence of DV, economic level does. Straus and Gelles (1990) report that blue-collar employed husbands had an assault rate on their wives 70% greater than that of white-collar husbands. Although income level for the participants in this study is not known, eighty percent of the 10 men reporting no violence with a domestic partner were employed at the time of arrest, and 80% were still employed at the time they were sampled, suggesting they had a steady income. The relationship between no self-reported violence with a domestic partner and educational level may in fact be a spurious finding, because although these 10 men had a higher mean number of years education, four of the men had no degree, and three hadn’t graduated from high school.

As previously reported, seven of the 10 males in this study who indicated they had never engaged in physical violence with a domestic partner were Caucasian, two (20%) were American Indian/Alaskan Native, and one was listed as “Other.” This finding, while representative of the Caucasian portion of the DV group, is over-representative of the American Indian/Alaskan Native members in Washoe County, Nevada. In the group at large, Caucasians represent approximately 74%, while American Indian/Alaskan Natives represent only about 3% of the group. In fact, there were only two participants in the entire study who identified themselves as American Indian/Alaskan Native, and both also reported never having engaged in physical violence with a domestic partner. The importance of this finding is unclear however, because these 10 men are not significantly different than the other 55 men on most of the variables their scores were tested against. Is it possible that the Native American/Alaskan Native communities have little or no family violence? Norton and Manson (1997) reported that a 1991 report by the Indian Health
Service found family violence in Indian communities to be a serious problem. This then, does not seem to be an explanation for the findings. Were these two men and the other eight in denial about their actions? Dutton (1995a; 1995b) and Sonkin, et al. (1985) report that denial of abuse is common in batterers for some time after they enter treatment. Unfortunately, no question was included in the questionnaire to determine the respondent’s length of time in the treatment program. It is known however, that four participants in this study were sampled at the time of their first treatment session, but which four is unclear (W. Dimitroff, personal communication June 10, 1998). Could it be that patriarchal attitudes about family structure and roles support a position of female subservience, in which physical violence toward a spouse is considered normal behavior, and therefore not acknowledged as abuse?

Another unexpected finding was the lack of a significant relationship between witnessing verbal or physical abuse by the participant as a child, and the frequency of physical violence with a domestic partner as an adult. This may be due to the fact that the literature suggests a relationship only between witnessing/experiencing abuse as a child and the act of perpetrating abuse as an adult (Dutton, 1995a; Straus & Gelles, 1990). Thus the frequency of abuse perpetrated as an adult does not seem to be related to witnessing abuse as a child for the participants in this study.

The high incidence of reported substance abuse in this group of men was not an unexpected finding. The literature reports that substance abuse at the time of battering among DV perpetrators is estimated to run as high as 85% (Straus & Gelles, 1990). What did seem surprising is the low reported incidence of men in this study seeking treatment for substance abuse problems. The crux of the surprise here is not the high substance
abuse rate as opposed to the low treatment seeking rate; rather it is the fact that these men were aware of the problem, yet most chose not to seek treatment. Could it be that a sufficiently strong motivation has not yet been encountered to move more of these men to seek treatment? Could it be that treatment was interpreted as meaning psychotherapeutic intervention in either inpatient or outpatient settings, and not Alcoholics Anonymous?

This finding raises more questions than it answers.
IMPLICATIONS

Implications for Treatment

The results of this study carry some suggestions for the therapists treating these individuals. While it would be difficult to categorize the men in these treatment groups by ADHD, CD, and BPD, intervention strategies could be implemented to address certain aspects of those disorders that might improve the treatment outcome.

Since individuals with a diagnosis of ADHD tend to be more easily distracted (APA, 1994), extended exposure to active listening skills is suggested, with adequate time for practice in safe situations. Ideally this would occur through the use of engaging experiential exercises that solidify the concept being presented. It is also important to maintain the relatively spartan environments in which the group therapy is currently held, to minimize distractions and maximize involvement. Additionally, it might prove helpful to have the men in this group evaluate their living environments and find help rearranging them, where possible, to yield less distraction. Fewer distractions in the home environment might improve communication between the DV participant and his significant other. While this may be a formidable task beyond the current resources of some of the men, for others it may prove achievable. Finally, helping these men to become aware of situations in which they might become distracted could be helpful toward improving interpersonal communications, particularly if they are offered techniques to help them refocus once they become aware they are becoming distracted.
Secondly, since individuals with ADHD typically have more difficulty focusing and attending (APA, 1994), revision of the group curriculum to ensure inclusion of more interactional and experiential exercises in which the whole group participates is suggested. This strategy would help keep more members engaged, and hopefully maximize the treatment experience.

Thirdly, since research (Lucker, et al., 1996) suggests that people with ADHD have a lower sound level threshold, and find sound levels to be annoying that others interpret as acceptable, it may be beneficial to raise awareness of this in the groups. Knowledge of this factor could be particularly helpful in understanding personal reaction to increasing sound levels outside of the treatment group. An example of this might be the beginning stages of an argument, where voice levels begin to rise. Based upon Lucker, et al.'s work, it becomes easy to see how an ADHD adult might become annoyed more quickly than a non-ADHD adult, and be more likely to interpret the increasing sound level as threatening. Lucker, et al.'s work also suggested that the ADHD adult might become more distracted, agitated and overactive as the voice levels increase. Support for this position also comes from Murphy, et al., (1992), suggesting aggressive ADHD males will responded to high levels of auditory provocation with aggression.

Fourthly, adults with ADHD are prone to stress intolerance (Wender, 1998). Increasing awareness of this fact, coupled with stress coping strategies may prove useful. For example, identification of specific situations and events that each member finds stressful is in order. It is likely that there will be some overlap between group members, however uniquely stressful situations are sure to arise. This identification process could move beyond the stresses and tension found in the context of interpersonal relationships,
and include stressors encountered in work and other settings. The inclusion of relaxation exercises and guided imagery into the curriculum might prove beneficial too, particularly if presented in a way that is useful beyond the context of the treatment groups.

Fifthly, Heilveil and Clark (1990) reported that children with ADHD have more difficulty identifying problems and greater difficulty solving them. This finding suggests augmenting the curriculum to include problem identification and resolution strategies for these adults. For example, one strategy might be to expose the group members to vignettes of problems, presented in written, audio and video formats. Problems would range in acuity from severe to ambiguous to nonexistent. Once members had become proficient at problem identification, resolution strategies could be brainstormed by the group, or offered by staff. For some, this may go beyond conflict resolution strategies to help addressing simpler life problems that when unresolved, become major stressors leading to over-reactive responses, such as abuse.

Finally, Lufi and Parish-Plass (1995) concluded that children with ADHD had higher external loci of control. In light of this finding, it might be useful to increase the amount of time spent on helping men in these treatment groups investigate their responsibility for the events in their lives. While this is presently done with respect to the incidence of violence, exploration of responsibility for and control over other events occurring in the context of the work setting, extended family relationships, and friendships would be in order as well. The intended result would be an increase of internal locus of control across all venues.

For those participants exhibiting symptoms of CD, it might prove helpful to adjust the curriculum to spend additional time in the development of empathy, since a lack of
empathy is a hallmark of CD (APA, 1994). This treatment focus would also benefit those exhibiting antisocial personality characteristics (APA, 1994). While the current treatment program does address empathy, curriculum revision to include additional group exercises, and individual exercises assigned as homework could prove beneficial. The benefit would likely be enhanced by having individual participants share the results of their homework with the group. As each individual mastered one concept, he could move on to another one. Therefore as an example, some group members might share results of empathy assignments, while others might share results of problem identification assignments.

Since the responses of many men in this study were suggestive of CD behaviors, it is important to review some of what the literature says about CD. The DSM-IV reports of persons diagnosed as having CD that, “especially in ambiguous situations, aggressive individuals with this disorder frequently misperceive the intentions of others as more hostile and threatening than is the case and respond with aggression that they then feel is reasonable and justified” (APA, 1994, p. 87). This is supported by similar findings by (Dodge & Somberg, 1987) with respect to aggressive children, and by Heilveil and Clark (1990) with ADHD children. Therefore, an important addition to the group curriculum, paralleling the problem identification material, would be experiential material to help the perpetrator learn to identify non-hostile, ambiguous situations in the context of his intimate and close interpersonal relationships. This might be presented in the form of videotaped scenarios in which same-sex and opposite-sex actors are portrayed in situations where intentions are sometimes ambiguous, and sometimes clear. Using multiple examples with both male and female actors in a variety of roles could cover most conceivable situations that may arise for the participant. Practice with identification of the
actors intentions, and focus on awareness of personal emotional states might prove beneficial. Additionally, provision of alternative response options to aggression by the group facilitators, and through brainstorming with the group would be helpful. Scenarios could then be modeled in the safety of the group setting and alternative responses practiced to maximize the treatment experience.

Participants exhibiting symptoms of BPD might benefit from referral to a psychiatrist for assessment and possible prescription of psychotropic medication. Additionally, these individuals would probably benefit from individual psychotherapy for the BPD, as well as the group treatment for DV. One treatment without the other would likely prove less effective.

Finally, because of the high reported incidence of alcohol and drug problems with the men in this study, substance abuse treatment is clearly appropriate and recommended. Referral to a substance abuse program with releases of information to highlight treatment progress is recommended as the treatment modality. While the abuse of substances and DV both occur in the same context for many men in this study, the amount of material presently included in the DV treatment curriculum necessitates referral of these individuals to an external substance abuse treatment program. Therefore, treating both issues together is not likely to happen.

As with any effective treatment, the program must be continually evaluated and revised where appropriate. Thus, for the above suggestions, any individuals not responding to the treatment strategies addressing ADHD symptomology should be referred out for individual assessment by a psychiatrist. It may be that treatment with
psychotropic medications will help those individuals respond more amicably to the group treatment strategies.

One additional aspect of treatment that cannot be applied to this group relates directly to childhood. Although some adults diagnosed as having ADHD were not diagnosed with the disorder in childhood, this is when ADHD is most frequently identified. Childhood intervention with social skills training, conflict resolution strategies, problem identification and resolution strategies, empathy training, and emotional awareness training might have improved the quality of these men’s relationships and decreased the incidence of violence. Unfortunately, we cannot travel back in time to apply these interventions to the men in this study. However, if subsequent research supports the findings of this study, programs such as those previously described, targeting male ADHD children, might prove useful in curbing the incidence of DV when they become adults.

Implications for Theory

Beliefs about the causes of DV span a broad range. Some theories approach DV from cultural and social perspectives, attributing causality to the shaping and perpetuating effect of external forces on the perpetrator, the victim or both. Thus, from a paradigmatic perspective, the abusive behaviors are in some way condoned and even fostered by external forces, such as the media’s portrayal of violence, patriarchy, cultural misogyny, the failure of social service systems, and/or the general disintegration of society and the family (Dobash & Dobash, 1980; Gelles, 1983; O’Leary, 1988; Warner, Lee & Lee, 1986). Another genre of theories point to intrapersonal factors affecting the perpetrator,
which are then acted out upon the victim. This might be represented by borderline personality behaviors, antisocial personality behaviors, or CD behaviors. Thus for this perspective, internal forces are inappropriately expressed externally, resulting in abusive behaviors being perpetrated upon a significant other.

A third perspective suggests that interpersonal and systemic factors lead to unresolved issues, which become amplified to a point of violence (Giles-Sims, 1983; Hampton, et al., 1993; Straus, 1973; 1978; Viano, 1992). An example of this might be a family in which the stress from marital problems is amplified by financial problems, leading to violent behavior. This might also be seen as a symmetrical struggle for power and control over the direction of the relationship. A fourth, and perhaps more useful epistemology purports that intrapersonal factors, interpersonal factors and cultural/societal factors all combine in unique ways to create the DV problem (Edleson & Tolman, 1992; Garbarino, 1977). Therefore, from this perspective society’s tacit endorsement of violence and patriarchy lead to attitudes of entitlement in males, which, when intersecting with an intrapersonal predisposition toward psychopathology or violent behavior, and the proper environmental conditions, will result in the perpetration of violence on a significant other. Ineffective or nonexistent social service systems amplify the abuse by failing to support the victims and challenge the abusers.

It is at the point of intersection with intrapersonal factors in the latter theory that I wish to suggest another possible variable: Adult ADHD. Because adult ADHD behaviors were found to be present in 15 of the men in this study, does not mean that ADHD is responsible for their violent behaviors toward a significant other. Neither does it negate that possibility. It is clear that children with ADHD have low frustration thresholds, have
difficulty with focus and concentration, are sensitive to sound levels deemed tolerable to non-ADHD children, are likely to have interpersonal relationship problems, to have difficulty identifying and solving problems, and are likely to respond to perceived threats with aggressive behavior. Yet how are these factors expressed in the context of interpersonal relationships when male children with ADHD become adults? While a nurturing, supportive family environment and exposure to appropriate coping strategies may ameliorate ADHD behaviors in adults, will a lack of these factors exacerbate the behaviors? Although the findings from this study are not generalizable to the larger DV population, I believe that adult ADHD plays a role in explaining the total DV picture for the men studied. What emerges is a holistic and systemic picture at the confluence of external and internal forces which must be investigated in the larger DV population. What is currently absent is a more thorough, generalizable investigation of the impact interpersonal variables have on DV, particularly adult ADHD.

Clearly the act of DV is a poorly chosen response option enlisted to resolve a perceived problem. Whether or not the DV perpetrator is affected by intrapersonal factors such as ADHD, CD or BPD, the act of violence is a choice. If it comes to pass that ADHD is more clearly implicated in the perpetration of DV, it is important to remember that this is only an explanation for the violent behaviors, not an excuse. While some individuals may have a predilection toward violence, the choice to use it can almost always be unlearned.
LIMITATIONS

It would be easy to interpret the overwhelmingly high percentage of participants meeting and surpassing the WURS cutoff scores as strong evidence that the participants in this study would likely have met the criteria for a diagnosis of ADHD as children. While this may in fact be accurate, there are mitigating factors which confound this interpretation of the data.

The first mitigating piece of evidence emerges from a factor analysis conducted on the WURS to determine whether factor loading would suggest support for instrument validity with this sample. The emergent four factor solution accounted for only 46.76% of the variance. This means that over 50% of the variance in WURS total clinical scores for this group is unexplained. It may be that problems with multicolinearity are to blame, which is an outgrowth of symptom overlap between disorders (APA, 1994).

The factor loading also suggests caution, since the factor loading most heavily was suggestive of conduct problems/mood problems/antisocial behaviors. This may be due to the high incidence of comorbidity between ADHD and CD, and the problems with symptom overlap. The bottom line seems to suggest that the WURS may not effectively discriminate between ADHD and CD. However, the resultant factor loading raises a question. Is it possible that ADHD with comorbid CD in males increases the likelihood of becoming batterers later in life?

The fact that the factor analysis did not load most heavily on variables suggesting ADHD is notable. This finding is also supported by reported findings of a factor analysis of the WURS conducted by Stein, et al., (1995). Their findings also suggest that the
WURS may not effectively discriminate between ADHD behaviors and CD. Results of their study showed variables loading on five similar factors which they labeled, "conduct problems", "learning problems", "stress intolerance", "attention problems", and "poor social skills/awkward."

While assessing the strengths and weaknesses of the WURS is not the intent of this study, a few additional remarks may explain the above findings. Several questions on the WURS overlap between ADHD, CD, and BPD domains. For example, being "stubborn and strong-willed" is clearly a component of CD. However, stubbornness and strong-willed behaviors are consistent with ADHD as well. Another example can be found with impulsivity. While impulsivity is a characteristic symptom of ADHD, it is also symptomatic of borderline personality disorder, and antisocial personality disorder. Similarly, mood lability is associated with both ADHD and BPD. Perhaps this is a reflection of the fact that ADHD is a multifaceted syndrome in which those affected will display a range of different symptoms (Ward, et al., 1993; Wender, 1998).

A second mitigating factor (Stein, et al., 1995) relates to the retrospective nature of the WURS. It has been suggested that an individual's current emotional state may influence self-reports of past personality characteristics by intensifying or exaggerating their recall (Radke-Yarrow, Campbell & Burton, 1970). This would seem to suggest that responses on the WURS by participants in this study may have been exaggerated due to their intensified emotional state resulting from the incidents leading up to their court mandated treatment for DV. On the surface, this would seem to explain the preponderance of high WURS total clinical scores in this study. However, other studies seem to support the position that recall is fairly stable over time. For example, Rossini &
O’Connor (1995), in their study investigating the reliability and temporal stability of the WURS found that it demonstrated good temporal stability as well as good internal consistency. The fact that the WURS demonstrated good temporal stability suggests that participants’ recall of childhood behaviors is perhaps more accurate than Radke-Yarrow, et al. might believe. If retrospective measures of childhood behavior are influenced by the emotional state of the participant at the time of measurement, then one would have expected a difference in mean scores between time one and time two in Rossini & O’Connor’s study. However, this did not happen.

In another study by Biederman, et al. (1993) investigating adult ADHD, authors noted the finding that adults are quite capable of providing reliable retrospective clinical information when queried in a systematic fashion. It would seem that unreliable retrospective information stems more from inaccurate questions, rather than inaccurate responses, implicating construct validity problems rather than temporal stability of childhood memory.

Further support comes from Brewin, Andrews & Gotlib (1993), who take the position that the reliability of retrospective childhood data is not compromised by the presence psychopathology, or emotional state. They state that, “...claims concerning the general unreliability of retrospective reports are exaggerated and that there is little reason to link psychiatric status with less reliable or less valid recall of early experiences” (p. 82). Thus it appears that concerns over inaccurate recollection of childhood events may be overstated. Therefore, it is likely that the incidence of high scores on the WURS by participants in this study is an accurate reflection of the questions asked. However, the question arises, what is the instrument truly measuring? It may be that the WURS most
accurately measures the childhood presence of symptoms suggestive of disruptive
behavior disorders, while less clearly delineating ADHD and CD. There is support for this
collection from Vitelli (1996) who reported a high percentage of adult prison inmates
exceeded the WURS cutoff score.

Attempts to perform factor analyses and regression analyses on the ADSA were
unsuccessful due to problems with multicollinearity. Although the ADSA did exhibit
reasonable Cronbach alpha scores for the full scale (alpha = .9277) and for two of the
subscales used in diagnosis of adult ADHD (subscale 1, alpha = .8057; subscale 3, alpha =
.7898), that only speaks to reliability (Borg, Gall & Gall, 1993; Hays, 1988). The issue of
construct validity (Borg, Gall & Gall, 1993) is raised by the failed attempts at factor
analysis and regression analysis. In other words, what is it that is being measured? The
WURS suffers somewhat from this problem as well. Cronbach alpha scores for the full
scale were strong (alpha = .9387). However, as Vitelli (1996) reported, the WURS does
not appear to be able to discriminate between ADHD and CD.

While the WURS is a retrospective look at childhood for the presence of ADHD
behaviors/characteristics, a child living in a household in which physical/verbal/emotional
abuse is occurring would likely exhibit a decreased ability to focus, concentrate and
attend, show signs of anxiety and/or depression, and show signs of Post Traumatic Stress
Disorder such as a reduced capacity to complete assigned tasks, and increased
disorganization. These symptoms might easily be misdiagnosed as ADHD, particularly
lacking information about the family environment. This point is raised because ADHD is
frequently diagnosed in the school setting in the absence of reliable information about the
family environment, and because of the large percentage of participants responding
affirmatively to having witnessed verbal (78.5%) and physical (55.4%) abuse as children. Is it possible that the behaviors measured by the WURS for the men in this study were more a reflection of an abusive family environment as children? This remains unclear.

Finally, sample selection is a limiting factor. Using a convenient and purposive sampling method limits the generalizability of the results. However, since this study intended to build theory, rather than test it, the sampling method is only a minor limitation.

In spite of the limiting factors of this study, there is strong evidence to support the position that ADHD and CD are disorders linked with the DV perpetrators in this group. There is also some evidence of the presence of BPD in this group as well, however study design and instrument limitations preclude the conclusion of its presence in this group.
SUGGESTIONS FOR FURTHER RESEARCH

This study investigated the presence of ADHD behaviors in a sample of DV perpetrators mandated to treatment. Because the sampling method was purposive, generalizations beyond this group are inappropriate. However, the findings from this study seem to suggest that ADHD, CD, and possibly BPD behaviors were present in a significant portion of the group. The magnitude of the presence of ADHD in the group studied provides new information to the field of DV and should be further investigated in studies utilizing random sampling, and matched controls, in which generalizations can be made to the larger DV population.

Secondly, the significant finding that the 15 men meeting the ADSA criteria consistent with a diagnosis of ADHD had mean WURS clinical scores roughly 25 points higher than those not meeting the ADSA criteria raises suggestions for further research. This might be accomplished by using separate groups of DV perpetrators, known ADHD adults, and matched controls. The DV group would also need to have additional measures included to test for the presence of CD and BPD. A study such as this could render the WURS a more useful instrument in the diagnosis of ADHD, and CD and BPD as well.
SUMMARY AND CONCLUSIONS

This study sought to investigate a specific domestic violence perpetrator population for the presence of ADHD behaviors. The results of this study would seem to indicate that 15 of the participants meet the criteria for a diagnosis of adult ADHD as measured by the ADSA. The results also suggest that the WURS did not discriminate well between ADHD, CD, BPD, and antisocial behaviors in this sample.

The ADSA may be better able to discriminate between adult ADHD, CD and BPD, but standards for clear delineation have not yet been set. The fact that 30.8% of the men in this study scored one standard deviation or greater on subscale 9 (negative-social) of the ADSA, suggests the presence of CD and antisocial characteristics. Also, it is clear that roughly one-third (32.3%) of the participants in this study scored one standard deviation or greater on the ADSA subscale 2 (interpersonal), suggesting relationship problems.

The fact that the factor analysis of the WURS loaded heaviest on variables suggesting conduct problems and antisocial behaviors, supports the position that the high WURS scores of participants in this study were a mixture of CD and ADHD behaviors. This position is supported by the finding that the factor loading next heaviest was suggestive of stress intolerance/low frustration tolerance, which is suggestive of ADHD. Thus, for the participants in this study, it appears that a mixture of ADHD, CD and BPD characteristics were present in childhood.

What we currently know about the causes of DV in our society spans a wide range from social, cultural and media influences, to intrapersonal variables such as BPD and
antisocial personality disorder. The addition of other variables such as ADHD can begin to complete the picture. While the results from this study cannot be generalized to the male DV perpetrator population as a whole, they do raise questions and concerns for further exploration. Does ADHD affect a significant portion of the adult male DV perpetrator population? If so, can these individuals be identified as children? Early intervention could potentially decrease the incidence of DV if ADHD were clearly shown to be a factor.

This study was conducted with the intent of contributing new information to the understanding of DV. I firmly believe this has been accomplished. The possibility of ADHD as a factor underlying DV has been raised and established for the group in this study. Adult ADHD combined with other theoretical perspectives may begin to explain the larger DV picture. Now the task is to continue the research to gather more evidence supporting or refuting this finding, such that conclusions can be made about DV in general, and not merely about the group recruited for this study in particular.


APPENDIX
INFORMED CONSENT DOCUMENT

Investigators: Allan R. Mandell, doctoral student, Counselor Education; Lizbeth Gray, Ph.D., Counselor Education, Doctoral Committee Chair.

Purpose: This research study examines current and past individual characteristics and behaviors, including disruptive behavior disorders, of adult males who have been remanded to treatment for domestic violence by the courts. It is hoped that the information gathered will increase the understanding of some of the factors underlying domestic violence, so that ultimately treatment can be enhanced.

Procedures: I have received an oral and a written explanation of this study and I understand that as a participant in this study the following things will happen:

Pre-study Screening: I am enrolled in a domestic violence treatment program for male perpetrators.

What participants will do during the study: I will complete a questionnaire in a group setting that ensures privacy and confidentiality. The questionnaire should take between 30 to 45 minutes to complete. Upon completion of the questionnaire, I will return it to Allan Mandell, where it will be placed back in the envelope coded with the identical identifying number and sealed. At no time will the group therapist view the information contained in the questionnaire.

Foreseeable risks or discomforts: I understand that there is a minimal chance some of the information contained in the questionnaire could be linked to me, should the questionnaires be subpoenaed by the courts for some unforeseen reason.

It is also possible that some of the questions may raise concerns for me about aspects of my past or present that I may not have considered. Should that happen, I am encouraged to discuss these issues with the group therapist.

Benefits to be expected from the research: My participation in this study will aid the understanding of factors underlying domestic violence. It is the intention of the researcher to use this information to enhance treatment for perpetrators and potential perpetrators of domestic violence. The only direct benefit I will receive by participating in this study is personal satisfaction in contributing to the greater understanding of factors underlying domestic violence.

Confidentiality: Every effort has been made to ensure that the confidentiality of the information I provide remains confidential. By using numbers as identifiers, rather than names, it becomes highly unlikely that information from my questionnaire can ever be connected to me. I understand that my name will never be included anywhere in this study. Any information obtained from me will be kept confidential. A code number will be used to identify any test results or other information that I provide. The only persons who will have access to this information will be the investigators, and no names will be used in any data summaries or publications. I understand that after the data has been analyzed, my questionnaire will be destroyed.
Voluntary Participation Statement: I understand that my participation in this study is completely voluntary and that I may either refuse to participate or withdraw from the study at any time without penalty.

If You Have Questions. I understand that any questions I have about the research study and/or specific procedures should be directed to Allan Mandell, Room 100, Education Hall, Oregon State University, Corvallis, OR 97331, (541) 737-5969, or to Allan Mandell's Doctoral Committee Chair, Room 100, Education Hall, Oregon State University, Corvallis, Oregon, 97331, (541) 737-5972. Any other questions that I have should be directed to the Sponsored Programs Officer, OSU Research Office, (541) 737-0670.

Results of the Study. I understand that if I would like information about the results of this study (no specific individual results will be given), I can ask my group therapist to reserve a copy for me when it becomes available. This information will be provided to me free of charge.

My choice to participate in this study indicates that I have read and that I understand the procedures described above, and give my informed and voluntary consent to participate in this study. I understand that I will receive a copy of this consent form.
DOMESTIC VIOLENCE STUDY

PART I.

Below you will find several questions relating to personal information about you. Using the pencil you have been provided, please answer each item as accurately as possible by placing an “X” in the appropriate space, or by printing the answer where appropriate. If you change any answer, please completely erase the incorrect response.

1. My age________

2. Which best describes your ethnic identity?
   
   ____Caucasian
   
   ____African American
   
   ____Hispanic American
   
   ____Asian American
   
   ____American Indian/Alaskan Native
   
   ____Other (please specify)________________________

3. Highest grade level completed (circle appropriate grade level)
   
   Grades 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 More than 20

4. Number of years spent attending school________

5. Degrees/diplomas/certificates earned (check all that apply)
   
   ____High school diploma  ____GED  ____AA degree  ____Bachelor’s degree
   
   ____Graduate degree  ____Vocational/Technical certificate/degree
   
   ____Other (name of certificate/degree)________________________

6. I am currently (check those that apply)
   
   ____Single  ____Married  ____Separated  ____Widowed
   
   ____Divorced  ____Living with my partner  ____Living in a committed relationship
   
   ____Other (please explain)________________________
7. Number of times married __________

8. Number of children living in the home __________

9. Number of children living in the home for whom you are financially responsible__________

10. Number of children not living in the home for whom you are financially responsible__________

11. Were you employed at the time you were arrested for domestic violence?
   ___Yes    If Yes, what was your occupation at that time?__________________________
   ___No

12. Are you currently employed?
   ___Yes    If Yes, how long have you been employed in the current job?_________
   ___No    If No, how long have you been unemployed?_________

13. Number of times you have changed jobs in the past five years__________

14. Number of times you have ever engaged in physical violence with a domestic partner (including all previous partners). (circle appropriate number)
   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 More than 20

15. Number of times arrested for domestic violence, including this time __________

16. Number of times law enforcement officers have intervened in a domestic dispute in which you were not arrested ________

17. Number of times since the age of 18 you have engaged in physical violence with another person (other than a domestic partner). (circle appropriate number)
   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 More than 20

18. Did you ever witness physical violence in your family while growing up? ___Yes ___No

19. Did you ever witness verbal abuse in your family while growing up? __Yes ___No
PART II.

Next you will find a questionnaire asking for information about you when you were a child between 6 and 10 years of age. Please answer the questions as accurately as possible. Using the pencil you have been provided, place an "X" in the appropriate spot to represent your answer. Mark in only one spot for each question. If you change your answer, please completely erase the incorrect response.

(The Wender Utah Rating Scale [WURS] would follow. For a copy of the WURS, the reader is referred to Ward, Wender & Reimherr, 1993)
PART III.

Next you will find a questionnaire asking for information about you as an adult. Please answer the questions as accurately as possible. Using the pencil you have been provided, completely fill in the oval representing your answer. Fill in only one oval for each question. If you change your answer, please erase the incorrect response.

(The Attention-Deficit Scales for Adults [ADSA] would follow. For a copy of the ADSA, the reader is referred to Triolo & Murphy, 1996)
PART IV.

Below you will find several more questions, some of which ask about previous diagnoses of behaviors by professionals. For the purposes of this questionnaire, diagnosis means that a medical, psychiatric or psychological (including school psychologists/counselors) determination has been made about an individual, with respect to a psychological condition or pattern of behaviors. Please answer each question as accurately as possible. Place an “X” in the appropriate space.

1. Are there or have there been any members of your immediate family (biological parents, brothers/sisters, your children) who have had problems with drugs and/or alcohol?  ___Yes ___No ___Don’t know

2. Have you ever had problems with drugs and/or alcohol?  ___Yes ___No

3. Have you ever been treated for an alcohol or drug problem?  ___Yes ___No

4. Has any member of your immediate family (biological parents, brothers/sisters, your children) ever been diagnosed as having any of the following? (please check all that apply)

   ___Depression
   ___Tourette’s Disorder (Tourette’s Syndrome)
   ___Bipolar Disorder (Manic Depressive Illness)
   ___Schizophrenia
   ___Attention Deficit Hyperactivity Disorder (ADHD, Attention Deficit Disorder, ADD, hyperactivity)
   ___Anxiety Disorder / Panic Disorder
   ___Borderline Personality Disorder
   ___Learning Disability
   ___Conduct Disorder
   ___Oppositional Defiant Disorder
5. Have you ever been diagnosed as having any of the following? (please check all that apply)

___ Depression
___ Tourette's Disorder (Tourette's Syndrome)
___ Bipolar Disorder (Manic Depressive Illness)
___ Schizophrenia
___ Attention Deficit Hyperactivity Disorder (ADHD, Attention Deficit Disorder, ADD, hyperactivity)
___ Anxiety Disorder / Panic Disorder
___ Borderline Personality Disorder
___ Learning Disability
___ Conduct Disorder
___ Oppositional Defiant Disorder

6. Additional comments: ___________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

Thank you for taking the time to participate in this study. Please return these materials to the questionnaire administrator.