ASSESSING TREATMENT EFFECTS OF A PSYCHOEDUCATIONAL GROUP ON THOUGHTS, FEELINGS AND ACTIONS OF ADULTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

by

David R. Wiggins

Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Counselor Education

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April, 1995

Blacksburg, Virginia

Key words: Adult ADHD, Assessment, TFA, Group Counseling, Organizational Skills

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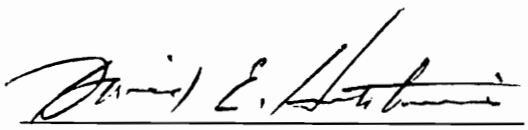

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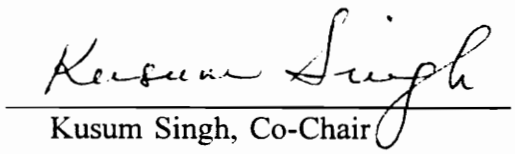

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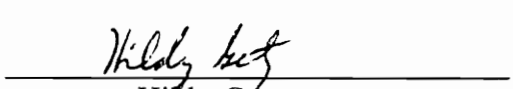

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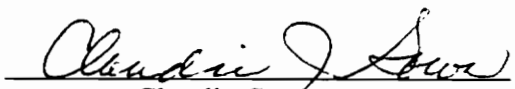
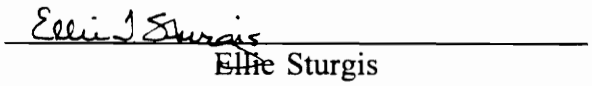


Claudia Sowa



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(ABSTRACT)

The purpose of this action study was to assess effects of a psychoeducational group on thoughts, feelings and actions of adults with Attention-deficit/Hyperactivity Disorder (ADHD). Specifically this study was designed to change organizational skills of ADHD adults using the TFA System and Group Pentagon.

Three groups were evaluated during this study. Nine adults with ADHD in the treatment group participated in all of the pretesting, treatment and posttesting. Eight adults with ADHD served as a control group and participated in all of the pretesting and posttesting but received no treatment. Sixteen normal adults served as a second control group and were administered some evaluation instruments as a pretest in order to compare their scores to the two ADHD groups.

Pre and posttest assessments consisted of: TFA self-assessments, a seven item checklist of organizational skills and a seven scale inventory of adult ADHD behaviors. A four session psychoeducational group was constructed using information from literature, assessments and Group Pentagon. Specific interventions were designed to improve individual behavior related to time management and task completion.

Results showed that the TFA and Group Pentagon models had both statistical and practical effects in improving organizational skills of the treatment group. Participants were able to examine and change their thoughts, feelings and actions to improve time management and task completion skills. The ADHD control group showed no statistically significant changes.

ACKNOWLEDGEMENTS

With sincere gratitude, I thank committee members, Dr. Claudia Sowa and Dr. Ellie Sturgis for their knowledge and efforts. Special thanks are expressed to Dr. David Hutchins and Dr. Kusum Singh whose patience, guidance, and mentoring have been inspirational.

Special appreciation is extended to Dr. Lil Pennell and Dr. Hildy Getz, for serving as role models and friends.

Most importantly, I wish to thank my wife, Ave. Without her support and love, none of this would have been possible.

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CHAPTER ONE

Introduction

"It was eleven o'clock at night and Jim was up pacing in his study. This was where he often found himself at night: alone, pacing, trying to get things together. Now approaching the halfway point of life, Jim was getting desperate. He looked around the room and took in the disorder. The room looked as if the contents of a bag lady's shopping cart had been dumped into it, much like the bits and pieces of cognition that were strewn about in his mind.

"Jim looked up at the TO DO list that was tacked to the corkboard above his desk. There were seventeen items, the final one circled several times in black ink and marked with exclamation points: 'Reorganization proposal due Tues., 3/19!!!' This was Mon., 3/18. Jim hadn't started on the proposal. He'd been thinking about it for weeks, ever since he told his boss on a whim that he had a plan that would increase productivity, as well as morale, in the office. His boss had said fine, come up with a written proposal and we'll see how it looks. He had also added a remark about how he hoped Jim would have enough 'follow-through' to actually get something done this time.

"Jim knew what he wanted to say. He'd known for months that the office needed a new computer system, and the men and women out front needed more authority so they could make decisions on the spot so time wouldn't be wasted in unnecessary meetings. Efficiency would

go up and morale would definitely improve. It was simple and obvious and all the ideas were detailed on the various scraps of paper that dotted the floor of his room.

"All Jim could do was pace. He thought to himself that if the proposal didn't come out right he'd look stupid and probably get fired. He thought this job would be like all the others. He sat down at his word processor and stared at the screen, then went over to his desk and started to straighten up. He thought about making some phone calls but knew it was too late.

"The night went on while one minor distraction after another knocked Jim off-task as he tried to work on the proposal. He'd think of something he said three days ago unrelated to the topic at hand and wonder what he meant by that. He changed pencils because one felt heavy and another awkward. He paced the room and felt very anxious and restless.

"By 4 A.M. he was beat but not beaten. The words began to come. His extreme fatigue had lifted the censor in his mind and he found himself explaining his ideas simply and efficiently. By six he was in bed, hoping to get a little sleep before his meeting with his boss at nine.

"At nine he was still in bed having forgotten to set the alarm before he went to sleep. When he arrived in a panic at noon, he knew from the look on his boss's face that no matter how good his proposal, his days at the office were numbered. His boss asked him to find a place with a little more flexibility, thanked him for his proposal and

commented on Jim's abilities as an 'idea man,' but difficulty getting things done. 'I don't know what's wrong with me, or what to do,' Jim said. 'This is the way it's always been.'

"His proposal was instituted at the office shortly after he left" (Hallowell & Ratey, 1994).

Background and Theoretical Framework

Attention-deficit/Hyperactivity disorder (ADHD) was recognized as the fastest growing diagnostic category for adults with an estimated one to two million adult Americans having the disorder (Wallis, 1994). As recently as fifteen years ago it was generally believed ADHD was a disorder of childhood which was outgrown when the child reached adolescence (Hechtman, 1993). Since then it has been recognized by researchers and clinicians that the disorder can continue into adulthood with the adult experiencing some or all of the symptoms they had as a child.

There is no consensus as to what causes ADHD, what are it's primary and secondary characteristics or how to diagnose or treat it. There are numerous classification systems and assessment instruments most of which were designed for children and few of which have been empirically validated.

ADHD is generally believed to be a disorder with a neurobiological basis which can have multiple causes. Most current research regarding the etiology of ADHD is focusing on neuroanatomical, neurochemical or neurophysiological hypotheses.

There is no consensus as to what are the primary and secondary characteristics of adult Attention-deficit/Hyperactivity Disorder. Primary symptoms usually are listed as: cognitive or physical restlessness, inattentiveness, distractibility, emotional lability (frequent and rapid mood changes) and impulsivity (American Psychiatric Association, 1994; Barkley, 1989; Wender, 1987). Secondary symptoms include: low frustration tolerance, mental inflexibility (stubbornness, needing to get own needs met), poor organizational skills, temper outbursts, difficulty with task completion, overreaction to stress, time management problems, anxiety or depression and impaired interpersonal skills. These deficits result in academic or vocational underachievement, impaired family and interpersonal relationships and development of co-morbid disorders.

Diagnosis is made by looking at current behaviors and past history and usually involves one of the primary classification systems, the DSM-IV (American Psychiatric Association, 1994), the Utah criteria (Wender, 1987), or the University of Massachusetts Medical Center protocol (Barkley, 1989) (See Appendixes 1a & 2b). The differences between these systems are significant for many reasons but primarily for what each advocates as the primary and secondary symptoms of ADHD.

The diagnostic process is very difficult and sometimes quite complicated since there are no biological or psychological tests which have been found to diagnose the disorder. Instead, ADHD is diagnosed through an interview and history which looks for signs of underachievement, delayed development, behavioral problems and

interpersonal difficulties in the family of origin, community and present living environment.

Treatment of the child or adult with Attention-deficit/Hyperactivity Disorder is divided into psychopharmacological and nonpharmacological therapies. Researchers and clinicians consider drug treatment to be the most effective form of treatment with stimulants and anti-depressants the most frequently used drugs (Barkley, 1989; Ingersoll, 1988; Wender, 1987). It is reported that between fifty to sixty percent of adults respond favorably to pharmacological treatments although there may be significant side effects from the medications (Wender, Reimher & Wood, 1985a).

Multi-modal nonpsychopharmacological treatments are recommended for the treatment of adult ADHD even if they are being treated psychopharmacologically (Barkley, 1989; Hallowell & Ratey, 1993; Ingersoll, 1988; Weiss, 1992a; Wender, 1987). These treatments include both individual, group, marriage and family counseling and education covering a wide variety of issues ranging from skills training to substance abuse treatment. Which therapy is helpful with adults with ADHD has not been researched. What is recommended is for the clinician to assist the adult with ADHD in identifying the specific problems they have and setting concrete and specific treatment goals. The core of treatment is assisting the adult with ADHD by teaching and providing the external structure which they lack to deal with the primary and secondary symptoms of the disorder (Hallowell & Ratey, 1994).

Nature of this Study

Group therapy treatment with this clinical population is recommended as one component of multi-modal treatment by many authors (Barkley, 1989; Hallowell & Ratey, 1994; Weiss, 1992a; Wender, 1987). Wender (1987) recommended that careful research be conducted to assess the efficacy of group therapy for adults with ADHD. This study examined the treatment effects of a four session psychoeducational group designed to (1) assess specific deficits with organization and attention of the adult with ADHD, (2) set concrete treatment goals, and (3) implement strategies to aid in the remediation of the assessed organizational and attention deficits. After the initial assessment, the group was based on a limited number of identified specific deficits found in each of the clients utilizing the Group Pentagon (Hutchins, 1993) and TFA System (Hutchins & Cole, 1992).

The TFA System advances a model for conceptualizing the behavior of adults with ADHD and lends structure to treatment. Initially, TFA was proposed as an innovative approach to classifying the many counseling theories and techniques, but has been expanded to improve the client-counselor relationship, assess specific behavior patterns and assess interactions between people (Hutchins, 1979; Hutchins, 1984; Hutchins & Cole, 1992). This system provides a schema for describing an individual's behavior in terms of the interaction of thoughts (T), feelings (F), and actions (A). The model fosters awareness of thoughts, feelings and actions in specific situations and provides a process for analyzing situation specific behavior and working towards the resolution

of identified problems (Hutchins & Vogler, 1988). The TFA system enables both the client and clinician to organize information about his/her behavior, assess probable outcomes and change the behavior as needed (Tieman, 1991). Given the need for setting specific and concrete goals as well as the need for external structure, this system was seen as appropriate in providing guidance for adults with ADHD.

Hutchins (1993) developed the Group Pentagon, a model designed to assist group counselors in constructing specific group and individual goals and methodologies for clients based on their (a) current behavior, (b) expectations, (c) the group procedures which will be used, (d) consequences of these procedures, and (e) an evaluation of the effectiveness of the interventions. Literature on group therapy is definitive about the need for carefully set specific goals which can be obtained through the systematic ordering of functions in order to implement change and sustain satisfaction and motivation (Budman & Gurman, 1988; Corey & Corey, 1992). In addition, given the inability of many adults with ADHD to set, prioritize and accomplish individual goals the Group Pentagon provides another pragmatic tool for the clinician to design a group to accomplish specific pragmatic goals.

Assumptions

Research conducted with adults with Attention deficit/ Hyperactivity Disorder must rely on some basic assumptions. Assumptions for this study are listed below.

1. Adults diagnosed with ADHD will have problems in the areas of organization and attention.

2. An effective diagnosis of adults with ADHD is the DSM-IV criteria.

3. The literature review suggests that group therapy is a significant component of treatment for the adult ADHD population. The Group Pentagon is an appropriate method to design a group for this population.

4. Adults with ADHD had this disorder as children and sustained an interruption in their normal psychosocial development.

5. Clinical assessments of adults with ADHD will indicate maladaptive behaviors.

6. Teaching and reinforcement of specific behavioral responses will result in different coping responses for this population. The TFA model will assist in identifying and treating specific behavior.

7. Adults with ADHD recognize the significant impact of this disorder on their lives and the need to develop more effective behaviors.

Statement of the Research Problem

Literature supports that an increasing number of adults are being diagnosed with Attention-deficit/Hyperactivity Disorder with symptoms that are in need of professional intervention (Wallis, 1994). These symptoms can be classified in terms of (T) thoughts, (F) feelings, and (A) actions. Thoughts of the ADHD adult may include problems with:

issues of self-esteem and self-confidence, externalization of responsibility for problems onto others, discouragement about their abilities, self-criticism, discouragement about the future and difficulty understanding how he/she is perceived by others. Feelings of the ADHD adult may include: sadness, feeling as if "on the go" or "driven by a motor," hurt, anger, anxiety, depression or frustration. Actions of the ADHD adult might include: difficulty completing tasks, difficulty sitting still during sedentary activities, difficulty finishing overdue work assignments or home projects, verbal criticism of others, and difficulty with saying or doing things without considering the consequences (See Appendix 4b).

Although frequently advocated, there is no research regarding the effects of a short-term psychoeducational group for adults with Attention-deficit/Hyperactivity Disorder. Therefore, the procedural problem is to analyze effects of a structured psychoeducational group on thoughts, feelings and actions of adults with Attention-deficit/ Hyperactivity Disorder for specific problems of organization and attention.

Purpose Statement

The general purpose of this action study is to identify descriptive thoughts, feelings and actions of adults with ADHD and assess the effectiveness of a short-term psychoeducational group. To accomplish this goal this study will:

1. Synthesize the extant literature.

2. Identify specific TFA patterns as well as specific thoughts, feelings and actions of adults with ADHD.

3. Assess DSM-IV symptomatology through the use of previously described assessment instruments.

4. Outline the components of the TFA Systems model.

5. Outline the components of the Group Pentagon.

6. Conduct a four session psychoeducational group treatment program for adults with ADHD.

7. Isolate pre- and post treatment behavior patterns using the TFA Systems approach.

8. Describe treatment program change effects for adults with ADHD (post hoc).

Research Questions

In the TFA model, behavior is interpreted as the interaction of an individual's thoughts, feelings and actions. Skewing of behavior toward any one dimension or absence of a dimension or other distortions of interpretation may represent maladaptive behavior or coping patterns (Hutchins, 1984). This study assessed patterns of behavior exhibited by adults with ADHD and attempted to alter maladaptive behavior patterns through the use of the TFA System and Group Pentagon. After a review of the extant literature and completion of this action study, the following questions were answered:

1. Which symptoms of adult ADHD as described by DSM-IV criteria are present with these group participants?

2. What are the specific behavior patterns exhibited by adults with ADHD who participated in this group?

3. What are the specific behavior patterns after treatment of adults with ADHD who participated in this psychoeducational group?

4. What is the effect of the Group Pentagon in designing a psychoeducational group for adults with ADHD?

Delimitations

(1) This study was limited to researching the effectiveness of a time limited psychoeducational group using the Group Pentagon and TFA System.

(2) The group was limited to adult residents of southwest Virginia who were over the age of twenty-one.

(3) The group met for four sessions of two hours each and sought to alter unproductive behaviors related to organizational and attention deficits and did not address other issues except incidentally.

(4) Research participants were solicited exclusively from one urban area.

(5) Participants acknowledged difficulties related to organization and attention.

Limitations

1. The small sample size and limited geographical area from which data were collected limited generalization of the results of this action study to other adult ADHD populations.

2. The researcher conducted all interviews and administered and scored all assessment instruments which presented an opportunity for researcher bias. A co-facilitator was used during the treatment group to limit additional bias.

3. The time limited nature of this intervention prevented treatment effects from being observed over an extended period of time.

4. Some clients participated in other forms of therapy (i.e. individual, marital, family or psychopharmacological therapy) or other activities which would influence the results of this study.

Operational Definitions

For the purposes of this study, operational definitions for the following included adult Attention-deficit/Hyperactivity Disorder, psychoeducational group, organization, attention, thoughts, feelings and actions, ADHD control group, and normal control group.

Adult With Attention deficit/Hyperactivity Disorder: An individual twenty-one years or older, of average intelligence who has a minimum of a seventh grade reading level. Symptoms of ADHD were present when this individual was a child although they may not have been formally diagnosed. The research subject agreed to: attend all four of the group sessions, complete all of the pretesting before beginning the group, complete all assigned homework, and complete all posttesting after the last session of the group. In addition, the research subject was not diagnosed by a medical or mental health professional as currently

having any of the following: active substance abuse disorders, anti-social personality disorder, psychotic or schizophrenic disorders, major depressive episode, mental retardation, organic brain damage, epilepsy, or borderline personality disorder. They met the DSM-IV criteria for Attention-deficit/Hyperactivity Disorder (See Appendix 1a).

Psychoeducational Group: This was an educational group designed specifically to meet the assessed organizational needs of the group participants. There were four educational sessions with a format based on the literature and the Group Pentagon. The group had nine participants. Participants received results of their initial evaluation including the seven item organizational skills checklist, TFA behavior self-assessments and Wiggins Adult ADHD Checklist before the group began. Sessions outlined below were the psychoeducational activities for clients who were evaluated and found to have difficulty in the areas of organization & attention and specific deficits with: setting realistic goals, attention to detail, time management, procrastination, and shifting from task to task without completing tasks.

Adult ADHD Control Group: This was a group composed of eight adults who were twenty-one years of age or older. Seven of these adults had been formally diagnosed with ADHD by a neurologist, psychiatrist or psychologist. One adult currently met the DSM-IV criteria and had a history of deficits since childhood similar to those found in ADHD. The adult ADHD control group was interviewed and administered the TFA

self-assessments, seven item checklist of organizational skills, and Wiggins Adult ADHD Checklist as a pretest. Approximately six weeks later they were administered the same inventories. They were not interviewed during the posttest. These scores were compared to the adult ADHD treatment group and normal control group.

Normal Control Group: This was a control group composed of sixteen adults who were twenty-one years or older. They had never been diagnosed with ADHD, a learning disorder, or a depressive or anxiety disorder. They were administered the seven item checklist of organizational skills, Wiggins Adult ADHD Checklist, and thirteen of the sixty-one questions from the initial interview as a pretest. They were not administered any posttest inventories due to time constraints. Their scores were compared to the adult ADHD treatment group and adult ADHD control group.

Session 1 - Introductions and Basic Characteristics

a) Introductions were made and ground rules discussed. (15 minutes)

b) Participants "told their stories" regarding how ADHD and deficits with organization and attention have impacted their lives. A group list was constructed from this discussion. (45 minutes)

c) A lecture of the characteristics of adults with Attention-deficit/Hyperactivity Disorder was conducted by the leaders. A handout was provided. (15 minutes)

d) A discussion was held regarding the group members initial goals. (15 minutes)

e) A discussion of how to set goals was provided by the leaders. A handout was provided. (15 minutes)

f) Homework--Participants were asked to specify a problem with time management they had recently. They were asked to record their thoughts, feelings and actions when this problem occurred. A handout was provided. (15 minutes)

Session 2 - Goal Setting and Time Management

a) The group was reminded of the ground rules. (5 minutes)

b) A review of the 1st session was conducted. A handout provided. (15 minutes)

c) A discussion was held of the group members thoughts, feelings and actions in response to the 1st homework assignment. (40 minutes)

d) A discussion was held of typical thoughts, feelings and actions of adults with ADHD in response to using structure and organization. A handout was provided. (30 minutes)

e) A lecture on tips for time management was conducted. A handout was provided. (15 minutes)

f) The 2nd homework assignment was clarified within the group and discussed. Members set goals for completing a task related to time management. A handout was provided. (15 minutes)

Session 3 - Task Completion

a) The 2nd session homework was discussed. (20 minutes)

b) Members listed the thoughts, feelings and actions which prevented their starting and/or completing tasks. The group members discussed their answers. A handout was provided. (20 minutes)

c) A checklist of thirteen "roadblocks" which prevent ADHD adults from starting and/or completing tasks was developed from the literature. The members completed and discussed this checklist. (20 minutes)

d) A lecture on "road blocks" to task completion for adults with ADHD was provided by group leaders. A handout was provided. (20 minutes)

e) A lecture and discussion of the need to provide appropriate rewards for task completion was conducted. Members had to list six rewards which would be appropriate after they completed a difficult task. A handout was provided. (25 minutes)

f) Members identified a specific problem with task completion they would like to address for the next session. These goals were discussed and refined. A handout was provided as a guide for completion of this goal. (15 minutes)

Session 4 - Structuring the Physical Environment and Prioritization

a) The third session homework was reviewed and discussed. (15 minutes)

b) A checklist of problems with organizing the physical environment typical of adults with ADHD was provided. Members completed and discussed this checklist. A handout was provided. (15 minutes)

c) A lecture and discussion was conducted regarding organizing the physical environment for success. A handout was provided. (30 minutes)

d) A lecture and discussion regarding prioritization or procrastination was conducted. A handout was provided. (15 minutes)

e) There was a group wrap-up and discussion followed by the readministration of: the seven item organization skills checklist, Wiggins Adult ADHD Checklist, and TFA self-assessments. (30 - 45 minutes)

[Organization and Attention was defined according to DSM-IV criteria and Dr. Paul Wender's criteria (American Psychiatric Association, 1994; Wender, 1987). Each of these constructs may have some significant overlap with the others.]

Organization: The adult with ADHD who has problems with organization will exhibit some or all of the following: difficulty structuring their lives in both minor and major ways; disorganization in solving problems; disorganization in structuring time; frequent movement from one task to another with difficulty completing any task; reports of taking much longer than it should to complete projects; and difficulty setting priorities (Wender, 1987).

Inattention: The adult with ADHD who has problems with inattention will exhibit some or all of the following: failure to give close attention to details or makes careless mistakes in schoolwork, work or other activities; difficulty sustaining attention in tasks or play activities; difficulty listening when spoken to directly; a lack of follow through on instructions and failure to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior, or failure to understand instructions); difficulty organizing tasks and activities; an avoidance, dislike, or reluctance to engage in tasks that require sustained mental effort; a tendency to lose things necessary for tasks or activities; an inability to avoid being easily distracted by extraneous stimuli; and forgetfulness in daily activities (American Psychiatric Association, 1994).

Thoughts, Feelings & Actions: No single dimension of behavior (thoughts, feelings or actions) is pure or discrete. Rather, thought, feeling and action dimensions embody some components of the others. Thoughts are primarily describing cognitions, and an individual who is predominately a thinker (as opposed to being a feeler or an actor) is characterized by intellectual, cognitively oriented behavior. He/she tends to behave in logical, rational deliberate and systematic ways. He/she is fascinated by the world of concepts, ideas, theories, words and analytic relationships. Feelings are primarily describing emotions, and feeling persons generally tend to behave in emotionally expressive ways. They are likely to predominantly use their feelings in making decisions. The expression and display of emotions, feelings, and affect provide clues to people

with a primary feeling orientation. Actions are primarily describing a behavior or movement and acting persons are generally characterized by their involvement in doing things and their strong goal orientation. They are frequently involved with others and tend to plunge into the thick of things. Action types get the job done, one way or another. To them, doing something is better than doing nothing; thus, they are frequently involved in a variety of activities (Hutchins, 1984, 1992; Tieman, 1991).

Need for the Study

To date there has been no empirical research conducted with adults with Attention-deficit/Hyperactivity disorder to assess the effectiveness of group therapy in changing their thoughts, feelings and behaviors for specific problems of organization and attention. No author has written about what a specific structured goal oriented group should be for this population or utilized the Group Pentagon in designing the group. The TFA System has not been applied to this population to assess its effectiveness.

Methodology

This was an action study. Selection criteria were defined and are listed in Appendices 3a and 3b. Subjects were recruited from local mental health professionals, neurologists and psychiatrists and were interviewed using a structured interview written from the literature by the researcher (See Appendix 7a). Pretesting consisted of the Wiggins

Adult ADHD Checklist, TFA self-assessments and a seven item organizational skills checklist based on the literature. Group treatment procedures (defined above) were administered. Data were statistically analyzed using dependent t-Test procedures.

CHAPTER TWO

Review of Literature

The purpose of this literature review was to present information which will describe research regarding the history, etiology, assessment, characteristics and treatment of adults with Attention-deficit/ Hyperactivity Disorder. In addition, specific information was provided regarding the Group Pentagon (Hutchins, 1993) and TFA System (Hutchins & Cole, 1992) upon which the treatment model was based.

History

Many authors have discussed the numerous labels previously used to describe the disorder now known as Attention-deficit/Hyperactivity Disorder (Churton, 1989; Ingersoll, 1988; Lahey, Strauss & Frame, 1984; Meents, 1989; Munoz-Millan & Casteel, 1989). The changes in these labels have occurred as a result of improved research methods and corresponding knowledge related to the causes and characteristics of ADHD (Ingersoll, 1988). However, even today the causes and descriptions remain somewhat unclear as they did many years ago. Many researchers and clinicians have concern for the lack of commonly accepted standards on the etiology, description and treatment of this disorder (Churton, 1989). The history of the nomenclature reflects this lack of consensus and continuing change.

In the early 1900's, physicians noted the presence of children who were very active, impulsive, distractible, disorganized and difficult to manage. Many of these children were believed to have sustained brain damage due to a birth trauma, or other injury or disease, even though they usually appeared to have normal intelligence.

In 1918, an epidemic of encephalitis occurred, resulting in children who after recovery, displayed the same symptoms as the children previously believed to have sustained some type of brain damage. This strengthened the view of physicians and researchers regarding this theory of the etiology of this disorder. Further research with animals and studies with epileptic children also added to this belief. Labels such as "Minimal Brain Damage," "Minimal Cerebral Dysfunction," "Minor Cerebral Dysfunction" and "Minimal Brain Dysfunction" became popular and were used for most of the next forty years.

Strauss and Lehtinen (1947) proposed a distinction between endogenous and exogenous retardation. Within the endogenous group, hyperkinetic behaviors composed of hyperactivity, distractibility, impulsiveness and uncoordinated movements were identified and referred to as the "Strauss Syndrome." Exogenous retardation was also believed to be the result of injury to or infection of the brain before, during or after birth. Laufer & Denhoff (1957) used the term hyperkinetic impulsive disorder to describe behaviors manifested by a central nervous system dysfunction to describe these hyperkinetic behaviors (Churton, 1989).

In the mid-1960's the view that these children had sustained some type of brain damage came under increasing criticism. Medical and psychological tests were unable to demonstrate that neurological damage was always present. Researchers then turned their attention to the motor activity of the children with this disorder, devising a number of methods to study this phenomenon. They believed that it was the excessive motor activity which brought the child with "hyperactivity" into numerous conflicts with their parents, schools and authority figures. In 1968, the Diagnostic and Statistical Manual's second edition listed the disorder as "Hyperkinetic Reaction of Childhood" (DSM-II, 1968). There was no recognition that the disorder could continue beyond childhood, and the popular thinking was that it was outgrown by puberty. The terms "hyperkinetic syndrome" (Bax, 1972); "hyperactive reaction of childhood", "hyperactive child syndrome" (Cantwell, 1972); and "situational and true hyperkinesis" (Campbell, Endman & Benfield, 1977) were then used as labels for this condition.

Virginia Douglas, a psychologist at McGill University in the early 1970's, proposed that the problem was not simply one of hyperactivity. She directed her work toward the inability of hyperactive children to focus or sustain their attention and believed that it was this characteristic which created most of their conflicts (Douglas, 1972 & 1983). The DSM-III published in 1980 reflected this change by listing the disorder as "Attention Deficit Disorder" with three subtypes: "Attention Deficit Disorder with Hyperactivity", "Attention Deficit Disorder without Hyperactivity" and "Attention Deficit Disorder, Residual

Type" (DSM-III, 1980). At this time it was acknowledged that the disorder could continue into adolescence and adulthood with the individual experiencing many or all of the symptoms they experienced as a child. This reclassification placed less emphasis on motor hyperactivity to the point that the subtypes were added which had no counterparts in previous diagnostic schemas (Lahey & Carlson, 1991). In 1987, the DSM-III-R continued to list the disorder as Attention-deficit Hyperactivity Disorder but the subtypes had been eliminated (DSM-III-R, 1987). Much of the information regarding Attention Deficit Disorder without Hyperactivity was unavailable to these authors. Since that publication multiple researchers have written about studies which confirm children who display problems with attention but do not have motor hyperactivity (Carlson, Lahey & Neeper, 1986; Lahey, Pelham, Schaughency, Atkins, Murphy, Hynd, Russo, Hartdagen & Lorys-Vernon, 1988; Shaywitz & Shaywitz, 1985). With the publication this year of the DSM-IV, the disorder is now listed as Attention-deficit/Hyperactivity Disorder with four subtypes including a Combined Type, Predominately Inattentive Type, Predominantly Hyperactive-Impulsive Type and Attention-deficit/Hyperactivity Disorder NOS (not otherwise specified). The authors of this manual are acknowledging that the disorder needed to be further clarified as either involving primarily difficulties with attention, hyperactivity or some combination of both attention or hyperactivity (DSM-IV, 1994).

Etiology

Currently, the etiology of ADHD is unknown with numerous researchers attempting to determine the cause of this disorder. Past research has focused on studying: chromosomal anomalies (Stewart & Olds, 1973); allergies (Marshall, 1989); social learning (Cantwell, 1972); and environmental factors such as lead poisoning (David, 1974); or food allergies (Feingold, 1976). Each of these studies have been replicated with little empirical data to conclusively determine that any of these could be causes of ADHD. However, studies which looked at lead poisoning (Marlowe, 1986) and food additives (Gadow, 1983; Heckleman, 1983; Lamberg, 1984) or a combination of factors showed a greater degree of association with this disorder (Johnson, 1981).

Currently, it is not believed that environmental factors play a role in the etiology of ADHD. Morrison & Stewart (1973) linked children with ADHD to the psychological pathology of their parents. Their studies found a correlation between parents with antisocial tendencies and substance abuse to children with Attention-deficit/Hyperactivity Disorder. It was believed that the causes could either be genetic or the result of a chaotic environment. Studies (Frick, Lahey, Christ, Loeber, McBurnett, Loeber, Stouthamer-Loeber & Green 1990; Lahey et al., 1988), have since demonstrated that parental psychiatric disturbance is associated with the conduct problems which accompany ADHD and not with ADHD itself. Other studies hypothesized dysfunctional parenting to be related to the development of ADHD (Barkley & Cunningham, 1979; Befera & Barkley, 1985; Marsh & Johnston, 1983). These authors found

that parents of children with ADHD were less rewarding, more negative and controlling and less responsive than parents of control children. It was speculated that this played a role in the development of the children's behavior problems and ADHD. Further studies demonstrated that when these same children were placed on stimulant medication there were improvements in the parent-child interactions (Barkley, Karlsson, Strzelecki & Murphy, 1984).

Other researchers have attempted to establish a genetic link between biological relatives and ADHD. Stewart and Olds (1973) suggested that hyperactivity was a sex-linked inherited trait since males have been determined to have ADHD approximately four times more than females. Other studies (Cantwell, 1972; Willerman, 1973) also suggested genetic transmission of this disorder. Some studies have shown that families of children with this disorder do have a high rate of ADHD in biological relatives (Biederman, Munir, Knee, Habelow, Armentano, Autur, Hoger & Waternaux, 1986; Biederman, Munir & Knee, 1987). One study found that approximately eighty percent of their sample with ADHD had at least one first degree biological relative who experienced ADHD as a child. It was not determined if this was a product of a genetic or psychosocial mechanism.

Much of the present research is based upon neurobiological or neuropsychological theories. It is now believed that ADHD is a biologically based developmental disorder with multiple causes including perinatal events, damage to the Central Nervous System and genetics (Hynd, Voeller, Hern & Marshall, 1991).

One postulated cause of ADHD includes perinatal events with associated minimal neurological damage such as prolonged oxygen deprivation, prematurity, intraventricular accidents and hydrocephalus. These have been linked to later cognitive and behavioral problems (Broman, 1979; Kochanek, Kabacoff & Lipsett, 1987) and these are also suspected as being possible causes of learning disabilities as well as ADHD.

Another suggested cause for ADHD is damage to the cortical or subcortical region of the brain (Braud, 1978) and the resulting deficit with attention. This author was one of the first researchers to suggest that hyperkinesis was a syndrome of behaviors with multiple possible causes. At that time, he focused on studying attentional mechanisms which presently are studied from three perspectives: a neuroanatomical approach, a neurochemical approach or a neurophysiological approach. A neuroanatomical approach deals with the physical location and structure of the areas of the brain used in attention and motor responses. A neurochemical approach looks at the role of specific neurotransmitters that connect the neuronal circuits underlying attention. Finally, a neurophysiological perspective integrates the electro-chemical and anatomical components to form a functional system (Hynd, Voeller, Hern & Marshall, 1991).

Most of the neuroanatomical hypotheses involve regions of the brain which are known to utilize the catecholamines and subcortical, cortico-frontal or mid-brain structures thought to be important in arousal and the regulation of motor controls. Neurobehavioral studies

involving the frontal lobes and systems of attention and arousal have been the most consistent in their findings. The frontal lobes comprise about 40% of the brain area and are recognized as important in regulation of motor output and organization of behavior including: goal-directed plans, allocation of resources and inhibiting behaviors that interfere with goal achievement. Neuroanatomical research into the etiology, assessment and treatment of ADHD has become the dominant area of study in the last two decades (Munoz-Millan & Casteel, 1989).

Neurochemical approaches have investigated neurotransmitters which control the attentional systems. These neurotransmitters have been researched extensively and include catecholamines which act on the neural circuits controlling motivation, motor behaviors, activity level, restlessness and responsivity. These are the primary problem areas seen in children with ADHD. The three medications most commonly used today are all catecholamine enhancers and include dextroamphetamine (Dexedrine), methylphenidate (Ritalin), and magnesium pemoline (Cylert). Other drugs that increase catecholamines are also used including some anti-depressants such as imipramine. Zametkin and Rapoport (1987) have proposed that future studies of the neurochemical approach should investigate the combined action of dopaminergic and noradrenergic system. Oades (1987) lends support to the work of Zametkin and Rapoport (1987) by arguing that ADHD involves actions of the noradrenergic and dopaminergic systems with existence of another undetermined factor.

Neuroimaging studies are one of the newest approaches in the research of ADHD. There are fewer of these studies but they are significant because they demonstrate structural and metabolic differences between children with ADHD and normal children. The studies utilize computed tomography (CT) (Lou, Henriksen & Bruhn, 1984; Lou, Henriksen, Bruhn, Borner & Nielsen, 1989; Zametkin, Nordahl, Gross, King, Semple, Ramsey, Hamburger & Cohen, 1990); and magnetic resonance imaging (MRI) (Hynd, Semrud-Clikeman, Lorys, Novey & Eliopulos, 1990).

Lou et al. (1984) utilized CT scans to examine the metabolic activity of children with ADHD and found that they demonstrated lower levels of metabolism in a portion of the brain known to be involved with the motor-regulatory system. When these same children were administered methylphenidate (Ritalin), metabolic levels were normalized. As the medication wore off levels declined to their previous lowered level. A repeat study done in 1989 replicated these results. The area of the brain which was found to be underactive serves the frontal lobes and is involved with an individual's ability to inhibit responses to stimuli. It is believed that this may be a reason why a person with this disorder may have a higher rate of non-selective responsivity. Zametkin et al. (1990) duplicated this study with adults using CT scans and found evidence that the premotor and superior prefrontal cortex was underactive metabolically. These results are similar to what Lou et al. (1984, 1989) found which confirmed that this area is deficient in its projections to the frontal lobes.

Hynd et al. (1990) used MRI scans to image the brains of children with dyslexia, ADHD and a normal control group to assess deviations in the brain structure. It was found that 70% of the children with ADHD had smaller right frontal regions of the brain. In addition, children with ADHD and dyslexia had a reversal of the normal right > left frontal asymmetry. It is hypothesized that the lack of normal asymmetry may provide a less well developed or organized neural basis for complex processes regulated by the frontal lobes. This biochemical research, as well as neuroimaging and neurobehavioral studies suggest that many children may have neurological deficits. Future studies utilizing these methods of research are advocated (Hynd, Voeller, Hern & Marshall, 1991).

Neuropsychological theories have also been advanced by other researchers (Barkley, 1993; Haenlein & Caul, 1987; Quay, 1988). One theory proposed by Quay (1988) hypothesizes that ADHD is due to a deficit in the response inhibition mechanism of the brain. This system is believed to exert control over stimuli through avoidance and extinction. A deficit in this mechanism renders an individual with a limited capacity to inhibit responses to extraneous stimuli.

Haenlein and Caul (1987) have hypothesized that children with ADHD have an elevated reward threshold which is responsible for a decrease in the magnitude of reward experienced by the individual. This decrease in the experience of reward brings about a corresponding decrease in effort that the individual with ADHD makes towards attention

and concentration. Decreases in attention and concentration are further hypothesized to bring about more incorrect responses.

Barkley (1993) also postulates that the individual with ADHD has difficulty with disinhibition as seen by his/her inability to delay responses or tolerate delays within or between tasks. He goes on to say that this helps to explain why the individual with ADHD displays problems with: organization and planning, time management, math computation, social communication, self awareness and moral development. Based upon the work of Jacob Bronowski (1977), Barkley states that the ability to inhibit initial reactions to events has permitted humans to develop four uniquely mental abilities: separation of affect, prolongation, internalization and reconstitution. The ability to delay a response permits an individual to look at information objectively, gain perspective and utilize logic and rationality instead of responding emotionally. The ability to delay a response may also improve what an individual remembers by prolonging the cognitive signal and allowing more time for it to become fixed in memory. The ability to reflect upon information is believed to allow an individual to internalize an understanding of rules and therefore the capacity for planning action and improving self-control. Reconstitution allows a person to analyze the signal and break it down into objects, properties and actions, giving them the ability to respond creatively. These and other neuropsychological theories continue to be developed and have been combined with imaging studies to suggest neuroanatomical causes for ADHD (Munoz-Millan & Casteel, 1989).

Assessment

As recently as fifteen years ago, it was generally believed that children outgrew ADHD by adolescence (Hechtman, 1993). Now the disorder is recognized as the fastest growing diagnostic category for adults (Wallis, 1994). While there is agreement that ADHD is a prevalent disorder among children and adults, there is substantial disagreement on how to define and assess the basic attributes of the disorder (Shaywitz & Shaywitz, 1988). A consensual definition, basic description, parameters and understanding of etiological factors remain unresolved. Currently, there are numerous classification systems and assessment instruments which disagree on how to define the disorder and what are the primary and secondary symptoms in adults. Theoretically, as clinicians and researchers have learned more about the disorder, diagnostic definitions have changed and will continue to do so in the future (Shaywitz & Shaywitz, 1988).

Comparison of the systems and assessment instruments is difficult for many reasons. Only a few of the instruments and systems have been empirically tested and then only with children (Barkley, 1988). Studies of the disorder are not usually comparable due to the lack of homogeneity of the samples including differences in: the severity of the symptoms displayed between samples; exclusionary criteria utilized such as intelligence, presence of learning disabilities, and presence of neurological dysfunction; and whether subjects were using medication at the time of assessment (Barkley, 1989). In addition, many studies have failed to classify problems as primary or as co-occurring problems of

function or an associated disorder (Hinshaw, 1987). Earlier studies were based upon the assumption that ADHD was a single disorder which encompassed inattention, impulsivity and hyperactivity. The most recent definition in the DSM-IV recognizes that attentional deficits may be independent from motor hyperactivity (American Psychiatric Association, 1994). This has been confirmed by numerous studies in the last ten years (Quay, 1988). Factor analysis has consistently yielded a two-factor solution in samples, with inattention loading on one factor and hyperactivity on another (Lahey, Pelham, et al., 1988). Comparison of individuals who display this disorder with hyperactivity and without hyperactivity are difficult since many quantitative differences have been found (Frick, Lahey, et al., 1990).

One of the complicating factors regarding the diagnosis of adult Attention-deficit/Hyperactivity Disorder is that there are no associated biological or psychological tests which have been established as diagnostic of the disorder. Diagnosis is made by looking at current behaviors and past history and usually involves one of the primary classification systems, the DSM-IV (American Psychiatric Association, 1994); the Utah Criteria (Wender, 1987); or the University of Massachusetts Medical Center protocol (Barkley, 1990). The differences between these systems are significant for many reasons but mainly for what each believes are the primary and secondary symptoms of ADHD (See Appendices 1a & 2b).

The DSM-IV recognizes that the disorder may be of a Predominantly Inattentive Type, a Predominantly Hyperactive Type, or a

combination of the two. It states that the appropriate subtype is based on the predominant symptom pattern for the last six months. An individual who had the Predominantly Inattentive Type or the Predominantly Hyperactive-Impulsive Type at an earlier stage may go on to develop the Combined Type and vice versa. It recognizes associated descriptive features (secondary characteristics) which vary and are based on age and developmental stage and may include: low frustration tolerance, temper outbursts, bossiness, stubbornness, excessive and frequent insistence that requests be met, mood lability, demoralization, dysphoria, rejection by peers, and poor self-esteem. The authors of the DSM-IV also describe other characteristics as including an inadequate self-application to tasks that require sustained effort. This is often interpreted by others as indicating laziness, irresponsibility or oppositional behavior. Family relationships are often impaired and marked by resentment and antagonism with parents believing that the child with ADHD's behavior is willful. Individuals with ADHD often receive less schooling and have poorer vocational achievement. The disorder frequently occurs in conjunction with another disorder in both children and adults (See Appendix 3b). These comorbid conditions must be ruled out before a diagnosis of ADHD can be made since they often have similar characteristics.

A typical diagnostic process involves taking a thorough interview including an academic/school history in which the examiner is looking for underachievement, special struggles, or behavioral problems. This may include requesting records be obtained from elementary, middle,

high school or college (Barkley, 1988). A family history is usually taken to assess whether there are (or were) symptoms of ADHD or hyperactivity in parents, grandparents or extended family. A client should also be questioned regarding whether there is any history of related disorders such as depression, manic-depressive illness, alcoholism, other substance abuse, antisocial behavior, and dyslexia or other learning disorders (Hallowell & Ratey, 1994). If possible obtaining a pregnancy and birth history which assesses whether the mother used cigarettes and/or alcohol during pregnancy, had inadequate care during pregnancy, and if there was any oxygen deprivation or trauma during or after birth. A developmental history is also normally taken in which the client (or parent) is asked if there was any erratic developmental pattern (advances in some areas and delays in others) as well as when significant developmental milestones (walking, talking and learning to read) occurred. A home history is usually taken including questions about key times of the day such as getting ready for school, eating dinner with family, doing homework or chores, or getting to sleep at night (transitional activities) (Weiss, 1992a). A job history is usually obtained in which the clinician is looking for patterns of underachievement, frequent job changes, problems with deadlines or bosses or impulsive or inappropriate comments. An interpersonal history seeks to assess if there are problems in current (or past) relationships in which the client is frequently misunderstood due to their inattentiveness, impulsivity, emotional lability, low frustration tolerance or poor anger management (Hallowell & Ratey, 1994).

Psychological testing is often utilized to assist in uncovering hidden depressions, difficulty with self-esteem, or co-morbid conditions (See Appendix 3b). There is no standard testing battery and multiple standardized and unstandardized instruments are used. Often clinicians believe that a specific test pattern will rule in or rule out a diagnosis of ADHD. This reliance upon psychological testing is not affirmed by the research (Barkley, 1994). Many of the psychological tests indicate false negatives in which people who do have ADHD appear to not have the disorder when tested (Hallowell & Ratey, 1994). The test procedure may temporarily treat ADHD by providing a quiet structured environment, one-on-one administration or supervision, high motivation and novelty. This combines some of the best nonpharmacological treatments for the disorder by emphasizing structure to decrease distractibility. In addition, subjects are often highly motivated to do well thus increasing the focusing and sustainment of their attention.

A thorough medical history is also advised to rule out conditions which may create symptoms which appear to be ADHD including epilepsy, use of medications, traumatic brain injury, fetal alcohol syndrome, lead poisoning, neurofibromatosis and hyperthyroidism/hypothyroidism.

Characteristics

Although there has been substantial disagreement regarding the etiology, treatment and nomenclature of ADHD, there is relative agreement among many researchers and clinicians as to the basic characteristics of this disorder (Brown, Wynne & Medinis 1985). The

identified primary characteristics for adults include: cognitive or physical restlessness, inattentiveness, distractibility, emotional lability and impulsivity (American Psychiatric Association, 1994; Barkley, 1989; Wender, 1987). Other authors do not specify which characteristics are primary (Hallowell & Ratey, 1994; Weiss, 1992a) and disagree regarding the secondary characteristics of this disorder (See Appendix 2a). Secondary characteristics noted include difficulty with: organization, self-esteem, interpersonal relationships, mental flexibility, addictive behaviors, stress intolerance, memory, and rule governed behavior (Barkley, 1989). Other authors discuss secondary characteristics of: impatience, procrastination, difficulty with follow-through on tasks, intolerance of boredom, increased creativity and higher intelligence, inaccurate self-observation and an ability to hyperfocus at times (Hallowell & Ratey, 1994; Weiss, 1992a). There is agreement that some of the symptoms of adult ADHD must have been present for the client before the age of seven.

There is no one precise definition of ADHD and its characteristics. Descriptions of the disorder often appear to be based on which problem an author or clinician seems to be focusing. Other authors have even advocated that there are subtypes of ADHD most of which are not formally recognized (Hallowell & Ratey, 1994).

The characteristics of ADHD can be divided into seven categories with multiple cognitive, behavioral and affective problems listed in each. The categories have been conceptualized as issues of: self-esteem & self-confidence, hyperactivity, interpersonal difficulties, organization,

impulsivity, emotional lability, and inattention. The Wiggins Adult ADHD Checklist has been constructed based on the literature review to describe the problems of an adult with Attention-deficit/Hyperactivity Disorder (See Appendices 4a, 4b, 4c, & 4d).

Treatment

Pharmacological Treatment

Treatment for ADHD has been divided into psychopharmacological treatment and nonpsychopharmacological treatment. Psychopharmacological treatment usually consists of the administration of stimulant medication as a first-order treatment, tricyclic antidepressants as a second-order treatment, and anti-psychotic medication and other drugs as a third-order treatment. Many researchers and clinicians consider drug treatment to be the most effective form of treatment for ADHD (Barkley, 1988; Ingersoll, 1988; Wender, 1987).

Stimulants were discovered by Dr. Charles Bradley approximately half a century ago to calm hyperactive children. By giving Benzedrine (amphetamine) to a group of behavior-disordered children he noted that they became emotionally subdued without losing interest in their surroundings. He also noted significant changes in the school performance of approximately half of the children (Ingersoll, 1988).

Bradley's discovery was generally ignored for years until the drug revolution of the 1950's in which the drugs Dexedrine (dextroamphetamine) and Ritalin (methylphenidate) came into common use for the treatment of ADHD. It is now estimated 1-2% of elementary

school children receive stimulant medication and it is the most common treatment for this condition (Wallis, 1994). Stimulant medication, in particular, has been the subject of intense-but not always well-informed debate. Inaccurate news stories have often generated more controversy than insight as when, in 1970, the Washington Post reported that 5-10% of schoolchildren in Omaha, Nebraska, were taking stimulant medication to improve their behavior. This figure, it was later revealed, represented the estimated number of learning disabled children in Omaha, not the number receiving stimulant medication (Ingersoll, 1988).

When children are treated with a stimulant medication it is estimated that 60-70% show improvement across a broad range of behavior including the following: regulation of physical activity and control of activity level, control of the tendency to behave impulsively, attention and concentration, reading, spelling and arithmetic, organizational skills, decreased aggressive behavior, improved frustration tolerance, and improved emotional control and social interactions (Cantwell, 1972). Food hoarding may also stop. This is an unusual symptom seen occasionally in hyperactive children which has not been shown to respond to repeated behavioral attempts to end the behavior. Ingersol reports that children treated with medication seem to view their childhood more positively and need less psychiatric treatment as adults. Adults who were treated as children also seem to steal less in elementary school have fewer car accidents as adolescents and young adults, and generally have better social skills, higher self-esteem and fewer problems with aggression (Ingersoll, 1988). Children given

stimulant medication continue to benefit from stimulants as adolescents, but the percentage of adults taking stimulant medication and receiving benefits drops from the 60-70% reported for children to 50-60%.

The three most commonly used medications in the treatment of Attention-deficit/Hyperactivity Disorder are the stimulants methylphenidate (Ritalin), dextroamphetamine (Dexedrine), and magnesium pemoline (Cylert). Both methylphenidate and dextroamphetamine seem to be somewhat more effective than magnesium pemoline in degree and range of their therapeutic effects.

At best only 60% to 70% of ADHD children respond to the stimulants, and in some responders, clinical experience often shows some fading of therapeutic action over time (Rapoport, Stoner & DuPaul, 1985). These medications are not free from side effects such as retardation of bone growth and weight loss due to anorexia (Greenhill, Puig-Antich & Novacenko, 1981), and less frequently the precipitation of motor tics. These same stimulants are known for their potential of abuse which makes them less desirable agents for use with adolescents and adults (Wender, Reimherr, Wood & Ward, 1985b).

Stimulants have marked effects upon catecholamine metabolism in the brain. Current literature on catecholamine metabolism in ADHD children suggests the involvement of a disturbance in dopamine (DA) metabolism (Shekim, Masterson, Cantwell, Hanna & McCracken, 1989) or in norepinephrine (NE) metabolism (Shekim et al., 1989). Wender originally hypothesized that some ADHD children may have a biochemical lesion of the NE system, while others may have a lesion of the DA system

(Wender, Reimherr & Wood, 1981). In the only study of biochemical markers in adults with ADHD, nonresponders to methylphenidate had higher levels of homovanillic acid (HVA) than responders. This finding of higher HVA in nonresponders to stimulants was previously reported where it was found that hyperactive children who did not respond to D-amphetamine excreted higher levels of HVA in their urine when compared with hyperactive children who responded to D-amphetamine (Shekim et al., 1989). The possibility that both neurotransmitters are involved may be the reason why drugs that act on both NE and DA are superior to drugs that act predominantly on only one neurotransmitter system. Shekim et al. performed a study in which 18 adult subjects (8 men & 10 women) ranging in age from 18 to 42 years were given nomifensine maleate in an open drug trial. All subjects met DSM-III criteria and the Utah criteria for ADD-RT. According to the Utah criteria the subjects had to have a history of ADD in childhood and at least hyperactivity with two of the five following characteristics: a) affective lability; b) inability to complete tasks; c) hot or explosive temper; d) impulsivity; and e) stress intolerance. Patients with psychotic or affective disorders were excluded. Other diagnostic categories that were also excluded were schizoid, schizotypal, and borderline personality disorders. Before subjects were given the drug they were evaluated using a structured interview for ADD-H Symptoms. Nomifensine maleate inhibited the reuptake of both NE and DA which is an action very similar to the pharmacological action of D-amphetamine and methylphenidate on the catecholamines. At the end of this study because of reports in England,

Germany and France of adverse hypersensitivity reactions to prolonged treatment or multiple trials of nomifensine, the drug was withdrawn from the worldwide market by the manufacturer. The comparable effectiveness of this drug to the stimulants used in the treatment of adult ADHD suggests that the ideal drug is a compound that increases the concentration of both NE and DA in the synaptic cleft.

As more evidence mounts which shows that more adolescents and young adults continue to manifest the full syndrome of ADHD or significant residual symptoms (Weiss & Hechtman, 1993), there is an investigation of new treatments suitable for adults including other medicines.

Tricyclic antidepressants were found to be helpful in the 1960's for hyperactivity. The drugs imipramine and desipramine have been the most carefully studied and in general appear to be nearly as effective as stimulants in many children and adults. The effects seem to last longer than stimulants without insomnia. They also appear to have a weak but positive effect on mood and poor self-image neither of which is helped by stimulant medication. Doses range from 50-100 milligrams (a fairly low dose) to doses of up to 5 milligrams per kilogram of body weight before improvement occurs. At lower doses, side effects are not usually a problem with the tricyclics. At higher doses, side effects may include dry mouth, drowsiness, low blood pressure, increased heart rate, constipation or blurred vision. Desipramine is less likely than imipramine to produce these side effects. It is also reported less likely to impair fine motor coordination and memory. Heart rate, EKG and

blood pressure are recommended to be monitored routinely. If stopped, tricyclics are withdrawn slowly over a period of two weeks or more to avoid the possibility of uncomfortable flu-like symptoms which occur if the medication is stopped abruptly.

Other medications utilized for treatment of ADHD include monoamine oxidase inhibitors and anti-psychotics. Monoamine oxidase inhibitors (MAOIs) such as clorgyline, tranylcypromine and L-deprenyl are used to treat depression and have been shown to have excellent results in treating ADHD (Weiss & Hechtman, 1993). These are used with adults in low doses (20-30 milligrams a day). Pargyline has been shown to improve mood, attention span, anger, hyperactivity, and disorganization in hyperactive adults but is less effective than the stimulants (Wender et al., 1985a). L-deprenyl appears to produce fewer side effects than pargyline while both drugs have the advantage of twenty-four hour effectiveness. Anti-depressants and MAOI's are reported to be very helpful with adults who complain of low mood. MAOIs are not used with adults who cannot follow the rigid dietary restrictions or take any medication containing a stimulant.

Antipsychotic drugs, including the phenothiazines Thorazine, Mellaril, and halperidol (Haldol) are also used. These are generally less effective in treating ADHD in adults than stimulants and have the potential risk of irreversible tardive dyskinesias which is an involuntary muscle movement. While they reduce activity and impulsiveness, they don't improve attention due to their sedating quality and negatively affect the learning process. They can also have serious side effects

such as drowsiness, weight gain, and sensitivity of the skin to sunlight. These are usually not prescribed for children or adults unless all other measures have failed.

Clonidine, an anti-hypertensive agent, is also used in the treatment of this disorder. It is thought to be an alpha-noradrenergic agonist and acts to inhibit the release of norepinephrine in the brain. It is used in the treatment of children and adults with high levels of motor activity, impulsivity and aggression and has been found to be effective in improving frustration tolerance, compliance and cooperation as well as learning and achievement (Hunt, Capper & O'Connell, 1990).

There are increasing reports appearing in the literature describing the effects of pharmacological treatments of adults with ADHD. Huessy and Howell (1983) reported a 50% positive response to all drugs they commonly used, such as the tricyclics imipramine and amitriptyline and the psychostimulants dextroamphetamine and methylphenidate. The Utah group reported that some 60% of their adult patients manifest moderate to marked therapeutic response to methylphenidate, dextroamphetamine, and magnesium pemoline, with methylphenidate and dextroamphetamine appearing to be more effective than pemoline in a larger proportion of individuals (Wender et al., 1981, 1985a; Wender, Reimherr, Wood & Ward, 1985b). Most double-blind studies comparing tricyclic antidepressants to stimulants and placebo with children show that drugs are superior to placebo and that stimulants are generally superior to the tricyclic antidepressants (Pliska, 1989; Werry, Minde, Guzman, Weiss, Dogan & Hoy, 1972).

Nonpharmacological Treatments

Nonpharmacological treatments recommended include: education, group therapy, individual counseling (including behavior modification & cognitive behavioral therapy), and family therapy. There are other therapies which have been advocated which lack empirical support including neurophysiological retraining, optometric visual training, cerebellar-vestibular dysfunction stimulation, cognitive training and relaxation training. Most of the treatment research has involved children or medication with only a handful of authors writing about the treatment of adult Attention-deficit/Hyperactivity Disorder (Barkley, 1993; Hallowell & Ratey, 1994; Weiss, 1992a; Wender, 1987).

As with nomenclature, etiology and characteristics of this disorder, treatment approaches to ADHD have also lacked a consensus of opinion relative to common directions (Churton, 1989). What is recommended regarding treatment is that the clinician should adhere to carefully defined diagnostic criteria and the use of socially relevant selection criteria. Specific behaviors should be defined to be addressed as opposed to global skills such as generic problem solving (Wender, 1987). Ancillary or secondary problems such as poor self-esteem should also be addressed (Hallowell & Ratey, 1994). Therapy should provide incentives for engaging in appropriate behaviors and include multiple methods of training (or trainers) to enhance treatment effects. Training should be conducted utilizing numerous settings in which the behaviors which are to be addressed occur, including home, work, or academics (Landau & Moore, 1991).

Multi-modal treatment of the child and adult with Attention-deficit/ Hyperactivity Disorder has long been recommended (Barkley, 1989; Ingersoll, 1988; Weiss, 1992a; Wender, 1987). These authors advocate a multi-modal approach which encompasses the following areas: education/ counseling about ADHD as a handicapping condition, taking responsibility and ownership of treatment, life-style adjustments, time-management training, vocational assessment/counseling (as needed), problem solving and communication skills training for marital and working relationships, environmental rewards, stress reduction, anger control training, social skills counseling/training, credit counseling/money management, monitoring of distractibility and substance abuse treatment/detox. Education is straight forward and may combine lecture, reading, or listening to others with ADHD (Hallowell & Ratey, 1994). Treatments are recommended to be combined in a multi-modal format with pharmacological treatments (Barkley, 1992; Weiss, 1992a; Wender, 1987). The American Academy of Pediatrics in 1982 stressed a multimodal approach to the treatment of childhood ADHD and in addition offered guidelines for the use of psychoactive medication (American Academy of Pediatrics, 1982). Other authors have noted that while medication enhances self-control strategies learned in children, self-instructional, self-regulatory and problem-solving training is also necessary. Specifically they advocate training which should include anger-related stress inoculation training in which the individual is taught to identify specific potentially aversive environmental situations and internal cognitive physiological cues that anger is building. They state that the

client should be taught to generate alternative solutions to problems involving anger and should be encouraged to select and practice in a role play specific socially appropriate strategies (Landau & Moore, 1991). In experimental studies utilizing combined interventions, Ritalin, enhanced the use of self-control tactics and decreased the incidence of retaliatory efforts by the children when provoked (Hinshaw, Burhmester & Heller, 1989).

Dr. Paul Wender believes that education to assist the individual is the first component in the psychological treatment of ADHD. To him the client must learn to recognize which symptoms of ADHD cause their difficulty and observe them in their daily life. However, how education is accomplished and what kinds of therapy are best is not certain (Wender, 1987).

Dr. Lynn Weiss believes that much of the focus of education should be in teaching the client how to live with ADHD. This means not only learning to repair the emotional damage but also, learning how to manage behavior, improve self-image and accomplish goals. Creating and utilizing external structure is the key to promoting new habits and breaking old behavioral patterns (Weiss, 1992a). Hallowell and Ratey (1994) state that most people with ADHD cannot depend on their unreliable internal controls so they must learn to utilize a set of reliable external controls. They believe the establishment of external structure is the hallmark of nonpharmacological treatment of ADHD. External structure streamlines the client's life and reduces stress by teaching them to understand their problems and obligations, come up with

specific remedies for each area, and make use of external structural devices. These devices include lists, reminders, notepads, appointment books, calendars, alarm watches, schedules, alarm clocks, answering machines, tape recorders, and computers (Barkley, 1991; Hallowell & Ratey, 1994; Ingersoll, 1988; Weiss, 1992a & 1992b). The education regarding restructuring or learning external structure is advocated for adults with ADHD for multiple reasons including helping them learn to: control their anger, manage time, complete tasks, handle distractions, manage legal substances, handle financial responsibilities, improve interpersonal relationships, manage moods, and plan future events or tasks (Barkley, 1991; Ingersoll, 1988; Weiss, 1992a; Wender, 1987).

Studies have shown that a combination of individually prescribed treatment plans seems to be the most effective in meeting the needs of the child with ADHD (Clampit & Pirkle, 1983; Gadow, 1983; Stephens, Pelham & Skinner, 1984). With all individuals with ADHD, the type of clinical intervention chosen should depend on the initial assessment and diagnostic conclusions. Individual and behavioral therapy, group therapy, or family therapy may be indicated singly or in combination with other treatments (Silver, 1987).

Group therapy is known to be an excellent form of treatment for many individuals having what one author has described as "curative factors" which help a client address personal issues (Yalom, 1985). These factors include: the instillation of hope, imparting of information, interpersonal learning, emotional catharsis, and universality. These "curative factors" apply to many different clinical populations seen in

group therapy. Group therapy involves both preventative and remedial aims (Vanderkolk, 1985) and involves a group of individuals who meet face to face with a purpose and goals (Gazda, 1989). Counseling groups go through stages of development and members influence one another by attempting to satisfy personal needs through their interactions with other group members by developing roles and norms (Corey & Corey, 1992).

Group therapy is recommended for the adult client with ADHD for many reasons including: it helps them to mobilize positive energy for treatment; is safe and cost effective; is reportedly highly successful; provides an environment where problems may arise within the group and can be addressed in the present moment; gives the individual a chance to interact and meet with others with the same or similar problems; members can learn from each other and share experiences; members can validate feelings and experiences in ways in which an individual therapist cannot; a group supplies a tremendous amount of energy and support for its members; and group addresses the problems of disconnectedness and isolation (Hallowell & Ratey, 1994). Groups help members with ADHD to talk about feelings regarding having a lifelong condition, provides a common theme and issues around which to bond, and members can share experiences and problem solve together (Weiss, 1992a). Wender (1987) believes it is helpful to use groups with the ADHD population. He lists the possible benefits as: members can observe their own and others behaviors in the here and now; members support each other and provide reassurance as they mutually discover that their

problems are not unique; there is an opportunity to express feelings that may be repressed at home or at work; individual members can receive an honest assessment of their interpersonal behavior; group can be a testing ground for experimenting with other ways of behaving; and members receive education from others with ADHD (Wender, 1987). He advocates careful research which he states is needed to demonstrate that ADHD groups are effective. In spite of these recommendations regarding group therapy for the adult with ADHD, there is no available literature on the effectiveness of group treatment with this population since it has only been recently utilized as a method of treatment. Only Weiss (1992a) and Hallowell and Ratey (1994) have led adult ADHD groups and they have not conducted any research regarding their effectiveness.

Traditional psychotherapy is not recommended for the ADHD client since the problems are probably biological in nature and not one of a deficit in the personality structure. There is no convincing evidence that psychotherapy which is supposed to alleviate the source of a problem (disturbed emotions) helps to alleviate the individual with ADHD's inattentiveness, poor impulse control or motor hyperactivity. This doesn't mean other psychological interventions shouldn't be utilized or can't be successful (Wender, 1987). Hallowell and Ratey (1994) recommend individual counseling should be utilized for the client to learn: more about the disorder, identify individual strengths and deficits, deal with emotional problems from the disorder, help the client feel understood and validated, assist with restructuring and to provide

hope and encouragement (Hallowell & Ratey, 1994). Individual counseling can also be used to help the ADHD adult deal with self-esteem issues, depression and anxiety (Wender, 1987). Barkley believes it is a mistake to treat the primary problems of attention, distractibility, impulsivity and restlessness and overlook the considerable secondary problems of self-esteem, depression or marital or family discord (Barkley, 1990). Hallowell and Ratey believe that the therapist in individual counseling needs to provide structure and direction to help the ADHD adult remain on track and focus on what is important. They also believe that it is important for the client to increase their self-awareness regarding social situations (Hallowell & Ratey, 1994).

Behavior modification is a form of individual counseling which has utilized techniques to address hyperactivity and impulsivity in ADHD children. Changes in behavior for ADHD children were only seen if the rewards used were immediate because behavior was not influenced if reinforcement was delayed. Some research showed that some children who are only partially improved on stimulant medication benefited from a combination of medication and behavior modification. The evidence was clear that medication was superior to behavior modification for an individual with ADHD (Pelham, Schnedler, Bender, Nilsson, Miller, Budrow, Ronnei, Paluchowski & Marks, 1983). When administered alone, neither a token-reinforcement intervention nor brief social skills training had a significant effect on the observed social behaviors of children. When delivered concurrently the treatments resulted in significant decreases in uncooperative behavior. Research is also clear that behavior

modification which was administered alone or without medication sometimes had a short-term effect but in follow-up studies no differences in behavior were noted (Pelham et al., 1983).

Cognitive-behavioral therapy is described as a conglomerate of cognitive components and behavioral strategies such as modeling, positive-reinforcement, self-instructional training, role-play, time-out, and parental training. Whalen and Henker (1985) concluded in the treatment of ADHD children, results of cognitive behavior therapy are not very strong, somewhat inconsistent, difficult to replicate and disappointing. Behavioral deterioration one month after cessation of treatment was severe, and results were rarely or never generalized (Whalen & Henker, 1985).

Cognitive-behavioral strategies generally focus on teaching generic cognitive strategies for solving problems and successfully negotiating interpersonal exchanges. Because the number of possible situations and solutions is infinite Landau and Moore (1991) stated that those goals which focus on training the cognitive processes associated with the individual's specific skill deficiencies, rather than those that impart discrete solutions to particular problems were the most advantageous. They also advocated that a self-directed component whereby the individual is taught to monitor and regulate their own behavior is necessary (Landau & Moore, 1991). The emphasis in individual counseling which utilizes cognitive behavioral techniques is on teaching problem solving skills such as problem identification, alternative thinking, consequential thinking and means-ends thinking. The goal is

to provide a generic framework of skills designed to assist the ADHD client in identifying specific problems and their components, selecting strategies to facilitate expansion toward problem resolution, exploring possible alternative responses and their consequences and planning a series of steps to achieve a desired goal. Intuitively, Moore & Hughes (1988) believed this should have aided in ameliorating social interaction difficulties with children, but the research showed little change in social functioning. Cognitive and academic outcomes improved with this therapy, but social interactions did not. Improvements at a one year follow-up did not persist (Moore & Hughes, 1988).

Family therapy for adults with ADHD is also recommended (Barkley, 1992; Hallowell & Ratey, 1994; Ingersoll, 1988; Weiss, 1992a; Wender, 1987). It is believed that family therapy is useful in identifying misunderstandings which exist between family members with an adult or child who has ADHD. Treatment sessions involving both parents and children can provide a forum in which the concerns of all family members can be addressed and compromises negotiated (Ingersoll, 1988). Wender believed that family therapy should be used to look at three aspects of the relationship; communications, expectations and stylized patterns of behavior (Wender, 1987). He believed that often couples have never learned to talk to each other in a meaningful and productive manner. He states that family therapy can persuade couples to say what is on their mind and learn to communicate and act on more realistic expectations. Couples need to learn what a partner's real desires and capabilities are. Stylized patterns are often seen in family

therapy by assessing who makes the rules, whose friends are seen, who does what chores, who spends more time with the children, who decides how money is spent, or who initiates sexual activity. As families examine important elements of their lives they begin to recognize particular behavioral patterns (Wender, 1987).

There are multiple controversial therapeutic approaches for treating learning disabilities or ADHD which are not based on confirmed and/or replicated research findings. Some of those have been previously discussed such as chromosomal anomalies (Stewart & Olds, 1973), allergies (Marshall, 1989), and food allergies (Feingold, 1976). Other controversial approaches include neurophysiological retraining which refers to the group of approaches that are based on the concept that by stimulating specific sensory inputs or by exercising specific motor patterns, a clinician can retrain, recircuit, or in some way improve the functioning of a part of the central nervous system (Doman & Delacato, 1968). Four such approaches have been advocated including patterning, optometric visual training, cerebellar-vestibular dysfunction and applied kinesiology.

Patterning is based on the work of Doman & Delacato. Their treatment principle was based on the theory that failure to pass through a certain sequence of a developmental stage in mobility, language or competence in manual, visual, auditory, and tactile areas reflected poor neurological organization (Doman & Delacato, 1968). This was reported to be helped by stimulation of patterns of passive movement. This passive exercising performed on the client was thought

to draw a response from the motor systems. Other methods of patterning included sensory stimulation, rebreathing of expired air with a plastic face mask (believed to increase the vital capacity and stimulate cerebral blood flow), and restriction of fluid, salt and sugar. After a review of the literature, the American Academy of Pediatrics issued a policy statement concluding that these methods were not beneficial and in some cases were harmful (American Academy of Pediatrics, 1982).

Optometric visual training involves the use of educational and sensory motor-perceptual training techniques in an attempt to correct learning disabilities and ADHD. Controversy has ensued regarding whether visual training techniques improve reading skills or other academic skills. A review of the literature shows no evidence that these programs are effective (Metzger & Werner, 1984). The American Academy of Pediatrics, the American Academy of Opthamology and Otolaryngology and the American Association of Opthamology have all issued statements critical of this method (Metzger & Werner, 1984). It continues to be widely used today.

Cerebellar-vestibular dysfunction has been suggested as a cause of dyslexia, other learning disabilities and ADHD (Levinson, 1984). It is believed that certain characteristics of learning disorders are caused by cerebellar-vestibular dysfunction which are noted in decreased vestibular responsivity. These symptoms however are only indirect evidence for cerebellar-vestibular dysfunction. Levinson postulated that visual and vestibular stimulation would improve academic learning. Research does not support this contention and shows that children

having low, average or high vestibular responsivity show no differences on academic performance.

Cognitive training programs designed to teach analytical reasoning, delay or inhibit impulsive thinking and actions, improve attention, and teach self-monitoring of thoughts and behaviors were also thought to be theoretically promising. After initial training on puzzles, mazes and role plays, individuals are taught to generalize these skills to a "real-world" setting. Research shows however that this does not happen (Ingersoll, 1988).

Another controversial treatment believed to help this population is relaxation training. The goal is to train the individual with ADHD to induce a response pattern that is incompatible with the heightened hyperactive activity level. The premise was not substantiated in the literature unless the client is under a strictly controlled setting (Wood, Reimherr, Wender & Johnson, 1976).

The Group Pentagon

Hutchins in 1993 designed a model (the Group Pentagon) for the purpose of assisting the group counselor in constructing specific group and individual goals for a client to ensure success in therapy. The Group Pentagon has five key points which assist the therapist in organizing multiple sources of information into a comprehensive and understandable format (See Appendix 6c). The Pentagon looks at the following five points and questions from the group leaders prospective:

1. Current Behavior - (Problem) What are the client's verbalized and observed problems? How are they defined according to a client's thoughts, feelings and actions?

2. Expectations - (Goals) What does the member want to happen as a result of the group. What are their specific goals? What goals does the leader have for each member and the group? Are these goals compatible?

3. Methods - (Procedures) What strategies and procedures can the leader utilize to help the clients and group meet their goals?

4. Consequences - (Impact) What are the probable effects of these procedures on the members and the group process?

5. Evaluation - (Effectiveness) How will the leader assess the goals, procedures and outcomes of this group?

The literature on group therapy recognizes the need for group goals to be clear, specific and carefully focused. Goal attainment is critical for obtaining and sustaining member satisfaction and involves the orientation and mobilization of the members efforts to meet their tasks (Corey & Corey, 1992). This approach is similar to the structural-functional model of group counseling in which the systematic ordering of functions is advocated in order to maintain and integrate change into the status quo and help the client and group meet their goals. Traditional group psychotherapy has become increasingly adapted to meet short-term goals in a time-limited manner in a similar fashion as individual therapy (Budman & Gurman, 1988). It is important that the therapist first identify a treatment focus as specifically and concretely

as possible. Next, the group counselor may have to be more active in a time-limited group in assisting the clients in engaging in therapeutic issues and working with them as quickly and thoroughly as possible. Resistances and blocks to goals are used to the leader's advantage by helping the clients to focus on their goals and any impediments to the therapeutic process (Gazda, 1989). There is no evidence that groups which focus on specific change are less effective than longer term groups (Gazda, 1989). In fact, it appears that clear, specific and carefully focused goals are an important determinant of successful group behavior and development.

The literature on adults with Attention-deficit/Hyperactivity Disorder is very clear regarding the need for the individual to have structure in identifying and achieving concrete and specific goals. Interventions should be selected, structured and focused in a concrete manner specific to the individual's deficits or needs (Barkley, 1992; Hallowell & Ratey, 1994; Landau & Moore, 1991; Weiss, 1992a). Generalized or nonspecific goals are not usually successful due to the inability of the adult with ADHD to provide the internal structure necessary to accomplish unfocused tasks (Hallowell & Ratey, 1994).

When planning a therapeutic intervention using group counseling a leader should first consider the structure of the group, thus designing it to meet specific goals for the individual and group. The Group Pentagon is a method recently developed by Hutchins (1993) and written to assist the clinician in this task. The first step in this process is a comprehensive assessment of the prospective members.

Common issues or group themes are determined and a metagoal is formed which encompasses each individual's goals. Metagoals are then refined into more concrete personal goals for each member which are clarified and agreed upon. Members are then selected for the group based upon the commonalty of individual goals and the counselor's determination of possible group interactions and dynamics. Those individuals who do not share similar needs and problems or would hinder the group process are excluded.

Current Behavior: In the initial assessment and selection process it is important not only to establish what are the client's primary problems but also to observe nonverbal behaviors and interactions and possible potential problems. It is important to assess problems and goals in terms of what skills the client currently possesses and what may need to be learned. In addition, it is important to assess the client's motivation to change. Unmotivated clients or those who do not have needs and goals compatible with the group should be excluded (Corey & Corey, 1992). Those who are in significant denial; high in somatization; are psychotic; extremely sensitive, hostile, egocentric or highly defensive; or narcissistic or likely to monopolize the group should also be screened out (Corey & Corey, 1992).

Expectations: The next step in the Pentagon is to establish what the client's expectations are regarding their goals, group participation, rules, and format. These expectations should be clarified and concrete specific goals established. Misconceptions regarding group therapy are common and include that: groups are good for everyone (it is not for

the very fragile, introverted or aggressive); working out problems within the group will guarantee that problems at home will be resolved; the goal of group counseling is for everyone to feel close and good about each other; groups are places where people are attacked and defenses are torn down; groups make people more miserable and unhappy, people are told the way they should think, feel and behave, groups pressure people to give up their sense of identify; and that groups are artificial and unreal. In addition members are usually uncertain and vague about what benefits can be obtained from group (Corey & Corey, 1992). The Association for Specialists in Group Work's (ASGW) ethical guidelines for group leaders states that group leaders should provide basic information regarding the group and a written informed consent designed to allay some of the prospective members anxiety and safeguard their rights. Involved in this information are rules regarding: confidentiality, voluntary/involuntary participation, leaving a group, coercion and pressure to participate, imposition of counselor values, equitable treatment, dual relationships, use of techniques, goal development, consultation, termination from group and evaluation and follow-up (ASGW, 1990).

Methods: The third step in the Pentagon is the leader's choice of procedures, techniques or methods utilized to promote the individual members and group goals. Important in the determination of what methods will be used are the leader's theoretical orientation and the individual member's cognitive, affective and psychomotor skills, abilities, needs and goals. A leader needs to assess what cognitive, affective and

behavioral tools, activities and methods they should use to meet the individual and group goals. These methods should be designed into the group curriculum before it begins. Examples of cognitive methods might include: bibliotherapy, refuting irrational ideas, values clarification, covert assertion, stress inoculation, visualization, or paradoxical intention. Affective methods are designed to evoke emotional content and could include: use of immediacies to note discrepancies between verbal and nonverbal behavior, role playing, family sculpting, acting out in the present tense dreams or fantasies, "staying with" uncomfortable feelings, fantasy dialogues, or reflection of emotions. Behavioral techniques designed to change a specific behavior might include: exercise, diet changes, behavior modification, operant conditioning, learning of an interpersonal skill, behavioral homework, systematic desensitization, covert reinforcement or covert modeling.

Consequences: The potential risks and consequences of those methods for the members participation in group should be carefully evaluated (Hutchins, 1993). Group counseling like individual counseling has the potential to significantly negatively impact the members (Corey & Corey, 1992). The group experience will have an impact on the members personal behavior (thoughts, feelings and actions) both within and outside of the group (Hutchins, 1993). The leader must carefully assess the consequences of the group experience for the members and should make plans for anticipated positive and negative consequences of events which take place. Consequences should be evaluated regarding the following: the probability that the content of the group and

experiences will impact personal and interpersonal behavior; the intensity of the group process for members; the immediacy of the impact in the "here & now" or at a later time; and the ability of the members to deal effectively with what is likely to occur within the group (Hutchins, 1993). The Pentagon's emphasis on pre-group assessment, appropriate screening guidelines, setting of concrete and specific goals and preparation of the members and leaders before the actual group begins will in all likelihood decrease possible negative consequences for the members and increase the probability of positive outcomes.

Evaluations: The last step in the Pentagon process is the evaluation of individual changes in behavior and the group process. Evaluation of the group experience should be both formal and informal (Corey & Corey, 1992). Actually, preliminary planning goes on from the start in the Group Pentagon model, since every aspect of the process is viewed in light of how it could be used to assess individual behavior changes in addition to the potential impact on the group process (Hutchins, 1995). To plan for this evaluative component in advance will assist the leader in choosing the appropriate methods in which to gather data regarding the effectiveness of the group. Evaluation and follow-up are important procedures emphasized in the ethical guidelines for group counselors (ASGW, 1990). Evaluation is recognized as necessary on an on-going basis as well as after the completion of the group. Evaluation is mandated to occur shortly before or after the final meeting (ASGW, 1990). Leaders are required to evaluate their behavior throughout the course of the group particularly in relation to what they are modeling

for the group members. Follow-up assessment should determine the degree to which the members have reached their goals, whether the group had a positive or negative effect on the participants, which members could profit from some type of referral, and what information could be obtained for possible modification of the groups (ASGW, 1990). With the increasing emphasis on accountability by third-party payers, consumers and legislators, this is a component which has been increasingly emphasized (Gazda, 1989). Standardized assessment instruments can help leaders with the assessment of how the members experienced the group. Informal measures may be used to assess what the client self-reports regarding the group experience. These measures usually ask questions regarding: the highlights of the group experience for the members, general effect, areas of increased awareness, changes made, perceptions of the group leaders and their styles, problems encountered because of group, negative effects, perceived value of the group and suggestions for change. Individual follow-up interviews or postgroup sessions are often utilized to assess the group experience (Corey & Corey, 1992).

In the Group Pentagon model, one can easily see how each of the five aspects relates to each other. As illustrated in Appendix 6c, this relationship forms a five pointed star in which every point is related to every other point. One of the great advantages of this model is that the group counselor is able to see how changes in any one dimension may have implications for shifts in one or more other areas.

The TFA System

The need for a group to be designed to meet the needs of its members is obvious and has been previously noted. Groups need to be able to deal with a member's thoughts, feelings or actions and their respective goals. The TFA model, developed by Hutchins (1979), links counseling theory and techniques to current eclectic practices in counseling and psychotherapy to assist counselors in meeting the needs of their members. Continuing refinement into the TFA System allows a counselor to integrate techniques and to some extent theoretical orientations to the client's behavior to establish a strong therapeutic alliance and choose the most appropriate treatment method. Many clients enter the counseling relationship with multiple problematic behaviors. Adults with ADHD are similar. Even though they may have common primary deficits they often have substantially differing secondary characteristics, each of which may be causing difficulties.

Studies have shown that the more experienced counselors develop and maintain higher quality relationships with their clients. They are also more likely to adapt their personal style of relating to their clients needs and behaviors (Hutchins, 1984). The effective therapist needs to systematically adapt and integrate various techniques and theories into each unique counseling relationship to meet the specific needs of their client. This is especially true for the adult with ADHD since their characteristics may be so varied. The TFA System provides a framework for attempting to meet the needs of every client.

Behavior in the TFA System is defined as the interaction of how an individual thinks, feels and acts. The goal of TFA is the synthesis and categorization of the major patterns of each of these elements. The counselor gathers information on the client's behavior from many sources including the initial interview in order to identify these TFA patterns.

Each individual has a wide range of behavior which can be classified on the TFA continuum. A thinking oriented individual would be expected to be characterized by an intellectual approach to life and emphasize logic and reason above feeling and behaving. They tend to behave in logical, rational, deliberate and systematic ways (Hutchins, 1984). Counselors who utilize a thinking approach might work to change a client's pattern of thought, believing illogical thinking to be the source of a client's problems.

A feeling oriented individual is probably very emotionally expressive and guided primarily by their feelings. Logic, reasoning and acting are less important in most situations as determinants of behavior. Counselors using this approach might tend to utilize techniques which emphasize the recognition and expression of emotions as a major goal of therapy (Hutchins, 1984).

Individuals with an action orientation are usually characterized by their patterns of physical behavior. They tend to be very active, involved in numerous projects with a strong goal orientation. Actions dominate over feelings and thinking with this population. A counselor with this orientation would emphasize an individual's behaviors (or lack

thereof) and would work toward changing these patterns of action. In this study, behaviors of adults with ADHD will be categorized using the TFA System approach (Hutchins, 1984).

All individuals possess each of these elements in their personality but may have preferences for one mode over the others (Hutchins, 1984). It would be anticipated that these patterns could change or be situation specific. For example, an individual might respond with their boss in an unemotional thinking or behavioral style while reacting in an illogical manner when stuck in a traffic jam.

The adult with Attention-deficit/Hyperactivity Disorder is likely to be characterized with more acting and feeling patterns than thinking patterns due to their impulsivity, hyperactivity and lack of cognitive and behavioral organization. If an adult with ADHD has an emphasis on a thinking pattern it may reflect a ruminative pattern of cognition and a corresponding inability to act on their thoughts. The counselor would need to integrate treatment strategies to accommodate these cognitive, affective and behavioral tendencies in the adult with ADHD. Failure to address these needs would be anticipated to decrease the successful outcomes of therapy with this population. One proposition by Hutchins regarding the TFA approach is that the counselor with the greatest ability to recognize and adapt to the client's behavioral patterns would probably be the most effective (Hutchins, 1984). Given the multiplicity of behavioral problems with the adult ADHD population, this appears to be essential in their treatment.

Research

Issac and Michael (1990) list many reasons why research in education is timely and important. Among these is that it is the only way to make rational choices between alternative practices, to validate improvements, and to build a stable foundation of effective practices as a safeguard against unresearched or novel innovations (Issac & Michael, 1990). Since very little research has been done with adults with Attention-deficit/Hyperactivity Disorder, this study will attempt to quantify the effects of a four-session psychoeducational group on subjects using the Group Pentagon and TFA System. The focus of this study is not on the building of a theory, but the practical application of treatment methods as set forth by various authors (Barkley, 1992; Hallowell & Ratey, 1994; Hutchins, 1994, 1993; Weiss, 1992a & 1992b). The goal of the research is to provide practical and concrete feedback regarding the effectiveness of group therapy for this clinical population and improve upon what is currently known.

As an action study, the purpose of this research will be to assess the effectiveness of the psychoeducational group approach to the treatment of ADHD in adults. The goal of action research is to obtain knowledge which can be directly applied to the educational or clinical setting. While the intent is pragmatic in nature with a goal of direct application to the treatment of this disorder, it is hoped that a theoretical contribution also will be made. Utilizing the TFA System and Group Pentagon, this action research will provide a framework for setting concrete and specific goals for the group and its individual

members. Action research is characterized by its flexibility which allows change during the trial period while sacrificing control in favor of responsiveness and on-the-spot experimentation and innovation (Issac & Michael, 1990). These changes are made during the study if they seem likely to improve the therapeutic effect for the clients. It is this flexibility which is both a strength and a weakness in this experimental design since its internal and external validity can often be weak due to the situational objectives, restricted or unrepresentative samples and lack of control over independent variables.

Action research has six steps which include: definition of the problem or setting of goals, review of the literature, formulation of testable hypotheses or strategies of approach, arrangement of the procedures utilized to meet the objectives, establishment of evaluation criteria or measurement techniques, and analysis of the data to evaluate outcomes. Limited training in research methods and statistics is needed since action research usually involves simple analysis procedures. The review of the literature is usually not in-depth but more general with the specific goal being a general understanding of the subject. The findings of an action study are often applied immediately to the specific educational or treatment setting and usually lead to improvement with that population. Generalization of the results beyond the specific setting is usually not advocated although this might change with the use of a control group.

Analysis Of Data

A key to this study is the analysis of the data. Minimal experimental control could be obtained with a one-group Pretest-Posttest design, analyzed using the Dependent T-test approach.

Pretest	Treatment	Posttest
T(1)	X	T(2)

The advantage of this approach is that the pretest provides a comparison of between performances by the same group of subjects before and after exposure to the treatment. This design also provides a control for selection and mortality variables if the same subjects take the pretest and posttest.

There are multiple disadvantages to the pretest-posttest design. There is no assurance that the treatment is the only or even the major factor in a T(1) - T(2) difference. Rival hypotheses include extraneous variables related to history, maturation, testing effects, changing effects of instrumentation, statistical regression and selection biases and mortality (Issac & Michael, 1990).

The analysis of the data will provide the statistical significance of the research. Statistical significance may not however reflect the magnitude or substantive meaningfulness of the effects of the intervention. The magnitude of the effects or the effect size will also be studied. Effect size is "the degree to which the phenomenon is present in the population or to which the null hypothesis is false" and

is a measure of practical differences (Howell, 1992). Rules have been proposed regarding the effect sizes for correlations and differences between means. A difference between means of 0.2 of a standard deviation is said to be small, 0.5 to be medium and 0.8 as large. Large effect sizes are generally not seen in sociobehavioral research and are usually not utilized or mentioned (Pedhazur & Schmelkin, 1991). No tests of statistical significance or effect sizes are available in the literature for group therapy with this population.

Piper, in 1992, noted that in recent years group therapy research has been subjected to strong methodological, conceptual and economic pressures with the overall quality, methodological complexity and clinical relevance of published studies having improved. Short-term group therapies with diverse populations have yielded significant information regarding patient characteristics that have significant main or interactive effects with therapy process and outcome. There has also been an interest in studying patients perceptions of what has caused therapeutic change (Piper, 1992).

Conversely, group therapy research has been limited in large part to short-term time-limited group therapies utilizing a cognitive-behavioral approach to the neglect of longer term groups or other theoretical approaches. Most studies are carried out by moderate or large-scale clinical settings that have substantial resources with a focus on outcomes and not explanatory mechanisms. Important areas which have not been studied include leadership, group composition and therapy process and outcomes.

Given the current financial constraints placed on clinicians, many have been forced to provide short-term time-limited group therapy. The literature has noted that these groups are generally as effective as short-term individual therapy (Budman, Demby, Redondo, Hannon, Fieldstein, Ring & Springer, 1988). Longer term individual and group therapy results are also promising. A recent article by Robinson, Berman and Neimeyer (1990), which focused on 58 controlled studies of the treatment of depression, noted that the results of treatment for individual and group therapy were nearly identical.

CHAPTER THREE

Methodology

Methodological Approach

This study was an action study which utilized the TFA System and Group Pentagon for treatment of adult Attention-deficit/Hyperactivity Disorder utilizing a psychoeducational group. Specifically, it identified the thoughts, feelings and actions of this population in relation to organization and inattention.

The literature has described a specific need for research to assess the most effective treatments for this population (Wender, 1987). It has been repeatedly recommended that these individuals participate in a structured approach to therapy which sets specific and concrete goals for treatment since the adult with ADHD usually does not have the internal structure necessary to set and obtain these objectives (Hallowell & Ratey, 1994). The Group Pentagon and TFA System appear to provide the clinician with the appropriate methods necessary to assess the needs, set specific goals and measure change for this population as described in Chapter Two. Through these models, clients examined and become more aware of their present styles of thinking, feeling and acting and the need to make changes to alter their present behavior patterns. These same models offered the clinicians the opportunity to utilize methods of treatment from the cognitive, affective and behavioral

theories and techniques to address the needs of this population while utilizing the clients strengths.

Group Facilitation

The adult ADHD psychoeducational group met for four sessions as outlined in Chapter One. It was co-facilitated by this researcher and an experienced group leader. This co-facilitator possesses excellent group facilitation skills, marriage and family therapy skills and is knowledgeable in the area of adults with Attention-deficit/Hyperactivity Disorder. Both facilitators are Licensed Professional Counselors in Virginia.

This researcher has extensive knowledge of neurological impairments having served for approximately seven years as an individual, marriage and family and group therapist for individuals who had sustained neurological damage from a traumatic head injury, illness or cerebral accident. Many of these individuals exhibited deficits which are similar to those found in the adult with ADHD. In addition, this researcher developed and led a psychoeducational group for similar individuals for five years.

Selection Criteria & Recruitment of Participants

As noted in Chapter One, selection criteria were established before recruiting research participants. The criteria for selection can be found in Appendices 3a and 3b. Briefly, area psychiatrists, neurologists and

mental health professionals were contacted regarding this study and subjects were solicited from their caseloads.

Screening Referrals & Initial Interview

Individuals referred for this study completed the following instruments before being included: Wiggins Adult ADHD Checklist; TFA self-assessments which included the written reports of their thoughts, feelings and actions related to time management and task completion; and a seven item organizational skills checklist derived from the literature.

Subjects were assessed using a semistructured interview based on the literature and given the previously described instruments. Three applicants were not included in the study. One was diagnosed with a Borderline Character Disorder. Another applicant was diagnosed with Post Traumatic Stress Disorder and a third did not meet the diagnostic criteria. After the screening interview, pretesting and selection for the group, participants were informed as to the results of their testing. Also discussed were the participants responsibilities regarding: confidentiality, participation in all four of the sessions, completion of all of the homework and payment before the beginning of each session. The charge was thirty dollars per session with a ten dollar rebate if the client was on time and presented their written homework. Specific treatment goals were set based upon the interview and pretesting.

Instrumentation

The instruments which were used to assess the individuals before and after treatment were the same with the exception of the semistructured interview which was not readministered. The Wiggins Adult ADHD checklist was designed to identify the research subjects strengths and deficits in seven primary areas and assess changes after treatment. To minimize researcher bias, it was designed to be a self-administered instrument. With the TFA self-assessments, the subjects were asked to identify their pattern of behavior based upon a specific problem with time management and task completion both before and after completion of the group. The seven item organizational skills checklist was also administered before and after completion of the group.

The adult ADHD control group also participated in an initial interview using the same semi-structured interview instrument and the previously described testing. They were subsequently retested approximately six weeks later.

The normal adult control group was not interviewed. They participated in testing including the Wiggins Adult ADHD Checklist and the seven item checklist of organizational skills. In addition, they completed a written questionnaire which contained thirteen of the sixty-one interview questions.

Treatment Procedures

Treatment procedures were based on the literature, initial assessment, TFA System, Group Pentagon and past experience. Clients

were selected based on the commonalty of their issues and the group was designed to remediate or change these problems. The group format was provided in Chapter One. The Group Pentagon was used to select the group goals by identifying the subjects' current behavior, expectations for therapy, methods which should be employed in group therapy, probable effects of these methods/procedures and an evaluation of their effectiveness. The TFA system was used to help increase the subjects' awareness of their patterns of thinking, feeling and acting. The leaders chose the appropriate techniques used to remediate individual deficits based on the previously identified patterns of behavior. It was anticipated and determined that these clients would have deficits with organization and attention.

Evaluation Procedures

The following research questions directed the treatment program and determined the effectiveness of the psychoeducational group.

1. Which symptoms of adult ADHD as described by the DSM-IV are present with these group participants?

2. What are the specific behavior patterns exhibited by adults with ADHD associated with this group?

3. What are the specific behavior pattern changes for adults with ADHD associated with participation in this group?

4. What was the effect of the Group Pentagon in designing this psychosocial group for adults with ADHD?

CHAPTER FOUR

Presentation of the Results

This chapter describes the purposes of the study, subjects, and research questions. It also presents results accumulated from the evaluation procedures.

The purposes of the study were to: (1) examine which symptoms of adult ADHD as set forth by the DSM-IV criteria were present with the group participants; (2) examine specific patterns of behavior exhibited by ADHD adults associated with the group; (3) describe specific behavior changes which were associated with participation in this group; and (4) examine the effect of the Group Pentagon in designing a group for adults with ADHD.

Description of Subjects

Three groups were evaluated during this study. Nine adults with ADHD in the treatment group participated in all of the pretesting, group treatment and posttesting. Eight adults with ADHD in a control group participated in all of the pretesting and posttesting but received no treatment. Sixteen normal adults in a control group were administered some of the evaluation instruments as a pretest in order to compare their scores to the two previously defined groups.

Adult ADHD Treatment Group

An individual interview was conducted with each of the nine adult ADHD treatment group members before the group began. Two TFA self-assessments, the Wiggins Adult ADHD Checklist, and a seven item checklist of organizational skills were administered to the nine group participants prior to the beginning of the psychoeducational group. Of the nine participants, eight were females. Their ages ranged from 31 to 52 years, with a mean of 42 years. Five of the participants were divorced and four were married. Their average length of employment in their present job was 11.5 months, and for their last three jobs was 2.15 years. Their educational experience ranged from a high school G.E.D. to completion of a master's degree with a mean educational level of 15.22 years. Eight out of nine were formally diagnosed with ADHD by a neurologist, psychiatrist or psychologist before the group began. The remaining undiagnosed member was formally diagnosed by a neurologist one week after the group started. Following a four week psychoeducational group, the same evaluation instruments were again given in order to determine changes in behavior patterns. All nine of the participants completed the group.

Adult ADHD Control Group

Eight adults with ADHD served as one control group. They were given the same assessment instruments as described above for the ADHD group members but received no treatment. There was an average of a six week interval of time between the first and second administration of

the instruments for these ADHD control subjects. Of the eight ADHD control subjects, four were male and four female. Their ages ranged from 36 to 49 years of age, with a mean of 42.5 years. Five of the ADHD control subjects had been divorced and remarried, one was separated, one was single and one was married only once. The ADHD control group members average length of employment in their present job was 8.30 years. Their educational experience ranged from a high school G.E.D. to completion of medical school with a mean educational level of 15.75 years. Seven out of eight of the ADHD control group were formally diagnosed with ADHD by a neurologist, psychiatrist or psychologist before the group began. Following a six week interval, the two TFA self-assessments, Wiggins Adult ADHD checklist and seven item checklist of organizational problems were readministered.

Normal Adult Control Group

Sixteen normal adult controls were given the Wiggins Adult ADHD Checklist and seven item checklist of organizational problems. They were also asked thirteen of the sixty-one questions from the initial interview in a written questionnaire. The ages of the normal adult control subjects ranged from twenty-one to sixty-three with a mean of 39.4 years. The marital status of the normal control group was not assessed. The normal control subjects were involved in a college class and were not employed. In their last three jobs, their average length of employment was 4.90 years. Their educational experience ranged from a high school G.E.D. to a master's degree with a mean educational

experience of 15.0 years. None of the sixteen normal control subjects had ever been formally diagnosed with ADHD by a neurologist, psychiatrist or other mental health professional. Evaluation instruments were not readministered to normal control subjects due to scheduling difficulties.

Research Question 1: Which symptoms of adult ADHD as described by the DSM-IV criteria are present with these group participants?

Nine out of nine (100%) of the adult ADHD group participants were formally diagnosed with the disorder by a neurologist, psychiatrist or psychologist either before or during the group. All of the DSM-IV criteria questions were added to the Wiggins Adult ADHD Checklist. Eight out of nine clients (88.8%) reported symptoms which met the DSM-IV diagnostic criteria.

Seven out of eight (87.5%) of the adult ADHD control subjects were formally diagnosed with the disorder by a neurologist, psychiatrist or psychologist using the DSM-IV criteria before their initial interview. All eight (100%) of the ADHD control subjects reported symptoms on the Wiggins Adult ADHD Checklist which met the diagnostic criteria.

None of the sixteen normal adult control subjects had been formally diagnosed with ADHD by a neurologist, psychiatrist or psychologist. None of the normal adult control subjects reported symptoms on the Wiggins Adult ADHD Checklist which met the DSM-IV criteria (See Appendices 1b & 1c).

Research Question 2: What are the specific behavior patterns exhibited by adults with ADHD associated with this group?

Information regarding the specific patterns of behavior exhibited by adults with ADHD was available from three sources: TFA self-assessments, the seven item checklist of organizational skills and Wiggins Adult ADHD Checklist.

TFA Self-Assessments

Each client was asked to identify two specific situations they would like to address in which they did not feel their present behavior was helpful. One situation involved an inability to manage time and the second situation involved an inability to complete a task. Two TFA self-assessments were given during the intake interview and again as part of the post treatment evaluation. Specific thoughts, feelings and actions of the client that occurred in each situation were recorded. TFA self-assessments of the same or similar problems with time management and task completion were obtained after treatment. Seventy-eight percent of the clients were successful in completing their initial time management goal. Fifty-six percent of the clients were successful in completing their initial task completion goal (See Table 1).

An analysis of specific thoughts, feelings and actions was conducted on identified problems found in the TFA self-assessments with time management and task completion. All of the thoughts, feelings and actions recorded on the two TFA self-assessments were synthesized and classified by the researcher into categories. Thoughts were classified

Table 1

Individual Time Management And Task Completion Goals Identified During The Intake Interview And Post Group Success Rate

Client #	Time Management Goal	Successful Completion of Goal With Time Management*
#1	Get ready in advance for a trip to New York	Yes
#2	Make a morning routine	Yes
#3	Trying to arrive at a specific place on time	Yes
#4	Set up sewing room	Yes
#5	Establish a morning regimen for school days	Yes
#6	Improve scheduling ability/time management	Yes
#7	Manage time related to school better	Yes
#8	Being on time in the morning for the first client	No
#9	Wanted to control the amount of time spent processing insurance forms	No

Client #	Task Completion Goal	Successful Completion of Goal With Task Completion**
#1	Complete posters for a local club	Yes
#2	Complete 1992 taxes	Yes
#3	Write thank you notes to prospective employers	No
#4	Send in poems for publishing this month	Yes
#5	Complete tasks including Christmas presents	Yes
#6	Do laundry and put it away promptly	Yes

Client #	Task Completion Goal	Successful Completion of Goal With Task Completion**
#7	Get chemistry right in salt water tank	No
#8	Fill out managed care applications	No
#9	Pay bills on time	No

* 78% of the clients successfully completed the problem with time management they had identified at the intake interview.

** 56% of the clients successfully completed the problem with task completion they had identified at the intake interview.

into one of 10 categories: confusion, self-criticism, hopelessness, hope, realism, lack of realism, self-praise, planning for the future, related to the main problem, or multiple and scattered. Feelings were divided into one of 22 categories: anger, helplessness, guilt, depression, happiness, frustration, fear, anxiety, excitement, pride, rushed, sadness, embarrassment, flooded/overwhelmed, unsure, helpless, lazy, shame, tired, relief, overjoyed and boredom. Actions were classified into one of six categories: planned and followed through, did tasks related to the main problem, did tasks unrelated to the main problem, actively planning, rewarded self for task completion and inaction. This analysis is illustrated in Tables 2 & 3. The TFA self-assessments are documented in Appendix 6a.

Before treatment, the group members often expressed thoughts of confusion & self-criticism or had multiple scattered thoughts which were unrelated to the topic. They often had feelings of frustration, anger, anxiety and embarrassment. Their actions usually consisted of multiple activities unrelated to the problem or they failed to take any action at all.

Seven Item Checklist of Organizational Skills

A seven item checklist of organizational skills was constructed from the literature and given to the treatment group and two control groups. The purpose of this seven item checklist was to quantify the organizational skills behavior of these groups. The seven items listed

Table 2

Researcher's Synthesis of Clients Thoughts, Feelings and Actions In Pre/Post TFA Assessments For Time Management

Thoughts	Pretest	Posttest
1. Confusion	Confused	Realistic
2. Self-criticism	Hopeless	Self-praise
3. Hopelessness	Self-criticism	Self-criticism
4. Hope	Realistic	Hopeful
5. Realistic	Unrealistic	Confused
6. Unrealistic	Multiple/Scattered	
7. Self-praise		
8. Planning		
9. Thoughts Related To The Main Problem		
10. Multiple/Scattered		
Feelings	**Pretest**	**Posttest**
1. Anger	Frustrated	Proud
2. Helplessness	Angry	Excited
3. Guilt	Anxious	Relieved
4. Depression	Guilty	Happy
5. Happiness	Lazy	Unsure
6. Frustration	Rushed	Angry
7. Fear	Overwhelmed	Overwhelmed
8. Anxiety	Ashamed	Helpless
9. Excitement	Embarrassed	
10. Pride	Tired	
11. Rushed		
12. Sadness		
13. Embarrassment		
14. Flooded (Overwhelmed)		
15. Unsure		
16. Helplessness		
17. Lazy		
18. Shame		
19. Tired		
20. Relief		
21. Overjoyed		
22. Boredom		

Actions	Pretest	Posttest
1. Planned and followed through 2. Did tasks related to the main problem 3. Did tasks unrelated to the main problem 4. Actively planning 5. Rewarded self for task completion 6. Inaction	Inactive Did multiple tasks unrelated to the main problem Did tasks related to the main problem Planned and followed through	Planned and followed through Did multiple tasks unrelated to the main problem Rewarded self

Table 3

Researcher's Synthesis of Clients Thoughts, Feelings and Actions In Pre/Post TFA Assessments For Task Completion

Thoughts	Pretest	Posttest
1. Confusion 2. Self-criticism 3. Hopelessness 4. Hope 5. Realistic 6. Unrealistic 7. Self-praise 8. Planning 9. Thoughts related to the main problem 10. Multiple/scattered	Self-criticism Unrealistic Multiple/scattered thoughts Confused Hopeless Overwhelmed	Realistic Multiple/scattered thoughts Self-criticism Hopeful Hopeless Thoughts related to the main problem
Feelings	**Pretest**	**Posttest**
1. Anger 2. Helplessness 3. Guilt 4. Depression 5. Happiness 6. Frustration 7. Fear 8. Anxiety 9. Excitement 10. Pride 11. Rushed 12. Sadness 13. Embarrassment 14. Flooded (Overwhelmed) 15. Unsure 16. Helplessness 17. Lazy 18. Shame 19. Tired 20. Relief 21. Overjoyed 22. Boredom	Frustrated Anxious Angry Overwhelmed Guilty Sad Embarrassed Bored Depressed Happy	Proud Overjoyed Excited Guilty Relieved Embarrassed Anxious Frustrated Unsure Afraid Angry

Actions	Pretest	Posttest
1. Planned and followed through 2. Did tasks related to the main problem 3. Did tasks unrelated to the main problem 4. Actively planning 5. Rewarded self for task completion 6. Inaction	Inactive Did tasks unrelated to the main problem Did tasks related to the main problem	Planned and followed through Did tasks related to the main problem Planned Did tasks unrelated to the main problem Did tasks mostly unrelated to the main problem

below were typical problems of adults with Attention-deficit/ Hyperactivity Disorder.

1. being on time for appointments
2. forgetting appointments
3. starting a task
4. organizing a task at work or home
5. doing a task alone
6. shifting from one task to another without completion of either task
7. losing important things.

The checklist was administered to the participants in the group before and after treatment. The adult ADHD control group was administered this checklist at the initial interview and approximately six weeks later. The checklist was only administered to the normal control group once (See Table 4).

Before treatment at least 6 members (67%) of the treatment group had problems with being on time for appointments and losing important things. Also, 9 members (100%) of the treatment group had problems starting a task, organizing a task at work or home and shifting from one task to another with difficulty completing either task. After treatment, the scores from each of these areas were improved (See Table 4).

Table 4

Seven Item Checklist of Organizational Skills Pretest and Posttest Scores

Pretest and posttest scores were obtained for the ADHD group members (N=9) and ADHD control subjects (N=8). The seven item organizational skills checklist was not administered to the normal controls (N=16) as a posttest due to time constraints.

ADHD Group	ADHD Controls	Normal Controls
1. Difficulty With Being On Time For Appointments		
67% Pretest 33% Posttest **51% Improvement**	63% Pretest 75% Posttest **19% Decline**	25% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 3 were late one or more times a day 2 were late three times a week 1 was late two times a week Posttest 1 was late one or more times a day 1 was late twice a week 1 was late once a week		
2. Difficulty With Forgetting Appointments		
44% Pretest 0% Posttest **100% Improvement**	63% Pretest 50% Posttest **21% Improvement**	31% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 3 forgot appointments once a week 1 forgot appointments once a month Posttest 9 reported remembering their appointments		
3. Difficulty Starting A Task		
100% Pretest 89% Posttest **11% Improvement**	100% Pretest 100% Posttest **No Change**	50% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 8 had trouble starting a task one or more times a day 1 had trouble starting a task three times a week Posttest 3 had trouble starting a task one or more times a day 2 had trouble starting a task three times a week 2 had trouble starting a task two times a week 1 had trouble starting a task once a week		

ADHD Group	ADHD Controls	Normal Controls
4. Difficulty Organizing A Task At Home Or Work		
100% Pretest 89% Posttest **11% Improvement**	88% Pretest 100% Posttest **14% Decline**	13% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 6 had trouble organizing a task one or more times a day 3 had trouble organizing a task three times a week Posttest 2 had trouble organizing a task one or more times a day 3 had trouble organizing a task three times a week 1 had trouble organizing a task two times a week 2 had trouble organizing a task one time a week		
5. Difficulty Doing A Task Alone		
56% Pretest 22% Posttest **61% Improvement**	38% Pretest 75% Posttest **97% Decline**	19% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 1 had difficulty doing a task alone one or more times a day 2 had difficulty doing a task alone three times a week 1 had difficulty doing a task alone once a week 1 had difficulty doing a task alone once a month Posttest 1 had difficulty doing a task alone one or more times a day 1 had difficulty doing a task alone once a month		
6. Frequent Shifting From One Task To Another With Difficulty Completing Either Task		
100% Pretest 78% Posttest **22% Improvement**	100% Pretest 100% Posttest **No Change**	31% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 8 frequently shifted from one task to another with difficulty completing either task one or more times a day 1 frequently shifted from one task to another with difficulty completing either task three times a week Posttest 2 frequently shifted from one task to another with difficulty completing either task one or more times a day 1 frequently shifted from one task to another with difficulty completing either task three times a week 1 frequently shifted from one task to another with difficulty completing either task two times a week 3 frequently shifted from one task to another with difficulty completing either task once a week		

ADHD Group	ADHD Controls	Normal Controls
7. Difficulty With Losing Important Things		
89% Pretest 78% Posttest **12% Improvement**	75% Pretest 75% Posttest **No Change**	19% Pretest No Posttest
ADHD Treatment Group Specifics Pretest 2 lost important things three times a week 3 lost important things two times a week 2 lost important things once a week 1 lost important things once a month Posttest 2 lost important things three times a week 2 lost important things two times a week 3 lost important things once a week		

* It is believed that this scale changed due to ADHD control subjects' increased awareness of their deficits resulting from initial interviews.

Wiggins Adult ADHD Checklist

The Wiggins Adult ADHD Checklist was constructed from the literature review and given to the treatment group and two control groups (See Appendix 4c). The checklist has seven scales including: issues of self-esteem/self-confidence, hyperactivity, interpersonal difficulties, disorganization, impulsivity, emotional lability/moodiness, and inattention. The checklist was administered to the ADHD control group at the initial interview and approximately six weeks later. The checklist was only administered to the normal control group once.

The purpose of this checklist was to quantify behavior associated with adults with ADHD. Before treatment, group members reported problems often occurring with: self-confidence/self-esteem, hyperactivity, disorganization, and inattention. After treatment each of these areas was improved (See Tables 5a - 5d).

Research Question #3: What are the specific behavior pattern changes for adults with ADHD associated with this group?

The TFA System

The TFA System was a major part of the treatment given to the adult ADHD group participants. During the initial interview and four group sessions group members were required to identify or discuss their thoughts, feelings and actions on ten separate occasions. This included a discussion during the initial interview, four homework

Table 5a

Comparison of ADHD Treatment and ADHD Control Groups on Pretest Scores on the Wiggins Adult ADHD Checklist

Subscale	Treatment Group Mean*	Control Group Mean*	T-Value	P-Value	Effect Size
Self-confidence/ self-esteem	2.6 (0.532)	2.9 (0.405)	-0.909	0.38	--
Hyperactivity	2.76 (0.442)	2.78 (0.448)	-0.097	0.92	--
Interpersonal Difficulties	1.87 (0.198)	2.28 (0.633)	-1.83	0.09	
Disorganization	3.41 (0.567)	3.68 (0.731)	-0.814	0.43	--
Impulsivity	2.43 (0.409)	2.59 (0.450)	-0.684	0.51	--
Emotional Lability	2.36 (0.300)	2.45 (0.394)	-0.53	0.61	
Inattention	3.06 (0.368)	3.2 (0.310)	-0.791	0.44	--

*Standard deviations are given in parentheses.

Summary: There are no significant differences among any of the scales in the treatment and control group pretests.

Table 5b

Comparison of ADHD Treatment and ADHD Control Groups on Posttest Scores on the Wiggins Adult ADHD Checklist

Subscale	Treatment Group Mean*	Control Group Mean*	T-Value	P-Value	Effect Size**
Self-confidence/ self-esteem	2.29 (0.504)	3.15 (0.698)	-2.79	0.02***	1.234
Hyperactivity	2.48 (0.484)	2.74 (0.390)	-1.09	0.29	
Interpersonal Difficulties	1.74 (0.236)	2.30 (0.589)	-2.19	0.06	
Disorganization	2.55 (0.493)	3.67 (0.821)	-3.33	0.005***	1.86
Impulsivity	2.12 (0.406)	2.52 (0.499)	-1.69	0.12	
Emotional Lability	2.14 (0.416)	2.58 (0.240)	-2.32	0.03***	1.33
Inattention	2.56 (0.309)	3.17 (0.333)	-3.62	0.003***	1.83

*Standard deviations are provided in parentheses.

**Effect size indicates differences in units of standard deviation. The effect size was calculated using the formula:

$$d=\frac{\overline{X_T}-\overline{X_C}}{S_C}$$

***Indicates significant differences using independent t-tests in treatment and control groups on subscales.

Table 5c

Comparison of ADHD Treatment Group on Pretest and Posttest Scores on the Wiggins Adult ADHD Checklist

Subscale	Pretest Mean*	Posttest Mean*	T-Value	P-Value	Effect Size
Self-confidence/ self-esteem	2.67 (0.532)	2.29 (0.504)	2.51	0.04**	0.75
Hyperactivity	2.76 (0.442)	2.48 (0.484)	1.94	0.08	
Interpersonal Difficulties	1.87 (0.198)	1.74 (0.236)	1.55	0.16	
Disorganization	3.41 (0.567)	2.54 (0.493)	6.13	0.0003**	1.76
Impulsivity	2.43 (0.409)	2.12 (0.406)	2.10	0.07	
Emotional Lability	2.36 (0.300)	2.14 (0.416)	1.72	0.12	
Inattention	3.06 (0.368)	2.56 (0.309)	4.11	0.003**	1.61

*Standard deviations are given in parentheses.

**Indicates significant differences in pretest and posttest means using dependent t-tests.

Table 5d

Comparison of ADHD Control Group on Pretest and Posttest Scores on the Wiggins Adult ADHD Checklist

Subscale	Pretest Mean*	Posttest Mean*	T-Value	P-Value	Effect Size
Self-confidence/ self-esteem	2.9 (0.405)	3.15 (0.698)	-1.17	0.29	
Hyperactivity	2.78 (0.448)	2.74 (0.390)	0.43	0.68	
Interpersonal Difficulties	2.28 (0.633)	2.29 (0.589)	-0.2	-.84	
Disorganization	3.68 (0.731)	3.67 (0.821)	0.11	0.914	
Impulsivity	2.58 (0.450)	2.51 (0.499)	0.74	0.49	
Emotional Lability	2.45 (0.394)	2.58 (0.240)	-1.03	0.34	
Inattention	3.2 (0.310)	3.2 (0.333)	0.395	0.71	

*Standard deviations are provided in parentheses.

Summary: This table indicates no significant difference for the control group on pretest and posttest measures.

assignments, two in class discussions and three reviews of the homework.

During the intake interview, each client was given a brief introduction to the TFA System before being asked for a description of a specific problem behavior with time management and task completion they would like to address during the group. For most group members, the pretreatment and posttreatment situations were the same. For others, the situations varied highly. These specific situations, TFA triangles and thoughts, feelings and actions of each client pre and posttreatment are described in Appendix 6a.

The post-treatment analysis revealed that group members often had thoughts which were realistic and self-praising. They continued to have some multiple and scattered thoughts and self-criticism although less than before. Feelings were noted of pride, relief and excitement. Pregroup feelings of frustration, guilt, anxiety and anger continued although less than before. Post treatment actions were usually characterized by the group members planning and following through with strategies to solve their problems. Other members continued to fail to take action or did tasks unrelated to the main problem although less so than before (See Appendix 6a).

Seven Item Organizational Skills Checklist

The seven item organizational skills checklist consists of seven questions constructed from the literature of typical organizational problems of adults with Attention-deficit/Hyperactivity Disorder. Before treatment at least 67% of the group members had problems with being on

time for appointments and losing important things. All of the group members had problems starting a task, organizing a task at work or home, and shifting from one task to another with difficulty completing either task.

After treatment, gains were made in each of the seven question areas with the greatest gains seen in the members ability to be on time, not forget appointments and perform tasks alone. Smaller gains were noted with: starting a task, organizing a task at work or home, shifting from one task to another with difficulty completing either task, and not losing important items (See Table 4).

Wiggins Adult ADHD Checklist

The Wiggins Adult ADHD Checklist has seven scales as previously noted. Before treatment, group members reported that they often had problems with: issues of self-esteem and self-confidence, hyperactivity, disorganization, and inattention.

On retesting gains were noted on each of the seven scales with the greatest improvement noted with organization and attention. The analysis of the differences between the pretest and posttest scores was statistically significant at alpha level 0.05. The organization and attention scores showed statistically significant improvement at alpha level 0.01 (See Table 5a-5d).

Research Question #4: What was the effect of the Group Pentagon in designing this psychosocial group for adults with ADHD?

The Group Pentagon is a process for planning and organizing group therapy. It has five basic principles which examine the: client's current behavior, group leaders and members expectations, methods to be employed, consequences of those methods and an evaluation of the group's effectiveness. The following presentation summarizes results associated with each of the five major areas of the Group Pentagon.

1. Current Behavior - The Group Pentagon is based on identifying specific problems of the members based on their current behavior. Problems for adults with ADHD in the psychosocial treatment group were identified from the literature, the assessments, a checklist of group goals and the initial interview.

The literature on adults with ADHD is clear in showing that they have problems with organization and attention including difficulty with: procrastination, time management, task completion, task organization, goal setting, prioritization and inattention. The adults with ADHD selected for the psychoeducational group displayed these same deficits as noted by their scores on the TFA self-assessments, seven item organizational skills checklist and Wiggins Adult ADHD Checklist.

The TFA self-assessments indicated significant problems with time management and task completion such as difficulty being on time, overscheduling appointments, failing to plan a task before acting and procrastination (See Appendix 6a).

The seven item organizational skills checklist indicated significant problems for more than fifty percent of the treatment group members with: being on time for appointments, starting difficult tasks, organizing a task at home or work, doing a task alone, shifting from one task to another with difficulty completing either task and losing important items (See Table 4).

The Wiggins Adult ADHD Checklist showed that ADHD treatment group members and control group members often had problems with issues of self-esteem and self-confidence, hyperactivity, disorganization and inattention. Areas of greatest impairment were disorganization and inattention (See Table 5a-5d).

At the initial interview, the prospective members were asked to select four items from a checklist of educational topics dealing with organization and attention. The checklist was based on the adult ADHD literature. Group members selected four main topics to learn including: time management skills, better ways to start and complete tasks, ways of organizing their physical environment and how to set priorities (See Appendix 6b).

Initial interview information indicated that the group participants had significant problems with setting concrete and specific goals, time management, procrastination and starting and completing tasks. After evaluating the strengths and deficits of the current behavior of the ADHD group members, the group format was constructed, goals were set, methods designed and consequences of the methods evaluated.

Researcher's Assessment: Examining each ADHD group member's current behavior resulted in describing very concrete, specific deficits with organization and attention related to time management and task completion. A synthesis of these aspects was used as the primary basis for designing the group.

2. Expectations (Goals) - In the Group Pentagon goals are directly based on the members' and leaders; expectations and goals. Individual and group goals were based directly on the pregroup interview and the stated initial goals of the psychoeducational group members. Group members' initial goals were organized around problems with time management and task completion and are found in Table 1. They included goals of establishing routines, completing specific tasks, decreasing procrastination regarding specific tasks, using a schedule better and being on time. Areas of interest for the group members were assessed using a checklist during the initial interview.

The leaders metagoal was to provide a short term psychoeducational group which would assist the adult with ADHD in learning pragmatic skills to improve their organization and attention for specific problems with time management and task completion abilities.

Researcher's Assessment: Building individual goals directly from an analysis of the clients' current behavior served to form a direct link between the first two points of the Group Pentagon.

3. Methods (Procedures) - In the Group Pentagon methods or procedures are specifically designed to remediate problems identified by assessing current behavior. These methods should lead directly to the

achievement of individual goals. Methods for this psychoeducational group were identified based on the literature, the group leaders synthesis of members' current behavior and goals, past experience in leading a psychoeducational group for adults with neurological impairments, and the TFA System.

The literature is clear about the need for treatment procedures to be based on specific problems for the adult with ADHD. Methods of intervention for this population should be concrete and based on the specific problem. These procedures should provide the external structure the adult with ADHD lacks. The procedures included four homework assignments which utilized specific concrete measures based on the clients problems identified during the initial interview. Clients were not taught global cognitive reorganization strategies. Rather, a) specific problems were identified, b) specific goals based on the identified problem were set, and c) specific strategies were utilized to help the clients achieve their goals. Homework was designed to reinforce the use of these behavioral strategies and to provide a success experience. Major topics which were covered were:

1. Basic education on adult ADHD
2. Goal setting for success
3. Emotional adjustment to the need for structure for ADHD adults
4. Scheduling and time management
5. "Road blocks" to task completion for ADHD adults
6. Strategies for beginning and completing tasks

7. Rewards for task completion

8. Suggestions for completing paperwork

9. Organizing the physical environment and

10. Prioritization.

Procedures utilized during the group were designed to provide external structure and promote success. These included specific interventions utilized during the researcher's five year experience running a psychoeducational group for neurologically impaired adults.

The TFA System emphasized the recognition and examination of thoughts, feelings and actions of the client based on a specific situation. This identification and processing of the specific situation and the corresponding thoughts, feelings and actions was utilized on ten different occasions during the initial interview and group.

Researcher's Assessment: Methods and procedures were designed and utilized to deal with concrete and specific problems related to the members current behavior. These only included problems of time management and task completion. Designing methods to directly bridge from member's current behavior to specific goals provided a very tight link that appeared to promote individual behavior change.

4. Consequences (Risk and Impact) - The Group Pentagon requires the group leaders to carefully assess the potential risk or impact of the group procedures before implementing them. This risk must be evaluated not only for the group members but also for how the methods will impact other people both within and outside of the group.

The risks of the group procedures were minimized through the following:

a) All group lectures and homework assignments were based on the literature and past experience and planned for the likelihood of success by using sound behavioral principles and limiting the scope of the problem addressed.

b) All homework assignments were carefully reviewed before the client attempted to complete them. Those goals chosen by the clients which were unrealistic, potentially negative or abstract were altered.

c) Time was appropriated at the beginning of each session to discuss the homework assignments and manage any possible negative consequences.

d) Clients were asked to record in writing their thoughts, feelings and actions related to activities which occurred within the group and during their homework assignments. These thoughts, feelings and actions were monitored for possible risks or negative consequences.

Researcher's Assessment: Because of a careful consideration of consequences, any potential risks were minimized.

5. Evaluation (Effectiveness) - The Group Pentagon establishes the need to plan how the group will be evaluated in advance. This enabled the leaders to assess a variety of behavior at the beginning of the group, to monitor the group's impact, to make changes as necessary and to complete assessments so as to evaluate the effects of the group intervention which take place. The group was assessed utilizing four instruments: TFA self-assessments, the Wiggins Adult ADHD checklist, the

seven item organizational skills checklist, and a five question final evaluation form. The first three instruments have been presented previously. The five question final evaluation form results are listed in Appendix 8.

Researcher's Assessment: In leading a psychoeducational group for adults with ADHD, it was imperative that the evaluations be considered from the start. The content, length, format and time required to complete each assessment instrument was carefully considered. Results clearly substantiate that this group was successful in improving the organizational skills of the members.

Summary: The study was based on four research questions.

1. All adults who participated in this group were diagnosed using the DSM-IV criteria by a medical or psychological professional. Seven out of eight members reported symptoms of ADHD which met the DSM-IV criteria.

2. The specific patterns of behavior were classified using two TFA self-assessments before and after treatment. The self-assessments showed changes in the thoughts, feelings and actions of the group members after treatment.

3. The group had a positive effect in helping adults with ADHD in improving their organizational skills for specific problems with time management and task completion.

4. The Group Pentagon was an appropriate method to design a group for adults with ADHD.

CHAPTER FIVE

Discussion

This chapter provides a brief summary of the study, conclusions and discussion, recommendations, and implications.

Summary

This study was designed to examine the effects of a four session psychoeducational group on the behavior of adults with Attention-deficit/Hyperactivity Disorder. It focused on assisting clients with specific problems related to organization and attention. Nine participants, eight women and one man, began and completed the group. Eight adults with ADHD participated as a control group and received all of the pre and posttreatment testing but no treatment. Sixteen normal adults received limited pretesting and no treatment or posttesting.

The group was designed using the Group Pentagon and TFA System and was based on the pregroup assessment of members. The group format was specifically constructed from a synthesis of the identified needs of group members and concrete goals related to time management and task completion. Treatment methods were multimodal and designed to remediate the clients current behavior problems and help them achieve their goals. Clients were successful in becoming more aware of their thoughts, feelings and actions through the use of the TFA System and learned strategies to compensate for their organizational deficits.

Conclusions and Discussion

Conclusion 1: A four session structured psychoeducational group was both statistically and practically significant in helping ADHD adults with problems related to time management and task completion.

First, all nine ADHD adults who began the group completed all four sessions. Second, posttesting revealed that group members made statistically significant improvement. The greatest gains were noted in the two primary areas addressed, organization and attention. Smaller gains were noted with self-esteem/self-confidence, hyperactivity, interpersonal difficulties, impulsivity, and emotional lability/moodiness. The ADHD control group did not have any statistically significant changes in any of the seven scales described above. Third, positive changes were noted in the group members recorded thoughts, feelings and actions between pre and posttreatment TFA self-assessments. Clients became more aware of each of these elements of their behavior and learned how thoughts, feelings and actions interact with each other. Fourth, practical significance was demonstrated by the majority of clients completion of personal primary goals with time management and task completion. It was also noted in members' comments on the final evaluation form as illustrated by quotes below.

Question 1. What were some of the highlights (or most meaningful aspects) of the group experience for you?

"Not feeling alone with these issues."

"Hope for improvement."

"How to, step by step, get started ... and finished."

"Specific clear recommendations of how to set goals, organize time, organize space and O.H.I.O. (Only Handle It Once)."

Question 3. What are some of the specific behavioral changes you've made in your life that you can attribute at least partially to your group experience?

"I'm working on O.H.I.O. (Only Handle It Once) and breaking things into small manageable pieces."

"Giving myself an emotional break from self-criticism."

"I am more open about my problem."

"Being aware of steps needed to take to really try and get a handle on things. Most everything needs to be mapped out."

Wender (1987) advocated the use of psychoeducational groups to educate adults with ADHD so that members can: observe their own and others behavior in the here and now; support each other; provide reassurance as they mutually discover their problems are not unique; express repressed feelings; receive education from others with ADHD and experiment with new ways of thinking, feeling and acting. Hallowell and Ratey (1994) also said that groups can help adults with ADHD by: providing success experiences, validating feelings and experiences in ways in which the therapists cannot; and addressing problems of feeling disconnected and isolated. This is what the group members felt was accomplished as noted in their final evaluation (See Appendix 8).

Conclusion 2: The DSM-IV criteria was accurate in classifying these ADHD adults and differentiating them from normal adults.

ADHD adults in the treatment and control groups had all been diagnosed as having ADHD by a medical or psychological professional

(with one exception). None of the normal control subjects had been diagnosed as having ADHD.

The Wiggins Adult ADHD Checklist contained all the symptoms listed in the DSM-IV criteria. In completing this instrument all of the ADHD adults in both the treatment and control groups marked most of the DSM-IV items on the checklist in sufficient number to be diagnosed with the disorder (See Appendices 1b & 1c). None of the normal control subjects marked the DSM-IV criteria in sufficient number to be diagnosed with the disorder.

The most recent definition of the disorder in the DSM-IV (1994) recognizes that attentional deficits may be independent from motor hyperactivity. This has been confirmed in numerous studies in the literature in the last ten years. With these ADHD research participants it was very difficult to differentiate between physical hyperactivity and the clients subjective feelings of restlessness. To differentiate between physical hyperactivity and cognitive "hyperactivity" in which the client experiences multiple and scattered thoughts in a short period of time was not possible. To further differentiate between hyperactivity and impulsivity would appear to be even more difficult. While the DSM-IV criteria was successful in differentiating adults with ADHD from normal adults, it did not appear to be sensitive to the multiple variations among the research participants.

Conclusion 3: The TFA System was effective in altering the thoughts, feelings and actions of adults with ADHD.

The TFA model developed by Hutchins links counseling theory and techniques to current eclectic practices in counseling and psychotherapy to assist counselors in meeting the needs of clients. One goal of TFA is the synthesis and categorization of the major patterns of each element of behavior. Information on the client's behavior was obtained by the researcher from multiple sources including the initial interview, checklists and TFA self-assessments. Individual patterns of behavior were usually situation specific and it was anticipated that these could be changed.

Results of the TFA self-assessments showed that clients were successful in completing their pregroup goals with time management and task completion. Of more importance was the clients increased awareness of the link between their thoughts, feelings and actions. For most of the clients, tasks involving organization were noted to be resisted through inaction or participation in activities unrelated to the main problem before treatment.

Inaction was related in part to the normal deficits found with adults with ADHD such as: hyperactivity, distractibility, organization and inattention. Inaction was also reported by the clients to result from anxiety at attempting multi-step tasks or problems which required sustained mental effort. Anxiety fed further thoughts of self-criticism, helplessness and hopelessness which created even more inaction and procrastination. This learned helplessness was a typical pattern of behavior noted by members and addressed in the group. The analysis of the TFA self-assessments revealed that before treatment the group

members often had multiple and scattered thoughts or confusion or self-criticism. Pregroup feelings were usually of frustration, anger, anxiety or embarrassment. Actions usually were not productive as previously described. After treatment, thoughts and feelings were less negative and actions were more task oriented and productive. This is fully shown in Appendix 6a.

Conclusion 4: The Group Pentagon was effective in setting up the group for adults with ADHD.

The Group Pentagon emphasized the need to comprehensively assess the prospective members behavior before treatment. The group format was based on the literature and prospective members' pregroup assessments. Common issues or group themes were determined and a metagoal was formed. These metagoals were then refined into more concrete personal goals for each member and agreed upon.

Hallowell and Ratey (1994) stressed that adults with ADHD usually have many deficits related to interpersonal difficulties, mood lability, anger management and impulse control and recommended these areas be addressed in group therapy. It was thought that interpersonal difficulties and difficulty managing emotions would be present with the treatment group. The pregroup assessment did not reveal these deficits with this treatment group. Accordingly, the group format was altered to exclusively reflect the organizational needs of the group members.

Methods were largely designed in advance so that the members' needs can be appropriately addressed. Procedures were selected in

advance based on the literature and initial assessments with careful consideration of the members' needs, abilities, and skills. Group participants were more motivated, creative and focused than indicated by the literature. Methods were adapted accordingly and changed as the group progressed to reflect their assets. Also, the literature and Group Pentagon were very clear that the goals and methods should be concrete and specific to the identified problems. This was accomplished resulting in the majority of clients completing their identified problems with time management and task completion.

Conclusion 5: Addressing specific concrete problems was effective in helping these adults with ADHD.

Weiss (1992a) recommends helping the adult with ADHD not only learn to repair emotional damage but also helping this population learn to set and accomplish goals. She further stated that this is necessary for the recognition and breaking of old behavioral patterns and promotion of new habits. Goal attainment is a critical component of therapy for this population. Other authors have emphasized the need for education to meet the specific needs of the adult with ADHD through individually prescribed treatment which establishes external structure and assists the client in accomplishing concrete goals (Barkley, 1992; Hallowell & Ratey, 1994; Wender, 1987).

In the intake interview not a single ADHD group or control member was able to list a specific or concrete goal for their group participation without prompting. Goals tended to be general and lacked

the specificity needed to be accomplished. Further, no ADHD group or control member had specific goals for their career.

In addition to difficulty with setting concrete realistic goals, these group members displayed extreme difficulty in starting and completing tasks. They often attempted to make lists regarding what tasks they needed to accomplish. These lists were not helpful because each task was either unrealistic or judged to be of equal importance to other tasks. Group members had extreme difficulty starting tasks due in part to an inability to plan their activities in writing and break difficult tasks into manageable steps. All nine (100%) of the group members stated that if they began tasks, they frequently shifted to another task by performing tasks unrelated to the main problem.

A component of this group was education regarding setting specific and concrete goals and learning to break tasks down into small manageable steps. Through this education the clients were able to accomplish many of their goals and set others which could be accomplished later.

Conclusion 6: ADHD had a significant effect across many areas of the group members lives.

Five of the nine treatment group members had been divorced at least once. These group members who had been divorced cited their ADHD as a significant factor in their marital problems. As children, fighting and stealing were problems for 44% of the treatment group and 25% of the control group. Employment histories reflected multiple jobs

of short duration for the treatment and control groups. Car accidents were 300% to 400% higher for the ADHD adults compared to the normal adult control group. Feelings of depression and anxiety were common in the ADHD groups but not the normal controls. Difficulty setting and obtaining realistic goals, advance planning or inhibiting impulsive thoughts and actions were also problematic.

Problems with food intake were a significant characteristic of these ADHD adults. In the ADHD group, 3 members (33%) had been diagnosed with an eating disorder. In the ADHD control group, 5 members (36%) had either been diagnosed with an eating disorder or expressed the opinion that they had significant problems regulating their intake. There was one reference in the literature to the comorbidity of eating problems with ADHD children.

Anxiety and depression were significant self-reported problems for the ADHD adults in this study. All of the ADHD adults stated they had been involved in counseling or psychotherapy and began therapy due to problems with anxiety or depression. None of the normal adult controls had participated in therapy or been diagnosed with anxiety or depressive disorders. Over 50% of the ADHD adults in both the treatment and control group had been formally diagnosed with a depressive disorder. Between 13 and 22% of the same group had been formally diagnosed with an anxiety disorder.

A thorough intake assessment which includes a self-report inventory for ADHD may be an effective initial screening device for the disorder. Psychological testing also appears to be necessary. A

thorough intake assessment instrument which utilizes a comprehensive educational, vocational, medical, interpersonal and home history is recommended in the literature. Psychological testing has been criticized for often indicating false negatives in which people who do have ADHD appear to not have the disorder when tested (Hallowell & Ratey, 1994). Psychological testing should probably not be used exclusively for diagnosis but in combination with other assessments to uncover hidden depressions, difficulty with self-esteem and co-morbid conditions. Psychological and medical testing should also be used to rule out disorders which have symptoms similar to ADHD.

Conclusion 7: Behavior which interfered with goal attainment was highly characteristic of adults in this study.

Inhibiting distractions was very difficult for these ADHD adults. All seventeen of the adults with ADHD in both the treatment and control groups reported difficulty with shifting from task to task with extreme problems completing either task. It appeared that the greater the required mental effort or sustained attention, the more procrastination and shifting among tasks occurred. The literature is clear that the area of the brain which is found to be underactive in this population involves an individual's ability to inhibit responses to stimuli. Barkley (1993) has postulated that the individual with ADHD has difficulty with disinhibition because of an inability to delay responses or tolerate delays within or between tasks. Quay (1988) hypothesizes that ADHD is a deficit in the response inhibition mechanism of the brain thus

rendering an individual with the disorder with a limited capacity to inhibit responses to extraneous stimuli.

Conclusion 8: There were no statistically significant differences between the pretest scores of men and women with ADHD or between those taking and not utilizing medication (See Appendix 4e).

A very limited sampling of the ADHD adults in both groups revealed that there were few differences between the previously mentioned groups in terms of their pretest scores on the Wiggins Adult ADHD Checklist. Those adults on medication tended to score slightly lower on five of the seven scales than the adults not utilizing medication. ADHD women scored higher than ADHD men on three of the seven scales. The differences between the two groups were not statistically significant at alpha level 0.05 (See Appendix 4e). This supports the literature which has not determined significant differences between men and women with ADHD. Differences in scoring between those utilizing medication and those without were not discussed in the literature.

Conclusion 9: A majority (61%) of children of adults with ADHD had the disorder themselves.

Many adults in this study were only diagnosed as ADHD after their children were. The literature reflects that there is a high incidence of members of multiple generations in families having the disorder.

Conclusion 10: In addition to the effects of the treatment, results of this study could have been influenced by other variables possibly including: members' use of medication, other forms of on-going therapy, testing effects, and a lack of standardization of assessment instruments. The literature indicates that this is typical of the studies to date on adults with ADHD.

Conclusion 11: Co-leadership of a four session group for this population appeared to be of significant benefit in enhancing treatment.

There is no information in the literature regarding co-leadership of group therapy with adults with ADHD. In general, co-leadership is recommended for many reasons including: to reduce burnout when working with a draining population, if intense emotions are being expressed by one or more members, and if one of the leaders is effected by members discussion (Corey & Corey, 1992).

In this group, one leader provided much of the education (delivering the content) while the other leader facilitated discussions and monitored the group (assessing process). Because of these clients' multiple deficits and difficulty monitoring their impulsivity and distractions, the process oriented co-therapist often served to reduce distractions and keep the members on task. To do all these things effectively would be very difficult for a single group leader.

The group process was important in assisting the group members in decreasing their isolation, mobilizing energy for treatment, providing an environment to attempt new behaviors, sharing painful feelings and

providing support. While education was a significant component of this psychoeducational group, group discussions were a basis of the treatment. Members were encouraged to discuss many topics specifically related to group metagoals including:

the effects ADHD has had on their lives,

basic characteristics of ADHD,

initial goals,

homework assignments,

time management,

"roadblocks" to task completion,

rewards for task completion,

prioritizing, and

structuring the physical environment.

Members learned from each other, validated thoughts and feelings, and decreased their isolation, self-criticism and hopelessness. These discussions were listed by group members as one of the most valuable aspects of the treatment.

Conclusion 12: There were important differences between descriptions of ADHD adults in the literature and ADHD group and control members in this study.

Hollowell and Ratey (1994) and Wender (1987) emphasized that ADHD adults often have significant difficulty with interpersonal relationships, emotional lability/moodiness and impulsivity. These deficits result in anger management problems and problems with

authority figures (including bosses and legal authorities). Group interactions reportedly reflect these deficits.

While these deficits were self-reported by the ADHD adults in this study, they did not occur frequently. Members did not report problems with anger management and did not have problems with bosses and legal authorities.

Recommendations

Recommendation 1: Treatment of the multiple deficits of ADHD should be specifically designed around a comprehensive assessment. ADHD adults often have many problems in more than one area of their life. An assessment should address not only psychological issues but also all major life skills, personal relationships, vocational goals and marital and family relationships. The literature refers to the need for multi-modal treatment which combines education, individual counseling, marriage and family therapy, group counseling and psychotherapy to accomplish specific goals. This needs to be based on a comprehensive structured assessment.

Recommendation 2: Counseling or therapy for the ADHD adult should emphasize advance planning to accomplish specific goals through the establishment of simple, concrete and manageable steps. Therapy which does not emphasize planning in advance and the establishment of manageable steps will be less effective due to the ADHD adult's difficulty in inhibiting responses. These steps need to be established in advance

and written down. As each step is completed it should be crossed off. This allows for ADHD adults to be distracted but be able to return to their task and complete any unfinished steps. For the members of this group, this process was effective only if the adults planned in advance and listed the steps necessary to accomplish their goals in writing.

Recommendation 3: It would appear to be a necessity to routinely screen for depression and anxiety disorders with adults with ADHD using standardized instruments and assessment techniques. It is probably in the best interests of clients for the clinician to refer prospective members to a psychologist or psychiatrist to assess whether they have a co-morbid disorder especially in light of the high incidence of depressive, anxiety and eating disorders found in the ADHD treatment and ADHD control groups.

Recommendation 4: Parents of children referred for assessment for ADHD should be routinely screened for ADHD. This study revealed that most of the ADHD adults in both the treatment and control groups were diagnosed after their children were referred for assessment for the disorder. The parents discovered their ADHD through their children.

Recommendation 5: It would be advisable that a significant individual in the ADHD client's life should assist with pre and post-treatment assessments. ADHD adults who participated in this study appeared to be very creative, intelligent and honest in their self-

reports. However, many appeared to have additional psychological problems which were not adequately assessed with the semi-structured interview or through their self-descriptions. With the estimated incidence of co-morbid disorders reported in the literature to be as high as 50%, psychological testing appears to be a necessity.

The literature states that often there is a problem for adults with ADHD in being aware of their thoughts, feelings and actions. If future research determines this to be true, then it would be advisable that a significant individual in the ADHD client's life should assist with pre and post-treatment assessments. Barkley recommends corroboration of all testing by another adult (parent, spouse, relative, or friend with integrity of knowledge of the patient). Barkley's suggestion appears to be valid and practical (Barkley 1992).

Recommendation 6: It is recommended that this study be replicated with standardized instruments, carefully evaluating other exclusionary criteria such as intelligence, the use of medication, and the presence of co-morbid disorders. It would also be advantageous to have a much larger randomized sample from more than one geographic area and to analyze the data using ANCOVA. Follow-up testing at regular intervals is also recommended.

Implications

Implication 1: While the DSM-IV was accurate in differentiating ADHD adults in both the treatment and control groups from the normal

controls, it was not sensitive to the multiple complexities and symptoms of the disorder. ADHD adults who participated in this study were very different in their ability to attend, concentrate, organize tasks, and prioritize. They varied extensively in their hyperactivity and impulsivity. This was not reflected in the DSM-IV or Wiggins Adult ADHD Checklist. At this time, it does not appear that there is an instrument or combination of instruments which can adequately assess differences in attention, hyperactivity and impulsivity. An opportunity exists for development of a more sensitive assessment tool.

Implication 2: This four session psychoeducational group was helpful for these group members for two primary reasons. One, the group was designed using the Group Pentagon and TFA System to address specific goals. These concrete practical goals were successfully completed by the majority of ADHD group members. A significant implication is that the Group Pentagon and TFA System's emphasis on assessment, planning in advance, anticipating outcomes and working to address specific concrete goals would also be effective with many other populations.

Two, the group process decreased the members initial feelings of isolation and loneliness. Members success and enjoyment of being together created excitement and energy. This was noted in the treatment group's final evaluation form.

Question 1. What were some of the highlights (or most meaningful aspects) of the group experience for you?

"Not feeling alone with these issues."

"The support, and realizing I wasn't alone with my behavior, and that I wasn't lazy or not motivated."

"I have gained a certain freedom from the others (stories)."

"The sharing of similar experiences, creativity, intellect and humor."

Group members offered each other support and assistance which increased their motivation to attempt anxiety provoking multi-step tasks. Members learned from each other, struggled together and were encouraged by their successes. Statistically, these adults with ADHD made significant progress. Practically, they completed two difficult tasks. While their practical progress was significant, their enthusiasm and excitement about gaining a sense of control and possible autonomy may have skewed the results. Retesting in 3-6 months might show somewhat different statistical results. This retesting is recommended.

Implication 3: Clinicians as well as counselor educators should be informed of these results and educated regarding the value and relative ease of working with this population in a group format. Clinicians have informally expressed their reluctance to this researcher about attempting to lead groups for adults with neurological impairments. They cite the distractibility, multiple problems and poor success they have had with ADHD adults in individual therapy. These group members were very high functioning and possibly atypical of many adults with ADHD. However, they made substantial progress in a short period of time. The group process was probably responsible for much of their success.

Accurate assessments, a provision of basic education, assistance in the selection of concrete realistic goals and focusing the members efforts both within and outside of the group were the essence of this therapeutic intervention.

REFERENCES

American Academy of Pediatrics. (1982). The Doman-Delacato treatment of neurologically handicapped children. A policy statement by the American Academy of Pediatrics. Pediatrics, 70, 810-812.

American Association of Specialists in Group Work. (1990). ASGW ethical guidelines for group counselors, 15(2), 119-126.

American Psychiatric Association. (1968). Diagnostic and statistical manual of mental disorders (2nd ed.). Washington, DC: Author.

American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1987). Diagnostic and statistical manual of mental disorders (3rd ed. rev.). Washington, DC: Author.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

Barkley, R. A. (1988). Child behavior rating scales and checklists. In M. Rutter, H. Tuma, I. Lann (Eds.), Assessment and diagnosis in child psychopathology. New York: Guilford.

Barkley, R. A. (1989). Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment. New York: Guilford Press.

Barkley, R. A. (1990). A critique of current diagnostic criteria for attention deficit hyperactivity disorder: Clinical and research implications. Development and Behavioral Pediatrics, 11(6), 343-351.

Barkley, R. A. (1991). Attention-deficit hyperactivity disorder: A clinical workbook. New York: Guilford Press.

Barkley, R. A. (1993). A new theory of ADHD. The ADHD Report, 1(5), 1-4.

Barkley, R. A. (1994, February). Can neuropsychological tests help diagnose ADD/ADHD? The ADHD Report, 2(1), 1-3.

Barkley, R. A., & Cunningham, C. E. (1979). The effects of methylphenidate on the mother-child interactions of hyperactive children. Archives of General Psychiatry, 36, 201-208.

Barkley, R. A., Karlsson, J., Strzelecki, E., & Murphy, J. (1984). Effects of age and Ritalin dosage on the mother-child interactions of hyperactive children. Journal of Consulting and Clinical Psychology, 52, 750-758.

Bax, M. (1972). The active and overactive school child. Developmental Medicine and Child Neurology, 31, 83-86.

Befera, M. S., & Barkley, R. A. (1985). Hyperactive and normal girls and boys: Mother-child interactions, parent psychiatric status, and child psycho-pathology. Journal of Child Psychology and Psychiatry, 26, 439-452.

Berry, C. A., Shaywitz, S. E., & Shaywitz, B. A. (1985). Girls with attention deficit disorder: A silent majority? A report on behavioral and cognitive characteristics. Pediatrics, 76, 801-809.

Biederman, J., Munir, K., & Knee, D. (1987). Conduct and oppositional disorder in clinically referred children with attention deficit disorder: A controlled family study. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 724-727.

Biederman, J., Munir, K., Knee, D., Habelow, W., Armentano, M., Autor, S., Hoger, S. K., & Waternaux, C. (1986). A family study of patients with attention deficit disorder and normal controls. Journal of Psychiatric Research, 20, 263-274.

Braud, L. (1978). The effects of frontal EMG biofeedback and progressive relaxation upon hyperactivity and its behavioral concomitants. Biofeedback and Self Regulation, 8, 21-26.

Broman, S. (1979). Perinatal anoxia and cognitive development in early childhood. In T. M. Field, A. Sostek, S. Goldberg, & H. Shuman (Eds.), Infants born at risk - behavior and development (pp. 29-52). New York: SP Medical and Scientific Books.

Bronowski, J. (1977). Human and animal languages. A sense of the future. Cambridge, MA: MIT Press.

Brown, R. T., Wynne, M. E., & Medinis, R. (1985). Methylphenidate and cognitive therapy: A comparison of treatment approaches with hyperactive boys. Journal of Abnormal Child Psychology, 13, 69-87.

Budman, S., Demby, A., Redondo, J., Hannan, M., Feldstein, M., Ring, J., & Springer, T. (1988). Comparative outcome in time-limited individual and group psychotherapy. International Journal of Group Psychotherapy, 38, 63.

Budman, S., & Gurman, A. (1988). Theory and practice of brief therapy. New York: Guilford Press.

Campbell, S. B., Endman, M. W., & Benfield, G. (1977). A three year follow up to hyperkinetic preschoolers into elementary school.

Journal of Child Psychology and Psychiatry and Allied Disciplines, 18, 239-249.

Cantwell, D. (1972). Psychiatric illness in the families of hyperactive children. Archives of General Psychiatry, 27, 239-249.

Carlson, C. L., Lahey, B. B., Frame, C. L., Walker, J., & Hynd, G. W. (1987). Sociometric status of clinic-referred children with attention deficit disorders with and without hyperactivity. Journal of Abnormal Child Psychology, 15, 5337-547.

Carlson, C. L., Lahey, B. B., & Neeper, R. (1986). Direct assessment of the cognitive correlates of attention deficit disorders with and without hyperactivity. Journal of Behavioral Assessment and Psychopathology, 8, 69-86.

Churton, M. W. (1989). Hyperkinesis: A review of literature. Adapted Physical Activity Quarterly, 6, 313-327.

Clampit, M., & Pirkle, J. (1983). Stimulant medication and the hyperactive adolescent: Myths and facts. Adolescence, 18, 811-822.

Cohen, P., Cohen, J., & Brook, J. (1993). An epidemiological study of disorders in late childhood and adolescence-II. Persistence of disorders. Journal of Child Psychology & Psychiatry & Allied Disciplines, 34(6), 869-877.

Corey, G., & Corey, M. S. (1992). Groups Process and Practice. Pacific Grove, CA: Brooks Cole.

David, O. (1974). Association between lower lead concentrations and hyperactivity in children. Environmental Health Perspectives, 7, 17-25.

Doman, G., & Delacato, C. (1968). Doman-Delacato philosophy. Human Potential, 1, 113-116.

Douglas, B., & Peters, K. (1979). Towards a clearer definition of attention deficit of hyperactive children. In G. A. Hale & M. Lewis (Eds.), Attentional and cognitive development. New York: Plenum Press.

Douglas, B., Werry, J., & Weiss, G. (1965). Hyperkinetic behaviors in children: Some findings regarding etiology and treatment. Canadian Psychology, 6, 219.

Douglas, V. I. (1972). Stop, look and listen: The problem of sustained attention and impulse control in hyperactive and normal children. Canadian Journal of Behavioral Sciences, 4, 259-282.

Douglas, V. I. (1983). Attentional and cognitive problems. In M. Rutter (Ed.), Developmental neuropsychiatry (pp. 280-320). New York: Guilford Press.

Feingold, B. (1976). Hyperkinesis and learning disabilities linked to the ingestion of artificial food color and flavors. Journal of Learning Disabilities, 9, 551-559.

Frick, P. J., Lahey, B. B., Christ, M. G., Loeber, R., McBurnett, K., Loeber, R., Stouthamer-Loeber, J., & Green, S. M. (1990). Concurrent adjustment and history of childhood behavior problems in biological relatives of boys with Attention-deficit Hyperactivity Disorder and Conduct Disorder. Paper presented at the 24th Annual AABT convention, San Francisco, CA.

Gadow, K. (1983). Pharmacotherapy for learning disabilities. Learning Disabilities: An Interdisciplinary Journal, 2, 127-140.

Gazda, G. M. (1989). Group counseling: A developmental approach (4th ed.). Boston: Allyn & Bacon.

Greenhill, L. L., Puig-Antich, J., & Novacenko, H. (1981). Growth hormone, prolactin, and growth responses in hyperkinetic males treated with D-amphetamine. Journal of the American Academy of Child and Adolescent Psychiatry, 20, 84-103.

Haenlein, M., & Caul, W. (1987). Attention deficit disorder with hyperactivity: A specific hypothesis of reward dysfunction. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 356-362.

Hallowell, E. M., & Ratey, J. J. (1994). Driven to distraction. New York: Random House, Inc.

Hechtman, L. (1993). Neuroimaging findings in ADHD. The ADHD Report, 1(5), 6-7.

Heckleman, R. (1983). Lithium: A treatment for learning and behavioral problems. Academic Therapy, 19, 133-138.

Hicks, R. E., & Gualtieri, T. E. (1983). Differential psychopharmacology of methylphenidate and the neuropsychology of childhood hyperactivity. In L. M. Bloomingdale (Ed.), Attention deficit disorder (Vol. 3). New York: Pergamon Press.

Hinshaw, S. P. (1987). On the distinction between attentional deficits/ hyperactivity and conduct problems/aggression in child psychopathology. Psychological Bulletin, 101, 443-463.

Hinshaw, S. P., Burhmester, D., & Heller, T. (1989). Anger control in response to verbal provocation: Effects of stimulant medication for boys with ADHD. Journal of Abnormal Child Psychology, 12, 55-77.

Howell, D. C. (1992). Statistical methods for psychology (3rd ed.). Boston: PWS-Kent Publishing Company.

Huessy, H. R., & Howell, D. C. (1983). The behaviors associated with ADD followed from age seven to twenty-one: Differences between males and females. In L. M. Bloomingdale (Ed.), Attention deficit disorder (Vol. 3). New York:

Hunt, R. D., Capper, L., & O'Connell, P. (1990). Clonidine in child and adolescent psychiatry. Journal of Child and Adolescent Psychopharmacology, 1, 87-102.

Hutchins, D. E. (1979). Systematic counseling: The T-F-A model for counselor intervention. Personnel and Guidance Journal, 60, 427-431.

Hutchins, D. E. (1984). Improving the counseling relationship. The Personnel and Guidance Journal, 62(10), 572-575.

Hutchins, D. E. (1993). Designing groups for success. Unpublished manuscript. Virginia Polytechnic Institute and State University.

Hutchins, D. E. (1995). Personal communication.

Hutchins, D. E., Cole, C. G. (1992). Helping relationships and strategies (2nd ed.). Pacific Grove, CA: Brooks Cole.

Hutchins, D. E., & Vogler, D. E. (1988). TFA Systems™. Blacksburg, VA: Author.

Hynd, G. W., Semrud-Clikeman, M., Lorys, A., Novey, E. S., & Eliopulos, D. (1990). Brain morphology in developmental dyslexia and attention deficit disorder/hyperactivity. Archives of Neurology, 47, 919-926.

Hynd, G. W., Voeller, K. L., Hern, K. K., & Marshall, R. M. (1991). Neurobiological basis of attention-deficit hyperactivity disorder (ADHD). School Psychology Review, 2, 174-186.

Ingersoll, B. (1988). Your hyperactive child: A parent's guide to coping with attention deficit disorder. New York: Bantam Doubleday Dell Publishing Group, Inc.

Issac, S., & Michael, W. (1990). Handbook in Research and Evaluation (2nd ed.). San Diego, CA: Edits Publishing.

Johnson, J. (1981). The etiology of hyperactivity. Exceptional Children, 47, 348-353.

Kochanek, T., Kabacoff, R., & Lipsitt, L. (1987). Early detection of handicapping conditions in infancy and early childhood: Toward a multivariate model. Journal of Applied Developmental Psychology, 8, 411-420.

Lahey, B., & Carlson C. (1991). Validity of the diagnostic category of attention deficit disorder without hyperactivity: A review of the literature. Journal of Learning Disabilities, 24 (2), 110-121.

Lahey, B. B., Pelham, W., Schaughency, E. A., Atkins, M., Murphy, H., Hynd, G. W., Russo, M., Hartdagen, S., & Lorys-Vernon, A. (1988). Dimensions in types of attention deficit disorder. Journal of the American Academy of Child and Adolescent Psychiatry, 27, 330-335.

Lahey, B., Schaughency, E., Frame, C. L., & Strauss, C. C. (1985). Teacher ratings of attention problems in children experimentally classified as exhibiting attention deficit disorders with and without hyperactivity. Journal of the American Academy of Child Psychiatry, 24, 613-616.

Lahey, B., Strauss, C., & Frame, C. (1984). Are attention deficit disorders with and without hyperactivity similar or dissimilar disorders? Journal of American Academy of Child And Adolescent Psychiatry, 23, 302-309.

Lamberg, L. (1984). New findings about hyperactive children. PTA Today, 9, 20-21.

Landau, S., & Moore, L. (1991). Social skill deficits in children with attention-deficit hyperactivity disorder. School Psychology Review, 20(2), 235-251.

Laufer, M., & Denhoff, F. (1957). Hyperkinetic behavior syndrome in children. Journal of Pediatrics, 50, 463-474.

Levinson, H. N. (1984). Smart but feeling dumb. New York: Warner.

Lou, H. C., Henriksen, L., & Bruhn, P. (1984). Focal cerebral hypoperfusion in children with dysphasia and/or attention deficit disorder. Archives of Neurology, 46, 48-52.

Lou, H. C., Henrikesen, L., Bruhn, P., Borner, H., & Nielsen, J. (1989). Striatal dysfunction in attention deficit and hyperkinetic disorder. Archives of Neurology, 46, 48-52.

Marlowe, M. (1986). Metal pollutant exposure and behavior disorders: Implications for school practices. Journal of Special Education, 20, 252-264.

Marsh, E., & Johnson, C. (1983). Parental perceptions of child behavior problems, parenting self esteem and mother's reported stress in younger and older hyperactive and normal children. Journal of Consulting and Clinical Psychology, 51, 86-99.

Marshall, P. (1989). Attention deficit disorder and allergy: A neurochemical model of the relation between the illnesses. Psychological Bulletin, 106, 434-446.

Meents, C. K. (1989). Attention deficit disorder: A review of the literature. Psychology in the Schools, 26, 168-178.

Metzger, R. L., & Werner, D. B. (1984). Use of visual training for reading disabilities: A review. Pediatrics, 73, 824-8.

Moore, L. A., & Hughes, J. N. (1988). Impulsive and hyperactive children. In J. N. Hughes (Ed.), Cognitive behavior therapy with children in schools (pp. 127-159). New York: Pergamon Press.

Morrison, J. R., & Stewart, M. A. (1973). The psychiatric status of the legal families of adoptive hyperactive children. Archives of General Psychiatry, 28, 888-891.

Munoz-Millan, R., & Casteel, C. (1989). Attention-deficit hyperactivity disorder: Recent literature. Hospital and Community Psychiatry, 40(7), 699-707.

Oades, R. D. (1987). Attention deficit disorder with hyperactivity: The contribution of catecholaminergic activity. Progress in Neurobiology, 29, 365-391.

Pedazur, E., & Schmelkin, L. P. (1991). Measurement design, and analysis: An integrated approach. Hillsdale, NJ: Lawrence Erlbaum Associates.

Pelham, W. E., Schnedler, R. W., Bender, M. E., Nilsson, D. E., Miller, J., Budrow, M. S., Ronnei, M., Paluchowski, C., & Marks, D. A. (1983). The combination of behavior therapy and methylphenidate in the treatment of attention deficit disorders: A therapy outcome study. In L. M. Bloomingdale (Ed.), Attention deficit disorder (Vol. 3). New York: Pergamon Press.

Piper, W. E., McCallum, M., Azim, H. F. (1992). Adaptation to loss through short-term group psychotherapy. New York: Guilford.

Pliszka, S. R. (1989). Tricyclic antidepressants in the treatment of children with attention deficit disorder. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 127-132.

Quay, H. C. (1983). The behavioral reward and inhibition system in childhood behavior disorder. In L. M. Bloomingdale (Ed.), Attention deficit disorder (Vol. 3). New York: Pergamon Press.

Quay, H. C. (1988). Theories of ADDH. Journal of the American Academy of Child and Adolescent Psychiatry, 27, 262-262.

Rapport, M. D., Stoner, G., & DuPaul, G. J. (1985). Attention deficit disorder and methylphenidate: A multilevel analysis of dose-response

effects on children's impulsivity across settings. Journal of Child and Adolescent Psychiatry, 27, 60-69.

Robinson, L. A., Berman, J. S., & Neimeyer, R. A. (1990). Psychotherapy for the treatment of depression: A comprehensive review of controlled outcome research. Psychological Bulletin, 108, 30-35.

Sergeant, J. (1983). Functional deficits in attention deficit disorder? In L. M. Bloomingdale (Ed.), Attention deficit disorder (Vol. 3). New York: Pergamon Press.

Shaywitz, S. E., & Shaywitz, B. A. (1985). Diagnosis and management of attention deficit disorder: A pediatric perspective. Pediatric Clinics of North America Learning Disorders, 429-457.

Shaywitz, S. E., & Shaywitz, B. A. (1988). Attention deficit disorder: Current perspectives. In J. Kavanaugh & T. Truss, Jr. (Eds.), Learning disabilities: Proceedings of the national conference. Parkton, MD: York Press.

Shekim, W. O., Masterson, A., Cantwell, D. P., Hanna, G. L., & McCracken, J. T. (1989). Nomifensine maleate in adult attention deficit disorder. The Journal of Nervous and Mental Disease, 177(5), 296-299.

Silver, L. B. (1987). The "Magic Cure": A review of the current controversial approaches for treating learning disabilities. Journal of Learning Disabilities, 20(8), 498-512.

Stephens, R., Pelham, W., & Skinner, R. (1984). State department and main effects on methylphenidate and pemoline on paired associate learning and spelling in hyperactive children. Journal of Consulting and Clinical Psychology, 52, 104-113.

Stewart, M., & Olds, S. (1973). Raising a hyperactive child. New York: Harper & Row.

Straus, M. A., & Lehtinen, L. E. (1947). Psychopathology and education of the brain injured child. New York: Greene & Straton.

Tieman, A. (1991). Group treatment for female incest survivors using TFA Systems. Unpublished doctoral dissertation. Virginia Polytechnic Institute and State University.

Vander Kolk, C. J. (1985). Introduction to group counseling and psychotherapy. Columbus, OH: Merrill.

Vogler, D. E., & Hutchins, D. E. (1988). Parents as tutors: Minimizing the homework hassle. Alexandria, VA: National Community Education Association.

Wallis, C. (1994). Life in overdrive. Time Magazine, 144(3), 42-50.

Weiss, G., & Hechtman, L. T. (1986). Hyperactive children grown up. New York: Guilford.

Weiss, G., & Hechtman, L. T. (1993). Hyperactive children grown up (2nd ed.). New York: Guilford.

Weiss, L. (1992a). Attention deficit disorder in adults. Dallas, TX: Taylor Publishing Company.

Weiss, L. (1992b). Attention deficit disorder in adults workbook. Dallas, TX: Taylor Publishing Company.

Wender, P. H., Reimherr, F. W., & Wood, D. R. (1981). Attention deficit disorder (minimal brain dysfunction) in adults. Archives of General Psychiatry, 38, 449-456.

Wender, P. H., Reimherr, F. W., & Wood, D. R. (1985a). Stimulant therapy of "adult hyperactivity". Archives of General Psychiatry, 42, 840 (letter).

Wender, P. H., Reimherr, F. W., Wood, D., & Ward, M. (1985b). A controlled study of methylphenidate in the treatment of attention deficit disorder, residual type, in adults. American Journal of Psychiatry, 142(5), 547-552.

Wender, P. H. (1987). The hyperactive child, adolescent, and adult: Attention deficit disorder through the lifespan. New York: Oxford University Press.

Werry, J. S., Minde, K., Guzman, D., Weiss, G., Dogan, K., & Hoy, R. (1972). Studies of the hyperactive child. VIII: Neurological status compared with neurotic and normal children. American Journal of Orthopsychiatry, 42, 441-450.

Whalen, C. K., & Henker, B. (1985). The social worlds of hyperactive children: Comparisons, combinations and compromises. Journal of Consulting and Clinical Psychology, 59, 126.

Willerman, L. (1973). Activity level and hyperactive twins. Child Development, 44, 288-293.

Wood, D. R., Reimherr, F. W., Wender P. H., & Johnson, G. E. (1976). Diagnosis and treatment of minimal brain dysfunction in adults. Archives of General psychiatry, 33, 1453-1460.

Yalom, I. (1985). The theory and practice of group psychotherapy (3rd ed.). New York: Basic Books.

Zametkin, A. J., Nordahl, T. E., Gross, M., King, A. C., Semple, W. E., Rumsey, J., Hamburger, S., & Cohen, R. M. (1990). Cerebral glucose metabolism in adults with hyperactivity of childhood onset. The New England Journal of Medicine, 323 (23), 1361-1366.

Zametkin, A. J., & Rapoport, J. L. (1987). Neurobiology of attention deficit disorder with hyperactivity: Where have we come in 50 years? Journal of the American Academy of Child and Adolescent Psychiatry, 26, 676-686.

Appendix 1(a)

Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition

Diagnostic Criteria for Attention-Deficit/Hyperactivity Disorder

A. Either (1) or (2):

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
(b) often has difficulty sustaining attention in tasks or play activities
(c) often does not seem to listen when spoken to directly
(d) 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)
(e) often has difficulty organizing tasks and activities
(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
(g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
(h) is often easily distracted by extraneous stimuli
(i) is often forgetful in daily activities

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level

Hyperactivity

(a) often fidgets with hands or feet or squirms in seat
(b) often leaves seat in classroom or in other situations in which remaining seated is expected
(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
(d) often has difficulty playing or engaging in leisure activities quietly
(e) is often "on the go" or often acts as if "driven by a motor"
(f) often talks excessively

Impulsivity

(g) often blurts out answers before questions have been completed
(h) often has difficulty awaiting turn
(i) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic or occupational functioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia , or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Code based on type:

314.01 Attention-Deficit/Hyperactivity Disorder, Combined: if both Criteria A1 and A2 are met for the past 6 months

314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if Criterion A1 is met but Criterion A2 is not met for the past 6 months

314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type: if Criterion A2 is met but Criterion A1 is not met for the past 6 months

Coding note: For individuals (especially adolescents and adults) who currently have symptoms that no longer meet full criteria, "In Partial Remission" should be specified.

Appendix 1(b)

Group Members Self-Reported DSM-IV Symptoms

Client #1

(1) often fails to give close attention to details or makes careless mistakes in work or other activities
(2) often has difficulty sustaining attention in tasks
(3) often does not seem to listen when spoken to directly
(4) often does not follow through with instructions and fails to finish chores or duties in the workplace
(5) often has difficulty organizing tasks or activities
(6) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort
(7) is easily distracted by extraneous stimuli

Client #2

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) often loses things necessary for a task or activity
(4) is often easily distracted by extraneous stimuli
(5) is often forgetful in daily activities
(6) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort
(7) often does not follow through on instructions and fails to finish duties in the workplace
(8) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort

Hyperactivity-Impulsivity

(1) often fidgets with hands or feet or squirms in seat
(2) often has difficulty engaging in leisure activities quietly
(3) is often "on the go" or often acts as if "driven by a motor"
(4) often has difficulty awaiting turn
(5) often blurts out answers before questions have been completed
(6) often talks excessively

Client #3

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often loses things necessary for a task or activity

Hyperactivity-Impulsivity

(1) often fidgets with hands or feet or squirms in seat
(2) is often "on the go" or often acts as if "driven by a motor"
(3) often talks excessively

Client #4

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) often loses things necessary for a task or activity
(4) is often forgetful in daily activities
(5) often has trouble following through on instructions and fails to finish things
(6) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort
(7) is often easily distracted by extraneous things or activities
(8) often fails to give close attention to details or makes careless mistakes in work or other activities

Hyperactivity-Impulsivity

(1) often has difficulty engaging in leisure activities quietly
(2) often interrupts or intrudes on others
(3) is often "on the go" or often acts as if "driven by a motor"
(4) often blurts out answers before questions have been completed
(5) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness).
(6) often has difficulty awaiting turn
(7) often talks excessively

Client #5

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) often loses things necessary for a task or activity
(4) is easily distracted by extraneous things or activities
(4) is forgetful in daily activities
(5) often has trouble following through on instructions and fails to finish things
(6) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort

Hyperactivity-Impulsivity

(1) often has difficulty engaging in leisure activities quietly
(2) often interrupts or intrudes on others
(3) often talks excessively
(4) often has difficulty sitting still when expected to
(5) often has difficulty waiting my turn

Client #6

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) often loses things necessary for a task or activity
(4) is often forgetful in daily activities
(5) often has trouble following through on instructions and fails to finish things
(6) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort

Hyperactivity-Impulsivity

(1) often has difficulty engaging in leisure activities quietly
(2) often interrupts or intrudes on others
(3) is often "on the go" or often acts as if "driven by a motor"
(4) often blurts out answers before questions have been completed

Client #7

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) often loses things necessary for a task or activity
(4) is often forgetful in daily activities
(5) often has trouble following through on instructions and fails to finish things
(6) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort

Hyperactivity-Impulsivity

(1) often blurts out answers before questions have been completed
(2) often fidgets with hands or feet or squirms in seat
(3) is often "on the go" or often acts as if "driven by a motor"

Client #8

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) is easily distracted by extraneous things or activities
(4) is often forgetful in daily activities
(5) has difficulty paying attention to details or makes careless mistakes in work or other activities
(6) often has trouble following through on instructions and fails to finish things
(7) often avoids or dislikes, or is reluctant to engage in tasks that require sustained mental effort

Hyperactivity-Impulsivity

(1) often blurts out answers before questions have been completed
(2) often fidgets with hands or feet or squirms in seat
(3) is often "on the go" or often acts as if "driven by a motor"
(4) often has difficulty staying seated when expected to
(5) often has difficulty awaiting turn
(6) often interrupts or intrudes on others
(7) often has difficulty engaging in play or other leisure activities quietly
(8) often talks excessively

Client #9

Inattention

(1) often has trouble sustaining attention in tasks or play activities
(2) often does not seem to listen when spoken to directly
(3) often loses things necessary for a task or activity
(4) is often easily distracted by extraneous stimuli
(5) is often forgetful in daily activities
(6) often fails to give attention to details or makes careless mistakes in work or other activities

Hyperactivity-Impulsivity

(1) often fidgets with hands or feet or squirms in seat
(2) often has difficulty engaging in leisure activities quietly

Appendix 1(c)
Symptoms of ADHD as Defined by DSM-IV in the ADHD Adults Group Members and Control Groups

Question 1: Which symptoms of adult ADHD as described by the DSM-IV criteria are present with these group participants?

Adult ADHD Psychosocial Group Members (N = 9)

The diagnostic criteria for Attention-Deficit/Hyperactivity Disorder is listed below with the group members self-reported scores.

The diagnostic criteria for Attention-Deficit/Hyperactivity Disorder is as follows:

A. Either (1) or (2):

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

(a) Four members (44.4%) stated that they often fail to give close attention to details or make careless mistakes in schoolwork, work, or other activities
(b) Nine members (100%) stated that they often have difficulty sustaining attention in tasks or play activities
(c) Eight members (88.8%) stated that they often do not seem to listen when spoken to directly
(d) Seven members (77.7%) stated that they often do not follow through on instructions and fail to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
(e) Nine members (100%) stated that they often have difficulty organizing tasks and activities
(f) Eight members (88.8%) stated that they often avoid, dislike, or are reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
(g) Seven members (77.7%) stated that they often lose things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
(h) Six members (66.6%) stated that they are often easily distracted by extraneous stimuli
(i) Seven members (77.7%) stated that they are often forgetful in daily activities

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

(a) Six members (66.6%) stated that they often fidget with their hands or feet or squirm in their seat
(b) One member (11.1%) stated that he/she often leaves his/her seat in the classroom or in other situations in which remaining seated is expected
(c) Two members (22.2%) stated that they often run about or climb excessively in situations in which it is inappropriate (adolescents or adults, may be limited to subjective feelings of restlessness)
(d) Six members (66.6%) stated that they often have difficulty playing or engaging in leisure activities quietly
(e) Six members (66.6%) stated that they are often "on the go" or often act as if "driven by a motor"
(f) Five members (55.5%) stated that they often talk excessively

Impulsivity

(g) Five members (55.5%) stated that they often blurt out answers before questions have been completed
(h) Four members (44.4%) stated that they often have difficulty awaiting their turn
(i) Four members (44.4%) stated that they often interrupt or intrude on others (e.g., butt into conversations or games)

B. Nine members (100%) reported some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Nine members (100%) reported some impairment from the symptoms is present in two or more settings (e.g., at school, or work and at home).

D. Nine members (100%) reported clear evidence of clinically significant impairment in social, academic or occupational functioning.

E. No members (0%) reported symptoms which occurred exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and were not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

All nine of the clients were formally diagnosed by a neurologist or psychiatrist with ADHD according to the DSM-IV criteria. All of the DSM-IV criteria were added to the checklist and eight clients (88.8%) reported symptoms which would meet the diagnostic criteria. The one client who did not report symptoms which would meet the diagnostic criteria stated that he/she would have answered the checklist differently before starting on a regimen of Ritalin and Prozac.

Which symptoms of adult ADHD as described by the DSM-IV criteria are present with the adult ADHD control participants?

Adult ADHD Control Subjects (N = 8)

The diagnostic criteria for Attention-Deficit/Hyperactivity Disorder is listed below with the self-reported scores of the ADHD control subjects.

A. Either (1) or (2):

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

(a) Seven ADHD controls (87.5%) stated that they often fail to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
(b) Eight ADHD controls (100%) stated that they often have difficulty sustaining attention in tasks or play activities
(c) Six ADHD controls (75%) stated that they often do not seem to listen when spoken to directly
(d) Five ADHD controls (62.5%) stated that they often do not follow through on instructions and fail to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
(e) Eight ADHD controls (100%) stated that they often have difficulty organizing tasks and activities
(f) Eight ADHD controls (100%) stated that they often avoid, dislike, or are reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
(g) Eight ADHD controls (100%) stated that they often lose things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
(h) Five ADHD controls (62.5%) stated that they are often easily distracted by extraneous stimuli
(i) Seven ADHD controls (87.5%) stated that they are often forgetful in daily activities

(2) six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

(a) Six ADHD controls (75%) stated that they often fidget with their hands or feet or squirm in their seat
(b) Four ADHD controls (50%) stated that they often leaves their seat in the classroom or in other situations in which remaining seated is expected

(c) Five ADHD controls (62.5%) stated that they often run about or climb excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
(d) Two ADHD controls (25%) stated that they often have difficulty playing or engaging in leisure activities quietly
(e) Five ADHD controls (62.5%) stated that they are often "on the go" or often act as if "driven by a motor"
(f) Six ADHD controls (75%) stated that they often talk excessively

Impulsivity
(g) Seven ADHD controls (87.5%) stated that they often blurt out answers before questions have been completed
(h) Six ADHD controls (75%) stated that they often have difficulty awaiting their turn
(i) Four ADHD controls (50%) stated that they often interrupt or intrude on others (e.g., butts into conversations or games)

B. Eight ADHD controls (100%) reported some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Eight ADHD controls (100%) reported some impairment from the symptoms is present in two or more settings (e.g., at school, or work and at home).

D. Eight ADHD controls (100%) reported clear evidence of clinically significant impairment in social, academic or occupational functioning.

E. No ADHD controls (0%) reported symptoms which occurred exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and were not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Seven out of eight (87.5%) of the adult ADHD controls had been formally diagnosed by a neurologist or psychiatrist with ADHD according to the DSM-IV criteria. All of the DSM-IV criteria were added to the checklist and eight (100%) of the ADHD controls reported symptoms which met the diagnostic criteria.

Normal Adult Control Subjects (N = 16)

None of the normal adult controls had been formally diagnosed by a neurologist, psychiatrist or other mental health professional with ADHD according to the DSM-IV criteria. All of the DSM-IV criteria were added to the checklist and none of the controls reported symptoms which met the diagnostic criteria.

Appendix 2(a)

Hollowell and Ratey's Suggested Diagnostic Criteria For Adult Attention-deficit/Hyperactivity Disorder

Suggested Diagnostic Criteria for Attention/Deficit/Hyperactivity Disorder in Adults (Note: Consider a criterion met only if the behavior is considerably more frequent than that of most people of the same mental age)

A. A chronic disturbance in which at least twelve of the following are present:

1. A sense of under achievement, of not meeting one's goals (regardless of how much one has actually accomplished)
2. Difficulty getting organized
3. Chronic procrastination or trouble getting started
4. Many projects going simultaneously; trouble with follow-through
5. A tendency to say what comes to mind without necessarily considering the timing or appropriateness of the remark
6. A frequent search for stimulation.
7. An intolerance of boredom
8. Easy distractibility, trouble focusing attention, tendency to tune out or drift away in the middle of a page or a conversation, often coupled with an ability to hyperfocus at times
9. Often creative, intuitive, highly intelligent
10. Trouble in going through established channels, following "proper procedure"
11. Impatient; low frustration tolerance
12. Impulsive, either verbally or in action, as in impulsive spending of money, changing plans, enacting new schemes or career plans, and the like; hot-tempered
13. A tendency to worry needlessly, endlessly; a tendency to scan the horizon looking for something to worry about, alternating with inattention to or disregard for actual dangers
14. A sense of insecurity
15. Mood swings, mood lability, especially when disengaged from a person or project
16. Physical or cognitive restlessness
17. A tendency towards addictive behavior
18. Chronic problems with self-esteem
19. Inaccurate self-observation
20. Family history of ADD or manic-depressive illness or depression or substance abuse or other disorders of impulse control or mood

B. Childhood history of ADD (It may not have been formally diagnosed but in reviewing the history, one sees the signs and symptoms were there.)

C. Situation not explained by other medical or psychiatric condition

Hallowell, Edward M. & Ratey, John J. (1993). Driven to Distraction. New York, Pantheon Books.

Appendix 2(b)

Utah and UMass Suggested Diagnostic Criteria For Adults with Attention Deficit/Hyperactivity Disorder

Utah Criteria for Adult ADHD - (Wender, et. al.)
Must have 1 & 2 plus one of 3 - 7

1. Persistent excess activity and inability to persist in sedentary activities.
2. Attention deficits, forgetfulness
3. Affective lability; frequent boredom
4. Inability to complete tasks
5. Hot-tempered; (short-lived outbursts)
6. Impulsivity; abrupt changes in work, relationships; reckless conduct
7. Stress intolerance to routine life stress events

UMass Diagnostic Criteria (Barkley)

1. Self/other reports of three major symptoms
2. Flexible application of DSM-III-R list (Consider 5 of 14 deviant for now)
3. Mandatory corroboration of symptoms by another adult (parent, spouse, relative, friend with integrity of knowledge of patient)
4. Use of Barkley rating scale of ADHD symptoms (Patient Rating Scale, CBCL)
5. Rule out schizophrenia, major affective disorders, borderline personality disorders, autism, & mental retardation

Appendix 3(a)

Selection & Screening Process

1. A cover letter was mailed to area psychiatrists, neurologists and mental health professionals 30 days before the assessment process began informing them of this study and requesting the names of possible subjects. Potential clients were asked to phone the researcher's number to be interviewed for the group.

2. A list of potential subjects was drafted and the initial evaluation was given and utilized the following instruments:

A semi-structured interview based on the literature
Two TFA self-assessments of time mgmt. & task completion problems
Seven item checklist of organizational skills
Wiggins Adult ADHD Checklist

3. Subjects who were diagnosed as presently having any of the following were not included in this study:

* active substance abuse disorders
* anti-social personality disorder
* psychotic or schizophrenic disorders
* major depressive episode
* organic brain damage
* epilepsy
* borderline personality disorder
* mental retardation
* delirium, dementia, amnestic or other cognitive disorders
* dissociative disorders
* sleep disorders
* paranoid personality disorder
* schizoid personality disorder
* schizotypal personality disorder

5. Members of the group were provided (in writing) the results of the testing approximately one week before the group began. Specific, concrete goals were set regarding attention and organization problems.

6. Eight of the group members participated in all four group sessions, with one member attending all of the sessions but one due to a previous engagement.

7. Upon completion of the psychoeducational group subjects retook the following instruments:

TFA self-assessments on problems with time mgmt. and task completion
Seven item checklist of organizational skills
Wiggins Adult ADHD Checklist
Final ADHD psychoeducational group evaluation form (D. Wiggins)

Appendix 3(b)

Disorders Which Must Be Ruled Out Or Judged to Be Comorbid Before A Diagnosis of Attention Deficit/Hyperactivity Disorder Can Be Made

The literature is very clear that many disorders can coexist with ADHD. It is also clear that some disorders take precedence diagnostically over ADHD and will negate or rule out the diagnosis. The disorders which rule out a diagnosis of ADHD will be starred (*). Those disorders which are <u>not</u> starred have been found to sometimes coexist with ADHD.

Mental Retardation*

Learning Disorders

Pervasive Developmental Disorders*

Tourette's Disorder

Delirium, Dementia, Amnestic and Other Cognitive Disorders*

Mental Disorders Due to a General Medical Condition not Elsewhere Classified

Substance-Related Disorders including:
- Alcohol Related Disorders
- Amphetamine Related Disorders
- Caffeine Related Disorders
- Cannabis Related Disorders
- Cocaine Related Disorders
- Hallucinogen Related Disorders
- Inhalant Related Disorders
- Opioid Related Disorders
- Phencyclidine (or Phencyclidine-Like) Related Disorders
- Sedative-, Hypnotic-, or Anxiolytic-Related Disorders
- Polysubstance-Related Disorders
- Other (or Unknown) Substance-Related Disorders

Schizophrenia and Other Psychotic Disorders*

Mood Disorders
- Depressive Disorders
- Bipolar Disorders

Anxiety Disorders
- Panic Disorders
- Agoraphobia
- Social Phobia

Obsessive-Compulsive Disorder
Post Traumatic Stress Disorder
Acute Stress Disorder
Generalized Anxiety Disorder
Substance-Induced Anxiety Disorder

Dissociative Disorders*
Sleep Disorders*

Personality Disorders
Paranoid Personality Disorder*
Schizoid Personality Disorder*
Schizotypal Personality Disorder*
Borderline Personality Disorder
Histrionic Personality Disorder
Narcissistic Personality Disorder
Obsessive-Compulsive Personality Disorder

Significant Situational Disturbances

Past or Present Medical History of:
Use of Any Medication Which Results in Inattention, Hyperactivity, or Impulsivity such as:
Bronchodilators*
Dilantin
Phenobarbital
Neuroleptics *
Traumatic Brain Injury/Other Organic Brain Damage (CVA's, AVM's, Pheochromocytoma)*
Fetal Alcohol Syndrome/Other Toxic Exposures to the Fetus During Pregnancy
Lead Poisoning/Other Toxic Exposures
Encephalitis/Other Brain Infections*
Movement Disorders
Neurofibromatosis
Hyperthyroidism/Hypothyroidism

Appendix 3(c)

Letter to Referral Sources

Dear Dr. _____,

Dr. Hildy Getz and I will be facilitating a 4 week psychoeducational group for adults with attention deficit-hyperactivity disorder from January 31, 1995 to February 16, 1995. This group is part of my dissertation research and will meet at the Manassas Group located at 3635 Manassas Drive, SW, Roanoke, Va. on Tuesday nights from 7PM until 9:00 PM. It will be structured to provide the participants with basic information regarding adult ADHD and strategies for compensation. Adults meeting DSM-IV criteria for ADHD will be included and must currently exhibit deficits with attention, hyperactivity or impulsivity to be included. The cost will be $30 per session. Each participant will be given a $10 rebate for each session that they are on time and complete their homework assignment. Arrangements can be made for those individuals unable to pay this fee. Participants will be assessed utilizing the following instruments:

(R. Barkley's) Semi-Structured Adult ADHD Interview
Two TFA Self-Reports of Time Mgmt. & Task Completion Problems
Seven Item Checklist of Organizational Skills
Adult ADHD Checklist (D. Wiggins)

Individuals must be at least 21 years old, have an average IQ and be able to read at a minimum of a 7th grade level. Any client diagnosed with any of the following disorders will not be included in this group:

* active substance abuse disorders
* anti-social personality disorder
* psychotic or schizophrenic disorders
* major depressive episode
* organic brain damage
* epilepsy
* borderline personality disorder
* mental retardation
* delirium, dementia, amnestic or other cognitive disorders
* dissociative disorders
* sleep disorders
* paranoid personality disorder
* schizoid personality disorder
* schizotypal personality disorder
* individuals taking medications which may create ADHD-like symptoms

If you have any clients who may potentially benefit from this group, please discuss this with them and have them complete the enclosed release of information form and mail it in the stamped

addressed envelope. You will be provided with a written report upon completion of the educational group. If you have questions or comments please call me at (703) 382-9627.

Sincerely,

David R. Wiggins, Ed.S.

Appendix 4(a)

Most Frequent Deficits of Adults with ADHD According to the Literature

These are the most frequent deficits of adult ADHD found in the literature (the American Psychiatric Association, 1994; Barkley, 1988; Cohen, 1993; Hallowell & Ratey, 1994; Ingersoll, 1988; McCarney, 1994; Miller, 1994; Wallis, 1994; Wender, 1985). The seven scales of the Wiggins Adult ADHD Checklist were constructed from this list.

Issues of Self-Esteem and Self-Confidence
Difficulty achieving goals
Externalization of responsibility for problems onto others
Feeling discouraged about abilities
Difficulty understanding how they are being perceived by others
A general sadness or discouragement about the future
General dissatisfaction with life
Difficulty rewarding self for successes
Self-criticism
Difficulty working without supervision

Hyperactivity
Difficulty sitting still during sedentary activities
Difficulty with shifting from one to task to another without completion
Difficulty with waiting
Easily bored
Feel as if "on the go" or "driven by a motor"
Frequently worried
Feel more comfortable doing something rather than sedentary activities
Difficulty relaxing
Frequently told that they talk a lot

Interpersonal Difficulties
Difficulty getting along with family members
Difficulty fulfilling commitments and keeping promises
Hurt others by saying or doing something impulsively
Difficulty controlling anger with outbursts of pushing or striking others
Difficulty controlling anger with resulting verbal criticism, cursing or belittling of others
Difficulty understanding the needs of others
Difficulty sustaining friendships or other relationships
Difficulty resolving conflicts

Organization
Difficulty organizing a task
Procrastination when beginning difficult or unpleasant tasks
Difficulty meeting deadlines
Failure to complete tasks
Difficulty with being late for appointments

Frequent confusion with lengthy or complex assignments or directions
Difficulty with setting priorities
Difficulty with cluttered or messy work space or desk
Difficulty keeping track of time
Frequent problems with overdue work assignments or home projects

Impulsivity
Difficulty with saying or doing things without considering the consequences
Difficulty with changing plans quickly without considering the consequences
Variability of performance with familiar tasks
Difficulty with interrupting or intruding on others
Participation in physically dangerous or addictive behaviors without considering the consequences
Increased involvement in accidents
Difficulty following the rules
Difficulty saying "no" to others
Difficulty with frequent job changes

Emotional Lability/Moodiness
Difficulty with low frustration tolerance
Difficulty with mood stability (which is often based on daily events)
Difficulty with anxiety
Difficulty with frustration tolerance
Difficulty with obstinateness/mental flexibility and need to have own demands met without considering others
Difficulty with tolerating stressful situations
Moods change frequently and quickly
Difficulty with irritability
Difficulty with overreaction to external events
Difficulty with depression

Inattention
Difficulty with focusing or sustaining attention
Difficulty with following conversations for extended periods of time
Frequently losing items necessary for a task
Difficulty with distractibility
Difficulty remembering things
Often daydreams
Difficulty paying attention to details
Trouble following through on instructions
Difficulty reading for lengthy periods of time
Difficulty with making careless mistakes

This table shows the origin in the literature of each question on the Attention Deficit/Hyperactivity Disorder checklist.

	Hallowell & Ratey	Wender	Ingersoll	Barkley	Weiss	DSM-IV (A.P.A.)
Issues of Self-Esteem and Self-Confidence						
Difficulty achieving goals	X	X	X	X	X	
Externalization of responsibility for problems onto others	X		X		X	
Feeling discouraged about abilities	X		X	X	X	
Difficulty understanding how they are being perceived by others	X		X		X	
A general sadness or discouragement about the future	X	X	X	X	X	X
General dissatisfaction with life		X		X	X	
Difficulty rewarding self for successes	X		X	X	X	
Self-criticism			X	X	X	X
Difficulty working without supervision	X	X		X		
Hyperactivity						
Difficulty sitting still during sedentary activities	X		X	X	X	X
Difficulty with shifting from one task to another without completion	X	X	X	X	X	X
Difficulty with waiting	X	X	X	X	X	X
Easily bored	X	X		X	X	
Feel as if "on the go" or "driven by a motor"		X		X		X
Frequently worried	X		X	X		

	Hallowell & Ratey	Wender	Ingersoll	Barkley	Weiss	DSM-IV (A.P.A.)
Feel more comfortable doing something rather than sedentary activities	X	X	X	X	X	
Difficulty relaxing	X		X		X	
Frequently told that they talk a lot		X	X	X	X	X
Interpersonal Difficulties						
Difficulty getting along with family members	X		X	X	X	X
Difficulty fulfilling commitments and keeping of promises			X	X	X	
Hurt others by saying or doing something impulsively		X		X	X	
Difficulty controlling anger with outbursts of pushing or striking others	X	X	X	X	X	
Difficulty controlling anger with resulting verbal criticism, cursing or belittling of others		X	X	X	X	
Difficulty understanding the needs of others	X		X	X		X
Difficulty sustaining friendships or other relationships	X		X	X	X	
Difficulty resolving conflicts	X		X		X	
Organization						
Difficulty organizing a task	X	X	X	X	X	X
Procrastination when beginning difficult or unpleasant tasks	X			X	X	X
Difficulty meeting deadlines	X	X		X	X	
Failure to complete tasks	X	X	X	X	X	

	Hallowell & Ratey	Wender	Ingersoll	Barkley	Weiss	DSM-IV (A.P.A.)
Difficulty with being late for appointments				X		
Frequent confusion with lengthy or complex assignments or directions	X		X	X	X	
Difficulty with setting priorities					X	
Difficulty with cluttered or messy work space or desk	X				X	
Difficulty keeping track of time	X				X	
Frequent problem with overdue work assignments or home projects	X		X	X	X	
Impulsivity						
Difficulty with saying or doing things without considering the consequences	X	X	X	X	X	X
Difficulty with changing plans quickly without considering the consequences	X		X	X	X	
Variability of performance with familiar tasks	X	X		X		
Difficulty with interrupting or intruding on others	X		X	X	X	X
Participation in physically dangerous or addiction behaviors without considering the consequences	X		X		X	
Increased involvement in accidents	X		X	X	X	X
Difficulty following the rules	X			X		
Difficulty saying "no" to others	X		X		X	
Difficulty with frequent job changes				X	X	

	Hallowell & Ratey	Wender	Ingersoll	Barkley	Weiss	DSM-IV (A.P.A.)
Emotional Lability/Moodiness						
Difficulty with low frustration tolerance	X	X	X	X	X	X
Difficulty with mood stability (which is based on daily events)	X		X		X	
Difficulty with anxiety	X		X	X	X	
Difficulty with frustration tolerance	X	X	X	X	X	X
Difficulty with obstinance/mental flexibility and need to have own demands met without considering others		X	X	X	X	
Difficulty with tolerating stressful situations		X	X	X	X	
Moods change frequently and quickly	X	X	X		X	
Difficulty with irritability	X		X		X	
Difficulty with overreaction to external events		X	X	X	X	
Difficulty with depression	X	X	X	X	X	X
Inattention						
Difficulty with focusing or sustaining attention	X	X	X	X	X	X
Difficulty with following conversations for extended periods of time		X		X		X
Frequently losing items necessary for a task				X	X	X
Difficulty with distractibility	X	X	X	X	X	X
Difficulty remembering things	X		X	X		X
Often daydreams	X		X		X	
Difficulty paying attention to details			X	X	X	X

	Hallowell & Ratey	Wender	Ingersoll	Barkley	Weiss	DSM-IV (A.P.A.)
Trouble following through on instructions	X	X		X	X	
Difficulty reading for lengthy periods of time	X	X		X		
Difficulty with making careless mistakes				X	X	X

Appendix 4(b)

Most Frequent Deficits of Adults With ADHD Categorized By Thoughts, Feelings and Actions

These are the most frequent deficits of adults with ADHD found in the literature (the American Psychiatric Association, 1994; Barkley, 1988; Cohen, 1993; Hallowell & Ratey, 1994; Ingersoll, 1988; McCarney, 1994; Wallis, 1994; Wender, 1985). These characteristics will be categorized by thoughts, feelings and actions according to the TFA System following the procedural rules listed below.

Thinking

1. Any symptom which utilizes thinking concepts or words like thoughts, cognitions, beliefs, or values will be categorized as a thinking characteristic of this population.
2. Any part of the literature in which a concept is either a cognitive skill or is primarily thinking in nature (even though it may have secondary feeling or acting components) like attention span, insight, blaming of others, organization, concentration or forgetfulness will be categorized as a thinking characteristic of this population.

Feeling

1. Any symptom which utilizes feeling/affective words such as sad, depressed, moody, irritable or tense will be categorized as a feeling characteristic of this population.
2. Any part of the literature in which a concept is primarily feeling oriented (even though it may have secondary thinking or acting components) such as inability to tolerate frustration & anger outbursts will be categorized as a feeling characteristic of this population.

Acting

1. Any symptom which utilizes action concepts or words or which describes a physical movement such as running, jumping, destroying, touching etc. will be categorized as an action characteristic of this population.
2. Any part of the literature which describes a physical process or physical ability such as sleeping, eating, fine motor dexterity, clumsiness, or motor development will be categorized as an action characteristic of this population.
3. Any part of the literature in which a concept is primarily action oriented (even though it may have secondary components of thinking or feeling) such as unmet responsibilities, poor school performance, impulse control, underachievement, rebelliousness etc. will be categorized as an action characteristic of this population.

* It is recognized that every thought, feeling or action ultimately could be argued to be a biological process. The purpose of categorizing these symptoms according to the TFA System is to provide an accurate assessment of the client and then to choose the most effective treatment

technique based on the individual's characteristics and needs. Certain terms could be effectively argued to fit in different categories. This is not the primary focus of this study for it is the use of the characteristic pattern of the client which will help the clinician set therapeutic goals.

* If a characteristic is difficult to categorize as primarily a thought (T), feeling (F) or action (A) by the above rules, then the primary method of treatment will determine where it will be placed. For example, distractibility involves both a cognitive component (thinking or attention) and an action component (moving from the desired task). Treatment for this will be a cognitive task (ex. teaching the S.T.P. rule which is to STOP, THINK and PLAN). Therefore, distractibility will be placed in the thinking category as a characteristic of this population.

Thinking
Externalization of responsibility for problems onto others
Feeling discouraged about abilities
Difficulty understanding how they are being perceived by others
A general sadness or discouragement about the future
General dissatisfaction with life
Difficulty rewarding self for successes
Self-criticism
Difficulty working without supervision
Difficulty with waiting
Easily bored
Difficulty understanding the needs of others
Difficulty organizing a task
Difficulty keeping track of time
Difficulty with low frustration tolerance
Difficulty with mood stability (which is based on perception of daily events)
Difficulty with frustration tolerance
Difficulty with obstinateness/mental flexibility and need to have own demands met without considering others
Difficulty with tolerating stressful situations
Difficulty with overreaction to external events
Difficulty with focusing or sustaining attention
Difficulty with following conversations for extended periods of time
Difficulty with distractibility
Difficulty remembering things
Often daydreams
Difficulty paying attention to details
Trouble following through on instructions
Difficulty reading for lengthy periods of time

Feeling
Feel as if "on the go" or "driven by a motor"
Frequently worried
Feel more comfortable doing something rather than sedentary activities

Difficulty with anxiety
Difficulty with irritability
Difficulty with depression
Moods change frequently and quickly

Acting
Difficulty achieving goals
Difficulty sitting still during sedentary activities
Difficulty with shifting from one task to another without completion
Frequently told that they talk a lot
Difficulty relaxing
Difficulty getting along with family members
Difficulty fulfilling commitments and keeping of promises
Hurt others by saying or doing something impulsively
Difficulty controlling anger with outbursts of pushing or striking others
Difficulty controlling anger with resulting verbal criticism, cursing or belittling of others
Difficulty sustaining friendships or other relationships
Difficulty resolving conflicts
Procrastination when beginning difficult or unpleasant tasks
Difficulty meeting deadlines
Failure to complete tasks
Difficulty with being late for appointments
Difficulty with saying or doing things without considering the consequences
Difficulty with changing plans quickly without considering the consequences
Variability of performance with familiar tasks
Difficulty with interrupting or intruding on others
Participation in physically dangerous or addictive behaviors without considering the consequences
Increased involvement in accidents
Difficulty following the rules
Difficulty saying "no" to others
Difficulty with frequent job changes
Difficulty with losing items necessary for a task
Frequent problem with overdue work assignments or home projects
Difficulty making careless mistakes

Appendix 4(c)

Wiggins Adult ADHD Checklist Derivation

This is a checklist written by the researcher which is derived from the works of Barkley; Cohen; Conners; Hallowell & Ratey; Ingersoll; McCarney; Miller; Wallis; Weiss; Wender and the DSM-IV. It was not used for the purpose of diagnosing a client but for an assessment of the problems of adults with Attention-deficit/Hyperactivity Disorder. These problems were used to design a psychoeducational group and to set specific and concrete group and individual goals. ***Items in bold print and italics are DSM-IV criteria for ADHD.*** (These are highlighted to demonstrate that all of the DSM-IV criteria are included in this checklist. This is also not the final form of the questionnaire but one written with headings and grouped according to topics to make it easy to read.) Behaviors were ranked on a scale of 1 to 5 as follows:

1	2	3	4	5
Never	Sometimes	Often	Most of the time	Always

Issues of Self-Esteem & Self-Confidence

1. I feel that I haven't achieved my goals.
2. I find myself blaming others for my problems.
3. I am "down" on myself.
4. I have difficulty understanding how I "come across" to others.
5. I feel sad or discouraged about my future.
6. I lack confidence in myself.
7. I am dissatisfied with my life in general.
8. I have difficulty rewarding myself when I do something well.
9. I criticize myself.
10. I have difficulty working alone.

Hyperactivity

1. ***I often have difficulty sitting still when expected to.***
2. I shift from one task to another without finishing them.
3. ***I have difficulty waiting my turn.***

4. I have difficulty engaging in play or leisure activities quietly.

5. I am "on the go" and feel as if I am "driven by a motor."

6. I am worried.

Hyperactivity (continued)

7. I feel more comfortable being "on the go" or doing something rather than sitting still.

8. I fidget with my hands or feet or squirm in my seat.

9. I find myself talking excessively.

10. I feel restless.

Interpersonal Difficulties

1. I have difficulty getting along with family members.

2. I have difficulty fulfilling my commitments and break my promises to others.

3. I hurt others by saying or doing something without thinking first.

4. I push or strike others.

5. I get angry and criticize, curse, or "put-down" others.

6. I have difficulty understanding what others want or need.

7. I have trouble sustaining friendships or other relationships.

8. I have difficulty being intimate with others.

9. I have fights or arguments with others which do not get resolved.

Organization

1. I have difficulty organizing tasks and activities.

2. I procrastinate or have trouble starting a task which may be difficult, unpleasant or which may require sustained mental attention.

3. I have difficulty meeting deadlines.

4. I fail to finish what I start.

5. I am late for appointments or work.

6. I am confused at home and work.

7. I have difficulty setting priorities.

8. My home or work space is messy or cluttered.

9. I have difficulty keeping track of time.

10. I am surrounded by many uncompleted and overdue work or home projects.

Impulsivity

1. I have a tendency to say or do things which are on my mind without necessarily considering the consequences.

2. I change plans quickly without considering the consequences.

3. My performance on things that I have done before and know well, often varies a lot.

4. I interrupt or intrude on others.

5. I participate in physically dangerous or addictive behaviors like overeating, exercising too much, drinking, using drugs, sex, spending money or gambling (or other dangerous or addictive behaviors).

6. I am accident prone.

7. I have difficulty following rules.

8. I have difficulty saying "no" to others.

9. I do things on the spur of the moment and regret my actions later.

10. I blurt out answers before questions have been completed.

Emotional Lability/Moods

1. I have a low frustration tolerance.

2. My mood depends on what happens to me during the day.

3. I am anxious.

4. I have a "short fuse" and lose my temper.

5. Lately, I have been called stubborn or rigid or someone who needs to get their own way.

6. I have difficulty tolerating a stressful situation.

7. My moods come and go quickly.

8. I am irritable.

9. I become excited easily.

10. I am depressed.

Inattention

1. ***I have difficulty sustaining my attention in tasks or play activities.***

2. My mind wanders while listening to others.

3. ***I lose things necessary for a task or activity.***

4. ***I am easily distracted by extraneous things.***

5. ***I am forgetful in daily activities.***

6. I find myself daydreaming.

7. ***I have difficulty paying attention to details or make careless mistakes in work or other activities.***

8. ***I have trouble following through on instructions and fail to finish things.***

9. I have difficulty reading for lengthy periods of time.

10. I have difficulty with making careless mistakes.

Appendix 4(d)

Wiggins Adult ADHD Checklist

Please fill out the following checklist for adults with Attention-deficit/Hyperactivity Disorder by circling how often this behavior occurs.

Example:

I am easily bored.

Never *Sometimes* *Often* *Most of the Time* *Always*

This indicates somebody who is bored most of the time.

---

1. I feel that I haven't achieved my goals.

   Never *Sometimes* *Often* *Most of the Time* *Always*

2. I often have difficulty sitting still when expected to.

   Never *Sometimes* *Often* *Most of the Time* *Always*

3. I have difficulty getting along with family members.

   Never *Sometimes* *Often* *Most of the Time* *Always*

4. I have difficulty organizing tasks and activities.

   Never *Sometimes* *Often* *Most of the Time* *Always*

5. I have a tendency to say or do things which are on my mind without necessarily considering the consequences.

   Never *Sometimes* *Often* *Most of the Time* *Always*

6. I have a low frustration tolerance.

   Never *Sometimes* *Often* *Most of the Time* *Always*

7. I have difficulty sustaining my attention in tasks or play activities.

   Never *Sometimes* *Often* *Most of the Time* *Always*

8. I find myself blaming others for my problems.

Never *Sometimes* *Often* *Most of the Time* *Always*

9. I shift from one task to another without finishing them.

Never *Sometimes* *Often* *Most of the Time* *Always*

10. I have difficulty fulfilling my commitments and break my promises to others.

Never *Sometimes* *Often* *Most of the Time* *Always*

11. I procrastinate or have trouble starting a task which may be difficult, unpleasant or which may require sustained mental attention.

Never *Sometimes* *Often* *Most of the Time* *Always*

12. I change plans quickly without considering the consequences.

Never *Sometimes* *Often* *Most of the Time* *Always*

13. My mood depends on what happens to me during the day.

Never *Sometimes* *Often* *Most of the Time* *Always*

14. My mind wanders while listening to others.

Never *Sometimes* *Often* *Most of the Time* *Always*

15. I am "down" on myself.

Never *Sometimes* *Often* *Most of the Time* *Always*

16. I have difficulty waiting my turn.

Never *Sometimes* *Often* *Most of the Time* *Always*

17. I hurt others by saying or doing something without thinking first.

Never *Sometimes* *Often* *Most of the Time* *Always*

18. I have difficulty meeting deadlines.

Never *Sometimes* *Often* *Most of the Time* *Always*

19. My performance on things that I have done before and know well, often varies a lot.

Never *Sometimes* *Often* *Most of the Time* *Always*

20. I am anxious.

Never *Sometimes* *Often* *Most of the Time* *Always*

21. I lose things necessary for a task or activity.

Never *Sometimes* *Often* *Most of the Time* *Always*

22. I have difficulty understanding how I "come across" to others.

Never *Sometimes* *Often* *Most of the Time* *Always*

23. I have difficulty engaging in play or leisure activities quietly.

Never *Sometimes* *Often* *Most of the Time* *Always*

24. I push or strike others.

Never *Sometimes* *Often* *Most of the Time* *Always*

25. I fail to finish what I started.

Never *Sometimes* *Often* *Most of the Time* *Always*

26. I interrupt or intrude on others.

Never *Sometimes* *Often* *Most of the Time* *Always*

27. I have a "short fuse" and lose my temper.

Never *Sometimes* *Often* *Most of the Time* *Always*

28. I am easily distracted by extraneous things or activities.

Never *Sometimes* *Often* *Most of the Time* *Always*

29. I feel sad or discouraged about my future.

Never *Sometimes* *Often* *Most of the Time* *Always*

30. I am "on the go" and feel as if I am "driven by a motor."

Never *Sometimes* *Often* *Most of the Time* *Always*

31. I get angry and criticize, curse, or "put-down" others.

Never *Sometimes* *Often* *Most of the Time* *Always*

32. I am late for appointments or work.

Never *Sometimes* *Often* *Most of the Time* *Always*

33. I participate in physically dangerous or addictive behaviors like overeating, exercising too much, drinking, using drugs, sex, spending money or gambling (or other dangerous or addictive behaviors).

Never *Sometimes* *Often* *Most of the Time* *Always*

34. Lately, I have been called stubborn or rigid or someone who needs to get their own way.

Never *Sometimes* *Often* *Most of the Time* *Always*

35. I am forgetful in daily activities.

Never *Sometimes* *Often* *Most of the Time* *Always*

36. I lack confidence in myself.

Never *Sometimes* *Often* *Most of the Time* *Always*

37. I am worried.

Never *Sometimes* *Often* *Most of the Time* *Always*

38. I have difficulty understanding what others want or need.

Never *Sometimes* *Often* *Most of the Time* *Always*

39. I am confused at home and work.

Never *Sometimes* *Often* *Most of the Time* *Always*

40. I am accident prone.

Never *Sometimes* *Often* *Most of the Time* *Always*

41. I have difficulty tolerating a stressful situation.

Never *Sometimes* *Often* *Most of the Time* *Always*

42. I find myself daydreaming.

Never *Sometimes* *Often* *Most of the Time* *Always*

43. I am dissatisfied with my life in general.

Never *Sometimes* *Often* *Most of the Time* *Always*

44. I feel more comfortable being "on the go" or doing something rather than sitting still.

Never *Sometimes* *Often* *Most of the Time* *Always*

45. I have trouble sustaining friendships or other relationships.

Never *Sometimes* *Often* *Most of the Time* *Always*

46. I have difficulty setting priorities.

Never *Sometimes* *Often* *Most of the Time* *Always*

47. I have difficulty following rules.

Never *Sometimes* *Often* *Most of the Time* *Always*

48. My moods come and go quickly.

Never *Sometimes* *Often* *Most of the Time* *Always*

49. I have difficulty paying attention to details or make careless mistakes in work or other activities.

Never *Sometimes* *Often* *Most of the Time* *Always*

50. I have difficulty rewarding myself when I do something well.

Never *Sometimes* *Often* *Most of the Time* *Always*

51. I fidget with my hands or feet or squirm in my seat.

Never *Sometimes* *Often* *Most of the Time* *Always*

52. I have difficulty being intimate with others.

Never *Sometimes* *Often* *Most of the Time* *Always*

53. My home or work space is messy or cluttered.

Never *Sometimes* *Often* *Most of the Time* *Always*

54. I have difficulty saying "no" to others.

Never *Sometimes* *Often* *Most of the Time* *Always*

55. I am irritable.

Never *Sometimes* *Often* *Most of the Time* *Always*

56. I have trouble following through on instructions and fail to finish things.

Never *Sometimes* *Often* *Most of the Time* *Always*

57. I criticize myself.

Never *Sometimes* *Often* *Most of the Time* *Always*

58. I find myself talking excessively.

Never *Sometimes* *Often* *Most of the Time* *Always*

59. I have fights or arguments with others which do not get resolved.

Never *Sometimes* *Often* *Most of the Time* *Always*

60. I have difficulty keeping track of time.

Never *Sometimes* *Often* *Most of the Time* *Always*

61. I do things on the spur of the moment and regret my actions later.

Never *Sometimes* *Often* *Most of the Time* *Always*

62. I become excited easily.

Never *Sometimes* *Often* *Most of the Time* *Always*

63. I have difficulty reading for lengthy periods of time.

Never *Sometimes* *Often* *Most of the Time* *Always*

64. I have difficulty working alone.

Never *Sometimes* *Often* *Most of the Time* *Always*

65. I am surrounded by many uncompleted and overdue work or home projects.

Never *Sometimes* *Often* *Most of the Time* *Always*

66. I blurt out answers before questions have been completed.

Never *Sometimes* *Often* *Most of the Time* *Always*

67. I am depressed.

Never *Sometimes* *Often* *Most of the Time* *Always*

68. I have difficulty with making careless mistakes.

Never *Sometimes* *Often* *Most of the Time* *Always*

Appendix 4(e)

Wiggins Adult ADHD Checklist Scores (Pretesting)
Comparison of ADHD Men vs ADHD Women's Scores
& Medication vs No Medication *

1. **Issues of Self-Esteem and Self-Confidence**

ADHD Women	ADHD Men	No Medication	Medication
2.67	2.82	2.64	2.74

2. **Hyperactivity**

ADHD Women	ADHD Men	No Medication	Medication
2.83	2.70	2.68	2.84

3. **Interpersonal Difficulties**

ADHD Women	ADHD Men	No Medication	Medication
1.90	2.34	2.09	1.88

4. **Disorganization**

ADHD Women	ADHD Men	No Medication	Medication
3.64	3.38	3.06	3.78

5. **Impulsivity**

ADHD Women	ADHD Men	No Medication	Medication
2.48	2.72	2.32	2.65

6. **Emotional Lability/Moodiness**

ADHD Women	ADHD Men	No Medication	Medication
2.35	2.54	2.42	2.40

7. **Inattention**

ADHD Women	ADHD Men	No Medication	Medication
3.18	3.08	2.96	3.23

* The differences between the ADHD men and ADHD women's scores and the differences between the ADHD individuals utilizing medication and ADHD individuals not utilizing medication on the seven scales of this inventory are not statistically significant at the .05 level.

Appendix 4(f)

Wiggins Adult ADHD Checklist - Item Analysis Of ADHD Group Participants and Controls

1. Problems Reported to Occur All The Time/Most of the Time (By 75% or More) of ADHD Group Members (Pretest)

I have difficulty organizing tasks and activities.

I shift from one task to another without finishing them.

I procrastinate or have trouble starting a task which may be difficult.

1(a) Problems Reported to Occur All The Time/Most of the Time (By 75% or More) of ADHD Group Members (Posttest)

There were no items reported to occur all the time or most of the time by 75% or more of the ADHD group members.

Four members (44%) reported difficulty with procrastinating or having trouble starting a task which may be difficult. This was the highest reported problem on the checklist on the posttest.

2. Problems Reported to Occur All The Time/Most of the Time (By 75% or More) of ADHD Control Subjects

I have difficulty organizing tasks and activities.

I shift from one task to another without finishing them.

I procrastinate or have trouble starting a task which may be difficult.

I have difficulty meeting deadlines.

I have difficulty keeping track of time.

3. Problems Reported to Occur All The Time/Most of the Time (By 75% or More) of Normal Control Subjects

There were no problems reported by 75% of the normal control subjects. The highest reported score for any item was reported by only 19% of the normal control subjects.

Appendix 5(a)

Seven Item Checklist of Organizational Skills

This is a seven item checklist of organizational skills written by the researcher from the literature in order to further quantify the organizational deficits of the ADHD group and control groups (Barkley, 1993; Hallowell and Ratey, 1994; Ingersoll, 1988; and Wender, 1987).

1. Do you find that you are often late for appointments?
   a) Yes
   b) No
   If yes, state how frequently this happens.
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

2. Do you often find that you forget appointments?
   a) Yes
   b) No
   If yes, please state how frequently this happens.
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

3. Do you find that you often have trouble starting a task?
   a) Yes
   b) No
   If yes, please state how frequently this happens?
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

4. If you find that you have trouble organizing a task at home or work?
   a) Yes
   b) No
   If yes, please state how frequently this happens?
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

5. Do you have trouble doing a task alone?
   a) Yes
   b) No
   If yes, please state how often this happens.
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

6. Do you find that you are frequently shifting from one task to another and having difficulty completing either task?
   a) Yes
   b) No
   If yes, please state how often this happens.
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

7. Do you find that you often lose important things?
   a) Yes
   b) No
   If yes, please state how often this happens.
   I. One or more times a day
   II. Three times a week
   III. Two times a week
   IV. Once a week
   V. Once a month

Appendix 6(a)

TFA Assessment And Researcher Analysis of Group Members Behavior On Time Management and Task Completion Problems

Each group member was asked to record their thoughts, feelings and actions related to a specific problem they were experiencing with time management and task completion tasks. Their thoughts, feelings and actions were recorded again at the completion of the group. This appendix has the results of the TFA self-assessments and the researcher analysis.

Client #1 Time Management

The problem related to time management was getting ready for a trip to New York.		The problem was getting ready for another trip to New York.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts		**Thoughts**	
1. Maybe we shouldn't go on this trip.	Confusion	1. If I get this done in an organized, "planned out" way, I won't have to rush.	Realistic
2. This trip seems to be causing trouble.	Hopeless		
3. Why the heck did I wait so long to prepare?	Self-criticism		
Feelings		**Feelings**	
1. Frustration	Frustration	1. Responsible	Responsible
2. Anger	Angry	2. Sensible	Sensible
3. Anxiety	Anxious	3. Proud	Proud
4. Guilt	Guilty		
5. Lazy	Lazy		
Actions		**Actions**	
1. Basically, I did nothing. (Procrastination)	Inactive	1. I made a manageable plan, followed through and got the job done.	Planned and followed through

Client #1 Task Completion

The problem related to task completion was failure to complete posters for a local club.		The problem was completing posters for a local club.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. Why do I always wait until the last minute?	Self-criticism	**Thoughts** 1. I'm going to stick to my plan of setting a deadline for myself when the posters need to be finished. I am going to break this task up into a five day task to complete the poster.	Realistic
Feelings 1. Frustration and worry.	Frustration and anxiety	**Feelings** 1. I feel organized, unrushed and capable.	Proud
Actions 1. Nothing.	Inactive	**Actions** 1. Set the deadline, made a list of what I'd need for the poster, (ie.) time, materials and designated a specific date and time for each # on my list. The poster was delivered and finished on time.	Planned and followed through

Client #2 Time Management

The problem related to time management was getting up in the morning, showering and out the door.		The problem was getting up in the morning, showering and out the door.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts		**Thoughts**	
1. Things I had to do, need to make a phone call, let me make sure I have my files together.	Realistic	1. I'm doing good. I have more time to get things done. I am making progress.	Self-praise
Feelings		**Feelings**	
1. Rushed and guilty because I knew I was going to be late.	Rushed and guilty	1. Proud	Proud
Actions		**Actions**	
1. Feeding the dog, doing my hair and making my bed.	Did multiple tasks unrelated to the main problem	1. I accomplished more things without being rushed. I treated myself to a nap at mid-day.	Planned and followed through

Client #2 Task Completion

The problem related to task completion was doing my taxes. "They are three years late."		The problem was doing my taxes. "They are three years late."	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I'll do it tomorrow. I can't do it tomorrow. I'll do it Saturday. I won't do anything else Saturday. I need to get these taxes in. Do you think the Federal government will accept my ADHD as an excuse for not getting my taxes in.	Unrealistic	**Thoughts** 1. This is not too bad just doing certain parts. I can do that much.	Realistic
Feelings 1. Anxious and angry!	Anxious and angry	**Feelings** 1. Overjoyed and excited when part was completed.	Overjoyed and excited
Actions 1. Doing many other things other than taxes, the most recent being cutting up wood on Saturday.	Did tasks unrelated to the main problem	**Actions** 1. Brag and promised myself that I would buy a piece of jewelry.	Planned and followed through

Client #3 Time Management

The problem related to time management was losing track of time and being late for an appointment.		The problem was trying to arrive at a specific place on time.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I checked my watch which is a real improvement (since I began Ritalin) and did "well" at first then lost track. I intended to finish, didn't linger, thought about calling when I realized I was late. I avoided calling and then rationalized doing "something else" while I was out, i.e. finding this office (got lost) and checking about (a) job.	Multiple scattered thoughts	**Thoughts** 1. I need to compensate (i.e.) acknowledge travel time and preparation time in realistic terms and minutes.	Realistic
Feelings 1. Anxious and guilty	Anxious and guilty	**Feelings** 1. Less stress - like I actually have time and efficiency and energy.	Relieved
Actions 1. Drove around, got lost and went to the store.	Did tasks unrelated to the main problem	**Actions** 1. Set buzzers. Set a beginning time (allowed flexibility) and checked on monitored time more frequently.	Planned and followed through

Client #3 Task Completion

The problem related to task completion was not writing thank you notes to the potential employers who had interviewed him.		The problem was not writing thank you notes to the potential employers who had interviewed him.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. Wanted to write the "perfect" message, wanted to write (about his) different skills after seeing comparisons of others etc. - obsessing; wondering if it mattered; if I would take it (the job) anyway, etc.	Multiple scattered thoughts	**Thoughts** 1. I can wait some more - it's not urgent enough.	Realistic
Feelings 1. Overwhelmed, excited, fearful, guilty, wanting to please.	Overwhelmed, anxious and guilty	**Feelings** 1. Guilt and anticipation/release of stress an calm feelings. I didn't have to be perfect.	Guilty and relieved
Actions 1. Wrote one letter later (of two), didn't copy it on quality paper, what I did was to think and obsess on other options.	Did tasks related to main problem	**Actions** 1. I gave myself permission to complete (these) later if necessary. I stopped and planned more, watched the clock more, decided on specific times to begin. I am not so good at holding myself to the deadlines.	

Client #4 Time Management

The problem related to time management was an inability to set up her sewing room which she had attempted to do many times before.		The problem was an inability to set up her sewing room which she had attempted to do many times before.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. How should I organize it? What should I do with the things that don't belong in there? I am upset with myself for not completing the task.	Confused	**Thoughts** 1. What is a part that I can do? Something little that I can start with? What's most important? Why am I still not getting things done like I want to?	Realistic and self-criticism
Feelings 1. Shame, embarrassment, frustration, and anger at self.	Shame, embarrassment, angry and frustrated	**Feelings** 1. Still feel tired. Angry at myself for not doing better, yet feel good because I do see some improvement. I feel more hopeful.	Angry, happy
Actions 1. Walked in and out of the room a lot. I looked at things and then watched TV or called someone.	Did tasks unrelated to the main problem	**Actions** 1. I focused on a small part of the task and did it. I took a nap, watched TV and ate cookies.	Planned and followed through/ did tasks unrelated to main problem

Client #4 Task Completion

<u>The problem</u> related to task completion was that she wanted to send in some poems she had written for publishing this month.		<u>The problem</u> was what she described as a similar task as in the pretest, writing a letter to her in-laws.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I need to do this. When will I do it?	Confused	**Thoughts** 1. I really want to send them a letter. I don't know how long I have. This is important to me. I'm going to stick with it until it's done. My hand will get tired - I have a lot to say. If I can do it on the computer, I'll be able to finish it.	Realistic/ multiple scattered thoughts
Feelings 1. This is frustrating and disappointing. I am unsure of my ability.	Frustrating and sad	**Feelings** 1. I felt good - a real release for accomplishing the task. I felt inspired to do it.	Proud
Actions 1. No action.	Inaction	**Actions** 1. I sat down and typed the letter on the computer. I didn't do anything else, except get coffee, until I finished it!	Planned and followed through

Client #5 Time Management

The problem related to time management was the morning regimen for a school day. I feel like I do not do this routine well. I am always pressed for time.		The problem was difficulty establishing a morning regimen for a school day.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I don't want to appear as a 'dolt' who can't get their kid going in the morning. Since he has curly hair, maybe I can just skip doing that. I accomplish his desires for breakfast on the weekend, but he gets whatever is prepared the fastest in the morning.	Multiple scattered thoughts	**Thoughts** 1. I may be able to improve - at least parts of it. I needed to start with paper and pencil and planning before changing anything.	Hopeful, and realistic
Feelings 1. Anxious and tired.	Anxious and tired	**Feelings** 1. Cautiously hopeful, less anxious.	Less anxious
Actions 1. To get him (disabled son) ready, I'm telling him what to do from the bed. I help him in the shower. I get him dressed, fix his breakfast, etc. and then try and find his shoes.	Did tasks related to the main problem	**Actions** 1. I set the alarm, build in doze time and lay out Chris's clothes the night before. I plan breakfast. I don't just discover it each AM.	Planned and followed through

Client #5 Task Completion

The problem related to task completion was finishing making a Christmas present.		The problem was not completing projects.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts		**Thoughts**	
1. I knew she wasn't coming to the house for Christmas and so I didn't rush. I won't see her again (until later), so there's no rush. Until there is the embarrassment factor, I don't do something. I like doing this project but I don't feel pressured.	Multiple scattered thoughts	1. I'm incompetent, lazy etc.	Self-criticism
Feelings		**Feelings**	
1. I felt child-like, embarrassed, apologetic to my son's fiancee.	Embarrassed	1. Guilt, embarrassed, disappointment and anxious.	Guilty, embarrassed, and anxious
Actions		**Actions**	
1. I did other things rather than the project. It wasn't a high priority.	Did tasks unrelated to the main problem	1. The few things that I actually took on and completed I felt good about - organizing the regular bills, purse in one place, starting to make a morning regimen.	Planned and followed through on some of the main problem

Client #6 Time Management

The problem related to time management was inability to schedule her time appropriately. The client had taken on three activities for the same hour, all of which required her to be in a different location.		The problem was scheduling several things at once.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I got upset with my husband for not being able to bail me out when I needed him (he was working), I needed to figure out which one (activity) was the most important, and what was I going to do with everyone I had to take care of.	Multiple scattered thoughts	**Thoughts** 1. Where is my M -F schedule? I must make appointments when I have time - off from work.	Realistic
Feelings 1. I was frustrated with my husband.	Frustrated	**Feelings** 1. A little confined that I can't do it whenever I want. Pleased that I have some structure to work within.	Anxious and proud
Actions 1. Made arrangements for the after school kids, called the piano teacher and took my son to his appointment with his psychologist.	Planned and followed through	**Actions** 1. Checked my calendar. I am only allowing myself to use designated time to make appointments, and then I write it down.	Planned and followed through

Client #6 Task Completion

The problem related to task completion was doing her laundry and putting it away.		The problem was not doing her laundry and putting it away.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I don't like doing this. I hate the process of sorting. I forget to get the clothes out of the dryer when the buzzer goes off because I'm often distracted by other things. The washer and dryer are located in a messy room that I hate going into.	Multiple scattered thoughts	**Thoughts** 1. This is something that will never end. I must make a plan.	Realistic
Feelings 1. This is frustrating and boring. I then feel guilty when the kids or my husband don't have the clothes they need.	Frustrated, bored, and guilty	**Feelings** 1. I hate doing this! I have to. I feel more organized, I know when it will be done.	Frustrated, proud
Actions 1. I do all kinds of activities to avoid having to do the laundry.	Did tasks unrelated to the main problem	**Actions** 1. I made it a part of my weekly routine. I designated time to start and stop.	Planned and followed through

Client #7 Time Management

The problem related to time management was inability to understand how long an activity would take to complete. This activity consisted of writing a paper for school.		The problem was inability to understand how long an activity would take to complete. This activity consisted of writing a paper for school.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. How long will it take me? She would find herself cognitively veerin off in a direction and becoming absorbed in material which was not helpful for her paper.	Confused/ multiple scattered thoughts	**Thoughts** 1. It's still a problem but I feel that I will eventually learn to manage it.	Hopeful
Feelings 1. Frustration and anger at self.	Frustrated and angry	**Feelings** 1. I don't really know.	Unsure
Actions 1. Being sidetracked in subtopics.	Did tasks unrelated to the main problem	**Actions** 1. Have chopped it up into smaller bits. I learned to allow too much time and the reward is the leftover free time when the project is finished. I use the time banking system of deposits and withdrawals to stay on track.	Planned and followed through and rewarded self

Client #7 Task Completion

The problem related to task completion was getting the chemistry correct in the salt-water tank.		The problem was getting the chemistry correct in the salt-water tank.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I'm going to screw this up again. Will I ever get it right? This thing is one-half millimeter out of my grasp. I'll never get this right. I'm a dumb head dog bone.	Self-criticism, confused	**Thoughts** 1. It is more difficult than I first thought. I will do more research.	Realistic
Feelings 1. Frustration and anger at myself.	Frustration and anger	**Feelings** 1. I don't really know.	Unsure
Actions 1. Doing something else which might be more successful.	Did tasks unrelated to the main problem	**Actions** 1. I offered to help with the salt water tanks at school. I learned from this. I made a chemistry check list. I made a trouble shooting check list. I set a date during spring break to clean and restart it. I realized it's an all day thing to start it.	Planning

Client #8 Time Management

The problem related to time management was inability to be on time for her first client of the day.		The problem was inability to be on time for her first client of the day.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts		**Thoughts**	
1. Well I'll just give myself a few more minutes before I get up to get ready. I can get ready in less time. I wish I didn't have to wake up. I'll have to have breakfast. I have to make sure that everything is in place.	Unrealistic/ multiple scattered thoughts	1. Wow! I can change my routine based upon the amount of time actually available. I'm not really helpless. It's amazing how deciding to do it regardless, can make a difference.	Hopeful
Feelings		**Feelings**	
1. Inadequate, frustrated, anxious, and struggling between what I want and what I should do, resigned to being late again.	Frustrated, angry, embarrassed	1. Somewhat hopeful, not helpless. More in charge of how I do it, even though I won't always do it well. (Being late is a decision.)	Excited
Actions		**Actions**	
1. Rushing back and forth, being distracted by tasks which didn't need to be done and standing in front of the closet for five minutes trying to figure out what I should wear.	Did tasks unrelated and related to the main problem	1. Made a routine, started sticking to it more. I got up and immediately started moving, to get my routine going. I gave myself a few minutes just to lie there awakening.	Planned and followed through

Client #8 Task Completion

The problem related to task completion was filling out managed care applications.		The problem was filling out managed care applications. I still have not filled out these applications, but I forgot that was my stated problem. I did however start completing treatment forms and assessment forms on time.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. This has multiple steps. I'll never be able to do this. I'm not going to do this well enough. Feeling overwhelmed and inadequate.	Hopeless and overwhelmed	**Thoughts** 1. I keep thinking that I don't have time. There are too many other more important tasks to do. I have been feeling excited and successful, having completed other very important immediate need forms. I can do them later; The panels are probably closed now. It's too late now. I've missed it. They won't want me anyway.	Multiple scattered thoughts, hopeless, and hopeful
Feelings 1. Frustration, sadness and anxiety.	Frustrated, sad and anxious	**Feelings** 1. Fear, concern, frustration, failure and guilt, but, confidence, and excitement and pride for other tasks completed.	Fear, anxiety, frustration, guilt, excited, and proud
Actions 1. Doing something else which might be more successful.	Did tasks unrelated to the main problem	**Actions** 1. Procrastinated - but, actually, forgot. Other forms - made a mental plan/time frame set and pushed the deadline, but completed them by the real final deadline.	Planned and followed through tasks besides the main problem

Client #9 Time Management

The problem related to time management was inability to control the amount of time she spends on processing insurance forms. She has to "fight" with herself to begin the work and "reinvents" the process she will go through to complete the forms each time. She wants this work to be automatic and consistent.		The problem was having difficulty controlling the time spent on processing insurance forms for visual-cognitive therapy.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. I'm screwed. This will take a lot of energy and effort. How do I approach this? Do I do the B.C. & B.S. first? Do I do the companies which won't pay first? Which ones are the most similar? How do I group these together? Do I pull the older files first? Should I return that phone call? Then comes paralysis, and beating myself up and then getting angry at the culture.	Confused, self-criticism	**Thoughts** 1. They are too confusing to enumerate. 2. The process is incredibly complex because the insurance company's plan it that way so they don't have to pay. 3. The therapy is in some areas considered experimental.	Confused
Feelings 1. Overwhelmed, angry and frustrated.	Overwhelmed, angry, and frustrated	**Feelings** 1. Angry 2. Overwhelmed 3. Powerless	Angry Overwhelmed Helpless
Actions 1. Looked at files and came across a name, grabbed other paperwork to compare, attempted to organize according to the "latest system."	Did tasks related to main problem	**Actions** 1. I began to develop a flow chart (still in process) which will serve as my roadmap through the process. 2. To handle my anger at the insurance companies, several of the processes end with sending a letter to the state insurance commissioner with a copy to the insurance company. This gives me a feeling of power and closure.	Planned and followed through

Client #9 Task Completion

The problem related to task completion was difficulty paying bills on time.		The problem was difficulty paying bills.	
Pretest	**Analysis**	**Posttest**	**Analysis**
Thoughts 1. This is an "information glut," there is too much coming in through the mail slot, I need to take care of the things which have to be acted on right now, where do I begin.	Confused	**Thoughts** 1. There are more bills than income. 2. I'll have to decide what gets paid (second guessing). 3. I remember past bad times (nearly lost the house over medical bills). 4. How can I generate more income. 5. I need to go back to school to get a degree, but I can't succeed due to my learning disabilities. 6. Should I lie on my resume.	Multiple scattered thoughts, related to the main problem
Feelings 1. This is depressing when I don't have enough money, but it is enjoyable taking action when I do.	Depressed and happy	**Feelings** 1. Angry that I can't generate sufficient income. 2. Guilty that I spend so much. 3. Deprived because I can't afford vacations or 1st run movies. 4. Anxious that creditors will catch up with me or that I'll have to pay late payments.	Angry, guilty, and anxious
Actions 1. Throwing out the junk mail, placing bills on the cabinet with other information where they get lost.	Did tasks related to the main problem	**Actions** 1. Have a snack. 2. Read non-fiction (fiction makes me feel guilty). 3. Make a list of part-time job opportunities. 4. Clean the closets.	Did tasks mostly unrelated to the main problem

Appendix 6(b)

Checklist Of Areas The ADHD Group Members Chose to Work On In Their Initial Interview

Checklist of Areas You Would Like to Work On

This group is designed to provide basic education and "real world" strategies for adults with Attention-deficit/Hyperactivity Disorder. What will be taught in the group will be based in part on what topics you select. Please choose four topics you would like to know more about.

(These are the topics chosen by the ADHD group members they wanted to be presented in the group.)

__2__ Learning about the basic characteristics of adults with Attention-deficit/Hyperactivity Disorder

__2__ Learning more about treatment options

__6__ Learning how to manage my time better (how to use a calendar or planner)

__4__ Learning how to say "no" to others or ask for what I want (assertiveness)

__1__ Learning more about how to solve problems

__2__ Learning better anger management

__5__ Learning better ways to start and complete tasks

__2__ Learning how to ask for help (and giving myself permission to use it)

__5__ Learning how to organize my physical environment for success (learning environmental strategies to increase attention, concentration, & task completion)

__2__ Learning how to reward myself when I accomplish tasks

__5__ Learning how to set priorities

_____ Learning (write your own goal)_____

Appendix 6(c)

Group Pentagon

1. **Current Behavior (Problem)**
   - What is the problem situation?
   - What is the person's current behavior?
   - How does one Think, Feel, & Act?
   - How does item 1 relate to items 2-5?

2. **Expectations (Goals)**
   - What does the leader want to happen?
   - What does EACH member want to happen?
   - Specify thoughts, feelings, & actions.
   - Especially focus on how T, F, & A relate to current behavior so goal achievement will resolve item 1 concerns.

3. **Methods (Procedures)**
   - What group procedures will lead to goal achievement?
   - Methods used in group meetings.
   - Methods used outside meetings.
   - Consider interaction among Current Behavior--> Goals--> Consequences--> and Evaluation.

4. **Consequences (Risk & Impact)**
   - What are the consequences of methods or techniques used on members of the group?
   - How will certain methods affect members?
   - How will methods impact OTHER people?

5. **Evaluation (Effectiveness)**
   - How will the group be evaluated?
   - How will individual changes in T, F, & A be assessed?
   - How will the group process be assessed?

Appendix 7(a)

ADHD Semi-Structured Interview

Date Time

Demographics

Subject's Name Social Security Number

Address Phone Number

Date of Birth Age Birthplace

Sex Place of Employment

Ethnicity

Black, not of Hispanic origin
Hispanic
White, not of Hispanic origin
American Indian
Asian
Other

Marital Status

Never married
Married once
Divorced
Divorced, remarried
Widowed
Widowed, remarried
Living together

Spouse's name and age

Children's first names and ages (** Children diagnosed with ADHD)

1. What led you to seek an evaluation for the ADHD group now?

2. What is your understanding of this disorder?

3. What do you know about treatment of adult ADHD?

4. Do you know anyone else who was diagnosed with this disorder? If so, what relation were they to you?

   a) Yes Relationship?
   b) No
   c) Not sure

5. If yes, were they treated and if so how were they treated for their ADHD?
   a) Ritalin or methylphenidate only
   b) Unknown medication
   c) Other medication -
   d) Not sure
   e) Individual therapy
   f) Group therapy

6. What are your greatest concerns about your behavior now?

7. When would you say these problems began?
   a) 0 - 7 years
   b) 8 - 12 years
   c) 13 - 15 years
   d) 16 - 21 years
   e) 22 to present

8. Did you ever seek treatment for these problems before?
   a) Yes
   b) No

9. If yes, when and where did you seek treatment?

10. What was the recommended treatment and outcome?

11. Did your parents ever take you to see someone about these problems when you were a child or an adolescent?
   a) Yes
   b) No
   c) Not sure

12. If yes, did you receive any treatment you haven't already told me about?

Education

Adult ADHD Group Educational Questionnaire

The following questions have to do with problems typically seen with children who have Attention-deficit/Hyperactivity Disorder. Please check any item which was a problem for you in school.

____ Failed to keep up with classes

____ Put off homework/writing papers or doing research

____ Skipped class

____ Found myself daydreaming in class

____ Was easily distracted

____ Had difficulty getting to class on time

____ Rushed through assignments with little regard to the accuracy of my work

____ Failed to get all of what the teacher said

____ Had difficulty completing assignments

____ Had difficulty following directions

____ Was restless or anxious in class

____ Had difficulty studying for tests

____ Had difficulty taking tests

____ Had difficulty concentrating

____ Was disorganized to the point of not having necessary materials, losing materials, being unable to find completed assignments, being unable to follow the steps of the assignment in order, etc.

____ Did not follow school rules

____ Had difficulty awaiting turns in activities or games

____ Interrupted others or talked during quiet activity periods

____ Had difficulty following a routine

____ Did not double-check work for accuracy

____ Had difficulty comprehending what I read

13. What is the highest level of school you have completed?
    a) 7th grade
    b) 8th grade
    c) 9th grade
    d) 10th grade
    e) 11th grade
    f) graduated from high school
    g) GED
    h) technical schools beyond high school
    i) 1 year of college
    j) 2 years of college or an associate's degree
    k) 3 years of college
    l) graduated college
    m) post graduate study
    n) master's degree
    o) post master's degree
    p) doctorate

14. Did you have any trouble starting school in kindergarten or first grade?

15. Did you ever repeat a grade? If so, which one?
    a) Yes _____ grade
    b) No

16. Were you ever in any special classes in school or were diagnosed with a learning disability?
    a) Yes b) No
    If yes, what kinds of special classes were you in or what was your learning disability?

17. How would you describe your grades in school?
    a) Above average
    b) Average
    c) Worse than average

18. What was your best subject in school?

19. What was your worst subject in school?

20. Did your teachers think you did as well as you could?
    a) Yes
    b) No
    c) Not sure

21. Were you ever truant from school?
    a) Yes
    b) No
    If yes, how often and during what grades?

22. Were you ever expelled or suspended from school?
    a) Yes
    b) No
    If yes, how often and for what?

23. Did you ever get in trouble for fighting, stealing or damaging property as a child or a teenager?
    a) Yes
    b) No
    If yes, how often and for what?

24. Have you ever been in trouble with the law?
    a) Yes
    b) No
    If yes, how often and for what?

25. Do you currently have a driver's license?
    a) Yes
    b) No
    If no, why don't you have a driver's license?

    I. How many traffic tickets for moving violations have you ever gotten?
        a) None
        b) One
        c) Two
        d) Three
        e) Four
        f) Five or more

    II. How many car accidents have you ever been in?
        a) None
        b) One
        c) Two
        d) Three
        e) Four
        f) Five

Organization and Scheduling

As you probably know the focus of this study is on helping adults with ADHD in improving their organizational and scheduling skills. Now I'm going to ask you specific questions about any problems you may be having in this area. I want you to be as specific as you can.

26. List the three most troubling problems you have with organization at home?

27. List the three most troubling problems you have with organization at work?

28. Do you find that you are often late for appointments?
    a) Yes
    b) No
    If yes, state how frequently this happens.
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

29. Do you often find that you forget appointments?
    a) Yes
    b) No
    If yes, please state how frequently this happens.
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

30. Do you find that you often have trouble starting a task?
    a) Yes
    b) No
    If yes, please state how frequently this happens?
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

31. If you find that you have trouble organizing a task at home or work, how often does this occur? a) Yes b) No
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

32. Do you have trouble doing a task alone?
    a) Yes
    b) No
    If yes, please state how often this happens.
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

33. Do you find that you are frequently shifting from one task to another and having difficulty completing either task?
    a) Yes
    b) No
    If yes, please state how often this happens.
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

34. Do you find that you often lose important things?
    a) Yes
    b) No
    If yes, please state how often this happens.
    I. One or more times a day
    II. Three times a week
    III. Two times a week
    IV. Once a week
    V. Once a month

Employment History

35. How long have you been at your present job?

36. Do you have other problems at work (other than those you have previously listed) which you think are a direct result of having ADHD?

37. Please list the last four jobs you've had starting with the most recent and going back. In addition, tell me how long you worked each job and why you left.

38. What goals do you have for yourself regarding your job or your career?

39. What are the major sources of stress you have on your current job?

Past Psychiatric History

Adults with ADHD try many means to cope with their disorder. The following questions are about some of those means.

40. Have you ever seen a counselor or psychiatrist before?
    a) Yes
    b) No
    If yes, please explain.

41. Have you ever been hospitalized for a psychological or psychiatric problem?
    a) Yes
    b) No
    If yes, please explain.

42. Have you ever had problems with depression?
    a) Yes
    b) No
    If yes, please explain.

43. Have you ever had problems with anxiety?
    a) Yes
    b) No
    If yes, please explain.

44. Are you currently on any medication?
    a) Yes
    b) No
    If yes, please explain what medication you are on and how often you take it.

45. Do you drink alcohol?
    a) Yes
    b) No
    If you drink alcohol, how much do you drink in a week?
    I. 0 - 1 drink
    II. 2 - 4 drinks
    III. 5 - 10 drinks
    IV. More than 10 drinks

46. Have you ever used drugs recreationally?
    a) Yes
    b) No

Drug	Used	Frequency
Pot, marijuana, hashish, grass		
Amphetamines, stimulants, uppers, speed		
Barbiturates, sedatives, downers, sleeping pills Seconal, Quaaludes		
Tranquilizers, Valium, Librium		
Cocaine, coke, crack		
Heroin		
Opiates other than heroin (iodine, Demerol, morphine, methadone, Darvon, opium)		
Psychedelics (LSD, mescaline, peyote, DMT, PCP)		

47. Do you use any drugs recreationally now?
    a) Yes
    b) No
    If yes, what and how often?

Medical History

The following problems are related to your medical history. There are many problems which resemble ADHD which have medical causes. In addition, many disorders co-exist with ADHD. Please look at this list and check any which you have been diagnosed with by a doctor or psychiatrist.

____ Learning Disorders

____ Tourette's Disorder

____ Amnesia

____ Schizophrenia and Other Psychotic Disorders

____ Depressive Disorders (Major Depression, Dysthymia, Cyclothymia)

____ Bipolar Disorders

____ Anxiety Disorders

____ Panic Disorders

____ Agoraphobia

____ Social Phobia

____ Obsessive-Compulsive Disorder

____ Post Traumatic Stress Disorder

____ Dissociative Disorders

____ Sleep Disorders

____ Paranoid Personality Disorder

____ Schizoid Personality Disorder

____ Schizotypal Personality Disorder

____ Borderline Personality Disorder

____ Histrionic Personality Disorder

____ Narcissistic Personality Disorder

____ Obsessive-Compulsive Personality Disorder

____ Significant Situational Disturbances/Are you currently under extreme stress due to an unusual event?

Past or Present Medical History of:

Use of Any Medication Which Results in Inattention, Hyperactivity, or Impulsivity such as:

____ Bronchodilators*

____ Dilantin

____ Phenobarbital

____ Neuroleptics*

____ Traumatic Brain Injury/Other Organic Brain Damage (CVA's, AVM's, Pheochromocytoma)/Loss of Consciousness Due To A Blow to the Head

____ Fetal Alcohol Syndrome/Other Toxic Exposures to the Fetus During Pregnancy

____ Lead Poisoning/Other Toxic Exposures

____ Encephalitis/Other Brain Infections*

____ Movement Disorders

____ Neurofibromatosis

____ Hyperthyroidism/Hypothyroidism

____ Seizures

Family & Social History

The following questions are about your family's history.

48. Are there any medical illnesses that run in your family?
    a) Yes
    b) No
    If yes, please explain.

49. Is there anyone in your family who had or has problems with ADHD, anxiety or depression?
    a) Yes
    b) No
    If yes, please explain.

50. Is there anyone in your family who has had problems with alcohol or other drugs?
    a) Yes
    b) No
    If yes, please explain.

51. Is there anyone in your family who has been diagnosed as having a learning disability?
    a) Yes
    b) No
    If yes, please explain.

Social History

The following questions are about your interpersonal relationships. Many children and adults with ADHD often have problems getting along with others and these questions are designed to look at this.

52. Are there any major problems you have getting along with others which you think are caused by your having ADHD?

53. Do you find that you have difficulty saying no to others requests?
    a) Yes
    b) No
    If yes, please explain.

54. Do you find that you have trouble keeping the commitments you've made to others?
    a) Yes
    b) No
    If yes, please explain

Mood Management and Impulsivity

55. Do you have problems with your temper or anger control?
    a) Yes
    b) No
    If yes, please describe the problems you have with your temper in detail?

56. Have you ever lost your temper enough to hurt anyone or damage any property?
    a) Yes
    b) No
    If yes, please explain in detail?

57. Do other people complain about your temper?
    a) Yes
    b) No
    c) Unsure
    If yes, please explain?

58. How would you describe your mood most of the time?
    a) Normal and fairly stable
    b) Anxious or nervous
    c) Depressed, sad, or blue
    d) Labile; mood changes a lot
    e) Other

59. What are your goals for this group?

60. What are your hobbies or what do you do for fun?

61. What do you see as your strengths or good points.

Appendix 7(b)

Initial Interview Data

Demographic Information

1. Number of Subjects

ADHD Group	ADHD Controls	Normal Controls
N = 9	N = 8	N = 16

2. Sex of Subjects

ADHD Group	ADHD Controls	Normal Controls
M = 1	M = 4	Unknown
F = 8	F = 4	

3. Ages of Subjects

ADHD Group	ADHD Controls	Normal Controls
Mean = 42.0 yrs.	Mean = 42.5 yrs.	Mean = 39.4 yrs.

4. Educational Level of Subjects

ADHD Group	ADHD Controls	Normal Controls
15.22 yrs.	15.75 yrs.	15.00 yrs.

5. Average Length of Employment in Present Job

ADHD Group	ADHD Controls	Normal Controls
11.5 months	8.30 years	(Students)

6. Average Length of Employment For Last 3 Jobs

ADHD Group	ADHD Controls	Normal Controls
2.15 yrs.	2.75 yrs.	4.90 yrs.

7. Marital Status

ADHD Group	ADHD Controls	Normal Controls
56% Divorced	12.5% Separated	(Unknown)
44% Married Once	12.5% Single	
	62.5% Divorced/Remarried	
	12.5% Married Once	

8. Percent of Subjects Formally Diagnosed With ADHD By A Neurologist, Psychologist or Psychiatrist

ADHD Group	ADHD Controls	Normal Controls
89%	88%	0%

9. Percent of Subject's Children Diagnosed With ADHD

ADHD Group	ADHD Controls	Normal Controls
75%	57%	0%

Conduct Issues From Childhood

10. Percentage of Subjects Expelled or Suspended From School

ADHD Group	ADHD Controls	Normal Controls
22%	63%	6%

11. Percentage of Subjects With Childhood Troubles For Fighting, Stealing or Damaging Property

ADHD Group	ADHD Controls	Normal Controls
44%	25%	13%

Legal Difficulties and Driving Record

12. Percentage of Subjects Who Have Been In Trouble With The Legal System

ADHD Group	ADHD Controls	Normal Controls
11%	50%	20%

13. Percentage of Clients Who Currently Have A Driver's License

ADHD Group	ADHD Controls	Normal Controls
100%	100%	100%

14. Average Number of Tickets For Moving Traffic Violations

ADHD Group	ADHD Controls	Normal Controls
2.80	4.13	2.06

15. Average Number of Car Accidents Caused By Subject

ADHD Group	ADHD Controls	Normal Controls
1.33	2.00	.50

Emotions/Mood Management Information

16. Percentage of Subjects Reporting Difficulty With Anger Management

ADHD Group	ADHD Controls	Normal Controls
44%	50%	(Unknown)

17. Percentage of Subjects Reporting Damaging Property As A Result of Poor Anger Management

ADHD Group	ADHD Controls	Normal Controls
11%	50%	(Unknown)

18. Percentage of Subjects Reporting Hurting Someone Physically As A Result of Poor Anger Management

ADHD Group	ADHD Controls	Normal Controls
0%	25%	(unknown)

19. Percentage of Subjects Reporting Their Typical Mood As Normal And Stable

ADHD Group	ADHD Controls	Normal Controls
87.5%	37.5%	(unknown)

20. Percentage of Subjects Reporting Their Typical Mood As Labile

ADHD Group	ADHD Controls	Normal Controls
12.5%	25%	(unknown)

21. Percentage of Subjects Reporting Their Typical Mood As Anxious

ADHD Group	ADHD Controls	Normal Controls
0%	37.5%	(unknown)

Medical History

22. Percentage of Subjects Who Have Been Involved In Psychotherapy

ADHD Group	ADHD Controls	Normal Controls
100%	100%	38%

23. Percentage of Subjects Who Have Been Hospitalized for Psychological or Psychiatric Reasons

ADHD Group	ADHD Controls	Normal Controls
22%	0%	0%

24. Percentage of Subjects With Self-Reported Problems With Depression

ADHD Group	ADHD Controls	Normal Controls
78%	100%	0%

25. Percentage of Subjects Formally Diagnosed With A Depressive Disorder

ADHD Group	ADHD Controls	Normal Controls
56%	50%	0%

26. Percentage of Subjects With Self-Reported Problems With Anxiety

ADHD Group	ADHD Controls	Normal Controls
67%	88%	0%

27. Percentage of Subjects Formally Diagnosed With An Anxiety Disorder

ADHD Group	ADHD Controls	Normal Controls
13%	22%	0%

28. Percentage of Subjects Currently On Medication

ADHD Group	ADHD Controls	Normal Controls
67%	88%	Unknown

29. Percentage of Subjects Who Have Used Drugs Recreationally In the Past

ADHD Group	ADHD Controls	Normal Controls
44%	75%	(Unknown)

30. Percentage of Subjects Who Currently Use Drugs Recreationally

ADHD Group	ADHD Controls	Normal Controls
11%	0%	(Unknown)

31. Percentage of Subjects Who Currently Drink Alcohol

ADHD Group	ADHD Controls	Normal Controls
44%	75%	(Unknown)

32. Percentage of Subjects Diagnosed With Asthma

ADHD Group	ADHD Controls	Normal Controls
33%	0%	(Unknown)

33. Percentage of Subjects Diagnosed With Hypothyroidism

ADHD Group	ADHD Controls	Normal Controls
22%	0%	(unknown)

34. Percentage of Subjects Diagnosed With A Movement Disorder

ADHD Group	ADHD Controls	Normal Controls
11%	0%	(unknown)

35. Percentage of Subjects With Self-Described Problems Regulating Food Intake

ADHD Group	ADHD Controls	Normal Controls
33%	38%	(unknown)

Family of Origin Information

36. Percentage of Subjects Reporting Family of Origin History of Depression

ADHD Group	ADHD Controls	Normal Controls
50%	75%	0%

37. Percentage of Subjects Reporting Family of Origin History of Alcohol or Drug Abuse

ADHD Group	ADHD Controls	Normal Controls
75%	75%	63%

38. Percentage of Subjects Reporting A Learning Disability In Family of Origin

ADHD Group	ADHD Controls	Normal Controls
13%	38%	0%

Appendix 8

Final Evaluation From Group Participants

1. What were some of the highlights (or most meaningful aspects) of the group experience for you?

"Not feeling alone with these issues."
"Hope for improvement"
"Encouragement by the success of the other group members and my own steps towards accomplishment and organization."
"Relating to the other adults with the same problem!"
"The steps to breaking down, beginning and completing a task."
"The sharing of similar experiences, creativity, intellect and humor."
"Specific clear recommendations of how to set goals, organize time, organize space, & O.H.I.O (Only Handle It Once)."
"How to, step by step, get started. . . and finished!"
"I have gained a certain freedom from the others (stories)."
"Very much an eye opener. I knew I was different, yet I didn't know that they (feelings) were normal of ADHD."
"The support, and realizing I wasn't alone with my behavior, and that I wasn't lazy or not motivated."

2. What were some specific things that you became aware of about yourself, your attitudes, or your relationships with others because of the group experience?

"That my thoughts were keeping me from taking action."
"That I am perfectly capable of getting things accomplished if I set simple goals."
"That you can definitely work around ADD and lead an organized life and get many things accomplished with some prioritizing and time management."
"I feel blessed to have the capabilities that I do. I feel like I have a pretty good base to build upon."
"I need to make - schedule, time for me - a hard task as much as I though I didn't like or don't like structure I really do need it."
"Why I don't notice when I'm being misunderstood and lose it when I'm pushed to the wall."
"That I really didn't need to be ashamed of having ADD. There are certain aspects of this problem that can be pretty funny. There are things I can do to help myself - and there are things that I'm just going to have to learn to ignore."
"That I'm not really bad or lazy; that sometime I actually don't care or think it's important to be on time, but I can decide to be on time and make a plan for how to do it."
"I can plan things in small, manageable bits of time. I can, but I have to concentrate and want to."
"Timers helping begin and stop tasks."
"I must continue to use and expand on clues for time awareness."

"I realize that it's good and a gift, a rare one to hyperfocus which I can at times use in a positive way."
"I have had a lot of guilt and anxiety removed."
"My goals have been much too broad and have lacked clear definition. I'm harder on myself than I should be. My ADD has greatly affected my personal relationships - especially husband and son relationships."
"I don't stop, think and plan. I have a lot of negative thinking."

3. What are some of the specific behavioral changes you've made in your life that you can attribute at least partially to your group experience?

"I'm working on O.H.I.O. (Only Handle It Once) and breaking things into small manageable pieces."
"I have started and completed several small tasks over the past weeks."
"I have talked with colleagues, my close friends, and my husband about some of the difficulties I have due to the ADD, so they can better understand my behavior."
"Timers, helping begin and stop tasks. Planning, especially travel time on a routine basis."
"Giving myself an emotional break from self-criticism. Deciding that some things will get done and some won't; something not getting done is not a catastrophe. Getting up and using the time I have to do what I can do (to get someplace on time)."
"Making a plan and writing it out."
"I am more open about the problem. I have made progress in getting things done. I am more accepting of my circumstances. I am more likely to use creative approaches to resolve problems instead of parroting other people.
"I stand up for myself in situations where I feel people are acting out of ignorance/blindness. I find at those times that it's not just me who's being pushed around - others share with me and end up being the spokesperson for many."
"Being aware of steps needed to take to really try and get a handle on things. Most everything needs to be mapped out. Maybe that will slow my mind down a little.
"I am more aware of when I stray from a task and feel that now I have some tools to work with to keep me on task or get me back on task."
"I am getting started better in the AM. I completed my 1992 taxes by breaking things into smaller parts."

4. Did the group experience have any negative effects on you?

"No"
"None"
"I can't think of any."
"I got in touch with a lot more anxiety - bad memories from childhood returning. In the long run this is good."

"None"
"At first, frustration and sadness that this is so real for me, and nonbelief in the legitimacy of a physical problem. But then, it all was overcome by the very positive aspects of camaraderie, understanding, success, and specific how to's."
"No, although I brought some on myself regarding noncompletion of the first assignment."

5. What suggestions do you have (changes/additions/or deletions) which you think would make the group better for adults with ADHD?

"Continued timing of us in responses to keep us on track more monitoring of our ramblings."
"Include tips on plans for helping spouses and others learn to cope."
"A little more clarity about homework assignments, but most difficulty was probably my own."
"Very impressed with how this group was conducted, and the acceptance and warmth."
"I really don't think four sessions are enough!"
"Distinguish between ADHD and certain learning disabilities. I have both and will soon be tested to see which is which. Let us know what rights we have. We're pretty easily picked on and pushed around."
"No suggestions, seems to work just fine as is."
"Continue with therapy or support group."

VITA

DAVID R. WIGGINS

Education

Doctorate of Philosophy, Counselor Education, April 1995, Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, Virginia

Education Specialist, Community Agency Counseling, May 1988, University of Virginia, Charlottesville, Virginia

Masters in Education, Community Agency Counseling, December 1984, James Madison University, Harrisonburg, Virginia

Bachelor of Arts, Business Management; Minor: Latin, May 1976, Emory and Henry College, Emory, Virginia

Honors/Affiliations

Phi Beta Phi
Chi Sigma Iota
Past President, Tau Epsilon Kappa Chapter
American Counseling Association
Association for Counselor Education and Supervision
American Mental Health Counselors Association
Association for Specialists in Group Work
American Group Psychotherapy Association

Experience

Adjunct Instructor -- June 1993 to Present -- West Virginia Graduate College -- Taught master's level counseling courses including Orientation to Counseling, Psychotherapeutic Approaches, Group Counseling, and Tests and Measurements.

Group Leader, Adult Children of Abuse -- January 1993 to Present -- Co-lead a group for adult children of dysfunctional families with Dr. Hildy Getz.

Graduate Assistant -- August 1992 to May 1993 -- Virginia Polytechnic Institute and State University -- Provided on-site supervision and classroom instruction for M.Ed. candidates in community agency counseling.

Group Leader, Hospice Bereavement Group -- January 1992 to October 1992 -- Hospice Support of the Shenandoah -- Formed and led bereavement group for individuals referred through local hospice.

Family Counselor -- September 1989 to July 1992 -- Woodrow Wilson Rehabilitation Center -- Provided individual, group, and family counseling for disabled students and their families.

Group Leader, Muscular Dystrophy Support Group -- July 1989 to July 1991 -- Muscular Dystrophy Association -- Formed and led support group for individuals with neuromuscular diseases and their caregivers.

Group Leader, Psychosocial Group -- September 1985 to December 1988 and September 1989 to July 1992 -- Woodrow Wilson Rehabilitation Center -- Led and co-led psychosocial group for individuals with neurological disorders. Topics covered in a structured format included: substance abuse, communication skills, adjustment to disability, stress management, and family issues.

Program Director -- December 1988 to September 1989 -- Neurological Rehabilitation Program, Augusta Hospital Corporation -- Provided administrative supervision and individual and family counseling for neurologically impaired patients and families.

Rehabilitation Counselor -- June 1986 to December 1988 -- Woodrow Wilson Rehabilitation Center -- Provided individual and group counseling and case management services for individuals with disabilities.

Group Leader, Stress Management Group -- September 1984 to June 1985 -- Curry School of Education, University of Virginia -- Formed and led a stress management group for 10 M.Ed. candidates.

Group Leader, Post Traumatic Stress Disorders Group -- January 1984 to June 1985 -- Community Outreach for Vietnam Era Returnees -- Co-led adjustment group for Vietnam veterans with P.T.S.D.

Group Leader, Psychotherapy Group -- March 1983 to August 1984 -- University of Virginia Medical Center, Blue Ridge Hospital -- Assisted with a psychotherapy group for inpatient psychiatric patients. Led group for sexually abused women.

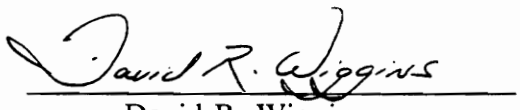
Publications

Family Manuals -- Head Trauma Program, Woodrow Wilson Rehabilitation Center -- June 1992 -- Co-authored family manuals for individuals with head injuries and their families.

Chapter - Virginia Head Injury Foundation Family Manual -- March 1992 -- Co-authored chapter on rehabilitation.

Peer Support Assistant Training Manual -- June 1991 -- Blue Ridge Multiple Sclerosis Society -- Co-authored training manual.

Stress Management Peer Support Manual -- May 1985 -- University of Virginia, Student Health Services -- Co-authored manual for training of peer stress management assistants.



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