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THE EFFICACY OF CBT IN TREATING CO-MORBID ANXIETY AND DEPRESSION IN AN ADOLESCENT CLIENT

by
Ryan J. Fischer

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
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Approved by
Advisor

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ABSTRACT

Ryan J. Fischer
THE EFFICACY OF CBT IN TREATING CO-MORBID ANXIETY AND DEPRESSION IN AN ADOLESCENT CLIENT
2005/06
Dr. Jim A. Haugh
Master of Arts in Mental Health Counseling and Applied Psychology

The goals of this exploratory investigation were to, (a) determine the efficacy of CBT in treating an adolescent client (n = 1) with co-morbid anxiety and depression, and (b) to examine whether or not the treatment of the anxiety disorder had an impact on the co-morbid depressive disorder. The investigation implemented quantitative measures such as the OQ-45.2, Y-OQ 2.0 and the WAI to evaluate the client's symptom impairment and the strength of the therapeutic alliance throughout treatment. The data indicated that the client's anxiety decreased over the course of treatment. In addition, the data indicated that the client's depressive symptoms also decreased even though they were not a focus of treatment. Recommendations for future research were also discussed.

Acknowledgments

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Thank you to Judy Bannett and Archway Programs for supporting my research and allowing me to utilize their facilities to conduct this study.

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Mostly, thank you to Mom, Dad, Tiffany, my siblings, friends, and extended family. Without your love, support, and encouragement this would have never been possible.

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Chapter I

Introduction

The Scope and Rationale for the Current Study

The study of co-morbid depressive and anxiety disorders is important because evidence indicates that this type of presentation occurs at high rates. For instance, Brady and Kendall (1992) found that between 16% and 62% of adult clients with anxiety disorders also suffered from depression. Furthermore, Nutt (1999) found that 42% of clients of various ages in primary care suffered from symptoms of both anxiety and depression.

Studies of adolescents have indicated that co-morbidity rates are high in this population as well, and they might be higher in this population than in adult populations. For example, results of a study by Angold, Costello, and Erkanli (1999) indicated that anxiety was diagnosed in depressed adolescent clients at rates as high as 75%. Similarly, Strauss, Last, Hersen, and Kazdin (1988) indicated that 28% of adolescents with anxiety disorders also experienced symptoms of major depressive disorder. In summary, the results of these studies consistently suggest that anxiety and depression occur together frequently.

These high rates of co-morbid anxiety and depression can lead to dangerous consequences. For example, Nutt (1999) examined the impact of co-morbid anxiety and depression across age groups. Results indicated that the probability that a client would commit suicide increased as the severity of the co-morbid anxious and depressive symptoms worsened. Similarly, Johnson, Weissman, and Klerman (1990) compared the

number of suicide attempts for adolescents with co-morbid panic disorder and major depression to those of adolescents with a diagnosis of anxiety or depression in isolation. Results indicated that 7% of adolescents with panic disorder and 8% of adolescents with major depression made suicide attempts, whereas, 20% of those diagnosed with co-morbid anxiety and depression reported making a suicide attempt.

Although co-morbid anxiety and depression occur frequently and put adolescents at greater risk for suicide, there has been a limited amount of research conducted for treatments specifically designed to treat such clinical presentations. In contrast, researchers have traditionally focused on examining the effectiveness of treatment for clients presenting with only one disorder (Roth & Fonagy, 2005). These efforts have been successful in accumulating a body of research that supports the efficacy of treatments for clients with one disorder (Brady & Kendall, 1992). However, the problem with this literature base is that clinicians rarely treat clients with a single disorder and often find that the client has a co-morbid diagnosis (Angold & Costello, 1993). Therefore, treatment packages may not be generalizable to clients with co-morbid disorders.

A reason for the lack of generalizability to individuals with co-morbid disorders is that the common methodology utilized in studies that investigate treatment efficacy is a randomized clinical trial (Fishman, 2005). In such a design, subjects are screened and randomly assigned to groups based on their meeting the criteria for only the diagnostic condition of interest in the study. The majority of studies evaluating the efficacy of Cognitive-Behavioral Therapy (CBT) utilize a randomized clinical trial. Therefore, the study of CBT is confined to treatment of a single disorder and not for co-morbid

conditions. The first goal of this study is to correct for this limitation by exploring the efficacy of CBT in treating an adolescent with co-morbid anxiety and depression.

The second goal of this study is to examine whether or not the treatment of one of the disorders has an impact on the co-morbid pathology. More specifically, the therapist of this study will implement a manualized treatment for anxiety disorders in order to determine if the treatment also impacts a co-morbid depressive disorder.

Proposed Methodology

The therapist proposes to conduct a case study on a client suffering from anxiety and depression. The therapist of this case study will evaluate the course of treatment for an adolescent. The investigator will utilize a format for the thesis developed by Haugh (2005). The first section will contain the introduction and the second will be the presentation of the case study and results utilizing the Pragmatic Case Studies in Psychotherapy guidelines (Fishman, 2005).

The Pragmatic Case Studies in Psychotherapy guidelines were developed by Fishman (2005) as an attempt to make case studies more relevant within the field of Psychology. In addition, case studies act as an alternative to conducting randomized clinical trials. Previous attempts to utilize case study methodologies have resulted in less than generalizable data and have met with heavy criticism. However, Fishman (2005) contends that recent advances in technology allow for better comparison of case studies. Therefore, the universal method of reporting results provides a compilation of relevant case study work that can be compared and utilized for specific theoretical advancement.

Client Selection

The client for the current study will be selected based on the type of symptomology they present at intake. More specifically, a client who presents with a mix of anxious and depressive symptomology will be selected. Dependant upon availability, the first priority is to conduct research on a client with co-morbid Panic Disorder and Major Depression. If unable to secure an appropriate client, the second priority will be to conduct research on a client with symptoms consistent with Specific Phobia, Social Phobia or Agoraphobia and Major Depression. If unable to secure an appropriate client, the third priority will be to conduct research on a client with Generalized Anxiety Disorder (GAD), Obsessive Compulsive Disorder (OCD) and Post-traumatic Stress Disorder (PTSD) and Major Depression.

These priorities have been implemented as Panic Disorder tends to occur more frequently and shows less diagnostic ambiguity than GAD. For example, Panic Disorder has a lifetime prevalence of 3.5% in the general population where GAD has a lifetime prevalence of 3.0% in the general population. In addition, Panic Disorder is defined by a specific criteria set where GAD is defined by a criteria set that overlaps with other anxiety disorders (American Psychiatric Association, 2000).

The client will be chosen from a partial care facility located in the Northeastern United States. The facility provides treatment for adolescents between the ages of 12 and 18. Clients enrolled in the program have a history of difficulties with behavioral and emotional regulation resulting from family dysfunction, displacement, and abuse.

Assessment

The prospective client will be evaluated for inclusion in the case study through the use of a biopsychosocial interview and the Outcome Questionnaire-45.2 (OQ-45.2; Lambert, Hansen, Umphress, Lunnen, Burlingame, & Reisinger, 1996). The OQ-45.2 is designed to be utilized as an assessment tool and as a measure to determine treatment outcome. If the data collected from the prospective client identifies the presence of a co-morbid anxiety disorder and major depressive disorder, the client will be approached to participate in the study.

Treatment

The client chosen for the case study will be treated with a manualized CBT treatment package. However, the treatment utilized is dependent upon the understanding that anxiety tends to develop prior to the appearance of depression (Brady & Kendall, 1992). For example, Angold and Costello (1993) studied reports where anxiety predated depression in adolescents. The results of the study indicated that anxiety symptoms were present as much as 75% of the time prior to the development of depression. In addition, Seligman and Ollendick (1998) identified that the symptoms of anxiety could cause depression. They contend that implementing interventions to reduce symptoms of anxiety could prevent or limit symptoms of co-morbid depression. Therefore, the client will receive a CBT treatment package designed to address anxiety.

An appropriate CBT treatment package for adolescent anxiety was manualized by Kendall, Choudhury, Hudson, & Webb (2002). Treatment is designed to be conducted during 16, 1 hour sessions over an 8 week timeframe. The first eight sessions involve implementing a 4-step treatment plan. The acronym F.E.A.R is utilized to identify the 4

steps of Feeling frightened; Expecting bad things to happen; Attitudes and actions that will help; and Results and rewards. The client will be educated to use the F.E.A.R steps to become aware of bodily reactions; recognize anxious thoughts; modify behaviors and restructure cognitions; and provide self evaluation and self rewards. These new skills are then utilized in the last eight sessions to provide practice and comfort with methods to reduce anxiety.

Although, the structure of the treatment package is helpful to determine a course of action, Stark and Kendall (1996) indicate that successful treatment of adolescents with a co-morbid disorder is dependent upon the flexible application of techniques. For example, several of Kendall et al. (2002) treatment sessions involve the participation of the client's parents. If the client's parents are unable to attend, Kendall et al. (2002) recommend adaptation of the manual dependent upon client needs. Therefore, the techniques utilized can be adjusted in order to best serve the client and provide appropriate symptom relief.

Treatment Monitoring

Treatment conducted throughout this case study will be monitored through measurement of the process, progress and therapeutic outcome. Essentially, treatment efficacy will be monitored through the reduction of anxiety and depressive symptoms during treatment. Treatment progress and outcome will be evaluated through the consistent application of the OQ-45.2 and the Y-OQ 2.0 during treatment.

The treatment process will be measured through the use of the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). The WAI is utilized to determine the

strength of the therapeutic relationship. The WAI can also indicate if the therapeutic relationship and non specific factors play a role in promoting symptom reduction.

Materials and Measures

Outcome Questionnaire 45.2 (OQ-45.2; Lambert et al., 1996). The OQ-45.2 is a self report instrument designed to measure client progress throughout psychotherapy. The OQ-45.2 has 3 scales that measure symptom distress, interpersonal relationships and social role performance. The *Symptom Distress (SD)* scale contains 25 items utilized to measure depression, anxiety and substance abuse. The *Interpersonal Relations (IR)* scale contains 11 items utilized to determine satisfaction and interpersonal problems. The *Social Role (SR)* scale contains 9 items utilized to measure social performance in work and leisure activities.

The items of the OQ-45.2 are scored on a 5-point Likert scale ranging from 0 ("Never") to 4 ("Always"). Nine of the items are scored in reverse order ranging from 0 ("Always") to 4 ("Never"). The SD scale score ranges from 0 to100, the IR scale score ranges from 0 to 44, and the SR scale score ranges from 0 to 36. The total score is calculated by adding the 3 scale scores to determine a score ranging between 0 and 180. A total score of 63 is the cutoff for diagnosable symptom impairment. Higher scores indicate higher levels of pathology (Lambert et al., 1996).

Youth Outcome Questionnaire 2.0 (Y-OQ 2.0; Burlingame, Wells, Hoag, Hope, Nebeker, Konkel, McCollam, Peterson, Lambert, Latkowski, & Reisinger, 1996). The Y-OQ 2.0 is a parent/mother report instrument utilized to measure client progress throughout psychotherapy. The Y-OQ 2.0 has 6 scales of *Intrapersonal Distress (ID)*,

Somatic (S), *Interpersonal Relations (IP)*, *Social Problems (SP)*, *Behavioral Dysfunction (BD)*, and *Critical Items (CI)*.

The ID scale contains 18 items utilized to measure symptoms of anxiety, depression, fearfulness, hopelessness, and self harm. The S scale contains 8 items utilized to measures the presence of headaches, dizziness, stomachaches, nausea, and weakness. The IP scale contains 10 items utilized to measure attitudes, interactions, aggressive behaviors, arguing and defiance between the parent/mother and client. The SP scale contains 8 items utilized to measure the presence of truant behavior, sexual problems, substance abuse, and destruction of property. The BD scale contains 11 items utilized to measure the presence of behaviors indicative of inattention, hyperactivity and impulsivity. The CI scale contains 9 items utilized to measure symptoms of paranoia, obsessive and compulsive behaviors, delusions, hallucinations, homicidal and suicidal ideation, mania, and eating disorders (Wells, Burlingame, Lambert, Hoag, & Hope, 1996).

The items of the Y-OQ 2.0 are scored on a 5-point Likert scale ranging from 0 ("Never or Almost Never") to 4 ("Almost Always or Always"). Eight of the items include negative scoring, for appropriate behaviors, ranging from 2 ("Never or Almost Never") to -2 ("Almost Always or Always"). The ID scale score ranges from -4 to 68, the S scale score ranges from 0 to 32, the IR scale score ranges from -6 to 34, the SP scale score ranges from -2 to 30, the BD scale score ranges from -4 to 40, and the CI scale score ranges from 0 to 36. The total score is calculated by adding the 6 scale scores and ranges from -16 to 240. A total score of 46 is the cutoff for diagnosable symptom impairment. Higher scores indicate higher levels of pathology (Burlingame et al., 1996).

Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). The WAI is a 36-item self report measure of the working alliance. The WAI is formatted in a Client version (WAI-C) and a Therapist version (WAI-T). The WAI utilizes 3 scales of *Goal*, *Task*, and *Bond* to determine the strength of the therapeutic relationship from the perspective of the client and clinician. The Goal scale has 12 items that measures the mutual desire between the client and clinician to achieve a positive treatment outcome following intervention. The Task scale has 12 items that measure behaviors and cognitions that take place during counseling sessions that further the treatment process. The Bond scale has 12 items that identify emotions such as mutual trust, acceptance, and confidence that build on attachments that are made during the therapy process.

The items on the WAI are scored on a 7-point Likert scale ranging from 1 ("Never") to 7 ("Always"). Eleven of the items of the WAI-C and thirteen of the items of the WAI-T are scored in reverse order ranging from 1 ("Always") to 7 ("Never"). Each scale score ranges from 12 to 84. The scores are tallied together and range from 36 to 252. Higher scores indicate a stronger therapeutic alliance.

Chapter II

Case Study

Case Context, Method, and The Client

Rationale for selecting this particular client for study.

"A.J." is a bi-racial male who began therapy at the age of 13 and subsequently turned 14 during the 7-week course of treatment. A.J. presented with anxiety, depression, attention deficits, and interpersonal problems. A.J appeared to function appropriately while in treatment, but his behavior at home and school began to decline. He was chosen to participate in this study as he met the criteria for a co-morbid anxiety and depressive disorder. More specifically, he met the diagnostic criteria for Generalized Anxiety Disorder (GAD) and Major Depressive Disorder (MDD). In addition, A.J. had greater levels of impairment from his co-morbid disorders and exhibited a higher level of intellectual functioning when compared to other candidates. He had become stagnant in his previous treatment and was at risk of being placed in residential care due to an inability to function at home and school. Therefore, A.J. became the focal point of this evaluation as a last effort to stabilize his behavior through individual psychotherapy.

The methodological strategies employed for enhancing the rigor of the study.

The thesis advisor and the practicum supervisor of the therapist monitored this case study. Their function was to assist the therapist with methodological issues and provide feedback to protect the client and provide the best possible treatment. The client's mother requested that there be no audio or videotaping of the treatment sessions. Instead, the treatment sessions were chronicled through process notes and a treatment log.

In addition, the therapist had the diagnosis of the client evaluated by the practicum advisor and the staff Advanced Practice Nurse (APN). The APN diagnosed A.J. with Attention-Deficit Hyperactivity Disorder (ADHD), Anxiety Disorder Not Otherwise Specified, and Mood Disorder Not Otherwise Specified. The diagnosis of the APN was different than the diagnosis of the therapist. However, this can be attributed to there being a year between the two diagnoses and the therapist was able to conduct a current biopsychosocial assessment of the client.

The clinical setting in which the case took place.

A.J. was enrolled in a partial care program on March 1st, 2005. The program provides group therapy for individuals that have difficulties with behavioral and emotional regulation. A.J. was removed from the program on November 7th, 2005 and was transitioned into an intensive outpatient program on November 21st, 2005. The outpatient program was a 6-week program that offered intensive individual psychotherapy. A.J. made progress while being treated, but was forced to leave early when the outpatient program was unable to provide educational services. A.J. was re-enrolled in the partial care program on December 19th, 2005 and was subsequently approached by the therapist to participate in a 7-week course of individual psychotherapy. A.J. was not required to pay for the treatment; however, his enrollment in the partial care program is paid for with Medicaid insurance.

Sources of data available concerning the client.

Information pertaining to A.J. and his history of treatment was maintained by the program in a private file. A.J.'s mother granted access to the file to the therapist. A.J. had been enrolled in various forms of psychotherapy for nearly 6 years. Although he had

short-term symptom reduction due to previous treatment, he had been unable to maintain a reduced level of symptomology over time. A.J.'s mother indicated that he had recently received an IQ test. The results of the test were not made available to the therapist, but the mother reported that he scored between 105 and 115. These results were consistent with the level of functioning A.J. had exhibited.

After evaluating the contents of the file, A.J. participated in a clinical interview. The interview facilitated the gathering of information about A.J.'s presenting problem, family of origin, health, social factors, and coping mechanisms. The information was utilized to determine a diagnosis of A.J.'s problems.

In addition to conducting a clinical interview, A.J., his mother, and the therapist were asked to complete a number of assessment measures to evaluate treatment. A.J. filled out the OQ-45.2 prior to beginning treatment and before every treatment session thereafter. The OQ-45.2 was used to assess his perceived level of symptom distress, interpersonal relationships and social role performance. He also completed the WAI-C throughout treatment as a measure of the therapeutic alliance. A.J.'s mother was asked to complete the Y-OQ 2.0 throughout treatment as a measure of how she perceived his level of symptom distress. Finally, the therapist completed the WAI-T throughout treatment as a measure of the therapeutic alliance.

Confidentiality.

Prior to beginning treatment, A.J. was educated about his right to confidentiality. The therapist informed him that all topics discussed would remain confidential unless he threatened to hurt himself or another person. In addition, he was informed that confidentiality would be broken if he were actively being abused or abusing someone

else. A.J. was informed that none of his counselors at the program would be aware of what was discussed in treatment and none of his peers would be informed that he was taking part in a private treatment program.

Another issue brought to A.J. was the involvement of his guardian. The therapist explained to him that his guardian could request information pertaining to his treatment at any time because he was 13 at the beginning of treatment, and he is thus considered a minor in the state of New Jersey. Therefore, the therapist encouraged A.J. to give consent for his mother to be an active member of treatment. Her involvement allowed the therapist to collect data about A.J.'s progress outside of treatment.

At the time of treatment A.J. was an 8th grader residing with his biological mother, step-father, younger brother, and younger half sister. Reports from A.J indicated that both his mother and his step-father were unemployed. His mother had recently gone through gastric bypass surgery and his step-father had been laid off. A.J. and his mother reported that his biological father had been stripped of custody rights in 2003 as DYFS substantiated claims that he was physically and verbally abusive to A.J. A.J.'s mother reported that his biological father had not had contact with him in over a year, and that he was terminally ill with a kidney disease.

At the time of treatment, A.J. had been removed from the school district by his mother in order to keep him from being bullied. His mother continued to say that, "the school district is failing my son by not protecting him." She also reported that not being in school created anxiety for A.J. as he was uncertain of what would happen to his mother for keeping him out of school.

As previously indicated, A.J. had been involved in treatment for his anxiety and depression for several years. During that time, he took part in group therapy and individual treatment sessions. However, he had never taken part in a manualized CBT treatment. The therapist informed him that he would learn skills that would help him manage his anxiety and depression. The skills would be developed in treatment and during homework assignments. A.J. became particularly interested when he learned that there would be a reward system involved with treatment. A.J. stated, "At this point, I'll do whatever it takes to feel better."

Guiding Conception with Research and Clinical Experience Support

The case was conceptualized utilizing a cognitive-behavioral model. The CBT framework was developed by incorporating behavioral conditioning theory and cognitive theory. In CBT, the clinician focuses more on the "here and now" than they do on the events that brought about the maladaptive cognitions and behaviors. The following sections expand on the guiding conception (Roth & Fonagy, 2005).

Nature of the client's problem and interventions.

A.J. was chosen for this case study as he presented with symptoms consistent with co-morbid Generalized Anxiety Disorder (GAD) and Major Depressive Disorder (MDD). There is a lack of evidence on the treatment of co-morbid disorders (Fishman, 2005). However, the studies that have been conducted indicate that CBT is efficacious in reducing the symptoms of these disorders in a number of clinical settings (Layne, Bernstein, Egan & Kushner, 2003; Arkowitz & Westra, 2004; Westen & Morrison, 2001).

Although A.J.'s disorders were co-morbid, the therapist implemented a manualized CBT intervention designed specifically for the treatment of anxiety disorders (Kendall & Hedtke, 2006). This approach was selected because anxiety disorders tend to predate the development of depressive disorders (Brady & Kendall, 1992). The intent was to determine if treatment of one symptom impacted the other symptom.

The manualized treatment package that was used was developed by Kendall and Hedtke (2006) as an update to the treatment of Kendall et al. (2002). The package, entitled the "Coping CAT," is a CBT treatment for anxious children aimed at teaching recognition of anxiety and developing a means of coping with anxious arousal. The treatment was utilized to accomplish this by implementing techniques of exposure, relaxation training, role-play, practice and reward. These techniques promote a change in cognitive processing of information, understanding emotions, and management of emotions.

Therapist's role.

According to Kendall and Hedtke (2006) the role of the therapist is to act as a "Coach" for the client. The treatment package allowed for a collaborative effort between the client and therapist where the therapist acted as a guide to assist the client. If the client had difficulties with implementing skills or understanding therapy techniques, the therapist could adjust the course of therapy to accommodate the child. In addition, the therapist was also responsible for providing structure to therapy sessions so that the child could focus on learning and implementing techniques.

Chronology of treatment.

The treatment of the A.J. took place in a fashion consistent with other clinical settings. First, he was evaluated through a clinical interview where information was gathered regarding his presenting problems, history, goals, and strengths. Second, a formulation of A.J.'s problems was done in order to understand his disorders, the causes of his disorders, and the A.J. as a person. From this formulation a treatment plan was then developed. The therapist determined that A.J.'s problems would be appropriately addressed by utilizing Kendall and Hedtke's (2006) Coping CAT treatment. Third, treatment began with the goal of addressing his problems. Finally, therapy was monitored through the implementation of outcome and process measures throughout treatment. The measures were utilized to determine if a reduction of anxious and depressed symptoms occurred during treatment. When treatment concluded the client and his mother were debriefed about what the therapist was attempting to determine through treatment

Therapist's experience.

The therapist in the study was a graduate student implementing an efficacious treatment for the first time. The therapist was competent in the theoretical background related to treatment, but required supervision in order to implement treatment appropriately. In order to maintain competency and protect the client, the therapist's thesis advisor and practicum supervisor monitored the course of therapy. The thesis advisor and practicum supervisor authorized any adjustments made to the treatment plan and offered feedback to the therapist about implementation of treatment.

Assessment of the Client

Identifying information.

A.J. was a 14 year old biracial male. A.J. identified himself as an African-American. He reported a primary language of English.

Presenting problem and history of presenting problem.

A.J. was referred for evaluation on December 19th, 2005 after his enrollment in a partial care facility. He reported that he had a difficulty with anxiety and depressive symptoms. A.J. reported that he frequently became defiant at home due to his anxiety and depression. He indicated that he would disobey his mother and step-father and start arguments with his younger brother. When asked to clarify why he engaged in these behaviors, he stated, "I get nervous a lot, and then I get real sad. When mom asks me to do stuff I get nervous that I will do it wrong and let her down and then I get even sadder. It gets so bad that I just can not do anything."

A.J. and his mother indicated that he had anxiety symptoms nearly every day for the last 15 months. He indicated that his anxiety made him apprehensive to attempt to do tasks at school and home. A.J. indicated that his anxiety symptoms arose when he did chores, homework, watched his brother and sister, and when he was called on in class. A.J. also reported that he had a difficulty with extreme muscle tension, sweaty palms, "shaky legs", an inability to sleep and concentrate, irritability, being fatigued and restlessness for the majority of days in the previous 6 months. Other anxiety disorders were ruled out as A.J. reported that he did not relive a previous traumatic experience (PTSD), he liked the company of others and enjoyed making friends (Social Phobia), he

never felt panic or that his life was in danger (Panic Disorder), and did not engage in compulsive behaviors (OCD).

A.J.'s mother indicated that his anxious symptoms had, "affected his life at home and school." Specifically, she reported that his anxiety lead to oppositional behaviors. For example, she reported that he was often suspended from school for saying and doing things that he knew would result in negative consequences. She indicated that he was scared to be at school and that he did not like it when other kids made fun of him. A.J. agreed and stated, "I know that I will get nervous if someone makes fun of me, so I either wait for them to say something or I pick a fight with them. That way I do not have to be bullied around anymore."

In addition to his anxious and disruptive behavior problems, A.J. also reported that he was experiencing significant depressive symptoms. Specifically, he stated that the symptoms of depression had been present for nearly 10 months. A.J. indicated that his depression had made him stay in bed for several days on 2 occasions during that time. He stated, "I just feel so sad some days that I can not do anything. I feel like I do not like to do anything anymore, so I just stay in bed." A.J.'s mother stated that she witnessed situations consistent with what A.J. described. A.J. also identified that he felt like he could not concentrate and was worthless at times. Upon further questioning, A.J.'s mother recalled that he had a span of 4 months between the episodes of depression.

In addition to his anxiety, depression, and disruptive behaviors, A.J. had previously been diagnosed with Attention-deficit Hyperactivity Disorder (ADHD). Although A.J. exhibited symptoms of inattention at school he did not show significant symptoms at home or program. A.J.'s mother also reported that he did not have

symptoms prior to the age of 7 and had never had symptoms of hyperactivity. In addition, A.J.'s mother reported that his symptoms of inattention arose when A.J. began to have anxious and depressive symptoms. Therefore, ADHD was ruled out as his symptoms of inattention were better accounted for as a byproduct of his anxious and depressive symptoms.

Prior efforts to address the problem.

A.J. and his mother reported that he had received psychotropic medications for the previous year to address his problems. During that time, he took Lexapro for depression and Concerta for features of ADHD. He no longer took psychotropic medications at the time of treatment. A.J. began to receive group psychotherapy for his problems beginning March 1st, 2005 and a brief course of individual psychotherapy between November 21st and December 16th, 2005. A.J. had never been hospitalized for his anxious and depressive symptoms.

Family of origin and current family relationships.

A.J. resided with his biological mother, step-father, younger brother and younger half sister. His mother had recently gone through gastric bypass surgery and his step-father was currently unemployed. A.J.'s and his mother reported that his biological father had custodial rights revoked in 2003 after DYFS substantiated claims that he had been physically and verbally abusive toward A.J. At the time of treatment, his biological father had not had contact with A.J. in over a year and was terminally ill with a kidney disease.

The abuse that A.J. and his mother reported occurred from age 4 to 11. A.J. stated that his father would threaten and verbally belittle him. In addition, A.J. stated that

he was physically assaulted with, "fists, extension cords, and belts." A.J. indicated that the abuse was not something that he focused on often and he had never relived the experiences. However, he admitted that when someone mentioned the abuse he felt symptoms of anxiety and could become depressed. A.J. was asked to elaborate about the relationship he had with his father. He explained, "I do not care about what happens to him now. I mean it is sad that he is sick, but he was mean to me for so long. He really was never good to me, and I am much safer now."

A.J. reported that his home environment was often unstable. He indicated that his mother and step-father would argue several times a week. He believed that the catalyst for the arguments was that his mother and step-father were unemployed. A.J. stated, "They were going to get divorced for a long time and then he came home." When asked to elaborate about his feelings about his parents' divorce he stated, "Thinking about them getting a divorce made me nervous all the time. I would think that I would have to get a job and take care of my mom. I would worry about not doing enough around my house and it would make me feel worthless." A.J. continued, stating, "My mom yells at me when I do not do the right thing and then I get worried that I won't do chores right or that I will forget to do chores."

Drugs, alcohol, and addictive behavior.

A.J. admitted that he once smoked a cigar with a friend. However, he denied having ever attempted to use any illicit drugs or alcohol. His mother reported that A.J. had a history of over eating and consistently elevated food above other rewards. A.J. stated, "I like food. I like to eat and treat myself to food."

Early development/ neurological history.

A.J.'s mother reported no problems with A.J.'s pregnancy and birth. She also reported that he met all developmental milestones. The mother reported that she did not use drugs while she was pregnant.

Medical and psychiatric history.

A.J.'s mother offered little information about his medical history. She reported that he had been diagnosed by his pediatrician as obese and never sustained any significant head trauma. In addition, she reported that A.J. once received a negative result from a lead poisoning test and had a 103 degree fever at the age of 8. She also reported that A.J. had moved between group and individual psychotherapy since March 1st, 2005.

Education and job history.

At the beginning of treatment, A.J. was enrolled in the 8th grade. However, his mother kept him out of school and reported that A.J. received no protection from bullies. A.J. reported that his school threatened to contact the police department if his mother continued to keep him home. A.J. then began to worry that his mother would go to jail. Since that time, his mother met with the school and allowed him to begin attending again.

A.J. reported that previous enrollment in school resulted in numerous suspensions for fighting. He stated, "I figured out that I can not be bullied if I am not there. I get nervous when people make fun of me, but I am bigger then they are, so I defend myself. That way I can stay home for a few days and not have to worry about being picked on, doing homework, and having tests." During the seven weeks of treatment, A.J. received no suspensions.

A.J.'s mother reported that he consistently received "grades ranging from A's to C's." She stated that, "He does not apply himself. He gets so nervous for tests and doing homework that he does not do well." She indicated that the school examined him and determined that he had an IQ that ranged between "105 and 115." She also indicated that he had never been diagnosed with a learning disability.

Social supports and pattern of relationships.

A.J. had a history of both stable and unstable relationships. He reported that he was in constant contact with his siblings, mother and step-father. A.J also reported a support system that included friends from his school, program and neighborhood. He reported that he could turn to his mother when he had a problem. He had never engaged in sexual relations, but identified himself as heterosexual. He described the girls that he had liked as ranging between stable and unstable. He reported that, "Girls at program have problems like me, but I like nice girls. I do not think my mom would like it if I dated a nasty person." From observation, the client appeared to be drawn toward girls that had lower levels of symptomology.

Situational stressors.

A.J. reported that he felt stress when his "mom is yelling at [him], when [his] parents fight, when people bully [him], when there are things to do for school, and when [he has] chores to do."

Coping mechanisms and strengths.

A.J. reported that when stressed he tried to "talk to [his] friends, talk to [his] counselor or sit in [his] room." He reported his strengths as being "friendly, intelligent, loyal and helpful."

Other agency involvement.

A.J. reported previous involvement with DYFS and his school's child study team.

Mental status examination.

A.J. appeared to be a well-developed male with clear speech and full range of emotions. He showed some anxious behaviors, but described his mood as "good". He answered all questions, volunteered information and made good eye contact. He denied having compulsions, delusions, or hallucinations. He denied any suicidal of homicidal ideation. His insight, cognition, and judgment appeared to be intact.

Perception of self and motivation toward treatment.

A.J. saw himself as a good person. He recognized the problems he was having and desired to be a more functional member of his family. He stated, "I want to feel better, but feeling better means working on the things that make me nervous and sad." He indicated that he wanted to be successful in treatment to make his family proud.

Formulation and Treatment Plan

Prior to treatment, A.J. provided information by filling out an OQ-45.2 and by participating in a biopsychosocial assessment. The information was used to form a conceptualization from a CBT perspective. The therapist determined that A.J.'s symptomology was consistent with a DSM-IV diagnosis of Generalized Anxiety Disorder and Major Depressive Disorder.

Although both disorders are clinically significant, A.J. reported that his anxiety developed approximately 5 months prior to the on set of his depression. His anxiety was something that he suffered with on a daily basis and appeared to be the catalyst for his intermittent depression. Therefore, the treatment package utilized to address A.J.'s

symptomology was chosen based upon anxiety being the primary focal point of treatment. The therapist hypothesized that by treating A.J.'s anxiety his secondary depression would be reduced.

Before determining an appropriate form of treatment it was important to conceptualize what caused A.J.'s symptoms. A.J.'s level of pathology was related to his experiences in middle childhood where he reported being verbally and physically abused by his father and lived in an unstable home with his mother. During that time, his father would belittle him and tell him that he was "worthless". In addition, his mother and step-father were often out of work and had little money. A.J. developed beliefs that he was a worthless person that could not accomplish anything.

The presence of A.J.'s maladaptive schemas was possibly misunderstood prior to his enrollment in treatment. For example, A.J. reported that his school consistently suspended him for getting into fights without attempting to determine the cause of his outbursts. In addition, A.J.'s mother yelled at him for not completing chores. However, she did not understand that A.J.'s avoidant behaviors were caused by thoughts of worthlessness. As A.J.'s maladaptive schemas went unchallenged he began to suffer from higher levels of pathology.

Although A.J. developed his maladaptive schemas in middle childhood, he did not show significant impairment until the last 15 months. Several events had taken place during that time that could have acted as a catalyst for his anxiety. He had transitioned from elementary school to middle school; watched the marital discord of his mother and step-father; dealt with the removal and pending death of his father; seen his mother lose significant weight as he had gotten heavier; and had been subject to ridicule by his peers.

All of these situations could have caused significant levels of distress that activated his schemas. When his schemas were triggered A.J. began to have automatic thoughts that led to distortions of understandings and anxiety. This led to A.J.'s intermediate beliefs that he would do poorly academically, people would not like him, and he would fail out of school, and have a poor future.

A.J.'s anxiety was present in all settings; however, the majority of his symptoms took place in his home and at school. When he was at home he desired to make his mother see his value. This may have been fueled by the rejection of a father that saw him as worthless. While attempting to help his mother with chores, A.J. often forgot to complete tasks or inadvertently destroyed the item he was working on. This sparked his mother to redirect or criticize his effort. When this occurred, it triggered an automatic thought that he was worthless and he subsequently becomes anxious. A.J.'s need to make his mother happy created anxiety that he would fall short of her expectations, therefore, he often became paralyzed when asked to do chores and engaged in avoidant behaviors.

Another setting in which A.J. engaged in avoidant behavior was at school. As a result of his anxiety A.J. consistently attempted to get out of school to avoid class work, tests, and bullies. He had automatic thoughts that he would be embarrassed if his teachers ask him to participate and if his peers made fun of his weight. In order to escape perceived humiliation he developed behaviors that helped him to avoid school. A.J. reported that he attempted to get suspended from school in order to relieve his level of anxiety.

After the problems that cause A.J.'s anxiety were conceptualized, an individualized plan for his treatment was developed. The challenge for the therapist was to implement a manualized CBT treatment package designed for adolescent anxiety. Kendall and Hedtke (2006) developed an appropriate treatment entitled the "Coping CAT." The Coping Cat is a 16 session course of psychotherapy designed to treat Generalized Anxiety Disorder in adolescents. The techniques utilized included exposure, relaxation training, role-play, cognitive restructuring, practice, and reward. The goal of utilizing this treatment was to teach A.J. how to recognize anxiety and how to implement strategies to cope with his anxiety.

The first eight sessions were utilized to educate A.J. The acronym F.E.A.R was utilized to identify the 4 steps of coping with anxiety. The 4 steps are; Feeling frightened; Expecting bad things to happen; Attitudes and actions that will help; and Results and rewards. Utilization of the F.E.A.R steps promoted awareness of bodily reactions; recognition of anxious thoughts; modification of behaviors; restructuring of cognitions; and provided self evaluation and self rewards. These new skills were then utilized in the last eight sessions to provide practice and comfort with methods to reduce anxiety (Kendall & Hedtke, 2006).

Kendall and Hedtke (2006) indicated that the treatment package could be altered to provide flexibility and maximize gains for the client. Therefore, before treatment began, several changes were made to adjust the program specifically to accommodate A.J. The number of sessions was lowered from 16 to 14. This was done as two of the sessions called for a parental conference at sessions four and nine. As A.J.'s mother recently underwent gastric bypass surgery, she was unable to attend those sessions and

instead opted to have phone exchanges with the therapist. Therefore, treatment continued without having the parent sessions and those scheduled treatment days were utilized if A.J. needed a makeup session.

Another alteration was in the implementation of rewards. As A.J. was turning 14 during treatment it was discussed with his mother that small rewards may not be enough to reinforce techniques. The therapist believed that receiving rewards such as a DVD movie or an "X-Box" game would be a motivational factor to continue with therapy. A.J. was then offered monetary rewards at 4 times during treatment to obtain those items. The actual monetary amounts ranged from $20 to $50 and increased in $10 increments. Therefore, A.J. was able to save his money for a large reward or purchase a number of smaller rewards at his discretion.

Non-Specific Factors Across Treatment Sessions

The beginning of A.J's treatment focused on strengthening the therapeutic relationship and provided A.J. with an orientation to the treatment plan. A.J. and the therapist had previously worked together in a group setting and had already built a therapeutic bond. However, much effort was made by the therapist to make A.J. comfortable in an individual session. Ice breakers, simple conversation, and active listening skills were utilized to help A.J. acclimate to the new therapy setting. In addition, time was set aside in each session to engage in tasks that enhanced the therapeutic relationship. This was done to prevent ruptures in the relationship.

During the course of treatment A.J. was asked to complete numerous quantitative measures. These measures included the OQ-45.2 and the WAI-C. In addition, the therapist completed a WAI-T and A.J.'s mother completed a Y-OQ 2.0. A.J. and the

therapist completed the measures at the beginning of each session and A.J.'s mother completed the Y-OQ 2.0 after each session. The implementation of measures remained consistent throughout treatment.

During a clinical interview A.J. was asked to fill out an OQ-45.2. This was done to obtain a baseline representation of his perceived level of symptom impairment and was utilized to confirm his primary diagnosis. A.J. reported a score on the OQ-45.2 of 63. The score was at the same level as the cutoff score. The results indicated that A.J. had clinically significant symptom impairment. The results of the OQ-45.2 Total score and Scale scores were presented for each session in Table 1 and Figure 1. In addition, means and standard deviations for all measures were presented in Table 5.

At the end of each session A.J. was asked to bring the Y-OQ 2.0 home to his guardian. The Y-OQ 2.0 was utilized to receive a report of A.J.'s level of symptom impairment as perceived by his guardian. The results of the Y-OQ 2.0 Total score and Scale scores for each session were presented in Table 2 and Figures 2, 3, and 4.

Another measure implemented during treatment was the WAI. The WAI-C and the WAI-T were utilized to track the strength of the therapeutic relationship ranging from 36 to 252. Higher scores indicated a stronger therapeutic alliance. Although the WAI was traditionally used at the end of treatment sessions the therapist began each session with the measure. The therapist felt that the treatment sessions would be compromised if A.J. began and ended each session by completing measures. Therefore, utilizing the WAI and the OQ-45.2 at the beginning of each session offered a higher level of continuity to the sessions. In addition, the therapist and A.J. had an existing therapeutic relationship prior to the individual treatment sessions. Therefore, the therapist felt

confident that the results of the WAI would not be altered by utilizing the measure at the beginning of treatment sessions. The results of the WAI-C and WAI-T Total score for each session were presented in Tables 3 and 4 and Figure 5. The results of the WAI-C and WAI-T Scale scores for each session were presented in Tables 3 and 4 and Figures 6 and 7.

Course of Therapy

As the first treatment session began A.J. completed an OQ-45.2 and a WAI-C while the therapist filled out a WAI-T. A.J. reported a score of 63 on the OQ-45.2 and a score of 218 on the WAI-C. The therapist reported a score of 193 on the WAI-T. The results indicated that A.J. continued to have clinically significant symptom impairment at the beginning of treatment. In addition, the results showed that A.J. identified a stronger therapeutic bond than the therapist.

The first session continued with conversations that pertained to A.J.'s functioning at home and school. For example, A.J. reported an incident where he was suspended from school for 2 days. He indicated that another student made fun of his weight and he engaged in a shoving match with him. He reported that the comment made him feel anxious and upset.

Informed consent and confidentiality were covered after the discussion about A.J.'s family and school. During this time the therapist educated A.J. about his credentials; the nature of his disorder; the CBT treatment plan; the purpose of homework; his rights as a participant; and what to expect from treatment. A.J. was also informed about situations that would result in a break in confidentiality. A.J. was initially overwhelmed by the information and responded by withdrawing. The therapist slowed

down the manner in which he presented the information to A.J.; as a result he began to interact with the therapist. A.J. responded by indicating that he would never attempt to hurt himself or anyone else. However, he also reported that he understood the therapist's responsibility to protect him and others if he made statements about harming himself or others.

As the session progressed, A.J. and the therapist went over the perspectives of CBT. The therapist reported to A.J. that the way a person thinks can affect the way that they feel and behave. This concept was tested as A.J. recalled several situations in which an event caused him to have an automatic thought. The automatic thought altered his mood and subsequently altered his actions. A.J. was informed that it was difficult to slow down thoughts to understand what they meant. He was told that he would learn how to slow down and recognize his automatic thoughts and restructure his negative cognitions. A.J. showed insight into his problem and a willingness to participate in therapy. For example, he stated that he knew that his thoughts could make him anxious. In addition, he stated that he hoped to learn how to control his anxiety. A.J. was reassured that he would learn over time how to slow do his automatic thoughts in order to understand what caused his anxiety.

Another tool of CBT that was discussed with A.J. was the use of homework assignments. This activity served as reinforcement of the techniques that he learned in each session. Treatment sessions would begin with the review of the homework from the previous session and would end with the assignment of a new homework task. If A.J. had difficulties completing the assignment, the next session would start with the completion of the assignment and a discussion about his difficulties with completing the

task. A.J. was not enthusiastic that he would be asked to complete homework. The therapist explained that the assignments would be important to reinforce the techniques he learned and would rarely take him longer than 5 to 10 minutes. A.J. agreed to attempt the assignments but reported that he had difficulties with his organization skills and memory at times. The therapist expressed to him that completing his assignments would show that he had developed responsible traits and took treatment seriously. Subsequently, A.J. did not miss any homework assignments during the course of treatment.

At the end of each session A.J. was asked to bring the Y-OQ 2.0 home to his mother. A.J.'s mother reported a score of 117. The score indicated that A.J. had clinically significant symptom impairment when compared to the cutoff score of 46.

The next two sessions focused on identifying A.J.'s anxious feelings and his somatic responses. Each of these sessions began with a fun activity to strengthen the therapeutic relationship and moved toward educating A.J. about CBT concepts. In session two, A.J. was asked to identify a hierarchy of anxiety provoking situations. However, A.J. originally responded to the therapist's request by engaging in avoidant behaviors such as becoming extremely quiet and withdrawn. The therapist addressed A.J.'s fears and reassured him that acknowledging his fears would be a positive step toward coping. A.J. indicated that he would participate because he trusted the therapist. He indicated that his fears were often caused by his mother yelling at him, talking in front of others, being made fun of, and being called on in class.

The data obtained from the measures yielded mixed results for session two. A.J. reported a drop in his level of symptoms with an OQ-45.2 score of 58. However, his

mother reported an increase in symptom impairment with a Y-OQ 2.0 score of 129. The Y-OQ 2.0 score of 129 was the highest level of symptom impairment reported during treatment (see Figure 2). A cause for this could have been that A.J. reported feeling comfortable and calm when engaging in his early treatment sessions. However, he continued to report instability in his home. The data also indicated a strengthening in the therapeutic relationship as A.J. reported a WAI-C score of 232 and the therapist reported a WAI-T score of 204. Although A.J.'s score remained higher than the therapist's score, the data indicated a strong therapeutic alliance.

In session three, A.J. was introduced to the concept that his feelings have different physical expressions. A.J. expressed how he knew physically when he was anxious. He indicated that his legs became shaky, his hands became sweaty and his muscles tightened. A.J. practiced identifying somatic responses to reinforce his understanding of the concept. Finally, A.J. was introduced to the "F" step of "Feeling frightened." This step required A.J. to ask himself, "Am I feeling frightened?" and "How does my body feel?" when confronted with an anxiety provoking situation. A.J. responded with trepidation when asked to engage in the "F" coping step. He indicated that he was uncertain how to implement the step and was visibly anxious. After the therapist modeled the skill, A.J. followed along and quickly became proficient with the skill.

The data reported by A.J. and his mother indicated symptom reduction. A.J. reported an OQ-45.2 score of 54 which indicated further reduction in symptom impairment. His mother also indicated a reduction in symptom impairment by reporting a Y-OQ 2.0 score of 116. However, the results of the Y-OQ 2.0 were still in the

clinically significant range. In addition, the therapeutic alliance continued to strengthen as A.J. reported a WAI-C score of 239 and the therapist reported a WAI-T score of 220.

In session four, A.J. was introduced to the techniques of relaxation training. He was educated about how somatic feelings caused by anxiety are often related to muscle tension. A.J. was asked to imagine himself feeling relaxed in a situation when he was not anxious. He chose a time when he performed well in a football game. He reported that his body felt loose and calm in that scenario. A.J. was then asked to imagine a scenario in which he felt tense. He chose a time when he was picked on. He indicated that his body was tight and sweaty in that scenario. Then the therapist and A.J. compared and contrasted how his body felt in the two situations. The idea was reinforced as A.J. clenched his fist and noted the tension in his hand and arm. Then he relaxed the hand and felt the warm soothing sensation work through his body.

Later in session, A.J. was introduced to deep breathing and progressive muscle relaxation. The lights were dimmed and A.J. tried to relax his body. He then followed the breathing pattern modeled by the therapist. A.J. took a 4 second breath, held it for 2 seconds, and released it for 4 seconds. A.J. practiced this for 5 repetitions. He was taught to utilize this technique as a first attempt to cope with anxiety. A.J. then participated in progressive muscle relaxation. He made a fist for 5 seconds and then released it and traced the warm sensation throughout his entire body as it relaxed his muscles. A.J. specifically focused on regions that had the highest tension. Implementing relaxation training elicited a positive response from A.J. He quickly became skilled in utilizing the techniques. In addition, he reported that he practiced the skills frequently and used them whenever he recognized his anxiety.

At the end of the session, the therapist engaged in a role-play to help A.J. cope with his anxiety. A.J. described his somatic feelings of anxiety using the "F" step to assist him. He then implemented deep breathing and progressive muscle relaxation techniques to eliminate his feelings of anxiety. During the session, A.J. appeared to be excited, interested, and devoid of anxiety while he implemented the relaxation techniques. He was open to the concepts and reported that he felt they would be useful for him outside of treatment. He quickly became skilled in utilizing the techniques. In addition, he reported that he practiced the skills frequently and used them whenever he recognized his anxiety.

A.J.'s visibly lowered level of distress and anxiety was confirmed through the data. He reported an OQ-45.2 score of 48 and his mother reported a Y-OQ 2.0 score of 99 that indicated a reduction in symptom impairment. However, the Y-OQ 2.0 score indicated the presence of clinically significant symptom impairment. The data identified a pattern of symptom reduction in the early sessions that culminated with A.J.'s session four OQ-45.2 score (see Figure 1). A.J.'s mother reported that his behavior in the home began to stabilize and he was no longer at risk of being placed in residential care even though she reported clinically significant symptom impairment on the Y-OQ 2.0. The data also indicated that the therapeutic alliance continued to strengthen. A.J. reported a WAI-C score of 245, and the therapist reported a WAI-T score of 225. A.J.'s WAI-C score was the highest score during treatment (see Figure 5). A cause for A.J.'s early symptom reduction could be linked to the strength of the therapeutic relationship.

In session five, A.J. identified anxious self-talk and learned to challenge and restructure his negative thoughts. At this point in his treatment, A.J. began to respond to

the treatment techniques and seemed genuinely interested in how each session was tied to the next. First, A.J. was introduced to the concept of self-talk. A.J. role-played several scenarios to identify self-talk in low-stress situations. For example, A.J. was asked to imagine that he disliked broccoli and his mother made broccoli for dinner. He identified that he could think about the situation in two ways. He reported that he could think that his mother did not care that he did not like broccoli or that his mother did not know that he did not like broccoli. He also reported that he would attempt to eat the broccoli to make his mother happy if she did not know that he did not like it. The therapist helped him to understand that his mood and behavior in the situation would be influenced by the thoughts he had at that moment.

After A.J. went over self-talk he was introduced to the "E" step of "Expecting bad things to happen". This step required A.J. to ask himself, "What is my self-talk?" and "What am I expecting to happen?" Then he gathered evidence about whether he knew for certain that the event would happen, whether it had happened before, and how many times. After A.J. gathered evidence, he estimated the likelihood that it would happen. He then stated what the worst thing to happen would be. Finally, he identified a coping thought that he could implement in that situation. A.J. questioned the need for the "E" coping step. He appeared to be quiet, withdrawn, and resistant to the skill, as he was visibly anxious. He stated that he was not sure if he could remember to utilize all the coping steps. A.J.'s anxiety was lessened when he was told that practicing the coping skills would familiarize him with the appropriate questions to ask and steps to take. He was relieved to hear that he would not need to perfect the skills in order to be successful.

The "E" step was then utilized in a role-play. A.J used the example of being nervous about being bullied in class. He identified that prior to class he thought that he would be picked on and would be embarrassed. After identifying his self-talk and expectations, he was asked to gather information. A.J. evaluated the anxious thought that he would be picked on. He reported that he had attended 100 classes and it had only happened 3 times before. He reported that there was not a high level of probability that it would happen again. A.J. continued to report that the comments of others could not hurt him unless he believed what they said. The therapist congratulated A.J. for successfully developing an appropriate coping thought for an anxiety provoking situation.

As the session concluded, A.J. was taught about thinking traps that could cause him to feel anxious and keep him from gathering information. A.J. was told that thinking traps could include avoiding unknown situations, believing that things will always happen in a negative way, and attempting to be perfect all the time. A.J. indicated that he would attempt to recognize situations where thinking traps affected his anxiety.

The data from session five showed a rise in symptom impairment. A.J. reported an OQ-45.2 score of 57 and his mother reported a Y-OQ 2.0 score of 108. The scores were higher than the previous session, but the OQ-45.2 score did not indicate clinically significant symptom impairment, and the Y-OQ 2.0 score was lower than scores from the first three sessions. However, the Y-OQ 2.0 score continued to indicate clinically significant symptom impairment. The data also indicated that the therapeutic alliance remained strong. A.J. reported a WAI-C score of 242 and the therapist reported a WAI-T score of 226.

In session six, A.J. reviewed anxious and coping self-talk and was introduced to problem solving skills. First, he explained the "F" and "E" steps to the therapist. The therapist then illustrated that identifying physical responses and self-talk would help him to cope with anxiety provoking situations.

After A.J. practiced going over the "F" and "E" step he was introduced to the "A" step of "Attitudes and actions that can help." He was informed that the "A" step would be utilized to take action once he had completed the "F" and "E" steps. The therapist explained the 4 parts to problem solving in the "E" step. In the first part, he would define the problem; in the second part, he would generate numerous solutions; in the third part, he would evaluate the solutions; and in the fourth part, he would select an alternative. A.J. responded to the "A" coping step with some anxiety. He reflected upon the conversation from the previous session and began to relax as he realized that he would be able to practice the steps. A.J. utilized his relaxation training skills to help him reduce his level of anxiety and the session resumed.

A.J. was then asked to role-play problem solving utilizing his anxious situation from the previous session. A.J. reported that his problem was being nervous about going to class and coming face to face with a bully. A.J. then generated solutions to the problem by reporting that he could fight the bully, he could cut class, or he could tell the teacher. A.J. and the therapist then attempted to identify an appropriate solution. He conceded that fighting and cutting class would result in further negative consequences for him, while telling the teacher would result in negative consequences for the bully. Then A.J decided that in the future he would attempt to tell the teacher if he felt another adolescent was picking on him.

The data obtained for session six again yielded mixed results in levels of symptom impairment. A.J. reported an OQ-45.2 score of 54 that did not indicate clinically significant symptom impairment. However, his mother reported a Y-OQ 2.0 score of 116 that indicated clinically significant symptom impairment. A conversation with A.J.'s mother indicated that she had been having difficulties with his school. The mother reported that A.J.'s school notified her that they had contacted the police about A.J. being kept out of school. She reported that A.J.'s level of symptom impairment began to rise when he found out. The results also indicated strength in the therapeutic alliance. A.J. reported a WAI-C score of 244 and the therapist reported a WAI-T score of 220.

In session seven, A.J. was introduced to self-evaluation and self-reward. The session began with reinforcement of the "F", "E", and "A" steps. A.J. was then told that when engaging in these steps he would evaluate his performance and reward himself for trying to cope with his anxiety. The "R" step of "Results and rewards" was designed to provide him with positive reinforcement for attempting to cope with his anxiety. He was told that he could reward himself for simply being pleased with his effort and work to overcome his anxiety. By doing so he could reinforce techniques without having to be completely successful. For example, A.J. was told that a successful baseball player gets a hit in 3 of every 10 at bats. Therefore, A.J. did not have to expect that he should implement coping skills effectively in every situation to be successful.

A.J. responded positively when he learned how the F.E.A.R steps were utilized together to help him reduce his anxiety. He indicated that he had not understood entirely what the purpose for each step was until they were presented to him as a total package of

skills. He was observed becoming more calm and confident that he could learn to control his anxiety.

A.J. was then asked to identify appropriate rewards when he felt pleased with his effort to cope with anxiety. A.J. was encouraged not to utilize food as a reward. This was done as he already had an unhealthy attachment to food and used it as a coping mechanism. A.J. identified that he would like to reward himself with breaks to watch a favorite show, play video games, play with a neighbor, go shopping, and call his friends.

After identifying appropriate rewards A.J. was introduced to a "Feelings Barometer". The Feelings Barometer was utilized as a self-report to identify feelings ranging from ("Very Unhappy") to ("Very Happy.") A.J. utilized it to help him determine if he was successful at completing a task by analyzing how he felt after it was completed. A.J. immediately became comfortable with the technique and revisited it throughout treatment.

After A.J. demonstrated an understanding of the F.E.A.R steps he was informed that the 7 sessions that remained would utilize the skills that he had learned. A.J. was informed that exposure therapies shifted from identifying his thoughts and feelings to practicing his coping strategies. A.J. was told that these exposure tasks would be practiced in situations where he felt stress and anxiety. The sessions would be carried out in a gradual way where the therapist had him imagine the situation and then had A.J. attempt to cope in the situation. Much effort was put into teaching him that the goal was not to remove his anxiety but instead to reduce the anxiety to a normal level. To accomplish this task, skills were repeated several times to enhance his level of exposure to the situation and his coping skills.

A.J. responded to having to conduct exposure exercises by becoming anxious and he attempted to avoid the situation. He attempted to avoid the situation by reporting that he felt he understood the steps and did not need practice. The therapist addressed A.J.'s concerns and attempted to illustrate that in order to control his anxiety he had to face anxiety provoking situations. A.J. countered by reporting that he did not feel ready and felt that he would not be successful. He became visibly anxious and became withdrawn. After several minutes of utilizing relaxation techniques A.J. began to talk again and reported that he would attempt to utilize the skills with help from the therapist. The therapist stated that he would remain by his side and help him if he began to struggle.

The results from session seven marked the beginning of a trend of higher levels of symptom impairment in A.J.'s OQ-45.2 scores. In session seven, A.J. reported an OQ-45.2 score of 66. His scores continued to indicate clinically significant symptom impairment for the next six sessions (see Table 1 & Figure 1). A.J.'s heightened anxiety appeared to be caused by being worried about participating in imaginal and in-vivo exposure tasks. In addition, the rise in symptom impairment could be attributed to the demands and difficulty of engaging in exposure tasks. The tasks were intended to be anxiety provoking and his rise in symptom impairment possibly indicated that A.J. was engaged in the treatment.

As A.J.'s OQ-45.2 scores rose his mother began to report lower levels of symptoms on the Y-OQ 2.0. For session seven, his mother reported a Y-OQ 2.0 score of 78. The score was the lowest reported to that point. The mother indicated that A.J. became calmer in the home once she explained to him that her trouble with the school had been worked out. However, the Y-OQ 2.0 continued to indicate clinically significant

symptom impairment. Although the OQ-45.2 and the Y-OQ 2.0 did not correspond, the WAI-C scores and WAI-T scores continued to indicate a strong therapeutic alliance. A.J. reported a WAI-C score of 241 and the therapist reported a WAI-T score of 226.

Sessions eight and nine focused on implementing imaginal and in-vivo exposure for a low anxiety situation. A.J. identified that he had been having anxiety when thinking about being asked to participate in class. Therefore, the office where A.J. was treated was rearranged to appear like a classroom to set an appropriate environment. Session eight focused on repeatedly walking A.J. through an imagined classroom experience where he would feel his anxiety and utilize coping strategies. The therapist asked A.J. to identify his level of anxiety on a Subjective Units of Distress Scale (SUDS) ranging from 0 ("No Anxiety") to 8 ("Highest Possible Anxiety") once per minute during the task. A.J.'s anxiety peaked at a SUDS rating of 5 when he was imagining his teacher asking him a question. When he was able to develop a coping strategy his SUDS rating fell to a 2. The session was completed with the use of a relaxation exercise where A.J. utilized deep breathing and progressive muscle relaxation until his SUDS rating reached a 0.

During this session, A.J. responded to imaginal exposure tasks by again engaging in avoidant behaviors such as withdrawing from conversation and attempting to imagine non-stressful events. The therapist monitored A.J. closely to identify times where he was attempting to imagine himself in a different scenario. The therapist addressed these situations and expressed to A.J. that facing the anxiety would help him to cope. A.J. reported that he felt it was too difficult and that he did not want to feel anxious. The therapist commended A.J. for being honest and encouraged him to continue through his

anxiety. Then A.J. engaged in fewer avoidant behaviors and reached out to the therapist when he needed help.

The results for the session indicated an elevated level of symptoms. A.J. reported an OQ-45.2 score of 78 and his mother reported a Y-OQ 2.0 score of 100. The results indicated clinically significant symptom impairment. The results also indicated a slight weakening in the therapeutic alliance. A.J. reported a WAI-C score of 238 and the therapist reported a WAI-T score of 220. Although the scores fell slightly the results indicated that the therapeutic bond was still strong.

In session nine, A.J. was asked to utilize his coping skills in the same imaginal situation. When A.J. showed signs of readiness to move on he was introduced to in-vivo exposure. He was told that in-vivo exposure would test his skills in a real world situation. A.J. was then placed in a group room with other clients. However, he was placed in a group with children that ranged from 7 to 9 years of age. This was done so that he could feel the anxiety of the situation, but would not be intimidated by his peers. The group was blind to the reasons why A.J. was present. A.J. and the group were then asked questions about a story read to the group. A.J. utilized the SUDS and reported having anxiety as high as 7 during the early minutes of the group. However, he reported that he was able to tell himself that the group had younger children that posed no real threat to him. This motivated A.J. to attempt to cope with the situation. By the end of the in-vivo task he reported a SUDS rating of 3. A.J. reported that he believed he was successful because he rated himself as "Happy" on his Feelings Barometer.

Following the in-vivo task, A.J. expressed that he was almost paralyzed by his anxiety, but was later able to calm himself down by utilizing the F.E.A.R steps and

relaxation techniques. He reported that he almost lost control of himself, but regained his composure by following the coping steps and relaxation techniques. A.J. was excited about having been able to successfully cope with his anxiety. He showed an ability to recognize his negative cognitions and attempted to compensate by utilizing the coping model. The therapist ended the session by commending him for his effort and encouraged him to choose a reward for himself.

The results of session nine continued to indicate elevated levels of symptom impairment. A.J. reported an OQ-45.2 score of 77 and his mother reported a Y-OQ 2.0 score of 96. The results indicated clinically significant symptom impairment. The results also indicated a strengthening in the therapeutic alliance. A.J. reported a WAI-C score of 243 and the therapist reported a WAI-T score of 229.

Sessions ten and eleven focused on implementing imaginal and in-vivo exposure for a moderate anxiety provoking situation. In session ten, A.J. identified that he had been having anxiety when his mother would ask him to do chores. Therefore, the therapist attempted to place props in the therapy room that would remind A.J. of his bedroom. A.J. was then subjected to imaginal exposure to elicit an anxious response. He reported a SUDS rating as high as 6 during the task. When he implemented the coping model he reported that he had a difficult time coming up with the rehearsed ideas, but was able to get focused and come up with ways to cope. He then reported that his anxiety lowered to a SUDS rating of 3. After several rehearsals A.J. reported that he was feeling significantly lower levels of anxiety and had become bored with the anxiety situation. The therapist expressed to A.J. that making the situation routine and boring

would help him to cope with the anxiety. The session ended with A.J. practicing relaxation techniques to lower his anxiety to a SUDS rating of 0.

The results from session ten indicated a discrepancy in symptom impairment on the OQ-45.2 and the Y-OQ 2.0. A.J. reported an OQ-45.2 score of 80 and his mother reported a Y-OQ score of 63. The OQ-45.2 score was the highest score reported during treatment while the Y-OQ 2.0 score was the lowest reported during treatment (see Tables 1 & 2). A reason for this could have been that A.J. was anxious about participating in the exposure task. Although the scores varied in symptom level they both yielded scores above the cutoff score and indicated clinically significant symptom impairment. The results also indicated a strengthening of the therapeutic relationship. A.J. reported a WAI-C score of 244 and the therapist reported a WAI-T score of 234.

Prior to session eleven, A.J.'s mother was briefly incarcerated for holding him out of school in the weeks leading up to treatment. The therapist planned on adjusting the session to address A.J.'s anxiety about this matter. However, after a conversation about the event, A.J. requested that treatment continue as planned. A.J. reported that he was anxious when he heard about his mother. He then indicated that he felt as if he would lose his mother and have to fend for himself. He continued on to report that his mother talked to him and made him understand that he would be safe. He reported that he used the F.E.A.R steps to help calm down and had only become nervous about the event on a few occasions since the conversation. The therapist commended A.J. for his ability to cope with his negative cognitions when faced with adversity.

The rest of session eleven was dedicated to engaging in an in-vivo exposure exercise. The setting of A.J.'s bedroom was reconstructed by placing props around the

office. The therapist played the part of A.J.'s mother and asked him to clean his room. At this time A.J. reported a SUDS at a level of 6. He reported that he was having difficulties concentrating because he felt like he could not get the job done. He then attempted to engage in avoidant behaviors such as attempting to leave the treatment session and refused to participate. The therapist asked him how he could manage his thoughts. Eventually, A.J. reported that he would attempt the task and would use the F.E.A.R steps despite his anxiety. A.J. was then able to cope with his anxiety and attempted to clean the area. The therapist expressed that he was successful because he made an effort to clean the room despite being anxious. A.J. reported that once he knew what to do his anxiety lowered to a SUDS rating of 3. As the session ended, A.J. practiced relaxation techniques until his SUDS rating reached a 0.

In session eleven, A.J. reported an OQ-45.2 score of 65 and his mother reported a Y-OQ 2.0 score of 91. The results indicated a reduction in symptom impairment on the OQ-45.2 and an increase in symptom impairment on the Y-OQ 2.0. However, both scores were above the cutoff score for clinically significant symptom impairment. The results also indicated the presence of a strong therapeutic alliance. A.J. reported a WAI-C score of 244 and the therapist reported a WAI-T of 242.

Sessions twelve and thirteen focused on implementing imaginal and in-vivo exposure for a high anxiety provoking situation. For session twelve, A.J. identified that he had high anxiety when he was required to make presentations or read in front of his classmates. Therefore, the treatment office was filled with props that mimicked a classroom. A.J. was asked to imagine himself in a situation where he was being asked to speak in front of his class. A.J. reported a SUDS rating at a level of 8. He reported that

he felt that he would panic when he was asked to stand up in front of a class and speak. Then he was asked to utilize his relaxation techniques and his F.E.A.R steps to help him cope with his anxiety. A.J. reported that his anxiety progressively began to lower until it reached a SUDS rating of 4. A.J. utilized relaxation techniques until his anxiety level reached a SUDS rating of 0.

During the session, A.J. was observed refraining from attempting to engage in avoidant behaviors. A.J. reported that he felt that nothing bad would happen to him when in treatment because he trusted the therapist to protect him. He continued on to report that when he felt anxious and uncomfortable he knew that it would help him to cope over time. The therapist expressed to him that he had taken a significant step in his treatment by not avoiding his anxiety.

Prior to the end of the session, A.J. began to talk about his feelings toward his father. A.J. reported that he would get nervous when he would think about his father yelling at him, but he had not felt anxiety about it in several years. He continued on to report that if his father was still in his life he would be anxious, but he did not worry about that happening. A.J. also reported that he felt badly about how sick his father was, but he had no control over the situation. A.J. finished his comments by reporting that he was safer and happier after his father left the home. As quickly as A.J. brought up the topic, he dropped it. The therapist attempted to revisit the topic in future sessions, but A.J. appeared uninterested. The therapist felt that A.J. was avoiding talking about his father. However, in later sessions, A.J. indicated that he would rather focus his efforts on talking about the situations that caused his current anxiety.

The results of session twelve remained consistent with the previous session. A.J reported an OQ-45.2 score of 67 and his mother reported a Y-OQ 2.0 score 98. The scores indicated clinically significant symptom impairment. However, the results of the OQ-45.2 from sessions eleven and twelve indicated a reduction in symptom impairment. The results also indicated that the therapeutic relationship remained strong. A.J. reported a WAI-C score of 238 and the therapist reported a WAI-T score of 241.

Session thirteen began with A.J. expressing that he had been successful at coping with several anxiety provoking situations while at home. He reported that he practiced the coping skills at home and had no worry about being called on in class. A.J. was encouraged to continue to try and master his relaxation techniques and F.E.A.R coping steps.

The balance of session thirteen was utilized for A.J. to engage in an in-vivo exercise. As he reported high anxiety about presenting and reading in front of other people he was asked to read a book to a group of 7 to 9 year olds. Again, the younger children were utilized to make A.J. feel less intimidated. A.J. reported a SUDS rating of 8 prior to beginning reading to the group. As the group progressed he utilized his relaxation techniques and F.E.A.R steps and became visibly more comfortable. A.J. reported that he knew he was doing well when the kids were asking questions and were not making fun of me. Following the in-vivo task, A.J. reported a SUDS rating of 3. The session ended by implementing more relaxation techniques until A.J. reported a SUDS rating of 0.

The results of session thirteen showed a slight drop in the OQ-45.2 score and a slight rise in the Y-OQ 2.0 score. A.J. reported an OQ-45.2 score of 63 and his mother

reported a Y-OQ 2.0 score of 103. The scores indicated clinically significant symptom impairment. Although the data did not indicate a reduction in symptom impairment the therapist observed significant changes in his demeanor while engaging in treatment. In the three sessions leading to session thirteen A.J. appeared confident and was visibly more comfortable with utilizing the coping skills. In addition, A.J. reported feeling less anxious as the sessions concluded. The results also indicated a strengthening of the therapeutic alliance. A.J. reported a WAI-C score of 242 and the therapist reported a WAI-T score of 246.

In session fourteen, A.J. participated in a final in-vivo task and was prepared for the termination of treatment. As the session began, A.J. reported that he had not been anxious for several days. He continued on to report that he used his coping skills in anxiety provoking situations and became calm. He then reported that he had not had feelings of depression for 2 weeks. A.J. appeared calm and relieved at this time. The therapist commended A.J. for making progress in reducing his symptom impairment and encouraged him to continue using the coping techniques after the treatment had concluded.

In the in-vivo task, A.J. again read a book to a group of younger children. However, A.J. requested to be placed into a group with older children ranging from 10-12 years old. A.J. reported a SUDS rating of 7 prior to reading in front of the group. A.J. did not attempt to engage in avoidant behaviors and utilized relaxation techniques and his F.E.A.R steps to cope with the anxiety. He reported that he practiced his skills and was excited about reading for the kids. He indicated that he thought that it became a lot of fun. At the end of the session, he reported that his anxiety had lowered and that he had a

SUDS rating of 3. The session continued by implementing more relaxation techniques until A.J. reported a SUDS rating of 0.

After the session, A.J. was prepared for the termination of treatment. He was congratulated for making it through treatment and was encouraged to continue to utilize his coping skills and refrain from avoiding anxiety provoking situations. A.J. acknowledged that he would need to improve his skills, but reported that he was not fearful of his anxiety. He also reported that he hoped to get anxious so that he could see if he could handle it. The therapist expressed to A.J. that he had worked hard to change his cognitions and coping skills, so he should rely on those skills when things get difficult for him. As the session ended, A.J. was debriefed about the treatment and was presented with a certificate of completion.

The results of the session yielded lower scores for both the OQ-45.2 and the Y-OQ 2.0. A.J. reported his lowest OQ-45.2 score of 42 and his mother reported a Y-OQ 2.0 score of 86. The OQ-45.2 score indicated that A.J.'s symptom impairment had been reduced to a level that was not clinically significant. Although the Y-OQ 2.0 score indicated clinically significant symptom impairment the score was lower than the scores from the previous three sessions. The results also indicated that the therapeutic relationship remained strong and continued to grow. A.J. reported a WAI-C score of 242 and the therapist reported his highest WAI-T score of 251.

The results of the study indicated that A.J. reported that he had a reduction of symptom impairment as a result of treatment. However, his mother's perception of his symptom impairment continued to indicate clinically significant symptom impairment. The discrepancy in reported scores between A.J. and his mother could have been caused

by several factors. A.J.'s mother may have evaluated his level of pathology more harshly than he did. The reports from his mother may have indicated that A.J.'s home life remained unstable or that he was unable to utilize coping skills while in a non-treatment environment. The therapist contended that the former was more plausible as A.J. did not have any significant school difficulties once treatment began. If A.J. was unable to utilize coping skills in a non-treatment environment then he would have shown signs of significant symptom impairment at school.

The results also indicated that A.J. and the therapist built and maintained a strong therapeutic alliance. Research suggests that the therapeutic alliance can affect treatment outcome and reduction of symptom impairment (Hanson, Curry, & Bandalos, 2002). Although a specific link between the therapeutic alliance and symptom reduction was not evaluated in this study, the therapist concluded that A.J.'s trust in their relationship allowed for deeper expression of emotions and a belief in CBT techniques that helped him to cope with his anxiety.

Therapy Monitoring

The primary factors monitored in therapy were functional impairment and the therapeutic alliance. However, the therapist's analysis of each session and self-reflection were also utilized to monitor the course of therapy.

During the course of therapy the therapist maintained a treatment log. The treatment log acted as a reference tool in which the therapist noted observations of how A.J. responded to treatment. The treatment log was utilized by the therapist to record his thoughts, feelings, successes and failures in implementing an efficacious treatment

package for the first time. The log was utilized by the therapist and his advisors to make adjustments to the treatment package.

When therapy began, the therapist felt confident that he could help A.J. address the symptoms that caused his anxiety. However, the therapist was faced with uncertainty as he implemented a manualized CBT treatment package for the first time. The therapist noted that sessions one through three were educational for himself and A.J. The sessions taught him that he was capable of following a structured treatment plan and could successfully convey the information to A.J. The therapist also realized that he was being unsuccessful at recognizing and limiting A.J.'s avoidant behaviors. He felt that a reduction in symptom impairment reported by A.J. in early sessions was directly related to the strength of the therapeutic relationship. If A.J. and the therapist did not have a vested interest in engaging in treatment with each other the success of therapy could have been jeopardized.

As treatment progressed, the therapist indicated that he began to feel comfortable with the treatment techniques when he implemented relaxation training in session four. The therapist indicated that A.J. became very interested in how he could control his anxiety with simple breathing techniques and muscle relaxation.

Between sessions four and seven, the quantitative measures indicated mixed levels of symptom impairment. However, the therapist noted the measures did not accurately represent the growth that A.J. experienced. A.J. appeared happier, smiled more, showed excitement to utilize techniques, and generally showed a more positive affect. However, the measures were unable to account for observable levels of symptom

reduction. Therefore, even though A.J. appeared to make substantial progress as treatment progressed, the measures only reflected A.J.'s mother's self report.

During sessions four through seven, the therapist believed that A.J. demonstrated a desire to learn about the mechanisms that caused his anxiety and wanted to cope with them successfully. Although he was not entirely successful, A.J. attempted to recognize and address his avoidant behaviors. The therapist indicated that he became more aware of times when A.J. engaged in avoidant behaviors. He then was able to address and discuss the avoidant behaviors with A.J.

Exposure exercises were implemented in sessions eight through fourteen. During these sessions, A.J. struggled with his anxiety and his avoidant behaviors. The therapist was mindful of the behaviors and addressed them when necessary. However, after sessions eight and nine, A.J. was confident about engaging in exposure tasks and rarely required assistance to control his anxiety. The therapist noted that A.J. seemed to enjoy engaging in the exposure tasks because he knew he could effectively cope with his anxiety as treatment progressed. However, the therapist made A.J. aware that he was always present to assist him when needed. As session fourteen ended, A.J. left treatment having been successful at reducing his level of symptom impairment. In addition, he had gained the skills necessary to help him cope with future anxiety provoking situations.

The therapist utilized the end of treatment as an opportunity to reflect upon the previous fourteen sessions. He expressed to A.J. that he thought that he and A.J. had grown throughout treatment. For example, A.J. entered therapy without a belief that he could learn to cope with his anxiety and left with confidence that he could utilize his coping skills to manage his anxiety. A second example was when A.J. reported that he

no longer was afraid of his anxiety and was knowledgeable about the skills he could utilize to face his anxiety in the future.

The therapist also grew in a number of ways. The therapist entered therapy with an uncertainty that he could effectively implement a treatment plan and left with valuable experience to apply to future clients. In addition, when therapy began the therapist believed that he knew what techniques he needed to cover to help A.J. However, the therapist did not know how to effectively manage a treatment session or how to address unforeseen situations that arose during treatment. As treatment progressed, the therapist learned how to stay focused on the task at hand and was able to pre-plan for techniques and topics that could give A.J. difficulties.

Concluding Evaluation

The first goal of the study was to determine if a manualized course of CBT was efficacious in treating an adolescent with co-morbid anxiety and depression. The second goal of the study was to determine if the manualized treatment of an anxiety disorder would impact a co-morbid depressive disorder. These goals were evaluated through the implementation of quantitative measures.

The WAI-C and WAI-T were used to evaluate the therapeutic alliance. Data from the WAI-C and WAI-T indicated that there was a strong therapeutic alliance prior to treatment and that this relationship became stronger throughout treatment. The results of the WAI-C were presented in Table 4 and Figures 5 and 6. The results of the WAI-T were presented in Table 3 and Figures 5 and 7. The data indicated that the highest levels of therapeutic alliance corresponded with the lowest levels of symptom impairment. Although not a focal point of the study, the therapeutic alliance appeared to have an

affect on A.J.'s symptom reduction. This is consistent with previous literature that indicates that the therapeutic alliance can affect treatment outcome.

The OQ-45.2 and the Y-OQ 2.0 yielded results that were inconsistent throughout the study. The results of the OQ-45.2 indicated that A.J. suffered from clinically significant symptom impairment prior to treatment and at points during treatment. However, at the end of treatment the scores of the OQ-45.2 indicated that A.J. did not suffer from clinically significant symptom impairment (see Table 1 & Figure 1). Conversely, the results of the Y-OQ 2.0 indicated that A.J. suffered from clinically significant symptom impairment prior to treatment, throughout treatment, and at the end of treatment. However, the results of the Y-OQ 2.0 for the last treatment session indicated that A.J. had a substantial drop in clinically significant symptom impairment (see Table 2 & Figures 2, 3, & 4).

As the results of the OQ-45.2 and Y-OQ 2.0 were mixed, the therapist incorporated information from observations and outside reports to determine the outcome of treatment. The therapist observed that A.J. became more confident with coping skills and showed lower levels of anxiety as treatment progressed. In addition, A.J.'s school reported that his behavior stabilized during treatment and he was not implicated in any activities that violated school policy. His mother also reported that A.J.'s behavior and symptom impairment stabilized in the home. Finally, A.J. made several reports that he could control his anxiety and when treatment ended he reported a reduction of anxiety and depressive symptoms.

After the evaluation of quantitative data and observations, the therapist concluded that a manualized course of CBT was effective in reducing the symptom impairment of

an adolescent with co-morbid anxiety and depression. This conclusion is supported by the quantitative data showing a reduction in symptom impairment at the end of treatment. In addition, the therapist noted that A.J. began to show a more positive affect as treatment progressed. Another conclusion of the study is that that treatment of an anxiety disorder reduced the symptom impairment of a co-morbid depressive disorder. This is evidenced by A.J. reporting that his level of depression reduced when his level of anxiety was reduced. Therefore, the therapist concluded that the results of therapy confirmed the goals of the study.

Recommendations for future research.

There are a number of adjustments to the case study that should be considered for future research. First, before developing a guiding conception for an adolescent the therapist should meet with the mother and maintain open communication. This would allow for a better understanding of the environmental factors that lead to the adolescent's symptom impairment. For example, A.J.'s mother consistently reported Y-OQ 2.0 results that did not correlate to A.J.'s OQ-45.2 results and observations by the therapist and school. A.J.'s mother possibly provided contradictory results because she misunderstood his level of symptom impairment, perceived his symptom impairment differently, or exacerbated his level of symptom impairment.

A second recommendation for future research is to implement quantitative measures at both the beginning and end of each session. A.J.'s OQ-45.2 results often did not match his level of symptom impairment because he was measured when he arrived for treatment. This became a problem as A.J. would arrive for challenging exposure sessions in a state of anxious anticipation. As treatment progressed the therapist observed

that A.J. reported symptom impairment that did not match the results of the OQ-45.2. Therefore the therapist noted A.J.'s visible lack of anxiety post session and continued to implement the OQ-45.2 at the start of the session to preserve continuity.

A third recommendation for future research should be the implementation of a quantitative measure for depression. The OQ-45.2 and Y-OQ 2.0 effectively measured symptom impairment, but the implementation of a quantitative measure developed for depression would offer a specific data set. For example, the therapist utilized a self report from A.J. to determine that his level of depression was reduced by treatment. However, not all clients would offer such information and may not be aware that they did have a reduction of depressive symptoms. Therefore, a measure of depression could track symptomology more effectively throughout treatment.

A final recommendation for future research would be to have the therapist implement a manualized treatment package for two clients suffering from co-morbid anxiety and depression. The therapist could implement a manualized treatment for anxiety with one client and then implement a manualized treatment for depression with another client. The results may indicate that the treatment of either disorder could affect the co-morbid presentation of both disorders.

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Appendix A

Total score and scale scores for the OQ-45.2

Session	SD	IR	SR	Total
0	31.00	12.00	20.00	63.00
1	30.00	19.00	14.00	63.00
2	27.00	19.00	12.00	58.00
3	26.00	15.00	13.00	54.00
4	22.00	16.00	10.00	48.00
5	28.00	18.00	11.00	57.00
6	29.00	16.00	9.00	54.00
7	36.00	20.00	10.00	66.00
8	47.00	19.00	12.00	78.00
9	42.00	22.00	13.00	77.00
10	46.00	20.00	14.00	80.00
11	32.00	16.00	17.00	65.00
12	35.00	17.00	15.00	67.00
13	27.00	20.00	16.00	63.00
14	22.00	13.00	7.00	42.00

Appendix B

Total score and scale scores for the Y-OQ 2.0

Session	ID	S	IR	SP	BD	CI	Total
1	40.00	15.00	17.00	11.00	24.00	10.00	117.00
2	45.00	14.00	19.00	10.00	28.00	13.00	129.00
3	44.00	14.00	18.00	15.00	23.00	17.00	116.00
4	39.00	7.00	11.00	7.00	28.00	7.00	99.00
5	39.00	10.00	14.00	9.00	28.00	8.00	108.00
6	35.00	10.00	18.00	9.00	32.00	12.00	116.00
7	28.00	6.00	12.00	6.00	21.00	5.00	78.00
8	31.00	7.00	16.00	9.00	27.00	10.00	100.00
9	32.00	7.00	11.00	15.00	25.00	6.00	96.00
10	24.00	5.00	9.00	2.00	20.00	3.00	63.00
11	34.00	9.00	11.00	10.00	24.00	3.00	91.00
12	26.00	12.00	14.00	12.00	23.00	11.00	98.00
13	36.00	11.00	13.00	13.00	24.00	6.00	103.00
14	28.00	7.00	11.00	15.00	18.00	7.00	86.00

Appendix C

Total score and scale scores for the WAI-T

Session	Goal	Task	Bond	Total
1	62.00	64.00	67.00	193.00
2	68.00	62.00	74.00	204.00
3	73.00	70.00	77.00	220.00
4	77.00	74.00	74.00	225.00
5	76.00	72.00	78.00	226.00
6	72.00	71.00	77.00	220.00
7	73.00	73.00	80.00	226.00
8	72.00	70.00	78.00	220.00
9	76.00	73.00	80.00	229.00
10	75.00	76.00	83.00	234.00
11	80.00	80.00	82.00	242.00
12	81.00	80.00	80.00	241.00
13	81.00	81.00	84.00	246.00
14	83.00	84.00	84.00	251.00

Appendix D

Total score and scale scores for the WAI-C

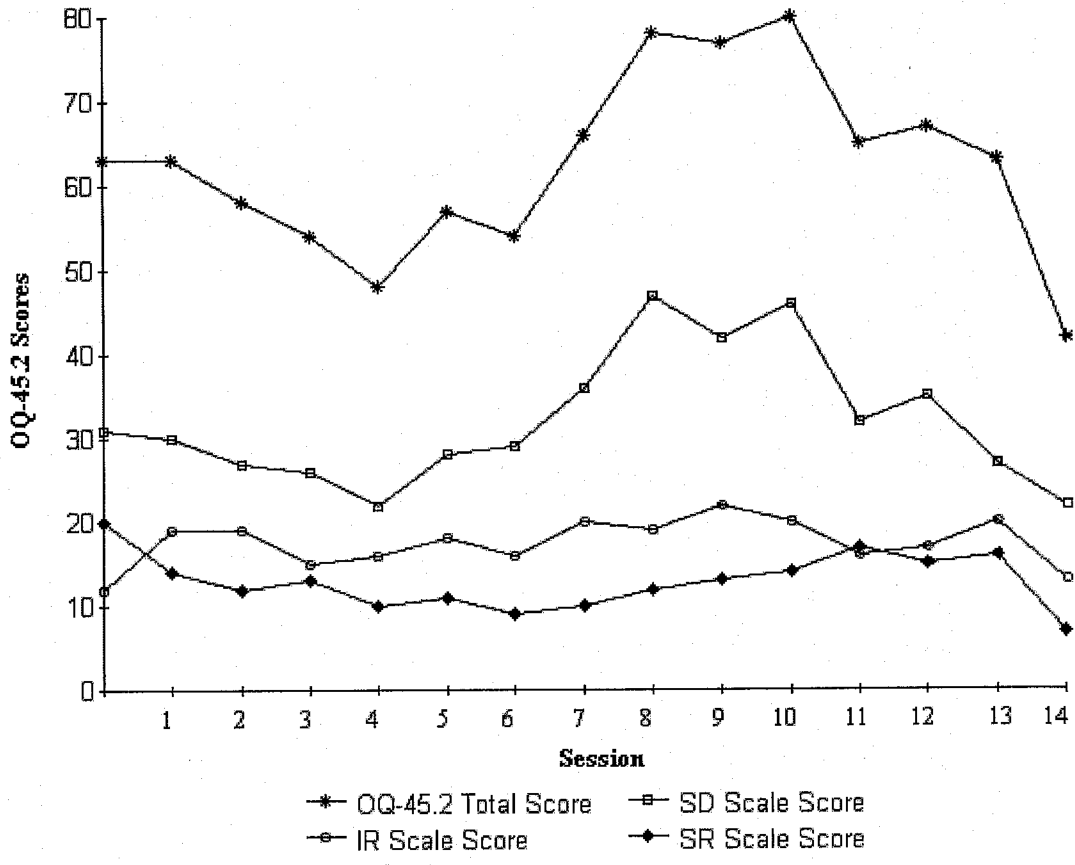
Session	Goal	Task	Bond	Total
1	72.00	68.00	78.00	218.00
2	84.00	76.00	72.00	232.00
3	84.00	71.00	84.00	239.00
4	84.00	77.00	84.00	245.00
5	83.00	76.00	83.00	242.00
6	84.00	77.00	83.00	244.00
7	80.00	77.00	84.00	241.00
8	81.00	74.00	83.00	238.00
9	83.00	77.00	83.00	243.00
10	83.00	77.00	84.00	244.00
11	84.00	76.00	84.00	244.00
12	80.00	75.00	83.00	238.00
13	84.00	75.00	83.00	242.00
14	81.00	77.00	84.00	242.00

Appendix E

Means and standard deviations for the OQ-45.2, Y-OQ 2.0, WAI-T, and WAI-C total and scale scores

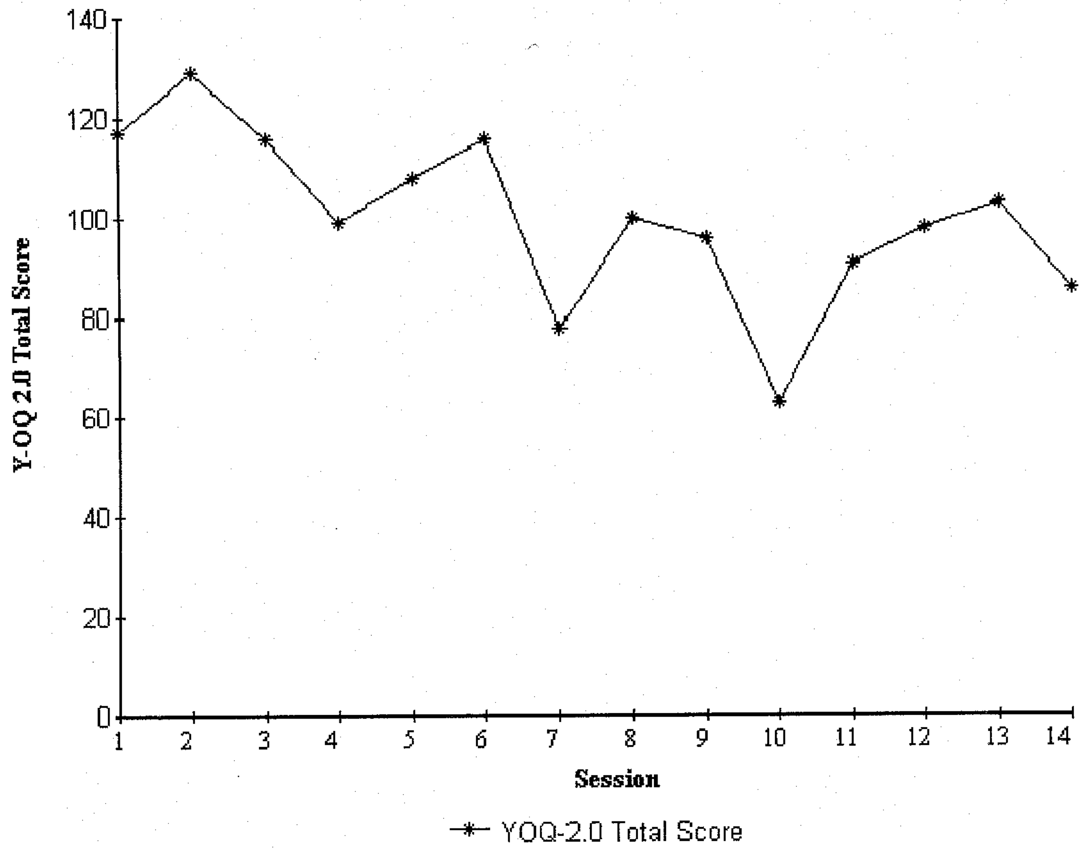
Measure	Mean	Standard Deviation
OQ-45.2	62.33	10.76
SD Scale	32.00	7.85
IR Scale	17.47	2.79
SR Scale	12.87	3.34
Y-OQ 2.0	100.00	17.25
ID Scale	34.36	6.56
S Scale	9.57	3.25
IR Scale	13.86	3.23
SP Scale	10.21	3.73
BD Scale	24.64	3.71
CI Scale	8.42	3.98
WAI-T	226.93	15.81
Goal	74.93	5.62
Task	73.57	6.29
Bond	78.43	4.62
WAI-C	239.43	7.06
Goal	81.93	3.25
Task	75.21	2.67
Bond	82.29	3.34

Appendix F: Figure of OQ-45.2 total scores and scale scores.

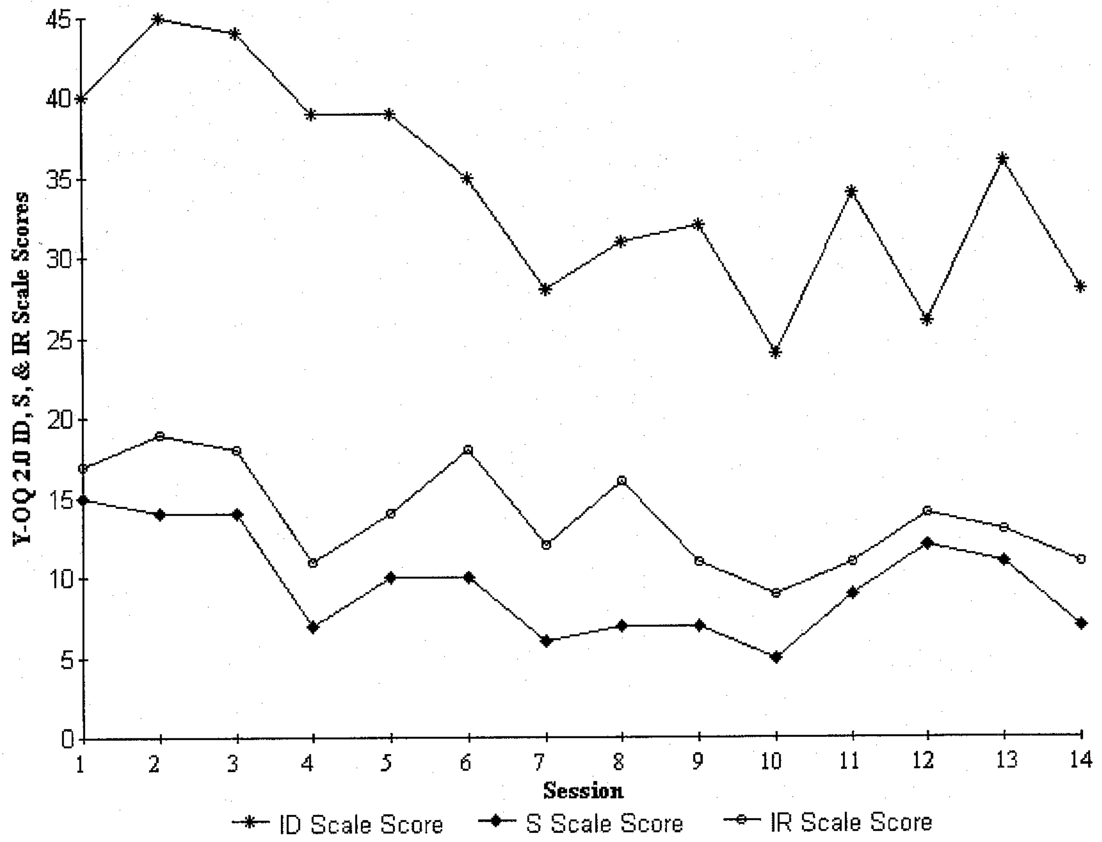


80
70
60
50
40
30
20
10
0
OQ-45.2 Scores
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
OQ-45.2 Total Score
SD Scale Score
IR Scale Score
SR Scale Score

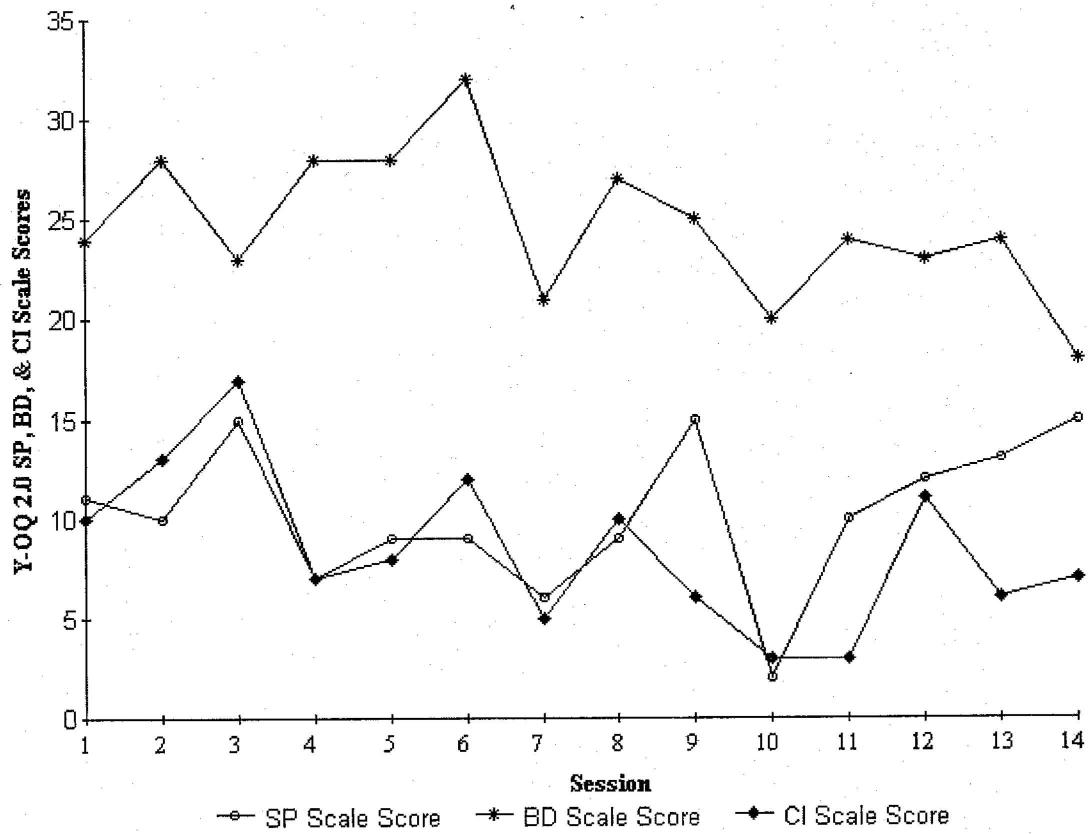
Appendix G: Figure of Y-OQ 2.0 total scores.


140
120
100
80
60
40
20
0
Y-OQ 2.0 Total Score
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
YOQ-2.0 Total Score

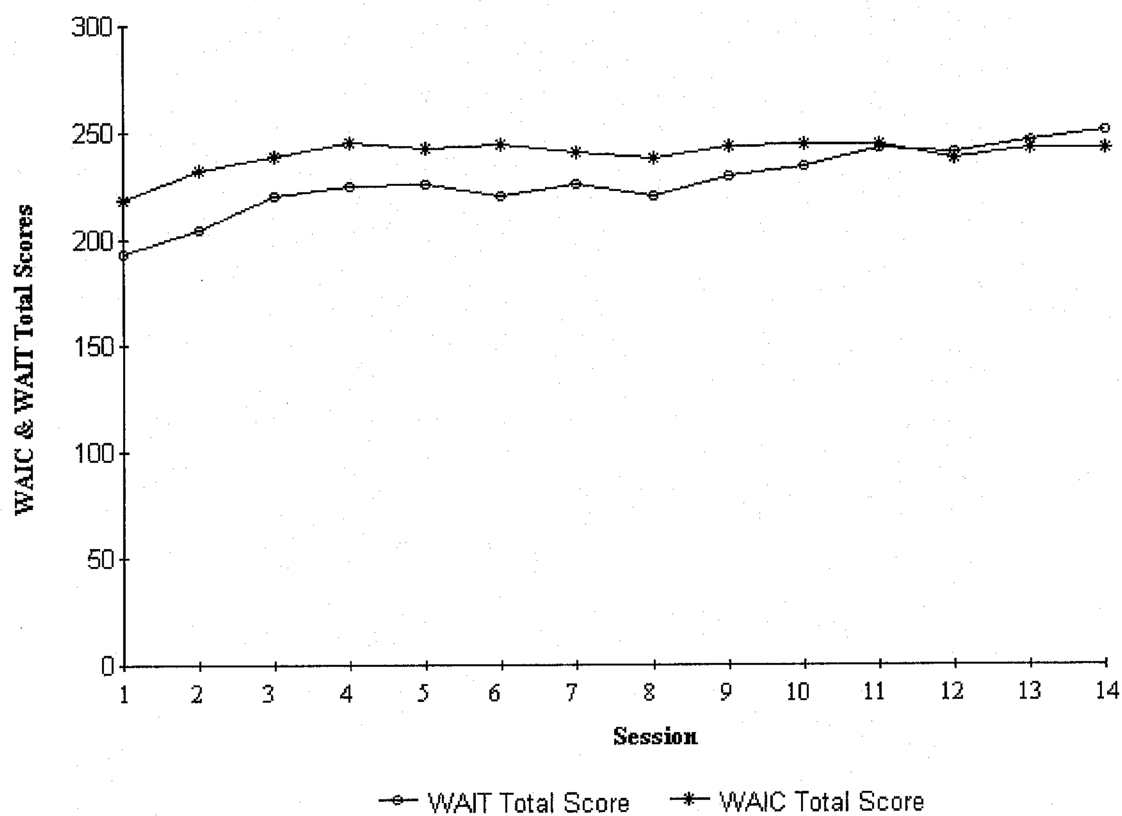
Appendix H: Figure of Y-OQ 2.0 ID, S, and IR scale scores.


45
40
35
30
25
20
15
10
5
0
Y-OQ 2.0 ID, S, & IR Scale Scores
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
ID Scale Score
S Scale Score
IR Scale Score

Appendix I: Figure of Y-OQ 2.0 SP, BD, and CI scale scores.

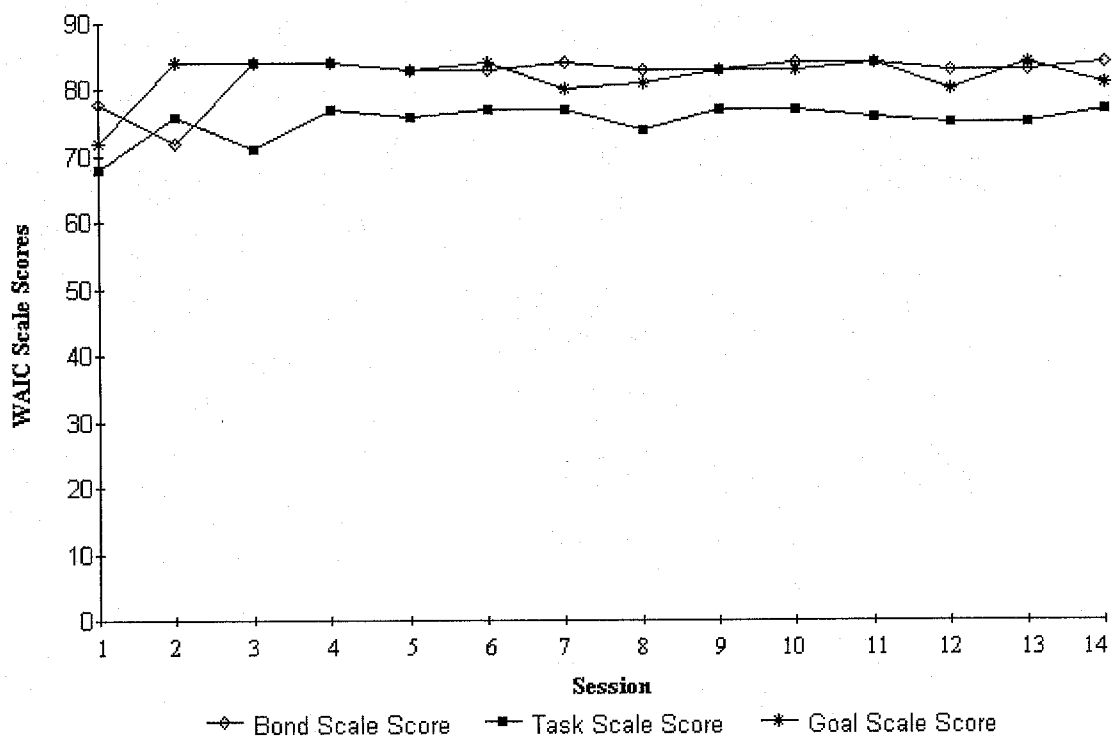

Y-OQ 2.0 SP, BD, & CI Scale Scores
35
30
25
20
15
10
5
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
SP Scale Score
BD Scale Score
CI Scale Score

Appendix J: Figure of WAI-C and WAI-T total scores.



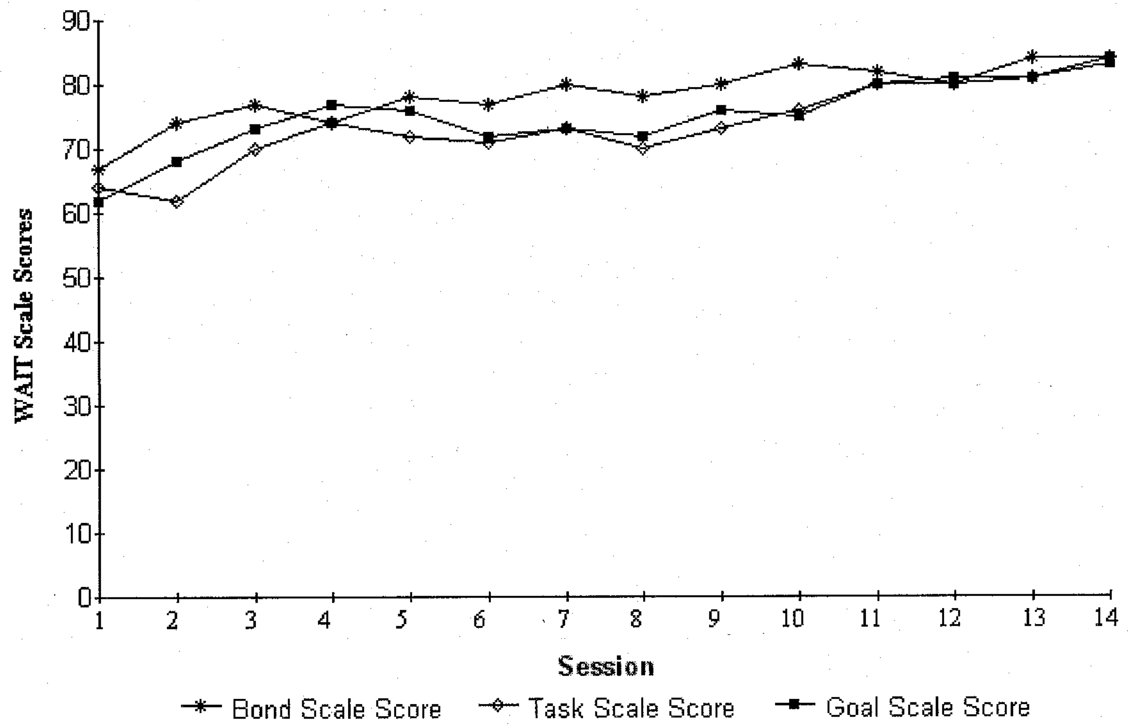
300
250
200
150
100
50
0
WAIC & WAIT Total Scores
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
WAIT Total Score
WAIC Total Score

Appendix K: Figure of WAI-C scale scores.



90
80
70
60
50
40
30
20
10
0
WAIC Scale Scores
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
Bond Scale Score
Task Scale Score
Goal Scale Score

Appendix L: Figure of WAI-T scale scores.



90
80
70
60
50
40
30
20
10
0
WAIT Scale Scores
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Session
Bond Scale Score
Task Scale Score
Goal Scale Score