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**TREATMENT OF ANXIETY USING MANUALIZED PROTOCOL:
A CASE STUDY**

by
Deborah R. Stevenson

A Thesis

Submitted to the
Department of Psychology
College of Liberal Arts and Sciences
In partial fulfillment of the requirement
For the degree of
Master of Arts
at
Rowan University
Aug 18, 2011

Thesis Chair: Dr. Matthew J. Miller, Psy.D.

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Dedication

*I dedicate this paper to Andy, Laura, Ruth, and Peter.
Your existence brings me joy.*

Soli Deo Gloria

Acknowledgments

I would like to thank my adviser, Dr. Matthew Miller for his support and kindness, his willingness to chair a case study and his patience in the process. I also want to thank Dr. MaryLouise Kerwin who raised the standard. Her advice was invaluable. I wish to express my gratitude to Dr. Jim Haugh for helping me on the path to becoming a mental health counselor. His support and encouragement through these years of study contributed to my success. I thank my son Andrew Stevenson who relieved a major burden by creating the graphs. I thank my daughter Ruth Johnston who offered to help with whatever she could and provided her editing skills to a portion of the paper. I also thank my daughter Laura Neill who proofread a portion of the paper. I am grateful to the many whose belief in me encouraged me to keep going. I cannot forget the many God has brought across my path and with whom I have been allowed to share portions of the journey. They have been sustenance and iron. Most of all, I give tribute to my husband Tom Stevenson whose constant love has been a source of solace and strength.

Abstract

Deborah R. Stevenson
TREATMENT OF ANXIETY USING MANUALIZED PROTOCOL:
A CASE STUDY
2010/2011
Matthew J. Miller, Psy.D.
M.A. in Clinical Mental Health Counseling

This case study evaluates the effectiveness of a manualized cognitive-behavioral therapy for the treatment of Generalized Anxiety Disorder in an adult female with comorbid Major Depressive Disorder and Social Phobia. The client voluntarily participated in outpatient individual psychotherapy offered in a private counseling facility. The client's psychosocial assessment is presented and the literature on empirical treatment and developing treatment models for Generalized Anxiety Disorder is reviewed. The client's progress in treatment and a comparison with what might be considered "best treatment" is presented. The client's Generalized Anxiety Disorder was treated using the manualized program *Mastery of Your Anxiety and Worry* from the Oxford University Press *Treatments that Work* series. The Beck Anxiety Inventory, the Beck Depression Inventory II, the Depression Anxiety Stress Scales, and the Penn State Worry Questionnaire were used as outcome measures. The results of treatment were inconclusive. Some measures show a slight reduction of symptoms and others show no change. The therapist's experience with and resulting perspective on manualized therapy is included.

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Chapter 1

Psychosocial Assessment

Client Name: Ms. Mary Seckelis¹

Date of Birth: 5-29-1965

Treatment Dates: 12/8/2009 – 5/5/2010

Number of sessions: 19

Treatment Provider: Ms. Deborah R. Stevenson

Presenting Problem

Mary sought assistance because of significant emotional distress from multiple worries and anxieties. She felt like some catastrophe was about to happen.² Additionally, she was worried because she did not know why she was worrying. She said that she felt “keyed up,” and she could not “wind down.” When she had these episodes, she was continually worried and anxious about a number of events and activities. She worried about the people in her life, specifically if they were all safe.

Mary worried about her parents. “They are in their 80’s. What if something happens?” She worried about her husband. “What if he gets sick?” She worried about retirement and finances. The author noticed that many of her concerns were about social evaluation of their family. For example, Mary wondered, “Are we normal?” and how did her family compare to other families.

¹ Names and other demographic details have been changed in order to protect the client’s confidentiality.

² The following information in this section (Presenting Problem) is Mary’s report unless otherwise noted.

Mary's main worries revolved around her son. "Would he get a job? Would he get married? Would he be able to be self-sufficient and move out of the house?" She envisioned him in the future still living at home the same as he did then. In contrast, she did not worry about her daughters who were outgoing and athletic. Mary said her son resembled her in his lack of being athletic or outgoing.

Mary reported that her 22-year-old son, who was doing well in college and holding down a job responsibly, was abnormal because he liked to stay up late, sleep in, and he did not go out with his friends every time they invited him. Mary worried because her son was sitting around watching TV on his spring break rather than doing something "productive." She saw these things as evidence that she would have to take care of him the rest of his life; that he would always be dependent. She also worried because he liked to spend time doing stuff with music on his computer. She thought his focus on music as an area of interest was a sign of Asperger Syndrome. She also worried that he had Asperger syndrome because "people with Asperger are clumsy" and her son was "not athletic." As further proof for her belief she added that he was "not sociable and people with Asperger are not sociable." However, Mary also reported that he often had friends over who were also interested in music. If her son was asked to go out (for example, to go out sledding) and he declined, Mary worried and had visions of him as a recluse who would always be living at home, unable to support himself. As an aside, her son did not go out sledding in this particular instance because he had already been sledding that day.

The author noted that Mary's concerns about her family appeared to be related to her concerns about how their appearance and behavior would reflect on her. For example, she reported that she ironed her son's shirt for work because she was concerned what he looked like. Furthermore, she reported that she thought her son was not normal because he did not care what he looked like. Mary reported that she cared what he looked like even if he did not and that she had a difficult time letting go of these feelings. Part of her stress about going out with friends who drink was that she did not want to drink. She believed that meant she was not "normal" or their friends would think that. Mary also worried that their friends would think that she and her husband were judging them if not drinking with them. The author notes that she frequently sought reassurance that something was "normal."

The topics of Mary's worry were associated with varying degrees of tension. She said that least worrisome issue to her was finances at retirement. She rated this worry as occasional with moderate tension and moderately difficult to control. The worries about her son were associated with the greatest tension. She described this tension as extreme and said the worry about her son was constant.

In addition to her chronic worry, the author observed that daily circumstances easily triggered her worry and anxiety. For example, she had an "anxiety meltdown" over the malfunction of the lights on the top of the Christmas tree. She reported an inability to tell herself that it was not a big problem, and that they would just take the lights back off if they had to. Mary experienced her worries as extremely difficult to control. She said, "I can't

stop worrying!” For example, she was extremely anxious about the weight of the snow on the greenhouses. She was unable to adopt her husband’s attitude that if the snow collapsed the greenhouses, they would deal with it then.

Mary had been feeling depressed for the last few months. She said everything seemed “gray, bleak, a fog, haze.” At that time, she felt negative about everything. Her sleep was poor. She fell asleep, but woke every few hours. She felt like she saw the clock every hour during the night. Mary reported that when she was like this, she had no appetite. She only nibbled at night and was losing weight. She felt sad and teary. She did not feel like cooking. She had no desire to go places. When she woke in the morning, she was discouraged as she thought, “It is another day to get through.” She usually felt better at night than in the morning. She had a hard time making herself move and do anything. She forced herself to do what she had to do. She said it is easier at work because work is scheduled. Without order and routine, she wandered and got nothing done. She could not concentrate or make decisions. She believed she had made her son feel insecure and expressed feelings of guilt about doing this to him. Mary endorsed feelings of hopelessness and worthlessness. She reported no suicidal thoughts or thoughts of hurting herself and stated that she had never had such thoughts. Mary said that her husband was aware that she was having problems and that her aunt had recently commented that she did not appear to be doing well.

History of Presenting Problem

Mary had experienced previous periods of intensified emotional distress and first sought help in August of 2001 for these problems. She referred to these periods as

“episodes.” What Mary called “episodes” appeared to come in waves and at the peak contained both depression and anxiety. In the summer of 2001, Mary felt that something was wrong but could not label it. She had less appetite and felt preoccupied. She remembered it clearly as “something building” but she did not know what to call it. She was in the pool with a friend when “it happened.” She remembered it “vividly.” The therapist was uncertain if Mary meant a panic attack by ‘it.’ During one session, Mary mentioned having a single panic attack at that time and being afraid to drive for a couple of weeks. In response to questions from the Anxiety Disorders Interview Schedule for *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (ADIS-IV; DiNardo, Brown, & Barlow, 1994), she stated that she had never felt a rush of panic for no reason. She said the period of fear and not driving was during this initial time of anxiety, but to her was not related to the event she described occurring in the pool.

Since 2001, she had taken several types of medication and tried counseling at least two times. She did not remember when she had the counseling or took medication other than the first time she took medication in 2001. Nothing to date had helped. She was “trying again.” She wished to “get to the bottom of this” or at least “learn how to deal with it.”

Mary reported that she was always uptight even as a child. She said that she was “born worrying.” She remembered when she was a child that she heard about a child with cancer and worried that she would get cancer. Although always a worrier, she said unlike now, she had energy to do things. Mary reported that these feelings first began to interfere

with her life in August of 2001 about the same time she experienced a period lasting a few weeks where she felt scared and insecure and did not want to leave the house. She did not want to drive or go to the market.

Mary did not recall any triggering event or cause for either the initial or the current episode. Mary stated that with these episodes of emotional turmoil, she vacillated from “a normal person that worries” to “I don’t know what to do. I can’t concentrate.” She said that she was distressed every spring, most summers and often at Christmas. Mary said that these periods of emotional distress usually began intensifying in the spring, continued through the summer, and subsided after school began again in September when she began working again. During the school year in her job as a teacher’s aide, she knew exactly what she was supposed to be doing. She awoke and got ready for work, and had a set schedule throughout the day. The therapist privately noted that a teacher’s aide does not have to plan the schedule but follows the schedule and instructions set by the teacher.

Mary attributed the beginning of an episode in the spring to the ending of the school year. She said she was a perfectionist who liked order and structure. In the spring, she started worrying about the summer because it lacked structure. The episode that prompted her appointment began in mid-summer. Mary said it was unusual for an episode to begin in summer rather than the spring. It was also unusual to persist and even worsen into the fall. She had gone to her doctor for medication and made the appointment for counseling because the episode had not subsided as the other episodes had in the past.

There were no apparent triggering factors for that particular episode of anxiety and depression. Her father-in-law had recently died, but Mary said she had already been feeling that way. Mary reported that his death was hard because she felt bad for her husband with his grief. She said it was tough on her children because they were close to their grandfather. Financial concerns were not the cause of the anxiety. There were no “real changes” in finances. There “are always financial issues.” Mary felt like they were not “getting ahead,” but they were “making do.” Her son Jason was in community college and Mary worried what he would do after that. Her twin daughters Jennifer and Jessica were in their junior year of high school. Mary worried that maybe her daughters’ friends were applying to colleges. Mary worried about whether Jennifer and Jessica should be applying to colleges. Mary said nothing had changed in her life except for the arrival of another “episode.”

Treatment History and other Agency Involvement

According to self-report, Mary went to her gynecologist in 2001 concerning her anxieties because she thought the cause might be hormonal due to changes caused by menopause. Mary reported that the gynecologist put her on an antianxiety medication. She did not remember the name of the medication or remember how long she remained on the medication. She thought it might have been a year. She reported that it did not help.

Mary had since tried two other medications, both prescribed by her primary physician. She reported that the medications “didn’t do anything.” In each instance, believing the medication worthless and without consulting her doctor, she simply stopped taking it. When things again became “bad,” she returned to the doctor for a new

medication. She was unable to report any of the details such as name, dosage, or time span of taking medication. She began taking Celexa (citalopram), an antidepressant in the selective serotonin reuptake inhibitor (SSRI) family, the same day as the intake interview. This was prescribed by her primary physician. Mary stated that she had never taken any other medication for anxiety or emotional reasons, including sleeping medications.

Mary had previously tried psychotherapy. She thought she had seen a psychiatrist/counselor two or three times before. She said the first time was perhaps for as long as a year. However, they “never got to the root” of the problem. She “never learned to cope.” It was “just talking.” When her primary physician gave her the current medication prescription, he told her that he did not think she needed to see a psychiatrist. He expressed approval when she told him at her follow-up visit that she had started seeing a counselor.

Mary also tried yoga, thinking it might help for relaxation. She did not enjoy it. She thought she probably did not enjoy it because she was not athletic. She stuck with the class to the end, but was glad when it was over.

Medical records were requested from both Mary’s primary physician and her gynecologist. Only the gynecologist responded. According to those records, in early August of 2001, Mary began taking Serafem (fluoxetine) 20 mg. daily. Her anxiety increased and the Serafem was discontinued a week later. The chart notes indicated that in December 2001 she was taking Paxil (paroxetine) and feeling much better. She was taking a selective serotonin reuptake inhibitor (SSRI) in February 2006. The only other notation about

medication was that in September 2008 she was taking the benzodiazepine Lorazepam (Ativan).

Household Composition

Mary lived with her husband, Greg, 22-year-old son Jason, and 17-year-old daughters Jennifer and Jessica. All three of her children were “good kids.” Her son attended a local college and her daughters were in their junior year of high school. Mary reported that Jason had a part-time job and was a good worker. He had recently been given the responsibility to train a new worker. She said Jason, Jennifer, and Jessica were all good students and had friends with whom they did things. Jason was interested in music and computers. Jennifer and Jessica were both into sports. The majority of Mary’s worries focused on Jason. She said she did not worry as much about her daughters because they were athletic and outgoing. She thought she worried about Jason because he was more “like her,” less outgoing and not athletic.

Mary and Greg had been married for 25 years. She described Greg as a person who was always concerned with others’ best interests. She said he was “supportive.” When asked what she considered a negative about Greg, she responded that he “spoils the kids too much.” Her example was that Greg did not make Jason pay his own car insurance.

Greg was “self-employed,” operating a small nursery. The current state of the economy had not changed their financial situation. They had never had an abundance of money, but they “get by.” As a couple, Mary and Greg enjoyed staying home, just the two

of them; therefore, they rarely “go out.” She said they do not “fit” with what their friends like to do, which was get together and drink.

Family of Origin

Mary is the younger of two girls. She described her parents as “wonderful” and “supportive.” All her family members lived in the area. Mary stopped in on her parents several times a week and called daily. Mary said her parents were “strict, but not super strict.” Mary said that both of her parents worried and they “sheltered” her and her sister. Mary’s parents always drove the girls to school and promptly picked them up after school. Because of this, they were not able to make school friends or do after school events until into their high school years. Mary said her parents wanted to make everything perfect and happy for them. They wanted to protect her and her sister from anything that might hurt them. Mary’s’ only comment about her sister was that her sister has had a child arrested and had a husband who drinks too much.

Medical History

Mary asserted that her health was “fine.” Mary reported that she was in menopause and that her hormones and thyroid were “fine.” She went to her primary doctor this past summer and had blood work done. Everything was “normal” except that her triglycerides were high. There were no past medical concerns except that at one time her “blood pressure was a little low.”

Mary had never had a mammogram. She was afraid of what they might find. In general, she did not go to the doctor for the same reason. Her gynecological records showed that her last appointment was in 2008.

Medical and Psychiatric History - Family of Origin

Mary said that, like herself, both of her parents look at the negative. Her mother “predicts” negatives. Mary said that her father worries about everything. Her sister also worries. However, Mary said that her sister “has good reasons to worry.” According to Mary, the reasons her sister had for worry were the sister’s husband who drank too much and having had a child arrested. Mary remembered her maternal grandmother with some “darkness something,” something “different about her.” She remembered her always sitting in a chair, not really interacting. This grandmother died when Mary was eight-years-old. Other than these few items, Mary was unaware of family medical or psychiatric history.

Educational and Occupational History

Mary “hated school” because she did not like being away from home. She remembered that she worried about tests as a child. She was worried that she did it wrong and wanted to do it right. This desire to be at home extended into college. Because of not wanting to be away from home, she attended a local community college where she received her Associate of Arts degree in general studies. The author neglected to pursue additional details about Mary’s educational experiences.

Mary was in her 8th year as a teacher’s aide in her local elementary school. Before college, she worked with her parents in their business. After college, she worked as a store

clerk for a bit of time. Before being a teacher's aide, along with being a "home-mom" she helped her husband with his business and after beginning her teacher's aide job continued to help some with his business. While discussing these aspects of her life, Mary expressed that she wishes she were more independent. She worried about being able to live on her own if something were to happen to her husband. She wanted to be able to take care of herself and worried that she could not.

Social Supports

Mary's cousin was her best friend through elementary school. In high school, she added other friends. For activities, she and her friends "might go to discos, but not big parties." At the time of treatment, from what the author observed, Mary's social support consisted of her husband and parents. She and her husband did get together with friends sometimes but Mary was uncomfortable at those functions. She did not want to be "the center of attention" because she feared others evaluations of her. When in social groups she tried to sit off at the side with one person.

The picture that Mary presented of her husband is of someone who is calm, patient, and tolerant of her anxieties. One example of this was how they dealt with her anxiety about driving to an appointment an hour from home. She was afraid to drive to new places because she was afraid of getting lost. She believed that if she became lost, she would be so anxious that she would not be able to understand any directions that others might give. Their solution to her anxiety about this was to make a trial trip with him along.

Situational Stressors

As previously mentioned, Mary's husband and children were experiencing grief from the death of their father and grandfather, respectively. This could have conceivably acted as a stressor for Mary; however, she did not express anything that indicated this as a significant stressor in her life. Before treatment began, there were no significant changes for Mary in the areas of friends, family, health, or work. Mary found numerous situations stressful on a weekly if not daily basis. During the treatment period, Mary's father had a heart attack. Also during this time, she found out that because of budget cuts, she would not have a job the following school year.

Coping Mechanisms

Mary coped with her fears of negative judgment in several ways. She attempted to avoid attention and she strove for perfection in her grooming. For example, she went out of the way to avoid passing the school principal in the hallway. She went to work immaculately groomed and in her regular clothes even when it was "wear your pajamas to school day." She did not join the teacher and the children as they danced along with a song because she did not think she could do it right.

Mary used worry as a coping mechanism. She coped with her worry about her worry by keeping busy. She said she liked work because going to work helped her "get her mind off" her worries. It "keeps her mind busy" with other things. When she was not at work, she kept herself busy with cleaning, cooking, and baking.

Substance Abuse/Dependence or Addictive behaviors

There was no history of substance abuse/dependence or addictive behaviors in Mary or any of her biological family. She had “maybe one drink a month.” If she was at a party, she might have several. This was only to “be a part of things.” She drank one cup of coffee per day and “perhaps” 2-3 glasses of ice tea. She tried cigarettes once when she was a teenager.

Review of Prior Assessments

No prior evaluations or assessments were available for review.

Differential Diagnosis

Axis I	300.02	Generalized Anxiety Disorder
	296.32	Major Depressive Disorder, recurrent, moderate
	300.23	Social Phobia, generalized
Axis II	V71.09	No diagnosis
Axis III		None
Axis IV		None
Axis V	GAF = 60	At Intake
Ruled Out	300.01	Panic Disorder without Agoraphobia
	300.21	Panic Disorder with Agoraphobia
	300.22	Agoraphobia without history of Panic Disorder

Mary was given a diagnosis of 300.02 Generalized Anxiety Disorder (GAD) with comorbid 296.32 Major Depressive Disorder, recurrent, moderate, and 300.23 Social Phobia, generalized. Her GAF at intake was estimated as 60.

300.02 Generalized Anxiety Disorder (GAD). Mary met all six criteria for GAD. Criterion A is excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least six months, about a number of events or activities (such as work or school performance). Mary's anxiety and worry were excessive in light of the reality of her circumstances and the level of distress she felt. The "episode" that brought her to treatment began mid-summer, approximately six months previous. Perhaps Mary met criteria for GAD as early as 2001. Her worries permeated all aspects of her life, her family, her work, and her personal standing in society. For example, she worried that her son might not be able to live independently or have a healthy social life. She worried that he did not "fit in," that he was not "normal." She obsessively worried that he had Asperger Syndrome. She worried that disturbing news would devastate her parent's health. She worried that blood work might reveal a problem and keep them from getting insurance. She worried that the parents of the schoolchildren might forget to send in treats for the party. When she had to drive somewhere new, she worried that she would get lost. She worried that if she did get lost she would be too anxious to comprehend any directions given to her.

Criterion B is that the person finds it difficult to control the worry. Mary expressed that she worried and she did not know why she worried. She said, "I can't stop worrying!" Criterion C lists six symptoms of which at least three must have been present more days than

not over the past 6 months. Mary exhibited all six of the symptoms. In accordance with the symptoms of restlessness or feeling keyed up or on edge, Mary felt that she could not sit still and that she had to keep moving. She said that at the dinner table her husband would tell her to stop shaking the table with her constant leg jiggling.

It is highly plausible that symptom six could cause symptoms two through five. Symptom 6 is sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep.) Surely lack of sleep explains symptom (2) being easily fatigued; may explain symptom (3) difficulty concentrating or mind going blank; as well as symptoms (4) irritability; and (5) muscle tension. Mary felt that she woke constantly throughout the night. She felt easily fatigued. She was glad the teacher she worked with did not “overwhelm” her with multiple things at once because she “isn’t able to think about more than one step at a time.” She stated that she was irritable with her family and felt muscle tension.

Criterion D states that the focus of the anxiety and worry is not confined to features of an Axis I disorder or occur exclusively during Posttraumatic Stress Disorder (PTSD). Mary had no symptoms suggestive of PTSD and her worries encompassed more than the worries of social anxiety disorder or depression.

Mary’s symptoms met criterion E as stated, “The anxiety, worry, or physical symptoms are causing clinically significant distress and impairment in social, occupational, or other important areas of functioning.” She expressed emotional distress. Her irritability with her family, her obsessive worries about her son, her non-stop activity to keep her mind off her worries and excessive preparation for perceived responsibilities were affecting

relationships with her family. Her worries had limited her social life. The time and energy she spent worrying was limiting her enjoyment of life.

Criterion F deals with other possible explanations for the anxiety. Mary evidenced no psychotic disorder or pervasive developmental disorder. The amount of coffee and tea in her diet did not suggest a caffeine-induced anxiety. She reported no use of illegal substances or over-the-counter medications that can cause anxiety. Although anxiety is a possible side effect of Celexa (citalopram) and other antidepressants, Mary began taking this antidepressant the day of the initial interview, thus ruling this out as an explanation for her anxiety. Recent medical exam and blood tests including a thyroid test indicated no medical cause for Mary's anxiety. She did have a recurrent mood disorder, but the anxiety was not exclusive to those periods.

296.32 Major Depressive Disorder (MDD), recurrent, moderate. Mary had been feeling depressed for more than two weeks. She reported that she cried over every little thing. Not only did she express that she felt sad all the time, both her husband and aunt had commented on her mood. She reported that it was hard to get interested in anything. She had completely lost interest in sex. Her appetite had decreased. She said that she would wake up 1-2 hours early and could not get back to sleep. She had a hard time keeping her mind on things and trouble making decisions. She had less energy to do the things she used to do and felt more discouraged about the future. Criterion A of a major depressive episode requires five or more symptoms out of a list of nine and Mary had at least seven. In response to inquiry, she admitted a sense of worthlessness and guilt. This raised the number to eight.

The only symptoms she denied were thoughts of death or dying, or suicidal thoughts. She did not meet criteria for a mixed episode. Her symptoms were not explained by substance abuse or a medical condition such as hypothyroidism. Bereavement was not the cause of her symptoms. Lastly, her symptoms were causing clinically significant distress and impairment in functioning. Mary met all five of the necessary criteria for a major depressive episode. Examples supporting these conclusions are found in the section describing her diagnostics for generalized anxiety disorder and the section titled “History of Presenting Disorder.”

The “recurrent” specifier was added because it seemed that Mary had several episodes of depression in the past. She was not able to report if these “episodes” occurred every year, most years, or only some years since 2001. Her recollection of the episodes was that they occurred more years than not and perhaps every year. It is impossible to specify longitudinal course because she could not say whether there was complete remission between episodes. Even if the seasonal specification was applicable, the fact that the current episode was “out of season” disqualified the “seasonal” specification. The association with the ending of the school year also disqualified a “seasonal” specification.

Because Mary described her “episodes” as cyclical, some thought was given to the possibility of a bipolar spectrum component. There was no evidence of a manic, hypomanic, or mixed episode at that time. Additionally, Mary reported that she had never had a time when her mood was elevated above normal. She reported that even her high moods no longer reached normal. Even so, the question deserved further investigation, particularly because she had experienced antidepressants as ineffective treatment. Perhaps she had

hypomania in the past and her depression was a Bipolar II depression. Alternatively, perhaps she had a yet uncategorized mood disorder that falls on the bipolar spectrum.

The only data to address this question came from Mary's subjective report, prohibiting anything but speculation. A brief search of the literature found that certain factors are associated with Bipolar II in comparison to unipolar depression. These include an earlier age of onset for a depressive episode (i.e., < 21), increased suicidality, and a family history of bipolar disorder (Benazzi & Akiskal, 2008; van den Berg, Penninx, Zitman, & Nolen, 2010; Bowden, 2005; Calabrese et al., 2006). Mary was probably about forty years old before she experienced her first episode of major depression. In addition, she had not had suicidal feelings. There was no known family history of bipolar disorder. What Mary remembered about her paternal grandmother suggested depression. Bipolar II disorder is frequently inherited through paternal lineage (Bowden, 2005); however, familial history of Bipolar disorder usually shows three or more first-degree relatives or three or more generations who also have bipolar disorder. Familial history of bipolar disorder is even more pronounced with Bipolar II compared to Bipolar I. (Bowden, 2005). Based on this, the impression of this author is that Mary's depression was not in the bipolar spectrum. Nevertheless, it is prudent to maintain an awareness of this possibility.

300.23 Social Phobia/Social Anxiety Disorder (SAD). Because data from the clinical interview of Mary did not address definitively whether Mary was also experiencing social anxiety disorder the Social Phobia Anxiety Inventory (SPAI; Turner, Beidel & Dancu, 2006) was then administered with hopes that it would clarify an answer.

The SPAI is a self-report measure of social anxiety and fear. Each of the 45 items are rated on a seven point scale, ranging from 1 (Never) to 7 (Always). Turner, Beidel and Dancu (1989) believe that “diagnosis [of social anxiety disorder] should be based on clinical decision rather than test scores”; therefore, the purpose of the Likert scaling is to assess severity level rather than creating cut-off scores (Osman, Barrios, Aukes, & Osman, 1995; Turner et al., 1989).

The SPAI contains two subscales: the Social Phobia (SP) subscale, and the Agoraphobia (Ag) subscale. The Ag subscale tests for symptoms of agoraphobia. The purpose of the Ag subscale is to separate the social distress of agoraphobia (fear of panic attacks or being trapped) from the social distress of social phobia (fear of negative evaluation). The difference score is calculated by subtracting the Ag subscale score from the SP subscale score. When the difference score is above 60, Turner et al. (1989) recommend assessing the client for Social Phobia.

The SPAI can be a good resource for treatment planning. The questions on the SPAI include somatic symptoms, cognitions, and behavior across a range of potentially distressful social situations, uniquely mapping the client’s fears (Osman et al., 1995; Turner et al., 1989). For example, Mary felt anxious in almost all social situations with authority figures. She had less anxiety when talking about non-personal work-related subjects. She was not anxious about approaching strangers and initiating conversation; however, her anxiety level increased if she had to sustain the conversation. The “internal consistency, test-retest reliability, concurrent, external, discriminative and construct validity have been

established” (Turner et al., 2006, p. 38). Test-retest reliability of the SPAI is 0.86. Internal consistency for the SP subscale was 0.96 and for the Ag subscale was 0.85.

While the details of her answers provided additional information about the focus of Mary’s anxieties, the score itself did not clarify a diagnosis. On the SPAI, probable social phobia is associated with a score of 80 or above. Possible social phobia scores range from 60-79. Scores for possible mild social phobia range from 34-59 and scores of 33 and below are rated social phobia unlikely.

Mary’s score was 64, falling just below the 25% mark in the possible social phobia range. At that time, the decision was made that Mary did not qualify for a full diagnosis of social phobia. Post-treatment contemplation of the evidence has convinced the author that this decision was incorrect. The examples presented reflect the author’s change in perspective.

Criterion A is a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing. Mary avoided any situation that brought her to the attention of others. She was anxious in the presence of authority figures, avoiding those situations, such as passing the school principal in the hallway. At social gatherings with peers, she found one individual off to the side with whom she can sit. She was anxious that behaving outside the norm would bring the negative judgment of others. This anxiety extended to worries about her family, particularly her son. She was afraid that he was not

normal. She was afraid of being embarrassed. Her son must not go to work with a wrinkled shirt. She also must be immaculately groomed. She did not do a little dance with the teacher and children from fear of embarrassment. She even feared the judgment of her family, worrying about what they might think when she did something not typical for her.

Criterion B says that exposure to the feared social situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally predisposed Panic Attack. The single panic attack that Mary experienced 10 years previous had been unexpected, not situationally bound or predisposed. Her situationally provoked anxieties with the greatest intensity fell into two areas. These were sharing intimate feelings with others, whoever they were, and being in a situation where she became the center of attention, such as speaking before an audience or even in a small informal meeting. Another pattern that emerged from the SPAI (Turner et al., 2006) is that authority figures were the people group that caused her the greatest anxiety. Mary's answer indicated that she was not always anxious in these situations; however, she was usually anxious.

Criterion C states that the person recognizes that the fear is excessive or unreasonable. Mary considered her state of anxiety and worries as excessive and reported that even her mother and aunt had recently expressed that her worries were excessive.

Criterion D says that the feared social or performance situations are avoided or else are endured with intense anxiety or distress. The reason she avoided passing her principal in that hall was that she would be intensely anxious if she had to speak with him. She experienced a certain amount of anxiety and distress in social gatherings, even when she was

able to find an individual with whom to attach herself. Her first inclination was to avoid attending those social gatherings.

Criterion E is that the avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine, occupational (academic) functioning, or social activities or relationships, or there is marked distress about having the phobia. When Mary had to fill the place of the classroom teacher, she lost sleep in order to ensure she met all responsibilities. Her support system was limited to her husband and parents. It would probably extend to include outside friendships if she did not have such distress in social activities and relationships. She wished she were different. She wanted to be independent and able to take care of herself if need be. She viewed her inability to leave home for college as signs of her dependency. In addition to the distress she was experiencing from GAD and MDD, is the distress she felt from Social Phobia.

Criterion F is only applicable to those younger than 18. Criteria G and H have to do with ruling out effects of substance use, a medical condition or other mental disorders. As is true for both GAD and MDD, Mary has no other disorder in these areas to explain the social anxiety symptoms.

The overall picture that social anxiety presents is of a person who is easily embarrassed in social situations believing that people are looking at them and judging them. Mary provides enough evidence to meet the criteria for a diagnosis of Social Phobia.

Ruled Out

300.01 Panic Disorder without Agoraphobia and 300.21 Panic Disorder with Agoraphobia. Mary reported one panic attack nine years previous. Her behavior change at that time was less than a month or more, ruling out Panic Disorder suggesting that she had never qualified for a diagnosis of Panic Disorder with or without Agoraphobia.

300.22 Agoraphobia without history of Panic Disorder. Although Mary had avoided driving nine years earlier because of fear of panic symptoms, this agoraphobic behavior was only exhibited for two to three weeks; hence, she was not diagnosed with agoraphobia at the time of the interview.

There was no apparent evidence for any of the other disorders sometimes associated with Social Phobia. This includes but is not limited to 300.07 Hypochondriasis, 300.81 Somatization Disorder, 300.3 Obsessive-Compulsive Disorder, 300.29 Specific Phobia and 309.81 Posttraumatic Stress Disorder or 308.3 Acute Distress Disorder.

Mary evidenced social anxiety even as a child. She did not like going to school. Tests worried her because she was concerned about “doing it right.” It appeared that both GAD and Social Phobia first evidenced themselves in Mary’s childhood. Both of her parents worry and Mary said that she had always been a worrier. She reported that she was in her late 30’s when she had her first “episode” of feeling “like this.” Her description of those periods included symptoms of depression along with intensified anxiety, particularly worry. The author believed that feelings of social anxiety were a constant for Mary. GAD was also long-term and chronic in her life, with intensity probably varying between clinical and sub-

clinical levels. Additionally, Mary had experienced multiple episodes of depression. It was unknown whether there was complete remission between these episodes. The author thought that it was probably the distress engendered from the converging of the GAD, MDD, and Social Phobia, that motivated Mary to seek treatment at the time.

Chapter 2

Literature Review

Generalized Anxiety Disorder

History of Diagnosis

Generalized Anxiety Disorder (GAD) has a long history in psychiatric disorders dating back to the grandfather of psychiatry, Sigmund Freud. Freud's description of generalized, persistent free-floating anxious expectation that is outside the person's awareness may be the first description of GAD (Mennin, Heimberg, & Turk, 2004; Rickels & Rynn, 2001). Freud elaborated, stating that anxious expectation is the nuclear symptom of anxiety neurosis (as reported by Rickels & Rynn, 2001). Despite its long history of being identified, the *Diagnostic and Statistical Manual of Mental Disorders*, third edition (*DSM-III*; American Psychiatric Association, 1980) contained the first classification of GAD as a unique diagnosis. However, GAD was a diagnosis by exclusion, to be diagnosed only after all other diagnoses were ruled out. In the *Diagnostic and Statistical Manual of Mental Disorders*-third edition, revised (*DSM-III-R*; American Psychiatric Association, 1987), GAD and other anxiety disorders could now be diagnosed simultaneously (Borkovec & Behar, 2006; Mennin et al., 2004) and excessive worry in more than one topical domain became the key symptom of GAD. In addition, *DSM-III-R* (1987) specified duration of six months instead of one month and reduced the emphasis on autonomic arousal symptoms.

Further revisions of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) continued to delineate changes in the diagnosis of GAD. The *Diagnostic and Statistical*

Manual of Mental Disorders, fourth edition (*DSM-IV*; American Psychiatric Association, 1994) tightened the criteria for GAD in order to increase the reliability of the diagnosis. Excessive worry remained the defining feature of GAD, with the worry being present more days than not during six or more months. The presence of autonomic arousal symptoms was dropped. “Pervasiveness” and “uncontrollability” of anxiety were emphasized and “unrealistic” was dropped from the description of worry in GAD. Furthermore, the patient must perceive the worry as “uncontrollable” and difficult to stop. In *DSM-IV* (1994), only three out of six features were required for a diagnosis of GAD in contrast to the six out of eighteen in *DSM-III-R* (1987).

The *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision (*DSM-IV-TR*; American Psychiatric Association, 2000) added prevalence rates and information from current genetic studies to increase the reliability and validity of the GAD diagnosis (Mennin et al., 2004). New suggestions and questions are on the table as researchers look forward to *DSM-V*, and seek to give an operational definition to “excessive anxiety and worry” (Andrews et al., 2010). Whatever the *DSM-V* decision, the *DSM-IV-TR* (2000) is the diagnostic manual used currently and is the manual used for this study.

Worry.

Anxiety and worry are not the same. Anxiety is associated with physiological symptoms and affective responses. Worry is thought activity, specifically, negative thoughts. It is verbal. Worry is considered the cognitive component of anxiety (Andrews et al., 2010; Borkovec, Alcaine, & Behar, 2004; Mennin et al., 2004). Worry is made of elaborate “what

if' speculations about multiple future activities and events (Aikins & Craske, 2001; Andrews et al., 2010).

Worry is present in all people to a greater or lesser extent and there is evidence that worry lies on a continuum (Mennin et al., 2004; Olatunji, Broman-Fulks, Bergman, Green, & Zlomke, 2010a). There is support for the idea that clinical disorders represent an extreme or pathological manifestation of basic emotional syndromes (Lovibond, 1998). Perhaps pathology is simply heightened normality (Brown, Chorpita, Korotitsch, & Barlow, 1997).

Worry can be adaptive and it can motivate active problem solving. Both adaptive and pathological worries have similar worry content; however, pathological worry is excessive and/or leads to maladaptive behavior in response to situations that are not absolutely threatening (Borkovec et al., 2004). Worry can make it difficult to pay attention to other responsibilities and it can cause significant psychological distress. Worry can be disabling (Barlow, 2002; McLaughlin, Mennin, & Farrach, 2007; Olatunji et al., 2010a; Ruscio, Borkovec, & Ruscio, 2001).

While all anxiety disorders have worry as a feature (Aikins & Craske, 2001; Andrews et al., 2010); it is the defining feature of GAD (Aikins & Craske, 2001; Olatunji et al., 2010a). In GAD, worry is more frequent and disrupting, even compared to the other anxiety disorders (Mennin et al., 2004). The worry is out of proportion to the likelihood of the worry concern becoming reality (Andrews et al., 2010). It is hard for the person to stop worrying and they are likely to describe their worry as uncontrollable (Ruscio et al., 2001). The person with GAD tends to worry more about minor events to the extent that it impairs

social functioning (Allgulander, 2009; Mennin et al., 2004; Ruscio et al., 2001). The worry topics tend to be transient, shifting with the ebb and flow of the events in their life (Aikins & Craske, 2001).

Evidence suggests that individuals experiencing pathological worry have a pervasive bias to detect and interpret threat (MacLeod & Rutherford, 2004; Olatunji et al., 2010a). Many GAD models agree that the individual selectively attends to threatening stimuli (Aikins & Craske, 2001). Additionally, worry is associated with an expectation that whatever happens, it will be bad and/or catastrophic (Aikins & Craske, 2001; Andrews et al., 2010).

Epidemiology

Epidemiological data about GAD is necessarily uncertain because of the shifting definition of GAD with the changes in diagnostic criteria (Hidalgo & Davidson, 2001; Kessler, Keller, & Wittchen, 2001). Most articles refer to two large population-survey studies for their epidemiological data. One study used *DSM-III* (1980) and the other study used *DSM-III-R* (1986) criteria (Hidalgo & Davidson, 2001; Kessler et al., 2001). According to *DSM-IV-TR* (2000), the one-year prevalence rate for GAD in a community sample is 3.1%, and the lifetime prevalence rate is 5.1%. Kessler et al. (2005) refer to the National Comorbidity Survey Replication conducted from 2001-2003 to look at the lifetime prevalence and age of onset in *DSM-IV* disorders. The findings are in general agreement with previous epidemiological studies with similar rates worldwide.

Females are more likely to have GAD than are men (Hidalgo & Davidson, 2001; Kessler et al., 2001). In clinical settings, 55-60% of people with GAD are women (*DSM-IV-TR*; American Psychiatric Association, 2000). A generalization of this data is that GAD is two times as common in women (Hidalgo & Davidson, 2001; Tyrer & Baldwin, 2006).

GAD is consistently described as chronic and pervasive (Kessler et al., 2001). GAD has a prolonged course, with a median duration as long as 20 years (Hidalgo & Davidson, 2001). Most individuals are still affected 6-12 years after diagnosis (Tyrer & Baldwin, 2006) with episodes commonly persisting for a decade or more. The symptoms are worse during times of stress and sometimes mild to non-existent (*DSM-IV-TR*; American Psychiatric Association, 2000). For most individuals with GAD, much of their life is spent in episodes of worry (Kessler, Walters, & Wittchen, 2004). According to the International Consensus Group on Depression and Anxiety (Ballenger et al., 2001) spontaneous remission rates of GAD are 20-25%. In the Harvard/Brown Anxiety Research Project, recovery was defined as at least eight consecutive weeks symptom-free or with only 1-2 mild symptoms (Hidalgo & Davidson, 2001). Four months after intake diagnosis of GAD, only 7% of individuals had recovered. At 34 months, 27% of individuals recovered and at 58 months, 38% of individuals had recovered. However, by the five-year mark, 28% of those who recovered had relapsed.

A relatively early onset of GAD is common with 12 as the average age of onset (Campbell, Brown, & Grisham, 2003; Kessler et al., 2001). The typical person with GAD reports that they have been anxious all of their life (Campbell et al., 2003; Hudson & Rapee,

2004). They may say, “I have always been a worrier” (Campbell et al., 2003). Symptoms begin before age 20 for about 75% of people. Annual incidence rates increase with age (Angst, Gamma, Baldwin, Ajdacic-Gross, & Rössler, 2009; Hidalgo & Davidson, 2001) although this increase is attributed to the low remission and high relapse of GAD (Hidalgo & Davidson, 2001). With early-onset GAD, worries are more excessive, there is a higher level of comorbidity with other psychiatric diagnoses, and the GAD symptoms are more persistent and severe (Andrews et al., 2010; Campbell et al., 2003).

Comorbidity

Comorbidity is the occurrence of two different disorders in the same individual. Comorbidity is characteristic of GAD with approximately 45% to 98% meeting criteria for another disorder (Newman, Przeworski, Fisher, & Borkovec, 2010). Both the Epidemiologic Catchments Area (ECA) survey and the National Comorbidity Survey (NCS) measured the one-year prevalence rate for GAD in the general population as 3.1 – 3.8%. Only 33% of individuals experienced GAD without another disorder (Stein, 2001). In the NCS, 90% of those with lifetime GAD had another lifetime diagnosis. Although comorbidity is typical with GAD, studies from community samples show other anxiety disorders having similar rates of comorbidity as GAD; however, the comorbidity with GAD cover a wider spectrum of disorders (Ballenger et al., 2001; Kessler et al., 2001).

The highest comorbidity associated with GAD is other anxiety disorders and mood disorders (Kessler et al., 2004, Noyes, 2001). According to the NCS, the disorders most commonly associated with GAD are major depression, dysthymia, alcoholism, simple phobia

and social phobia (Hidalgo & Davidson, 2001). Fifty-nine percent of individuals with GAD have another comorbid anxiety disorder (Pollack, 2005). The rates of social phobia in patients with GAD range from 23%-59% (Mennin et al., 2004). Panic disorder in clinical samples of patients with GAD range from 11%-27% (Mennin et al., 2004). Lifetime rates of GAD with Bipolar disorder are 17% (Pollack, 2005).

Pure GAD is distressing and comorbid mood disorders significantly increase the severity of symptoms and associated disability and dysfunction (Ballenger et al., 2001; Shearer, 2007; Stein, 2001). The likelihood of substance abuse is also greater and there is a higher risk of suicide (Pollack, 2005; Stein, 2001). Even those with a subsyndromal overlap of symptoms experience considerable distress and impairment (Pollack, 2005)

The symptoms of anxious depression are more severe than depression alone (Pollack, 2005; Stein, 2001). Reports of lifetime comorbidity are as high as 80% (Ballenger et al., 2001; Tyler & Baldwin, 2006). The National Comorbidity Survey (NCS) measurements of those with GAD found 39% current comorbidity with MDD, and 62% lifetime comorbidity. Comorbidity rates of GAD with dysthymia were 22% currently and 39% lifetime (Stein, 2001). Dysthymia has had reported rates as high as 50% (Mennin et al., 2004). Conversely, a number of primary studies have shown that 35-50% of those with current MDD have comorbid GAD (Stein, 2001).

Individuals with pure depression and individuals with comorbid GAD and depression are more likely to seek help than those with pure GAD (Kessler et al., 2004). It is reasonable to assume that individuals with both GAD and depression seek help more

frequently because having two disorders makes their distress greater. However, why are individuals with pure GAD less likely to seek help than individuals with pure depression? One possibility is that the person with pure GAD may not be aware that their worry is abnormal (Kessler et al., 2004). GAD often begins early in life, usually develops before depression (Kessler et al., 2004; Mennin et al., 2004; Newman et al., 2010), and lasts for lengthy periods. Perhaps the person does not recognize there is anything abnormal until a second problem begins (Kessler et al., 2004). In support of this theory is that when GAD begins later in life, there is usually a precipitating stressor. In addition, the older the person when GAD develops, the more quickly they seek help (Kessler et al., 2001).

Because comorbidity is so common in GAD, some suggest that GAD is not a separate disorder, but perhaps a prodrome, residual, or severity marker for other mood disorders (Noyes, 2001). As recently as 2007 at a conference of experts, the question was asked if GAD and depression are different forms of the same disorder (Allgulander, 2009). There are arguments on both sides of this debate with most considering GAD and depression to be distinct disorders. Persons, Roberts, & Zalecki (2003) argue that GAD and MDD are aspects of the same disorder but acknowledge that various studies support both discrete and unitary views.

Arguments that GAD and MDD are related, although not identical, are that GAD and MDD co-occur beyond chance, share genetic susceptibility, share some risk factors such as neuroticism, or harm avoidance and that they are both internalizing disorders (Allgulander, 2009; van der Heiden, Melchior, Muris, Bouwneester, & Bos, 2010; Kessler et

al., 2004). Data from the NCS indicate that people with anxiety are more likely to develop MDD with stressful life events (Stein, 2001). Beck's cognitive theory that stressful events trigger pathological schema applies to both disorders. Some cite this as evidence that anxiety and depression are not discrete (Persons et al., 2003). Others note that depression and GAD have common neurohormonal markers. They both have a sense of hopelessness about controlling symptoms (Persons et al., 2003). In addition, GAD and MDD have similar response to SSRIs (Allgulander, 2009; Persons et al., 2003).

At the 2007 conference, the arguments given in support of GAD as separate from affective disorders were based on findings in prospective studies that the time course of GAD is not associated with MDD comorbidity. Results from the NCS also support this (Angst et al., 2009). The course of GAD with comorbid MDD varies from pure GAD. There is commonly an early age of onset. Chronic, anxious apprehension with somatic arousal typically occurs in episodes throughout the lifetime of the individual (Allgulander, 2009; Kessler et al., 2004; Noyes, 2001). There are differing neuroendocrine and neuroimaging findings; sleep disturbance patterns and attentional bias to emotional stimuli (Allgulander, 2009). Risk factors differ and GAD and MDD have partly separate etiological pathways. Emerging studies of individual risk markers for anxiety and depression suggest that the cognitive pathways underlying each disorder are separate. The differences are thought to arise from genes and early life stress (Allgulander, 2009).

Although genetic susceptibility is the same, there are distinct environmental and sociodemographic factors (Kessler et al., 2004). These factors influence whether anxiety,

depression, or both develop (Pollack, 2005). Some factors related to comorbid GAD and MDD are being female, having school difficulties, early separation from parents, perinatal risk factors, a parental mental health diagnosis, and financial factors (Pollack, 2005). Results from one study suggest that intolerance of uncertainty is a cognitive vulnerability factor for comorbid MDD and GAD (Andrews et al., 2010). Another basis for stating that GAD is separate disorder is that even with large comorbidity there is still a significant minority with pure GAD (Noyes, 2001).

Of the six somatic symptoms listed for GAD, four overlap with those in depression. These are restlessness, easily fatigued, irritability, and sleep disturbance (Joormann & Stöber, 1999). This makes MDD the most challenging boundary definition for GAD (Andrews et al., 2010). Although diagnostic criteria for GAD and MDD substantially overlap, there are unique symptoms for each disorder (Persons et al., 2003). Difficulty concentrating showed a unique and substantial correlation with depressive symptoms. One study found that only muscle tension is exclusively correlated with pathological worry. Psychophysiological findings also show muscle tension as a specific characteristic of pathological worriers. Elevated muscle tension may be the key variable to diagnose GAD and distinguish from depression (Joormann & Stöber, 1999).

GAD and MDD contrast in other ways. Worry and rumination are different, and distinct in people with GAD (van der Heiden et al, 2010; Wells, 2004). People with GAD worry and people with depression ruminate (Allgulander, 2009). Depression looks at the past, ruminating on failures and feelings of guilt (Allgulander, 2009). Worry has greater

verbal content, compulsion to act and efforts to problem solve. There is confidence that a solution exists (Wells, 2004). GAD worry is future oriented and fear related (Allgulander, 2009; Wells, 2004). The tripartite theory of Clark and Watson (1991; as cited in Persons et al., 2003) states that anxiety and depression have distinct features. Clark and Watson (1991) state that somatic arousal is specific to anxiety and anhedonia to depression (as cited in Persons et al., 2003). Alloy and colleagues (1990; as cited in Persons et al., 2003) propose that hopelessness is a specific symptom of depression and that perceived danger and threat is a specific symptom of anxiety.

GAD is a highly chronic disorder with a low probability of naturalistic remission (Newman et al., 2010) GAD with comorbid depression is even more chronic and less likely to remit (Newman et al., 2010; Pollack, 2005). The remission rate of GAD with comorbid depression is half that of pure GAD and after the depression remits, the GAD symptoms may remain (Stein, 2001).

Whether or not GAD and MDD are separate disorders, they are currently classified separate according to *DSM-IV-TR* criteria. This is reflected in the “proliferation of manualized treatments” (Wilamowska et al, 2010, p. 883) targeting a single disorder. The author was unable to find treatment protocol addressing GAD and depression together. Research continues to investigate comorbidity and overlap among disorders. Treatment paradigms are being developed that may better address treatment of comorbid conditions (Wilamowska et al, 2010).

GAD can have comorbid medical conditions. Despite limited research on GAD with comorbid medical conditions (Hidalgo & Davidson, 2001); GAD is associated with respiratory, gastrointestinal, and arthritic conditions (Shearer, 2007). Other disorders associated with GAD are osteoporosis; asthma; diabetes; thyroid problems; migraines; allergies; and hip, joint, and back problems (Hidalgo & Davidson, 2001). Physical symptoms may be the primary motivation for individuals with GAD to seek treatment. Additionally, medical illness complicates GAD (Hidalgo & Davidson, 2001).

Most individuals with GAD first seek treatment in primary care (Allgulander, 2009; Kessler et al., 2001; Lydiard & Monnier, 2004) with the majority reporting only somatic symptoms (Ballenger et al., 2001; Rickels & Rynn, 2001). In order of occurrence, these are insomnia 38%; chest pain 33%; abdominal pains 31%; headache 29%; and fatigue 26% (Lydiard & Monnier, 2004). These are all signs of chronic stress and match the somatic symptoms of GAD: fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbances (Ballenger et al., 2001). This is not surprising, as the areas of the brain that play a role in anxiety and depression also mediate the autonomic nervous system, affecting heart functioning, respiratory and gastrointestinal systems and other aspects of physiology (Lydiard & Monnier, 2004). Comorbidity with GAD increases problems with diabetes, cerebrovascular, cardiovascular, and pulmonary illnesses (Allgulander, 2009). Other medical disorders are also associated with GAD, such as Chronic Fatigue Syndrome, Fibromyalgia, and Irritable Bowel Syndrome (Lydiard & Monnier, 2004).

Various physiological conditions can mimic symptoms of GAD, such as caffeinism, alcohol dependence, hyperthyroidism, and adverse effects of corticosteroids (Allgulander, 2009). An estimated 35.6% of people with anxiety disorders self-medicate with alcohol and drugs (Shearer, 2007). It is important to rule out physical disorders and at the same time recognize that medical illnesses and GAD can be comorbid (Allgulander, 2009). GAD alone is impairing. Medical comorbidity increases the burden. Sub-threshold syndromes can be as seriously impairing as full GAD (Shearer, 2007). Accurate diagnosis is important so that individuals can receive the best treatment for them.

While people with GAD and comorbid disorders are more likely to seek professional treatment and take medication (Noyes, 2001), they generally have a poorer response to treatment (Ballenger et al., 2001; Pollack, 2005; Stein, 2001). Nevertheless, treatment of an anxiety sometimes produces significant improvement in one or more of the comorbid disorders even if they have not been specifically addressed (Wilamowska et al., 2010). In addition, Pollack (2006) suggests that treating the anxiety may possibly prevent the development of depression.

Rouillon (2004) argues that treatment goals should be more than reducing symptoms and treating comorbidities. Treatment should also aim to prevent relapse, to control susceptibility factors and prevent re-occurrence. The efficacy of CBT is established. CBT is the most recommended psychotherapy, in combination with antidepressants, especially if GAD is associated with depression.

Etiology

Hudson and Rapee (2004) have a six-factor model to explain the development of anxiety disorders. The six factors of their model are genetics; anxious temperament; parental anxiety; environmental support of avoidance; transmission of information about threat and coping; and external environmental effects. Studies consistently show that genetics contribute to various mood disorders. The genetic contribution is not symptom specific but forms a general predisposition, or vulnerability. An anxious temperament is believed to be both genetically and biologically based and may further increase a person's vulnerability to developing an anxiety disorder. Evidence shows that while genetics and temperament may increase vulnerability to developing an anxiety disorder; environmental factors play the largest role in determining the specific anxiety disorder that develops (Hudson & Rapee, 2004). The third factor in the Hudson and Rapee (2004) model; parental anxiety, contributes both genetic and environmental factors to the development of an anxiety disorder. The individual may inherit both general vulnerability and anxious temperament from their parents. Additionally, parents shape elements of the child's environment as they interact with and influence their child. The other components, environmental support of avoidance; transmission of threat and coping information; and external environmental effects come from both within the family and from life experience beyond the family.

Hudson and Rapee (2004) state that their etiological model of anxiety disorders "must be considered preliminary, as etiological research into the anxiety disorders remains in its infancy" (p. 51). They elaborate that it is difficult to state the etiology of GAD with

certainty because there is insufficient data on the etiological factors of anxiety disorders overall and even less for GAD specifically. Because of the frequent changes to the construct of GAD, there are too few etiological studies based on the same criteria. Hudson and Rapee (2004) present their model with the caveat that there is likely a complex array of potential pathways to the development of an anxiety disorder and that these pathways vary with differing disorders.

There is support for the idea that multiple factors, the majority of them environmental, contribute to the development of mood disorders. Individuals develop various cognitive schemas, conditioned responses, and habitual coping strategies in the face of early life experiences. These probably affect individual vulnerability for an anxiety disorder (Lovibond, 1998). The specific cognitive schemas, conditioned responses, and coping strategies the individual holds are probably major agents in what specific anxiety disorder develops.

Information about the neurobiology of GAD is limited because most studies have used differing diagnostic criteria (Hidalgo & Davidson, 2001). GAD probably involves abnormalities in numerous and diverse neurobiological systems (Hidalgo & Davidson, 2001; Sinha, Mohlman, & Gorman, 2004). Overall, from the viewpoint of neurobiology, GAD is viewed as dysregulation of the general nervous system. Specifically, an adaptive stress response is disrupted and a person with GAD might require a longer period to return to baseline functioning of the nervous system after a stressor (Crits-Christoph, Gibbons, & Crits-Christoph, 2004).

There are other ideas posited as etiological possibilities for the development and maintenance of GAD. One of these is controlling, overprotective parenting (Aikins & Craske, 2001; Hudson & Rapee, 2004). Perhaps the parent limited the learning of problem solving as they attempted to keep their child from experiencing distress (Hudson & Rapee, 2004). Insufficient problem-solving skills and lack of confidence in problem solving are believed to play a part in GAD (Behar, DiMarco, Hekler, Mohlman, & Staples, 2009; Ladouceur et al., 2000). Insecure attachment is another component associated with anxiety disorders (Aikins & Craske, 2001; Behar et al., 2009; Cassidy, Lichtenstein-Phelps, Sibrave, Thomas, & Borkovec, 2009; Hudson & Rapee, 2004).

Trauma is an environmental experience for some and is considered relevant to the development and/or maintenance of GAD (Aikins & Craske, 2001; Hudson & Rapee, 2004; Roemer, Molina, Litz, & Borkovec, 1997). Less control over a stressful event increases risk for an anxiety disorder (Barlow, 2002; Hudson & Rapee, 2004). An anxiety response results from multiple interacting elements, such as conditioned fears and cognitive interpretations. These elements can be precursors to and/or results of traumatic experience. Trauma can even change the neurobiological functioning of the brain, increasing sensitivity towards an anxiety response (Hudson & Rapee, 2004; Luxenberg, Spinazolla, & van der Kolk, 2001; McKeever & Huff, 2003). Whatever the etiology of GAD, as Hudson and Rapee (2004) suggest, it is most likely complex.

Pharmacological Treatment of Generalized Anxiety Disorder

Medications used to treat GAD are mostly from the benzodiazepine and antidepressant families. Other medications that have been used in the treatment of GAD include Buspirone and some atypical antipsychotic medications.

Benzodiazepines. Benzodiazepines are the first class of medications that were used to treat anxiety disorders. Benzodiazepines are used less now because antidepressants are usually considered the better choice. There are two main reasons for this. The first is the comorbidity of GAD with depression. Benzodiazepines do not help depression. Indeed, they sometimes cause depression (Stein, 2001). The second reason benzodiazepines are used less now is the possibility of abuse. These medications are associated with tolerance and withdrawal. However, although many doctors and patients continue to think that the benzodiazepines carry a high risk of addiction, the empirical literature does not show any of these concerns (Lydiard & Monnier, 2004).

Benzodiazepines have the advantage of being fast acting. This makes them a good choice when quick relief is needed, such as at the initiation of treatment with an antidepressant or at times of symptom exacerbation. Several studies have shown that those taking antidepressants and benzodiazepines concurrently, had a quicker response to the antidepressant and were more likely to have a 50% decrease in baseline depressive symptoms at the fourth week than those taking only an antidepressant (Pollack, 2005). There is evidence that adjunctive treatment with benzodiazepines can enhance improvement and increase compliance (Lydiard & Monnier, 2004). Although mostly used for short-term

relief, some studies indicate that benzodiazepines can be as effective over the long-term as antidepressants (Lydiard & Monnier, 2004).

Antidepressants. Pharmacological treatment recommendations take into account GAD's high rates of comorbid depression and other anxiety disorders (Allgulander, 2009), thus, antidepressant medications, specifically the SSRIs and SNRIs, are considered first line pharmacological treatment for GAD (Ballenger et al., 2001; Lydiard & Monnier, 2004; Rouillon, 2004). In treatment studies that range from two to six months, response rates to drug treatment are typically 40% to 70%. Remission rates are approximately half of that (Pollack, 2006). Unfortunately, many have relapsed within six to twelve months (Allgulander, 2009; Lydiard & Monnier, 2004; Pollack, 2006).

Antidepressants used for GAD come from three categories. These are the Tricyclics (TCAs), Selective Serotonin Reuptake Inhibitors (SSRIs), and Serotonin Norepinephrine Reuptake Inhibitors (SNRIs). The first antidepressant to receive regulatory approval in the treatment of GAD is the SNRI, Venlafaxine. This medication is the most widely tested for pure GAD (Lydiard & Monnier, 2004). Other SSRIs and SNRIs have since been added to the approved list. GAD generally requires long-term treatment and antidepressants are considered safer for long-term treatment than other choices. Additionally, antidepressants are used to treat a variety of disorders, thus making them a better choice for comorbid conditions (Lydiard & Monnier, 2004). Because of their associated side effects, the tricyclic antidepressants are not often used (Rouillon, 2004).

The majority of those who undergo antidepressant drug treatment will experience some improvement in their GAD although most remain symptomatic. Those who have not responded within the first two months are encouraged to continue taking the medication because response can take up to six months (Allgulander, 2009).

Miscellaneous medications used for GAD. Different classes of medications used to treat GAD have similar efficacy. The basis for a specific drug choice are often other factors, such as existing comorbid disorders, the perceived risks or adverse effects of the medication, and whether there is a need for rapid onset-of-action (Tyner & Baldwin, 2006). Another reason for a specific medication choice might be to treat a specific symptom, as is the case with the antihistamine hydroxyzine, which has been used as short-term treatment of anxiety because of its sedative effects (Tyner & Baldwin, 2006).

Buspirone is the only non-benzodiazepine anxiolytic approved for the treatment of GAD. Although the US Food and Drug Administration (FDA) approved Buspirone as efficacious treatment for GAD, others say it is no more effective than a placebo (Shearer, 2007). Buspirone is not as fast acting as a benzodiazepine but is faster acting than an antidepressant (Tyner & Baldwin, 2006). It is not as effective as an antidepressant for treating comorbid depression but does have some ability to treat depression. Buspirone is not an effective treatment for either panic or social anxiety disorder, two disorders that are commonly comorbid with GAD (Lydiard & Monnier, 2004).

The atypical antipsychotic medications Risperidone and Olanzapine are also used in treating GAD (Allgulander, 2009; Rouillon, 2004). Several small studies support the benefit

of adding an atypical antipsychotic to an antidepressant for treatment resistant mood and anxiety disorders (Pollack, 2005). An atypical antipsychotic can be helpful for those with comorbid bipolar depression and it has been theorized that this class of medication might benefit people who are experiencing severe agitation (Katzman, 2009). Whether the benefit of medication for the disorder is enough to offset its side-effect profile is a question that is asked more frequently with some of the atypical antipsychotics than with antidepressants. Side effects can include weight gain, extrapyramidal symptoms, and lipid and glucose changes (Katzman, 2009).

Although current medication demonstrates efficacy, only a minority experience sustained remission after ending treatment (Pollack, 2006). Cognitive behavior therapy (CBT) with the components of relaxation, psychoeducation, cognitive restructuring and somatic management skills have demonstrated efficacy for GAD with results comparable to treatment with anxiolytic medication (Pollack, 2006). Shearer (2007) wrote that CBT for GAD is at least as effective as pharmacological treatment and seems to be associated with less attrition from treatment and effects that are more durable over time.

Psychological Treatment Models of Generalized Anxiety Disorder

Increased understanding of worry has directed researchers towards development of more effective treatments for GAD. Cognitive-behavioral therapy is a natural choice, not only for its history of efficacy and effectiveness, but also because worry is defined as a cognitive construct. It makes sense then, that treatment of worry would be cognitively based.

According to Beck, Emery, and Greenberg (1985), negative thinking patterns are at the heart of GAD. These negative thoughts are the specific cognitive bias of those with GAD. These biases include an increased perception of or attention to threat cues and misinterpretation of ambiguous stimuli as threatening. In addition, individuals with GAD give higher than likely predictions that negative events are in their future (Borkovec & Behar, 2006). An effect of CBT is to reduce these biases (Tyler & Baldwin, 2006).³ This formulation is presuppositional to all CBT based treatments.

If CBT is only as effective as pharmacological treatment, or even only a little more effective, it still leaves a large number of people with symptoms of GAD. How to increase effectiveness is the question that underlies the research about CBT. GAD is a long-term disorder and it is not likely to be resolved in a 6-8 week time span that is the length of most treatment studies (Newman, Castonguay, Borkovec, & Molnar, 2004; Rouillon, 2004). Shearer (2007) states that successful treatment for anxiety usually requires longer treatment time, recurrent treatment and a more individualized approach. Another idea to improve effectiveness is to incorporate alternative or additional factors into the treatment paradigm (Newman et al., 2004; Rouillon, 2004). It is this second idea that fuels much of the current research

Cognitive-behavioral therapy (CBT) for GAD is based on Beck's cognitive theory of emotional disorders (Beck et al., 1985). The following sections will cover the major

³ Interestingly, SSRIs also reduce these biases (Tyler & Baldwin, 2006).

cognitively oriented theories and therapies that have been and are being developed for the treatment of GAD. Mention will be made of several other approaches under investigation.

Standard Cognitive Behavior Therapy. What constitutes traditional cognitive behavior therapy is a difficult question to answer because even “pure” CBT has differences.⁴ One meta-analysis defined “Pure CBT” as containing both cognitive and behavioral components (Covin, Ouimet, Seeds, & Dozois, 2008, p. 110). Behavioral components for GAD are synonymous with relaxation procedures that target somatic symptoms. Cognitive techniques target the anxiety producing cognitions. A premise of basic CBT is that each component needs separate treatment (Borkovec, 2006b).

Standard cognitive therapy begins with assessment, conceptualization, and then treatment formulation in accord with the cognitive model. Assessment is by interview and by measures such as the Penn State Worry Questionnaire (Meyer, Miller, Metzger, & Borkovec, 1990).

There are four basic elements in traditional CBT for GAD. These are self-monitoring, cognitive restructuring, relaxation skills, and rehearsal of the skills in therapy and in daily life (Borkovec, 2006a).

Most CBT approaches for anxiety place self-monitoring as the first skill learned (Borkovec, 2006a). There are two purposes for self-monitoring. First, the client needs to become aware of what triggers their anxiety. They need to become aware of how they react to those triggers and in what way their reactions contribute to their anxiety. Second, when

⁴ In this paper, the words tradition, standard, basic, and pure are used interchangeably when attached to the term CBT.

the client is able to observe their reactions they can learn to identify the shifts in their emotion even earlier in the process. Deploying new coping mechanisms earlier in the process enables better management of their emotions (Borkovec, 2006a). Learning to identify the thoughts, images, and ways of perceiving associated with their anxiety and worry is a necessary skill. The ability to monitor these automatic thoughts enables them to observe common themes and come to recognize their core beliefs, that is, the maladaptive cognitions they have about themselves, the world and the future (Borkovec, 2006a; Borkovec & Behar, 2006).

The second component of CBT is cognitive restructuring. When the person is able to identify their automatic thought and core beliefs, they can assess the accuracy of these beliefs and consider if alternative thoughts and beliefs are more accurate. In standard CBT, the client is taught to recognize their cognitive distortions and use logic, probability and evidence to challenge these thoughts. Behavioral experiments are designed to gather evidence to test the thought. Decatastrophizing methods are commonly used with anxieties, such as asking “What if?” questions via Socratic questioning. Using this methodology, the client is led to search for the evidence supporting or not supporting their thoughts and come to a more realistic belief about their worry subject. It is also helpful to identify coping methods that are already available or that can be learned, as many of the worries are not only that the negative will happen, but that they won’t be able to cope (Borkovec, 2006a; Borkovec & Behar, 2006).

The third component of standard CBT is relaxation skills. One element in the behavioral component of basic CBT for GAD is to eradicate any behavior of avoidance or reassurance seeking that is reinforcing the anxious cognitions (Borkovec, 2006b). Relaxation methods comprise the majority of the behavioral component of CBT for GAD. These methods address non-adaptive physical functioning. Progressive muscle relaxation is a way to reduce muscle tension. Slowed and paced diaphragmatic breathing and meditation techniques are other relaxation methods used as are the techniques of pleasant imagery and attending to the moment (Borkovec, 2006a; Borkovec & Behar, 2006). Relaxation is taught in session and practiced between sessions.

The fourth component of standard CBT is rehearsal. Maladaptive thoughts and behaviors cause the non-adaptive patterns of living that have operated as habitual patterns (Borkovec & Behar, 2006). To develop healthy patterns for living, it is important to break the habit and replace it with a new habit. Breaking a habit requires practice (Borkovec, 2006a). In session, role-play is a way to practice alternative behavior. Outside of session, the person practices in real life, using new perspectives and responding in new ways. Training in time management, coping methods, and problem solving are frequently included in CBT for GAD, as these are often perceived weaknesses for the individual (Hidalgo & Davidson, 2001).

Cognitive Avoidance Model. The cognitive avoidance model builds on standard CBT with additional perspectives and techniques based on the growing understanding of the nature and function of worry in GAD (Behar et al., 2009). The basic premise of cognitive

avoidance theory is that the individual worries in order to control negative emotional and physiological experience (Borkovec et al., 2004; Borkovec & Behar, 2006; Roemer et al., 1997). This emotional and physiological experience is a response to mental images that the individual perceives as threatening. The images themselves are non-verbal, whereas worry is verbal. The theory is that the individual uses verbal thought to divert attention away from the emotional and physiological responses that were triggered by threatening mental images (Behar et al., 2009; Borkovec et al., 2004; Borkovec & Behar, 2006; Olatunji, Moretz, & Zlomke, 2010b).

Worry then, is the strategy used to distract and divert away from this distress (Roemer et al., 1997) and it succeeds in effectively suppressing the arousal. Having successfully minimized the arousal that would have been experienced if threatening stimuli were processed in imagery (Andrews et al., 2010; Borkovec et al., 2004), worry becomes a coping mechanism (Aikins & Craske, 2001), the verbal-linguistic tool used to solve the problem of anxious arousal (Andrews et al., 2010; Behar et al., 2009; Borkovec & Behar, 2006; MacLeod & Rutherford, 2004). Worry is the way the individual copes with the underlying fear (Allgulander, 2009; Borkovec & Behar, 2006; Olatunji et al., 2010b; Roemer et al., 1997; Sinha et al., 2004).

The underlying fear is perpetuated in two fashions. First, because worry has succeeded in inhibiting arousal it is negatively reinforced (Behar et al., 2009; Borkovec et al., 2004; Roemer et al., 1997; Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006). Second, habituation and extinction to the fear do not occur because the image has not been

emotionally processed (Andrews et al., 2010; Olatunji et al., 2010b; Salters-Pedneault et al., 2006). Worry then, is a cognitive avoidance response that maintains fear in the same fashion as in Post-Traumatic Stress Disorder, with its avoidance of trauma-related cues, and resulting restricted range of affect and detachment from current experience (Borkovec & Behar, 2006; Roemer et al., 1997).

Added to genetic and temperamental vulnerability, the cognitive avoidance model suggests other factors that may contribute to the etiology and maintenance of GAD. One idea is that diffuse anxieties that developed in childhood persist into adulthood (Covin et al., 2008). These anxieties may be from insecure attachment or some form of trauma (Borkovec et al., 2004; Covin et al., 2008). Another theorized factor is that the individual has poor interpersonal skills. Inadequate coping resources for uncertainty are a likely vulnerability (Borkovec et al., 2004; Covin et al., 2008) as a negative interpretation of ambiguity further increases the negative affective and physiological state (Aikins & Craske, 2001).

Unable to tolerate these feelings (Olatunji et al., 2010b; Sinha et al., 2004), and experiencing verbally based worry as less distressing than the images that triggered the somatic arousal (Behar et al., 2009), the worriers perspective is that worry is beneficial. The worrier perceives other benefits of worry. One perceived benefit is that worry motivates them to get things done. The worrier frequently believes that worry is a good way to solve problems and a good way to prepare for the worst. The worrier considers worry a good way to determine how to avoid or prevent bad events. Progressing to magical thinking, the worrier may believe, “If I worry, the bad thing will not happen” (Borkovec et al., 2004).

Borkovec and colleagues (2004) have developed a CBT treatment package consistent with the model that involves exposure to anxiety-based imagery paired with a relaxation response. This exposes the client to the imagery and physiological arousal that they tend to avoid. Treatment with this approach is grounded in traditional CBT techniques, and has been expanded and modified based on growing knowledge about the nature and functions of worry.

The past lives in memory and we experience the present, but the future lives only in our imagination. The future does not yet exist. “Clients with GAD spend excessive time living in a largely negative world that does not exist” (Borkovec et al., 2004, p. 100). Learning to live in the present as opposed to living in their fears about the future is one of the treatment goals (Borkovec et al., 2004).

One of the first skills taught is self-monitoring. There are three purposes of self-monitoring. One purpose of self-monitoring is for the person to observe their cognitive, emotional, physiological, and behavioral response to the external events in their lives. Observing the causal relationships enables them to recognize that they have more control of their internal experience than they realized. A second purpose of self-monitoring is so that the person can learn to identify the point in time when their anxiety begins to increase. It is easier to apply the coping mechanisms at earlier stages of the upward spiral of anxiety. Third, self-monitoring “lays the groundwork” for the person to learn to live in the present moment (Borkovec & Behar, 2006, p.184).

The ultimate goal of therapy is for the person to learn more adaptive ways of living. Treatment addresses nonadaptive physical functioning, nonadaptive cognition, nonadaptive behavior, and nonadaptive emotional experiencing (Borkovec & Behar, 2006). Relaxation exercises address the muscle tension that is the nonadaptive physical functioning in people with GAD (Borkovec & Behar, 2006) and are an additional way for the person to learn to live in the reality of current experience (Borkovec et al., 2004). Nonadaptive cognition is treated using traditional cognitive therapy. The individual learns to identify their nonadaptive automatic thoughts and beliefs, to assess their accuracy, to create perspectives with greater accuracy, and then to test these new views (Borkovec et al., 2004; Borkovec & Behar, 2006). One cognitive change is to help the person let go of the need for certainty. Recognizing that no prediction is perfectly accurate helps towards this goal (Borkovec et al., 2004). Although maladaptive avoidance behavior is not a “central characteristic” of GAD (Borkovec & Behar, 2006, p.186) some individuals with GAD do have subtle behavioral avoidance to various situations. Because GAD is related to future focused fears, in vivo exposure is not applicable. Instead, the person is encouraged to imagine the stressful situation that they are avoiding. The basics are that the client imagines anxiety or worry provoking circumstances until they begin to feel the negative emotion. At that point, they shift to using the coping skills previously learned in therapy, to imagine themselves relaxing and to substitute the more accurate thoughts they have prepared (Borkovec et al., 2004; Borkovec & Behar, 2006). Having an aversive attitude towards emotions is another nonadaptive aspect of experience common to people with GAD. Borkovec and Behar

(2006) relate three approaches in therapy to address the individual's nonadaptive experiencing of emotions. One approach is to use the skill of self-monitoring and allow their self to feel the attendant emotions. The second approach is to create cognitive perspectives that allow for joy and positive perspectives. The third approach uses interpersonal and emotional processing therapy (Borkovec & Behar, 2006).

Borkovec and Behar (2006) state that “areas of functioning in human beings (cognitive, affect, physiology, and behavior) are not independent and ... we can begin to influence habitual areas of functioning by loosening other areas” (pp. 185-186). As such, techniques used to address one of these areas of nonadaptive functioning positively affect other areas of functioning. One specific technique is to have the individual keep a “worry diary” (Borkovec & Behar, 2006, p. 189; Borkovec et al., 2004, p.99). One aspect that keeping a worry diary addresses is the belief that worry is helpful. The individual records into this diary each worry that they notice and the feared outcome. At the end of the day, they evaluate outcomes that may have happened, how accurate their feared outcome was, and how well they coped (Borkovec et al., 2004).

A number of the concepts of the cognitive avoidance model have supporting evidence. Among these is the idea that worry is primarily verbal-linguistic rather than imagery based (Borkovec, Ray, & Stöber, 1998; Borkovec et al., 2004; Dugas, Buhr, & LaDouceur, 2004; McLaughlin et al., 2007). Descriptive research suggests that positive beliefs about worry reinforce worry (Dugas et al., 2007; Ruscio et al., 2001). Specifically, people use worry as a distraction from more emotional topics (Borkovec & Roemer, 1995).

This provides additional evidence that worry is a strategy to avoid emotional processing (Behar et al., 2009). Empirical findings support the theory that worry reduces physiological arousal (Roemer et al., 1997; Sinha et al., 2004). Borkovec and colleagues (2004) are using the techniques described here in efficacy research at Penn State. Evidence since 2004 has presumably added validity to the hypotheses and additional avenues of exploration.

Intolerance of Uncertainty Model. The viewpoint of the Intolerance of Uncertainty Model is that intolerance of uncertainty is an important part of the cognitive process involved in worry and GAD (Dugas et al., 2004). Current cognitive models view intolerance of uncertainty as central to the development and maintenance of worry (Olatunji et al., 2010a). Dugas et al. (2004) suggest that intolerance of uncertainty is the “cognitive schema” and worry is the “cognitive reaction” (p. 146).

The intolerance of uncertainty model has four main components. Each component is conceptualized as a cognitive process involved in the development of GAD. These four components of the model are (a) the belief that uncertainty is intolerable, (b) positive beliefs about worry, (c) a negative problem orientation, and (2) cognitive avoidance (Dugas et al., 2004; Dugas et al., 2007).

The first component, intolerance of uncertainty, is the main component of the model. A person who is intolerant of uncertainty has negative beliefs about uncertainty and the unexpected, and thinks that the unexpected should be avoided (Dugas et al., 2004; Dugas & Robichaud, 2007). The main premise is that an individual who is intolerant of uncertainty will find ambiguity stressful and upsetting and will have difficulty functioning in

uncertain situations (Behar et al., 2009; Dugas et al., 2004). Because uncertainty is unavoidable, the individual finds numerous “reasons” to worry (Dugas et al., 2004, p. 144). Many people with GAD say “even if everything is going well now, I worry that things will change” (Dugas et al, 2004, p. 144).

The second component proposed as a part of the development of worry is positive beliefs about worry. These beliefs are similar to those stated in the avoidance model. For example, the individual may believe that worrying helps with problem solving and that it provides motivation to get things done. They may also believe that worry can prevent negative outcomes and protect from negative emotions (Dugas et al., 2004; Dugas et al., 2007). The individual with GAD possibly uses worry to avoid painful negative emotions (Roemer et al., 1997). Another positive belief about worry is that it is a positive character trait. The individual may believe that worrying means they are a kind, caring, compassionate and responsible person (Dugas et al., 2004; Dugas et al., 2007).

The third component of the Intolerance of Uncertainty model is negative problem orientation, that is, a negative bias about problems and the self (Dugas et al., 2004). The individual does not lack problem-solving skills. What the individual lacks is confidence in their ability to solve problems. The individual sees problems as threats, is easily frustrated by problems, and is pessimistic about the outcome of his or her efforts (Behar et al., 2009)

The fourth component of the intolerance of uncertainty model is cognitive avoidance. Andrews et al. (2010) suggest that intolerance of uncertainty might be the motivation for the avoidance behavior spoken about in the cognitive avoidance model. For

the person with intolerance of uncertainty, the images of the potential negative events will be difficult to tolerate. These mental images of feared outcome may represent “core fears” that essentially drive a person’s worries. The individual worries in order to anticipate negative outcomes and at the same time struggles against (avoids) thinking about the outcome and any associated images (Dugas et al., 2004). The individual with GAD uses a variety of strategies to avoid concrete thoughts (including mental images) of threatening outcomes and unpleasant emotional responding (Dugas et al., 2007). These may include substituting threatening thoughts with neutral or positive ones, transforming mental images into verbal-linguistic thoughts, using various distraction tactics, avoiding stimuli that may trigger worrisome thoughts, and attempting to suppress worrisome thoughts (Dugas & Koerner, 2005; Dugas et al., 2007).

The Dugas et al (2004) research team developed a 6-part cognitive-behavioral treatment based on the four components of their GAD model. (See Dugas & Koerner, 2005, for a more detailed explanation of this treatment.) The six parts of this treatment are (a) presentation of the treatment rationale, (b) worry awareness training, (c) reevaluation of the usefulness of worrying, (d) problem-solving training, (e) cognitive exposure, (f) and relapse prevention (Dugas & Koerner, 2005).

Presentation of the treatment rationale is the first part of treatment. The therapist explains the diagnostic criteria of GAD, the basic principles of GAD and worry, and the basic principles of CBT to the client. After assuring that the client thoroughly understands the role of intolerance of uncertainty in GAD, the therapist then explains that because

“uncertainty is pervasive in everyday life, the treatment's goal is not to eliminate uncertainty, but rather to recognize, accept, and develop coping strategies when faced with ambiguous or uncertainty-inducing situations” (Dugas & Koerner, 2005).

Worry awareness training is the second part of treatment. The standard CBT technique of self-monitoring in the first part of treatment helps the client learn to recognize worry as it happens and begin to learn how to modify worry behavior (Behar et al., 2009; Dugas et al., 2004). The second part of worry awareness training is unique to the Intolerance of Uncertainty model (Behar et al., 2009). In this part of treatment, the client learns to recognize two types of worry. One of these types is worry about current problems and the other type is worry about potential problems. Learning to identify the two types of worries is important because each type of worry has a different treatment strategy (Dugas & Koerner, 2005).

Reevaluation of the usefulness of worrying is part three of treatment. This uses similar techniques as in traditional CBT where the client spends time reevaluating their beliefs about worry (Dugas et al., 2004; Dugas & Koerner, 2005). The client first identifies their worry beliefs and lists the advantages and disadvantages of holding those beliefs. Various ways are used to help the client reevaluate the usefulness of worrying. The goal of this portion of treatment is to introduce doubt about the actual usefulness of worry (Dugas & Koerner, 2005).

Problem-solving training is part four of treatment. Of the two types of worry, only current worry is solvable. Problem solving education addresses only solvable problems

Cognitive exposure is part five of treatment. “Cognitive exposure (also known as imaginal exposure) is the vivid, repetitive evocation of threatening mental imagery” (Dugas & Koerner, 2005, p.69). Cognitive exposure techniques address potential problems (Covin et al., 2008; Dugas et al., 2004; Dugas & Koerner, 2005). Potential problems are naturally unsolvable because potential problems exist only in the imagination. A goal in the exposure exercise is to modify the catastrophic meaning that the individual gives to possible future events (Behar et al., 2009; Dugas et al., 2004; Dugas & Koerner, 2005). The therapist first explains to the client how cognitive avoidance of the worry actually perpetuates the worry and keeps the client from processing their core fears. After identifying their core fears, the client develops an exposure scenario. The therapist helps the client construct a detailed scenario. The client records the scenario and uses that recording for a daily exposure session. Two to three weeks is typically sufficient for the client to emotionally process the core fears and decrease worry about the hypothetical situation. Because exposure scenarios often contain elements of uncertainty, the exposure exercises also help decrease intolerance of uncertainty (Dugas & Koerner, 2005).

Relapse prevention is part six of treatment. Solidification of the attitudes, beliefs, and skills learned during therapy is the goal in this part of treatment. Clients are encouraged to evaluate their success, to encourage themselves to persevere and to praise themselves for their successes. The therapist reminds the client that they will have times of increase in worry and anxiety. The therapist helps the client learn how to recognize the difference between normal fluctuations and relapse (Dugas & Koerner, 2005).

Successful treatment results in new beliefs about worry that will help the client recognize that they cannot control the future by worrying. Realistic appraisal of current and potential problems will reduce the client's feelings of threat. Perhaps most importantly, increased ability to tolerate the uncertainties in life will reduce the client's worries (Dugas et al., 2004).

Findings from various studies support the components of the intolerance of uncertainty model of GAD. In comparison to people with other anxiety or mood disorders, people with GAD have higher scores for intolerance of uncertainty. Additionally intolerance of uncertainty relates more closely to worry than it does to symptoms of other disorders (Andrews et al., 2010; Mennin et al., 2004). Changes in level of tolerance correlate with changes in level of worry, with lower tolerance meaning increased severity of worry (Andrews et al., 2010; Dugas et al., 2004; Ladouceur et al., 2000). Although closely related, intolerance of uncertainty and worry are separate constructs. Research supports that intolerance of uncertainty relates to GAD but is independent of worry. Changes in intolerance of uncertainty precede changes in worry but changes in worry do not affect intolerance of uncertainty level (Andrews et al., 2010; Behar et al., 2009; Dugas et al., 2007; Mennin et al., 2004). Research suggests that intolerance of uncertainty may be a causal risk factor for worry/GAD (Ladouceur et al., 2000). Positive beliefs about worry also closely relate to the level of worry. People with GAD have more positive beliefs about worry than healthy controls. In addition, changes in beliefs over the course of therapy predict outcome (Dugas et al., 2007). Negative problem orientation is highly correlated with worry. People

with GAD report more negative problem orientation than those with other disorders or healthy controls. In a study on changes in problem-solving confidence, increased confidence lessened catastrophic worrying (Dugas et al., 2007). People with GAD report more cognitive avoidance than healthy controls and decreases in cognitive avoidance connect with positive outcomes following treatment (Dugas et al., 2007).

Dugas and Koerner (2005) conducted two randomized controlled trials testing the efficacy of the intolerance of uncertainty model of CBT. One trial offered individual treatment and the other trial offered group therapy. In both trials, the treatment condition was statistically superior on all measures compared to the wait-list. The results were impressive in both trials. (For details, see Dugas & Koerner, 2005, p.70). However, compared to the trial with individual therapy, the effect sizes were smaller and drop out rates were higher, suggesting that individual therapy may be better for a person with GAD than group therapy.

Metacognitive Model (MCM). Simplified, the term “metacognitive,” is cognition about cognition. The metacognitive model states that dealing with the worry about worry must be the first step in treating generalized anxiety disorder (Wells, 2004).

According to the MCM, there are two types of worry experienced by individuals with GAD. Type 1 worry is about things such as emotions, physical symptoms, or events. Type 2 worry is about the worry. Type 2 worry analyzes the thinking process and the thoughts themselves. Type 2 worry is worry about worry, or what Wells (2004) calls meta-worry.

Type 1 worry is found in a variety of anxiety disorders, not just GAD (Andrews et

al., 2010). Wells and Carter (2001; as cited in Sugiura, 2007) suggest that positive beliefs about worry are also common in normal worry. One positive belief is that worry is useful for coping. When an anxiety-provoking event occurs, and the person believes worry is a good way to cope with the problem, then Type 1 worry begins. If the problem is resolved or the person believes they will be able to handle the problem, the anxiety subsides (Wells, 2004).

Negative beliefs about worry can begin in the midst of Type 1 worry. Because Type 1 worry is primarily verbal and can interfere with necessary emotional processing, an increase in emotional distress can occur. This can feed negative beliefs about worry and one's ability to cope. When this begins, the person is now thinking about the worry itself. This is Type 2 worry (Wells, 2004). This worry is always pathological and is said to distinguish individuals with GAD from non-clinical worriers (Behar et al., 2009).

While there are positive metacognitive beliefs about worry, a person with GAD progresses into negative metacognitive beliefs about the worry process and the consequences of worrying. Two common thoughts are that worry is uncontrollable and that worry is dangerous (Wells, 2004). "Behavioral responses" and "thought control strategies" are said to feed the growth and maintenance of the worry process in GAD (Wells, 2004).

Wells (2004) says the reason there is only modest treatment outcomes in other CBT approaches is that the other treatments do not address the metacognitions of generalized anxiety disorder (Wells, 2004). Therefore, the first aim of metacognitive therapy is to alter Type 2 worry (Behar et al., 2009). The overall emphasis of treatment is for the client to develop alternative coping strategies as they alter both their Type 1 and Type 2 worries.

Some of the components of the MCM have been supported in studies of nonclinical worry. (For a review, see Wells, 2004) Only a few studies have been conducted using a clinical population. These results showed no substantial difference in reported positive beliefs about worry compared to other groups. Existing literature suggests that individuals with GAD have negative beliefs about worry and engage in meta-worry. However, evidence that this is specific to GAD is mixed. No longitudinal study has examined any components of the model even though the model was developed to conceptualize the development and maintenance of GAD. Behar et al. (2009) add that some of the core features of the model are not thoroughly defined. This, plus methodological problems causes unreliable results (Behar et al., 2009). There has been one open trial and one randomized controlled trial. In the open trial, 75% of treated individuals met criteria for recovery at twelve-month post-treatment. The randomized controlled trial compared metacognitive therapy, intolerance of uncertainty treatment and a wait list. Preliminary evidence suggests that only metacognitive therapy yielded significant improvements in anxiety and worry. Both treatments were equal in symptom reduction (Wells, 2004).

Emotion Dysregulation Model. The premise of the emotion dysregulation model (Mennin, 2006) is that individuals with GAD have deficits in emotion regulation skills and rely excessively on cognitive control strategies such as worry to avoid processing emotional stimuli (Fisher & Wells, 2009; Novick-Kline, Turk, Mennin, Hoyt, & Gallagher, 2005; Olatunji et al., 2010b). “*Emotion regulation* refers to the processes by which individuals influence which emotions they have, when they have them, and how they experience and

express these emotions” (Gross, 1998, p. 275). The theory is that individuals with GAD experience emotions, especially negative emotions, more rapidly and intensely. In addition, they have deficits in recognizing and describing their emotions. These individuals experience their emotions as intense and confusing. Feeling overwhelmed and uncomfortable with strong emotions, they develop fearful and negative attitudes about their emotions. Worry is a maladaptive attempt to control and minimize the strong arousal (Mennin, Heimberg, Turk, & Fresco, 2002; Mennin, 2006; Novick-Kline et al., 2005; Olatunji et al., 2010b).

The emotion dysregulation model and subsequent *emotion regulation therapy* are not meant necessarily to replace other models and therapy constructs. Instead, emotion regulation therapy may offer strategies to supplement other treatments (Mennin, 2006). The emotion dysregulation model builds on the cognitive avoidance model of GAD, the theory that worry cognitively avoids negative imagery (Fisher & Wells, 2009; Mennin et al., 2005; Novick-Kline et al., 2005), thus allowing the components of emotion regulation therapy to easily integrate into a cognitive behavioral framework (Mennin, 2006). Mennin et al., (2002) suggest that emotion variables are an important part of cognitive behavioral approaches to GAD and that emotions and their regulation may be the “tie that binds” the cognitive, behavioral and interpersonal aspects of GAD (p. 59).

Emotions enable accurate perception and appraisal, and inform a person how to respond. When people are unaware of their emotions and/or unable to regulate their emotions they are unable to access and utilize necessary information for decision-making.

Emotion regulation problems and lack of emotion skills leave the person without resources to make adaptive and functional choices (Novick-Kline et al., 2005).

The emotion dysregulation model says that four interacting components mark emotion skill deficits and emotion dysregulation. These components are (1) intense experience of emotions, (2) difficulty understanding emotions, (3) negative reaction to the experience of emotions and (4) poor emotion management (Mennin et al., 2002; Olatunji et al., 2010b).”

The basis of treatment is the idea that the individual uses cognitive control strategies to avoid emotional experience and that improved emotion regulation will improve GAD symptoms (Behar et al., 2009). There are three areas related to avoidance. These are cognitive, emotional, and contextual. Cognitive reasons for avoidance include beliefs about threat and security. Emotional avoidance characteristics and management of emotions are evidence of emotional avoidance. Contextual avoidance affects patterns of relating to others and the environment (Mennin, 2006).

Mennin and colleagues (2006) have put together a four-phase model of emotion regulation therapy. There are a number of goals during emotion regulation therapy. An example of a goal in phase one is for the client to learn the importance of emotions in decision-making and interpersonal relationships. Another goal in phase two might be for the client to learn to recognize the motivation and possible functions of their emotions (Behar et al., 2009; Olatunji et al., 2010b). The main goal in the third phase of treatment is to

eliminate avoidance of emotional experience and effectively manage emotionally overwhelming situations. (Olatunji et al., 2010b)

Phase 1 includes psychoeducation, compilation of developmental history and beginning self-monitoring. Psychoeducation occupies the initial session. The therapist introduces the client to the emotion regulation perspective of worry and GAD and the format of emotion regulation therapy. The client and therapist next examine the developmental history of the client's GAD. Focus during this time is on the client's current worries and patterns of avoidance. The assignments are self-monitoring of thoughts, emotions, physical sensations, and behaviors.

Phase 2 is skills training in somatic awareness and adaptive emotional regulation. This phase encompasses four areas of skill. These are somatic, cognitive, emotion and contextual skills. Somatic awareness skills help clients gain increased awareness of their body and the way it responds to emotions. Cognitive skills help clients identify their beliefs about threat and insecurity. This includes their avoidance, defense, and control behaviors. The goal of emotion skills is increasing understanding of emotional experience and regulation, especially when their emotions are intense. Contextual skills are strategies for getting their needs met and regulating their emotions as appropriate for different social contexts in their life, such as at work and at home. The client is education through verbal instruction verbal and reading materials for how to achieve these skills, also exercises to apply skills

Phase 3 is the core phase of emotion regulation therapy. Somatic awareness and emotion regulation skills need mastering before beginning this phase. The focus of this

phase is “thematic experiential exposure” exercises (Mennin, 2006, p.102). It is not enough to learn how to do the skills; the client needs to practice using the skills. “If treatment focuses solely on learning new skills to tolerate and regulate emotions, clients could continue to avoid aversive emotions by thinking about problems and needs intellectually without exposing themselves to feared emotional experiences (and their associated core thematic meaning) or practicing using the adaptive information these emotional experiences provide” (Mennin, 2006, p.102). Techniques come from Gestalt and Experiential therapies in addition to classical CBT exposure techniques. The aim of experiential exposure is to reveal and explore the feared core emotional themes (Behar et al., 2009). The purpose of imaginal exposure is to increase tolerance of emotions (Olatunji et al., 2010b).

Phase 4 is the final phase of emotion regulation therapy. The subjects of these sessions are review of progress, setting future goals, relapse prevention, and termination processing. With therapy goals achieved, the client is better able to identify, distinguish between, and describe their emotions. They have increased acceptance of emotions and increased ability to manage their emotions. They worry less, use other avoidance strategies less, and have greater ability to use emotional information in various contexts of their lives (Mennin, 2006).

The emotion dysregulation model is still in the early stages of development. Although there is preliminary support, there has not yet been a controlled evaluation of the efficacy of emotional regulation therapy for GAD (Behar et al., 2009; Fisher & Wells, 2009). There is supporting evidence for components of the model, such as cognitive avoidance

strategies linked to fear of emotions (Olatunji et al., 2010b). Evidence supports the idea that people with GAD feel negative emotions more intensely than healthy controls (Mennin et al., 2005; Salters-Pedneault et al., 2006), those with Social Anxiety Disorder (Mennin, Holaway, Fresco, Moore, & Heimberg, 2007; Turk, Heimberg, Luterek, Mennin, & Fresco, 2005) and those with other psychopathology including depression (Mennin et al., 2007). There is a demonstrated relationship between emotion regulation deficits, worry, and GAD (Salters-Pedneault et al., 2006). Recent evidence suggests that emotion regulation deficits predict a diagnosis of GAD beyond the effects of worry, anxiety and associated depression (Mennin et al., 2004; Mennin, 2006).

Conflicting evidence also exists. A study using daily diary and questionnaire measures found that individuals with GAD had more intense emotions but contrary to expectations, there were no difference in emotion regulation strategies except that the people with GAD used several strategies more often (Decker, Turk, Hess, & Murray, 2008). Individuals with GAD were shown to have increased difficulty identifying, describing, and understanding their emotions compared to healthy undergraduates (Mennin et al., 2005; Mennin et al., 2007) but not compared to individuals with other forms of psychopathology including depression and social anxiety disorder (Mennin et al., 2007; Turk et al., 2005).

Acceptance-based Behavioral Therapy (ABBT). ABBT began with the idea that integrating some of the newer behavioral models with existing models of GAD might improve the efficacy of interventions for GAD (Roemer & Orsillo, 2002; Roemer, Salters, Raffa, & Orsillo, 2005). Core components of Steven Hayes' acceptance and commitment

therapy (ACT), Linehan's dialectical behavior therapy (DBT), mindfulness based cognitive therapy (MBCT) and other interventions with an emphasis on acceptance and mindfulness are an important part of ABBT (Orsillo, Roemer, & Barlow, 2003; Roemer & Orsillo, 2009; Roemer, Salters-Pedneault, & Orsillo, 2006). A large number of behaviorally and cognitively oriented clinical psychologists have directly influenced ABBT. This includes Barlow, Borkovec, Heimberg, Teasdale, and others. ABBT has also drawn from other sources, for example experientially oriented psychologists such as Leslie Greenberg.⁵

Although integrating many acceptance, mindfulness, behavioral and cognitive interventions (Roemer & Orsillo, 2009), Borkovec's cognitive avoidance view of worry and Hayes' view of the causal role that experiential avoidance plays in disorders have the largest part in the construct (Roemer et al., 2005). The proposal of Borkovec's cognitive avoidance model is that by worrying, individuals avoid experiencing their thoughts, feelings, and bodily sensations (Behar et al., 2009; Roemer & Orsillo, 2002; Roemer et al., 2006). The authors of ABBT say, "GAD is maintained through problematic and reactive relationships with internal experiences and internal and behavioral responses aimed at avoiding and decreasing distress" (Hayes, Orsillo and Roemer, 2010, p. 238). This fits squarely with Steven Hayes' ACT explanation that much of human difficulty comes from attempts to control or diminish internal experience (Roemer & Orsillo, 2002).

In addition to the concepts from ACT and the cognitive avoidance model, ABBT includes the premise of the intolerance of uncertainty model that intolerance of uncertainty

⁵ See Roemer and Orsillo, 2009, pp. 1-2 for additional information.

creates internal distress from which the person desires escape (Dugas et al., 2004). ABBT also incorporates the emotion dysregulation theory that worry may be an attempt to reduce distress from intense emotions that the person finds threatening and difficult to regulate (Mennin et al, 2005). The theory from Wells (2004) metacognitive model that the individual comes to experience even the worry (as an internal state) as distressing is woven in to ABBT. ABBT says that worry is a way the person avoids the awareness of both external threat and internal experience. Worrying about the future keeps the person from experiencing the present (Treanor, Erisman, Salters-Pedneault, Roemer, & Orsillo, 2011).

The ABBT conceptualization of the causal and maintaining factors of GAD is that the individual has a negative reaction to internal experiences and then becomes “entangled or fused with the negative reaction” (Behar et al., 2009, p.1019). That is, the individual believes that these negative reactions are a permanent and defining characteristic of themselves. The person then engages in experiential avoidance either actively or automatically, to avoid the perceived negative or threatening internal experience. They restrict their behavior to things that do not cause them internal distress even if this means they no longer do the things they value (Behar et al., 2009). Values, according to the ACT definition are the things that matter to the person in their life (Hayes et al., 2010). The end goal of ABBT is that the client will not only be aware of their values, but will choose to act according to their values (Roemer & Orsillo, 2009).

The goal of ABBT conflicts with the goal of standard CBT. The goal of standard CBT is to reduce or eradicate the anxiety. In contrast, ABBT considers that cognitive

attempts to reduce anxiety and worry actually perpetuate the worry cycle (Roemer & Orsillo, 2002). Nevertheless, ABBT uses a quantity of techniques from CBT. This includes self-monitoring, exposure therapy, behavioral activation, and skills training. Cognitive restructuring approaches and behavioral experiments are also included in the ABBT model (Roemer & Orsillo, 2009).

ABBT treatment consists of 16 individual weekly sessions. Each session begins with a mindfulness exercise. Psychoeducation (e.g. function of emotions, nature of worry) and experiential exercises are the focus of the first seven sessions. Psychoeducation includes things such as the function of emotions and the nature of worry (Roemer et al., 2006). It includes explaining that the goal of therapy is promoting valued action rather than reducing distressing internal experiences (Roemer & Orsillo, 2002; Roemer et al., 2006; Roemer & Orsillo, 2009). The last nine sessions comprise review of the client's efforts to engage in valued, mindful action, problem solving any difficulties, and making plans for the future. The final two sessions address relapse prevention (Roemer et al., 2006).

Recent studies have examined components of the acceptance-based model in predicting GAD symptoms. Evidence suggests that interventions for emotion regulation, acceptance of emotional responses, and engagement in desired behavior while in that emotion state may be efficacious in treating GAD (Decker et al., 2008; Roemer & Orsillo, 2002). Emotion regulation difficulty is consistent with a diagnosis of GAD and mindfulness skills appear to help difficulty with emotion regulation (Behar et al., 2009). A study of clinical and sub-clinical worriers, found that only clinical worriers reported using worry as a

means of distraction from more emotional topics and that distraction and other forms of cognitive avoidance temporarily reduce intense emotions (Salters-Pedneault et al, 2006). The more that the person distracts themselves from external events and internal experiences the more they miss life in the present (Decker et al., 2008; Roemer & Orsillo, 2002). People with GAD in a Roemer and Orsillo (2002) study were more likely than the control group to avoid situations that could potentially induce a negative mood state and Decker et al. (2008) found that experiential avoidance of negative emotion is characteristic of individuals with GAD, and. Avoiding these types of situations succeeds in reducing negative emotions; however, it is a temporary success. A greater problem according to the ABBT viewpoint is that avoidance lessens the ability for the individual to live a life they truly value (Behar et al., 2009). For example, the individual's avoidance behavior usually restricts their social relationships (Roemer & Orsillo, 2002).

The ABBT treatment approach appears to show promise for the treatment of GAD, depression, and other anxiety disorders. Roemer and Orsillo (2009) report on only one trial of ABBT for GAD. There were 30 participants compared against a wait list. The treatment group showed greater improvement in symptoms, diagnostic status, quality of life and proposed mechanisms of change. Seventy-five percent of those treated met criteria for high end-state functioning and improvements were maintained at the 9 month follow-up.

Speaking about mindfulness and acceptance based approaches overall, Roemer and Orsillo say, "The field is still in the early stages of investigating the efficacy, effectiveness, and underlying mechanisms of these approaches to treatment (2009, p. 4)." At this point,

Roemer and Orsillo (2009) recommend that clinicians draw from the evidence-based literature in treating anxiety and depression, incorporating mindfulness and acceptance-based strategies if the client does not respond to the treatment that is in use.

Integrative Psychotherapy and Supportive-Expressive Psychodynamic Therapy.

Two other developing treatments for GAD are Integrative Psychotherapy (Newman et al., 2004) and Supportive-Expressive Psychodynamic therapy (Crits-Christoph et al, 2004).

Integrative Psychotherapy adds techniques to address interpersonal problems and emotional avoidance, two factors considered important in the etiology and maintenance of GAD (Newman et al., 2004). Supportive-Expressive Psychodynamic Therapy views worry as a defense function. The argument is that the dynamic viewpoint about the impact of human relations on psychological growth is applicable to a number of empirical findings about GAD. These include high levels of interpersonal concerns, insecure attachment to primary caregivers, greater enmeshment, and role reversal. Empirical studies are also finding a greater incidence of past traumatic events that are often related to emotional events, or physical and sexual abuse involving friends or family (Crits-Christoph et al, 2004).

Summary

Barlow (as cited by Borkovec, 2006a, p. 283) has said that GAD is the most difficult of the anxiety disorders to treat. Although CBT is recognized as empirically supported treatment for GAD, the fact remains that on average only a little more than half of clients with GAD recover into the normal range with even less maintaining that recovery long-term (Borkovec, 2006b; Borkovec et al., 2004). Although increased treatment efficacy is a

concern for all of the disorders, this is especially true for treatment of GAD. Because GAD is a comparable newcomer, research for its treatment lags behind research done for other disorders. An added difficulty is defining worry, the central defining feature of GAD.

Conceptualizations of worry continue to clarify as research provides disputing or confirming evidence. “As cognitive approaches have grown in popularity, the term has come to describe a much broader class of disparate techniques” (Roemer & Orsillo, 2009).

In addition to standard CBT, two of the more empirically tested models for GAD are the cognitive avoidance and intolerance of uncertainty models (Covin et al., 2008). Dugas et al., (2010) cognitive-behavioral treatment for GAD contains elements from both the cognitive avoidance and intolerance of uncertainty models. Recent data suggests that it is important to target intolerance of uncertainty and negative metacognitions in the treatment of GAD (van der Heiden et al., 2010).

The concepts of cognitive avoidance and intolerance of uncertainty have already assimilated into the cognitive-behavioral model. Other models clearly connect with the cognitive avoidance concept. The explanation of the cognitive avoidance model is that the individual uses the verbal process of worry to avoid uncomfortable non-verbal imagery. Those intolerant of uncertainty attempt to create certainty by using worry for problem solving. Emotional dysregulation theory says the individual avoids experiencing their emotions. The acceptance based behavioral model says that individuals avoid experiencing their internal state (their thoughts, feelings, and internal sensations).

Although CBT for GAD is an effective treatment for reducing pathological worry (Covin et al., 2008), the percentages who do not respond to treatment suggests that revision of standard CBT protocol might improve treatment outcome (Dugas et al., 2010). The various theories of treatment for GAD can each contribute to the overall cognitive model of GAD, enhancing the explanation and adding components of treatment. The advice of Aaron Beck (1985) is still relevant:

The understanding of clinical anxiety can best be promoted by studying this condition from a variety of perspectives. No one perspective is likely to provide an adequate explanation of clinical anxiety but a combination of different approaches can help to fit together the various pieces of the puzzle. It is essential that investigators recognize the limitations and non-exclusivity of their own perspectives as well as recognize the contributions emerging from other vantage points (pp. 195-196).

Chapter 3

Normative Practice and Outcome

Treatment Setting

The location of this study was a room at the private practice office of a Licensed Clinical Social Worker (LCSW). The population for this practice was individuals eight years old and older. Most clients had general mental health issues such as relational difficulties, anger issues, and grief. The majority of diagnosable disorders fell into the categories of anxiety and depression.

Eclectic and holistic described the overall orientation of the LCSW at this practice. While not averse to empirically based treatment, she was not concerned whether the basis of treatment was empirical evidence. She was untrained in cognitive-behavioral therapy (CBT), the treatment chosen for this study. As such, she was unable to advise concerning the empirical aspects of the study. However, drawing from clinical experience, she offered suggestions, thoughts, and encouragement. Open to learning from others, she allowed the study to proceed unhindered.

Treatment Planning

Treatment Goals and Objectives

The overarching goal of treatment was to reduce Mary's level of emotional distress, specifically anxiety and depression. Mary's own goals were some of the first words out of her mouth at the intake session. She wanted to "get to the bottom of this," or at least "learn how to deal with it." To rephrase that, she wanted to eradicate her anxiety and depression and

barring that, to learn how to cope with it. Eradication is unlikely so the focus of treatment was symptom reduction. Developing coping skills was another worthy goal. Coping skills would themselves help reduce the anxiety and depression.

I. Goal One: The client will experience less anxiety/worry and symptoms of depression.

A. The client will be compliant with medical care

1. If the client permits, the therapist will establish a working relationship with the clients' prescribing doctor.
2. The therapist will assist the physician with monitoring compliance to those aspects of treatment related to mental health.

B. The client will learn about cognitive distortions.

1. The client will become aware of and change her habits of catastrophizing and thinking the worst.
 - a. The client will use the recording worksheets and other forms from the *Mastery of your Anxiety and Worry* (MAW) workbook (Craske & Barlow, 2006).
 - b. The therapist will reinforce the lessons from the MAW workbook.
 - c. The therapist will work with the client via cognitive restructuring techniques.

2. The therapist will address other relevant cognitive distortions that arise.

a. The therapist will use cognitive restructuring techniques with the client.

C. The client will “get to the bottom of this.”

1. The therapist will help the client discover her core beliefs.

a. Socratic questioning will be a method used to help the client explore her thoughts.

D. The client will reduce use of avoidance as a method of coping with her anxiety.

1. The client will create a hierarchy of her avoidance behaviors and use that to design exposure assignments

2. The client will engage in Imagery Exposure exercises while practicing techniques for relaxation.

E. The client will reduce worry behaviors. “The individual uses worry behaviors to prevent bad things from happening, prevent worry, and gain reassurance” (Craske & Barlow, 2006, p. 113).

1. The client will use the resources from the Craske and Barlow workbook (2006) and make relevant behavioral change.

II. Goal 2: The client will demonstrate increased coping resources and skills.

A. The client will learn relaxation skills.

1. The client will use the MAW workbook to learn skills of relaxation (Craske & Barlow, 2006).

B. The client will learn problem-solving skills.

1. The client will use the MAW workbook (Craske & Barlow, 2006).

C. The client will gain confidence in existing coping skills.

1. The therapist will use cognitive restructuring techniques

Intervention-Background

The *Mastery of Your Anxiety and Worry Workbook* (MAW workbook;⁶ Craske & Barlow, 2006) was the treatment manual chosen. The accompanying therapist guide, *Mastery of Your Anxiety and Worry Therapist Guide* (MAW therapist guide; Zinbarg, Craske, & Barlow, 2006) was an additional treatment resource. Several factors went into this decision. The basis for the specific manual chosen was awareness of its existence, its accessibility, and knowing it as a cognitive-behavioral research-based treatment for GAD. In addition, manual-based CBT may be easier for a novice therapist to implement with integrity.

The program *Mastery of your Anxiety and Worry* (Craske & Barlow, 2006; Zinbarg et al., 2006) is specifically for those whose primary difficulties are worry and tension.

Individuals with GAD are ideal candidates for this program, although the program is also useful for people whose worries and tensions are at a lesser level. In the MAW workbook,

⁶ MAW will be the acronym for the manualized protocol. The word workbook or therapist guide will be added when referring specifically to content in these materials.

anxiety is made up of three components: the physical, thoughts/images, and behavioral.

These components are said to intensify each other in a “positive feedback loop” (Craske & Barlow, 2006, p. 37). The complete treatment program addresses all three components.

If worry and tension are the primary focus of treatment, a comorbid condition does not rule out this treatment program. However, if a comorbid condition, for example, panic or depression is the primary focus of therapy then this program is not an ideal initial step. Taking medication is not exclusionary; however, the recommendation is to make no changes in medication status during the course of treatment. This enables both client and therapist to observe the helpful or unhelpful elements of treatment. The MAW program appeared to be a good fit for Mary. Although Major Depressive Disorder and Social Anxiety Disorder were comorbid conditions, worry and tension were primary.

The MAW program consists of ten or more separate sessions with two options. The subjects of the optional modules are anxiety related medication and worry-maintaining behavior. These chapters are optional because not all people with worries take anxiety related medication or engage in worry maintaining behavior. The program is usable with both groups and with individuals. When treating an individual, the recommended session length is 50 minutes. Zinbarg et al. (2006) reason that treatment results should be equivalent if the client accelerates tasks accordingly. Zinbarg et al. experienced good results with implementing the first eight sessions weekly and the last four bi-weekly. That pacing fit within the time constraints of the therapist’s practicum assuming no interruptions in sessions; however, this plan left no time to address transfer of care needs.

The MAW program emphasizes learning and developing skills. Thoroughly understanding what is taught in each section before proceeding to the next section is important because each skill builds on the preceding skill.

The therapist guide explains the program's four modules (Zinbarg et al., 2006). Module 1 provides basic instruction and information about anxiety and worry. Cognitive restructuring of two cognitive distortions is included in this module: overestimating the risk and thinking the worst. Training in progressive muscle relaxation, Module 2, is the treatment component meant to address the physiological tension of GAD. Progressive muscle relaxation and cognitive restructuring provide a base for Modules 3 and 4, imagery exposure, and in vivo exposure.

The treatment plan was to proceed sequentially through each chapter. Each week Mary was to read the chapter for the following session. The following session would then focus on discussing the concepts, assuring understanding and beginning implementation of recommended exercises.

Session Length and Frequency

Planned frequency of sessions was weekly. Actual frequency of sessions varied from one to two weeks. Proposed session length was 50 minutes. In an attempt to cover more material before the required end of treatment, some of the later sessions lasted as long as 90 minutes. Additionally, midway through treatment, the client began arriving 10-15 minutes early so that she might complete any assessments prior to the session.

Treatment Duration

The study was conducted during the second half of the researchers'/therapists' nine-month practicum. Direct supervision was available from the LCSW and secondary support from the practicum professor and fellow practicum students at the university. The total number of sessions including initial intake and assessment sessions and termination sessions was nineteen. Sessions more specifically aligned with the treatment manual totaled thirteen.

Assessment of Progress and Outcome

Mary's progress in treatment was assessed via four measures: Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988; Beck & Steer, 1993, as cited by National Child Traumatic Services Network, n.d.a; Pearson Assessments, 2011a); the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996; National Child Traumatic Services Network, n.d.b; Pearson Assessments, 2011b); the Depression, Anxiety and Stress Scales (DASS; Lovibond & Lovibond, 1995a), and the Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990). Zinbarg et al. (2006) recommend the PSWQ and the stress scale of the DASS. They recommend these two in particular because the PSWQ measures worry and the stress scale of the DASS (DASS-S) measures tension.

Worksheets from the Craske and Barlow (2006) MAW workbook were also used as progress measures. The worksheets used were the Daily Mood Record, the Worry Record, the Progress Record, and the Worry Record-Real Odds Record (see Appendices A-D for copies of these worksheets). Unfortunately, too few of these were completed, leaving insufficient data to create an accurate picture.

Beck Anxiety Inventory (BAI)

The BAI (Beck et al., 1988; Beck & Steer, 1993, as cited by National Child Traumatic Services Network, n.d.a; Pearson Assessments, 2011a) was developed to measure the severity of anxiety symptoms and reliably discriminate anxiety from depression. The inventory shows high internal consistency ($\alpha = 0.92$), and test-retest reliability ($r = 0.75$). The BAI correlates with the Hamilton Anxiety Rating Scale-Revised ($r = 0.51$) and with the Hamilton Rating Scale for Depression-Revised ($r = 0.25$) demonstrating concurrent validity. Correlation of the BAI with the BDI was 0.48. Results from three studies confirm the convergent and discriminant validity of the BAI (Beck et al., 1988; Beck & Steer, 1993, as cited by National Child Traumatic Services Network, n.d.a; Pearson Assessments, 2011a).

The BAI consists of 21 statements that describe anxiety symptoms. The directions instruct the respondent to rate how much each symptom bothered them over the last week on a scale of 0 to 4: (Zero) is "Not at all," (One) is "Mildly; it did not bother me much," (Two) "Moderately; it was very unpleasant, but I could stand it," and (Three) "Severely; I could barely stand it." The total score ranges from 0 to 63. According to Beck and Steer (1993), total scores of 0 to 7 reflect "Minimal level of anxiety," scores of 8 to 15 indicate "Mild anxiety;" scores of 16 to 25 reflect "Moderate anxiety;" and scores of 26 to 63 indicate "Severe anxiety."

The BAI was created as an anxiety measure that does not overlap with the BDI. As a result, the BAI emphasis is autonomic arousal symptoms. Accordingly, the advantage of the BAI is measurement of panic symptoms making it excellent at discriminating panic disorder from depression (Cox, Cohen, Dorenfeld, & Swinson, 1996; Leyter, Ruberg, & Woodruff-Borden, 2006). However, for the same reason it is a good measure of autonomic arousal symptoms, it loses its ability to measure overall anxiety. This is because other anxiety disorders, especially GAD, have a degree of symptom overlap with depression. Therefore, when assessing anxiety disorders other than panic disorder, the recommendation is to supplement the BAI with other data collection methods (Leyter et al., 2006).

Beck Depression Inventory II (BDI-II)

The BDI-II (Beck et al., 1996; National Child Traumatic Services Network, n.d.b; Pearson Assessments, 2011b) is a self-report inventory meant to assess the presence and intensity of depression symptoms and to evaluate treatment change. The BDI-II is a revision of the BDI that is more compatible with the *DSM-IV*.

The inventory contains 21 items representing symptoms of depression such as Sadness, Pessimism, and Guilty Feelings. Respondents rate each item on a four-point scale from 0 to 3 with higher numbers representing greater severity. For example, the subject of item seven on the inventory is Self-Dislike. With item seven, (Zero) is “I feel the same about myself as ever”; (One) is “I have lost confidence in myself”; (Two) “I am disappointed in myself”; and (Three) “I dislike myself.” Items 16 and 18 contain seven options because they assess increases and decreases in appetite and sleep. The score range of the BDI-II is 0 to 63.

A total score of 0 to 13 is considered to be in the minimal range for depression, 14 to 19 is mild, 20 to 28 is moderate, and 29 to 63 is severe.

The BDI-II has been found to demonstrate high internal consistency ($\alpha = 0.91$). Dozois, Dobson, and Ahnberg (1998) found a correlation of 0.93 between the BDI and the BDI-II supporting the convergent validity of the BDI-II. The BDI-II shows improved clinical sensitivity, with the reliability of the BDI-II ($\alpha = 0.92$) higher than the BDI ($\alpha = 0.86$). Dozois et al. (1998) conclude that the BDI-II is a stronger instrument than the BDI in terms of its factor structure.

The BDI-II is designed to be a screening measure or to measure the severity of depressive symptoms. As with the BDI, the BDI-II was not developed to be a diagnostic measure. Sloan et al. (2002) point out that a diagnosis of depression or any other psychological disorder should not rely on any single self-assessment instrument. Their study of a population of 319 adults with a primary anxiety disorder found a false positive rate of 30% when using the BDI as the sole basis for diagnosing Major Depressive Disorder.

Depression Anxiety and Stress Scales (DASS)

The DASS (Lovibond & Lovibond, 1995a) is a 42-item self-report measure comprised of three scales that assess depression (DASS-D), Anxiety (DASS-A), and Stress (DASS-S). Each scale contains 14 items. The total score (DASS-TOT) is the sum of the scores from the three scales. Participants are asked to rate the extent to which they have experienced the severity and frequency of each state over the past week. Choices range from

0 to 3, “Did not apply to me at all” to “Applied to me very much, or most of the time” (see Appendix F1 and F2 for a copy of the DASS Assessment)

The DASS was created to assess the core symptoms of anxiety and depression and to provide maximum distinction between the two. The subscales of the measure are all moderately correlated with each other: Depression-Anxiety ($r = 0.42$), Anxiety-Stress ($r = 0.46$), and Depression-Stress ($r = 0.39$). During the psychometric evaluation of the questionnaire, a third factor emerged that included difficulty relaxing, irritability and agitation (Brown et al., 1997). Subsequent studies support this third factor, assessed by the DASS-Stress (DASS-S) scale, as representing a syndrome that is distinct from both depression and anxiety (Antony, Bieling, Cox, Enns, & Swinson, 1998; Brown et al., 1997; Clara, Cox, & Enns, 2001; Lovibond, 1998; Page, Hooke, & Morrison, 2007).

The DASS-D assesses dysphoria, hopelessness, and devaluation of life, self-deprecation, inertia, anhedonia, and lack of interest/involvement. It has a correlation of 0.74 with the BDI. Factor analyses suggest that the primary difference between the DASS-D and the BDI is that the BDI includes items such as weight loss, insomnia, somatic preoccupation, and irritability (Antony et al., 1998; Lovibond & Lovibond, 1995b). These items are not unique to depression. On the other hand, the DASS-D was structured to include only items unique to depression. The DASS-D correlation with an ADIS-IV-L depression was 0.65. In contrast, the correlation of the DASS-D with the severity of GAD is -0.01 (Brown et al., 1997).

The DASS-A assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The DASS-A scale measures items that are unique to anxiety. It is similar to the BAI ($r = 0.81$) and appears to discriminate panic disorder from other anxiety and mood disorder groups (Lovibond & Lovibond, 1995b). ADIS-IV-L Panic Disorder is moderately correlated with the DASS-A ($r = 0.49$). ADIS-IV-L Depression correlates with the DASS-A ($r = 0.19$), and ADIS-IV-L GAD correlates with the DASS-A ($r = 0.04$) (Brown et al., 1997).

The DASS-S is sensitive to levels of chronic, non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient (Brown et al., 1997; Lovibond, 1998). Three of the six *DSM-IV-TR* criteria for GAD (restlessness, irritability, and muscle tension) are similar to those represented in the DASS-S scale; therefore, Brown et al. (1997) and Lovibond (1998) observe that the DASS-S appears to evaluate symptoms that correspond with those associated with GAD. The DASS-S is one of the two standardized questionnaires that Zinbarg et al. (2006) mention as especially useful for assessing the severity of the symptoms of GAD and changes associated with the MAW program (see Appendix G for characteristics of high scorers on each DASS scale).

Studies with both non-clinical and clinical populations support the internal validity of the scales. A study with a non-clinical population ($N = 2,914$) found alpha coefficients of 0.91, 0.84 and 0.90 for the depression, anxiety and stress scales, respectively (Lovibond & Lovibond, 1995a). Results with a clinical sample ($N = 437$) found alpha coefficients for the

DASS-D, DASS-A and DASS-S scales of 0.96, 0.89, and 0.93, respectively (Brown et al., 1997). Test-retest reliability score of the total DASS scale is 0.48 (Brown et al., 1997).

A premise of the DASS is that psychological disorders are dimensional rather than categorical. Research data has confirmed that differences among depression, anxiety, and stress between those who qualify for a formal diagnosis and those who do not, are differences of degree (Lovibond & Lovibond, 1995b). Therefore, Lovibond and Lovibond (1995b) stress that for most research purposes it is better to use DASS scores without considering cut-off scores. The DASS manual includes norms and suggested cut-off scores for those who wish to use them, along with a detailed description of the psychometrics of the DASS.

The ability of the DASS to discriminate between depression, anxiety, and stress makes it useful for both researchers studying the nature, etiology, and mechanisms of emotional disturbances and for clinicians assessing the best focus of treatment. The DASS questionnaire is in the public domain, and can be accessed from

<http://www2.psy.unsw.edu.au/DASS/>

Penn State Worry Questionnaire (PSWQ)

The PSWQ (Meyer et al., 1990) is a self-report measure developed to assess worry (Brown, Antony, & Barlow, 1992; Sugiura, 2007; van der Heiden et al., 2010) and the extent to which the worry is excessive, uncontrollable and pervasive (Turk, Heimberg, & Mennin, 2004). The PSWQ is a reliable and valid measure of the constructs theoretically related to worry (e.g., perfectionism, intolerance of uncertainty; Brown et al., 1992; Turk et al., 2004). In a clinical sample, a “complete absence of significant correlation between the

PSWQ and other pre-therapy measures indicates that worry is a construct independent of anxiety and depression (as these constructs are commonly assessed) among carefully diagnosed and moderately severe cases of GAD” (Meyer et al., 1990, p. 494). The PSWQ is capable of differentiating GAD from other disorders. Individuals with GAD have significantly higher scores on the PSWQ than those with other anxiety disorders, including Obsessive-Compulsive-Disorder (Brown et al., 1992). Correlation of the PSWQ with the State Trait Anxiety Inventory was 0.18; the Hamilton Anxiety Inventory was -0.09; the Hamilton Depression Inventory was 0.06; the Zung Anxiety Inventory was 0.02; and the BDI was -0.10 (Meyer et al., 1990).

Worry is a common feature of all anxiety disorders and the PSWQ is a well-established measure of the worry process (Shearer, 2007). In addition to GAD, the PSWQ also assesses for social phobia, simple phobia, obsessive-compulsive-disorder (OCD), panic disorder, and panic disorder with agoraphobia. Internal consistency is high with all of the subscales: GAD (alpha = 0.86); social phobia (alpha = 0.94); simple phobia (alpha = 0.95); obsessive-compulsive disorder (alpha = 0.94); panic disorder (alpha = 0.93), and panic disorder with agoraphobia (alpha = 0.91; Turk et al., 2004). The one-month test-retest reliability is high ($r = 0.93$).

The PSWQ has 16 items rated on a 1-5 scale (“not at all typical of me” to “very typical of me”) and the scores range from 16 to 80. In comparison to no diagnosis, the cut-off score for GAD is 53 (Fresco, Mennin, Heimberg, & Turk, 2003). The cut-off score to

distinguish GAD from other anxiety disorders, social anxiety in particular, is 65 (Turk et al., 2004).

The research literature shows that the PSWQ is the most frequently used measure of pathological worry (Olatunji et al., 2010a; Starcevic et al., 2007; Stöber & Bittencourt, 1998; van der Heiden et al., 2010). Zinbarg et al. (2006) recommends the use of the PSWQ along with the DASS-S to determine if the MAW program is the best choice for the client and for assessing treatment progress (see Appendix H for questions of the PSWQ).

The PSWQ is in the public domain and can be accessed from multiple places. One of these is www.outcometracker.org/library/PSWQ.pdf

Mastery of Your Anxiety and Worry Progress Record

The MAW workbook (Craske & Barlow, 2006) includes forms that enable tracking of progress in treatment. The client used the Worry Record, the Worry Record–Real Odds, and the Daily Mood Record. The client plots the data from the Worry Record, or the Worry Record–Real Odds, and the Daily Mood Record onto a form labeled Progress Record (see Appendices A, D, B, and C). This produces a visual display of self-reported anxiety levels and amount of worry episodes through the weeks. However, Mary’s inconsistent use of these forms provided no usable data.

Course of Treatment

Initial Sessions

Sessions 1-3. The first four sessions of treatment consisted largely of assessment and contracting for treatment. The first session was an intake interview.

The Anxiety Disorders Interview Schedule for *DSM-IV* (Brown, DiNardo, & Barlow, 2004) was used during sessions two and three to gather more information about the details and nature of Mary's anxiety. For this study, the ADIS-IV was used as an interview guide and not for diagnosis. Mary was administered the BAI and the BDI-II at the second session. Her BAI score was 14 indicating mild anxiety, and her BDI-II score was 34 indicating severe depression.

After the completion of the ADIS-IV interview during the third session, Mary and the therapist discussed the therapist's opinion of diagnosis and possible treatment options, particularly CBT using the MAW program (Craske & Barlow, 2006; Zinbarg et al., 2006). Mary expressed interest in CBT because it was different from anything she had tried previously. Mary was agreeable to using the MAW workbook. The therapist asked Mary to read chapter one from the workbook "*Is this program right for you? The nature of generalized anxiety*" before Mary made a final decision.

Session 4. Mary had been to her primary physician earlier that day and reported that the Celexa was doing nothing. The doctor gave her a prescription for Pristiq (desvenlafaxine) 50mg per day. Pristiq is an antidepressant in the selective serotonin and norepinephrine reuptake inhibitor (SNRI) family. This was the first time Mary had been prescribed a SNRI.

Mary reported reading Chapter 1 of the workbook and being amazed at how closely the examples in the chapter fit her experience. She had read the chapter to her husband, and he agreed that it sounded just like her. She was interested in trying CBT as a treatment and

agreeable to using the MAW workbook (Craske & Barlow, 2006). The therapist explained to Mary the format of CBT treatment. Mary was encouraged to express her thoughts and ask questions. Mary felt hopeful that this might help and was willing to try it. She thought this protocol might help give her ways to cope with the worry so that it would not be in control. However, she was skeptical that the worry would dissipate completely given her history. The therapist observed that Mary sat with her legs crossed, with a constant shaking of her leg. When pointed out by the therapist, Mary responded that she has always done this, even as a kid. She remembers her Dad commenting on it. Mary also appeared distressed with her eyebrows frequently furrowed. However, she said she feels better talking about her worry. Mary believes she always has worry and anxiety in her. She can feel when it is building into these episodes of constant, runaway worry. She said the worries take over. She stated, "If there aren't other things to worry about, I make things to worry about."

Yesterday, Mary told her husband that she feels like she is not necessary, that she has not done anything in the world or accomplished anything. "The kids are growing up and do not need her." (The therapist made sure to ascertain that no suicidal feelings accompanied this belief). Mary said that she is always busy doing something: her job at school, volunteering, raising her kids. She said she does not have any hobbies. Her children are her "hobby." She worries what she will do without the children's things keeping her busy. The therapist normalized this as the role transition into the empty nest years. Mary then recognized that her son, her oldest, was nearing high school age when these episodes of anxiety and depression first began.

Collaboration of treatment goals took place during session four. Mary reported that she would like a clear mind with no nagging worry in the back of her mind. She wanted a relaxed body with no tension in her face, jaw, neck, and shoulders. She stated that she is currently tense all day “even at work.” She wanted to look forward to going out, to enjoy going out and be able to focus on being out. She wanted to be able to enjoy doing things, whether it is going out, going to work, and cleaning house, whatever. She wanted to wake up with a smile on her face, looking forward to the day. Mary theorized that worrying exhausts her and leaves her without energy or desire to go out.

Mary left the session with a copy of Chapter 2, “Learning to recognize your own anxiety” from the treatment workbook to read before the next session. Mary also decided to order her own treatment workbook.

Core Treatment Sessions

Session 5. Mary began learning the first skills towards mastering her anxiety.

Chapter 2, *Learning to Recognize Your Own Anxiety*, introduces the Worry Record, the Daily Mood Record, and the Progress Record (see Appendices A, B, and C). The data from these records is a way to track progress in treatment. More importantly, they help the client become aware of their thoughts, behaviors, and the bodily sensations associated with their anxieties.

The reasons for and importance of self-monitoring were explained to Mary. She learned how to complete the Worry Record using examples of the anxiety she had experienced in the previous week. She left with additional copies of the Worry Record with

which to begin recording her self-monitoring, and instructions to read Chapter 3 in the workbook, *The Purpose and Function of Anxiety*.

Session 6. Mary cancelled the following appointment and so this session took place two weeks later. This was the first time the length between sessions was more than a week. Mary reported that she felt better in the last two weeks. One day in the past two weeks, she had been glad to get up and had not felt so negative. She had also slept better. She said she did not know if it was the medication beginning to work or the “cycle” naturally dying. The therapist privately noted that it was approximately three weeks since Mary’s doctor had changed her medication to Pristiq. Additionally, Christmas and New Year activities were past and Mary had returned to what appeared to give her a sense of security, the routine of workdays.

Mary had a lengthy list of events and worries from the previous week that she wanted to share. Her desire to talk at length about the worries of her week made it difficult to keep her on track with the agenda of a time-limited cognitive behavior treatment. The therapist felt torn between the expectations of an agenda-driven CBT session and allowing Mary time to share. There are a few recognized factors involved in the difficulty, one of which is the inexperience of the therapist. Negotiating empathic listening and sustaining a therapeutic relationship while simultaneously following a prescribed agenda remained difficult for the neophyte therapist throughout treatment.

Mary reported that she had not read Chapter 3 and that she only did the assignments, and incompletely at that. She said she had felt overwhelmed by the workbook

assignments of tracking worrying. She felt she still did not understand how to do them. She was particularly having trouble with the Worry Record. The therapist observed that Mary had difficulty distinguishing events, thoughts, and behaviors. Instead of a few brief sentences for each of the three sections (i.e., event, thought and behavior), she had written a lengthy narrative that covered one day into the next. In her mind, it was one event and one single worry. While helping Mary pick apart her narrative into separate events, the therapist had to remain alert to the precipitous nature of Mary's anxiety about doing things "right." Being careful to maintain a balance between correction and encouragement was another challenge that continued throughout treatment. When that balance was threatened, the therapist chose to fall on the side of encouragement. Before Mary left, the therapist went over the basics of Chapter 3, the purpose and function of anxiety, and the three components of anxiety. Mary's homework was to read Chapter 3 and to record the components of her anxiety at least a few times in the upcoming week. When the client notices that she is experiencing anxiety, she is to mentally separate it into its three parts, (physical symptoms, major thoughts/images, and major behaviors) and then write the components of anxiety down on paper. This anxiety exercise does not replace, but is in addition to, the Worry Record.

Session 7. Another two weeks passed between sessions 6 and session 7. Mary began the appointment by reporting that she had read Chapter 3. During the first week, she completed the Daily Mood Record and did four Worry Records. She reported that she is functioning better. She is sleeping through the night and does not feel "all keyed up." She

said, “Things are more positive,” she is not putting a “negative spin on it all,” and she is not crying as much. She does not feel so “touchy” and has noticed fewer instances of “flying off the handle.” Mary and her therapist were able to use the material from the Worry Records and the interaction between them to learn more about distinguishing events from thoughts and thoughts from behavior. Although already behind schedule for the MAW program, the session itself succeeded in operating within a cognitive-behavioral framework.

An opportunity to talk with Mary about the connection between avoidance behavior and worry arose out of a workshop event that had happened at Mary’s school. The topic of the workshop was Autism. She had hoped for a snow day as an excuse not to attend. There was no snow day and she decided to attend and consider how Autism did or did not fit with her son. The therapist praised Mary for her choice of considering the evidence.

A second significant topic for Mary during this session concerned her teenage niece. Mary found out the niece was pregnant and Mary was fixated with worry about how her parents would take the news. The therapist led Mary through a set of questions that eventually revealed that Mary believes it is her responsibility to worry. She believes that a good daughter, a good mother, worries. She believes that worry equals caring. The therapist heard the belief woven in Mary’s words. If she does not worry, it means she is not a good person. Mary seemed unaware of any distortion in her thoughts and despite Socratic-question-led conversation; she still did not appear to recognize any distortion in her thoughts. The following session she denied that she had equated worry and caring.

Session 8. It was again two weeks between appointments. Two weeks ago, Mary had felt so much better, that she had told her doctor that she felt “fine,” but now she was again frazzled with anxiety. She was waking up with her mind racing with worrying and sweating and this lasted through the night.

Three worry producing events had occurred in the two weeks. Mary attributed the current anxiety to the fact that there were snow days. She was home and said she did not know what to do. She could not choose from the many options available to her. She said she always has to be busy. She ended up doing all sorts of cleaning and cooking, more than the family could eat. She shined a hutch so much that her son said he could see his reflection in it.

The second event had to do with her husband getting new health insurance. Both Mary and her husband were required to have blood testing completed to get the new insurance. Mary began worrying even before the appointment. She began thinking about the possibility of her husband becoming ill. This thought was followed closely by the thought of what would she do which was followed by a feeling that she would not be able to cope. At the time of this appointment, Mary had not yet received the results of the blood test. Mary reported worrying, “What if something is wrong?” She reported worrying about the possible unknowns: “What if I have to change something?” “What if something needs fixing?” “What if it is not fixable?” “How will I cope with it?” “What if my husband’s blood results are bad?” “What if something happens to him?” Her anxiety seemed more related to the uncertainty of not knowing than concern that something was seriously wrong.

The third event stirring her worries began that morning. Mary reported that she was keyed up this morning because the teacher was not coming in today; therefore, Mary would be in charge of the class. She got to worrying about the class Valentine party. She worried that parents would not bring in the things they had said they would and so she arose from bed at 3 a.m. to prepare carrots and oranges in case the parents forgot to bring food for the party.

Because Mary had felt overwhelmed with anxiety, she had not done much with Chapter 3 although she did complete all portions of the Daily Mood Record for the entire time. She had done most portions of six Worry Records and with four of them had completed an Anxiety Components list (see Appendix A for a copy of the Worry Record and Appendix E for a copy of the Anxiety Components List).

The Worry Record and the Anxiety Component Record each contain the identical task of discerning the somatic, cognitive, and behavioral symptoms in an episode of anxiety. On the Worry Record, the client chooses physiological symptoms from a preset list. The Anxiety Component Record requires the client to use his or her own words. Comparison of Mary's Worry Record to the Anxiety Component Record revealed some discrepancies, which may have been a function of the forced choice format of the Worry Record compared to the open answer format of the Anxiety Component Record. For example, "hot" and "flushed" are not options on the worry record yet Mary included these in her Anxiety Component Record (See Appendices A for the Worry Record and E for the Anxiety Component Record).

Review of the completed assignments revealed that Mary continued to have difficulty separating events, thoughts, and behaviors. She was also unable to define a beginning and ending time for her worry. She said it was always there and that she was always worrying about something.

Session 9. This session was seven days later. Mary seemed to have better understanding of the assignment as evidenced by greater clarity on the worry and anxiety records that she completed. In addition to recording *what* she worried about, she had added some information about *why* she worried about those things. For example, relating to her children she said, “I’m afraid to let go. I want them close to us.”

The workbook instructions are that the client should thoroughly understand Chapters 3 and 4 before moving on to Chapter 5. Therefore, the bulk of the session was spent reviewing the concept of a positive feedback loop as had been explained in Chapter 3 and observing how that fit with what she had recorded on her anxiety components record. This involved looking at how her specific worries, physical symptoms, and anxious behaviors influenced one another to either increase or decrease her overall experience of anxiety.

The assignment for Mary was to re-read chapters 3 and 4 before the next session, and to note any remaining questions. In addition, the therapist had consulted a specialist in the treatment of anxiety disorders who suggested a *stimulus control* technique, (Borkovec, Wilkinson, Folensbee, & Lerman, 1983), a *worry time*, as an alternative way for Mary to track her worries. As the author understood it, this was for Mary to plan a worry time, choose one worry, and spend 30 minutes during the chosen worry time writing down every

thought associated with that worry. She was told to save her worrying for that scheduled worry time.

Although diverging from the MAW protocol, the therapist reasoned that perhaps this method would fit better with Mary's schedule. Worry records are to be completed as close to the time of the worry as possible. It was necessary for Mary to delay many of the worry records until later because she had no time during school hours. Delay reduces the likelihood that the individual will learn to identify the triggering events and automatic thoughts attached to her worries. Delaying worries until the worry time enables immediate action choice and provides immediate feedback, both when choosing to delay and when engaging in the worry session.

Session 10. Mary returned a week later. She had engaged in three worry sessions during the week and brought a written list of the worries she had engaged in during those periods. Although the therapist did not expect this to be in written form, it enabled the therapist to observe that concentrating her thoughts on her worry appeared to intensify Mary's agitation. It was at this point that the therapist began to wonder if a mindfulness and acceptance approach might be more beneficial for Mary. The therapist neglected to note the content of this session. Presumably, the subject matter was drawn from the completed assignments that she brought with her. This was the usual structure. Homework given at the end of session was to read Chapter 5 in preparation for the next session.

Session 11. One week later, Mary had read chapter 5 and had many questions about relaxation. She wondered how she was going to fit all of these assignments into her

schedule. The therapist expressed empathy to Mary and agreed that adding more assignments while expecting continuation of previous assignments was an unrealistic expectation. The author notes this as a criticism of the MAW protocol. Other than the reading assignments, the other assignments in the MAW program (e.g., worry record, relaxation practice) are ongoing. There is no record of how the therapist handled this. The author believes Mary was encouraged to choose one emphasis for the week, whether keeping the worry record or continuing relaxation practice. There is no record of what Mary decided. Mary also wondered what would happen when her therapist left, and would she be able to do this on her own by then. The therapist postponed engaging in the relaxation exercise with Mary so that Mary could have her questions answered. Mary shared that she liked the CBT approach.

Session 12. Mary had cancelled her appointment and so session 12 occurred two weeks later. The reason Mary had cancelled her appointment the previous week was that her father had a heart attack that day. Mary had been the one responsible for speaking with the doctors and taking care of her mother's needs. Mary had capably handled the situation whereas Mary reported that her sister and mother were agitated. The therapist noticed that Mary appeared calmer than the therapist had ever seen her and the report of the week was equally without agitation. The therapist attempted to help Mary notice the way she coped with her father's heart attack and compare it to her worries and belief that she will not be able to cope. Because of the heart attack of her father and the ensuing discussion, the

therapist did not have sufficient time to complete the planned relaxation exercise. Instead, the therapist conducted a short training session in abdominal breathing with Mary.

Session 13. This session and all following sessions took place weekly. Mary shared that she had engaged in abdominal breathing during some stressful times and it had helped. Following the MAW exactly would have resulted in finishing the program in this session. Instead, the therapist and Mary were finally able to cover Chapter 5 and have a session of progressive muscle relaxation. Mary had stopped doing the Worry Records. She says that she does not have time. She also expressed concern about the time required to practice relaxation.

Session 14. Mary reported that she had difficulty practicing the relaxation exercise during the past week. Typical difficulties when first learning progressive muscle relaxation are the mind wandering, trying to remember the routine, discouragement, and quitting. Mary had an additional difficulty. She worried what her family would think. Mary reported that she thought they might wonder why she was going upstairs and they would think, “It’s not normal.”

Mary’s anxiety was again elevated with her worries focused on her son, who was home on spring break. According to Mary, he was spending most of his time on the computer or “lying around” watching TV. Mary thought he should be doing something productive, perhaps helping his father repair the truck. She was distressed because he likes to stay up late. She thinks he should be in bed by 11 pm at the latest and he should not sleep-in the next day. She does not allow him to sleep-in but wakes him and makes him get out of

bed. The therapist privately wondered if Mary considers this abnormal because it is contrary to her own values. Perhaps that is why she views his interest in music as abnormal. It is not something she values. She said she worries because he does not have any hobbies and seems unable to accept that music could be a hobby. Instead, she sees his interest in music as a possible sign of Asperger Syndrome. The therapist believes it is valuable to note that Mary herself does not have any hobbies. Mary broke into tears of discouragement mid-session from feeling so anxious again.

The therapist tried to work the lessons of Chapter 6, *Controlling Thoughts that Cause Anxiety – Overestimating the Risk* into the flow of the session. The therapist attempted to have Mary recognize the cognitive distortions in her thoughts, such as generalizing ‘should’ statements, minimizing the positive, and considering the real odds of her worries coming true. Using the pie chart example in chapter 6 to consider the real odds confused both Mary and the therapist. They decided it was because neither one of them is math-minded. The therapist created an alternative that might forgo the math and achieve the same objective. Mary listed the positive and negative qualities that she sees in her son. The therapist and Mary then talked about the percentage value she ascribes to each of these qualities. She then applied this evidence to estimate risk of her worry that her son will never achieve independent living. This may not have succeeded in achieving the same objective and it is possibly too complicated for Mary to repeat in other situations. However, it did achieve something the therapist believed Mary needed, and that was to see the many positive

qualities of her son. It was obvious to the therapist that Mary's worries about her son were baseless and the therapist hoped that Mary would come to understand that.

For the relaxation practice during the coming week, Mary decided to continue following the directions for 16-muscle progressive muscle relaxation rather than reducing the series to an 8-muscle relaxation.

Session 15. Five days before this session, Mary found out that she would have no job in the following school year. Her family's health benefits would end at the end of July. Since being told that she was laid off, Mary had done nothing but engage in job search activities. Her worry about finding a new job drove all other worries from her mind. She ignored all household care, including making meals for her family. She said she was "too stressed" to do relaxation exercises.

Mary seemed consumed with the belief that she needed a new job as soon as possible. She said that if she found a job with comparable paycheck and benefits she would take it immediately and begin working the next day. She worried that she would not be able to find a job. The therapist challenged her to observe her automatic and intermediate thoughts and gather evidence to support or refute those thoughts. Into this, the therapist wove additional learning about probability and overestimating the risk, the likelihood that the negative things she worried about would actually happen.

Mary and her therapist spent much of the session talking about her definition of "normal" and trying to trace that back to intermediate thoughts and core beliefs. She was able to gather evidence to support or refute her belief that she would not find a job, but was

not able to approach anything resembling a core belief. Her answers frequently reflected circular reasoning, or “I suppose. I don’t know.”

Chapters 7 and 8 in the MAW workbook (Craske & Barlow, 2006) were the reading assignment for the next week. The therapist also discussed alternative methods of relaxation with Mary. As accompanying resources, the therapist gave Mary copies of Chapters 24 *Peaceful Movement*, 25 *Progressive Relaxation*, 28 *Following Your Breath*, and 29 *Deep Breathing*, from the book *The Anxiety Workbook for Teens: Activities to Help You Deal With Anxiety and Worry* by Lisa Schab (2008). The therapist hoped that one of these relaxation methods might work better for Mary.

Session 16. There is no record of what homework if any, that Mary accomplished during the past week. This week, the plan was to teach Mary strategies to counter anxious thoughts that come from thinking the worst. The MAW program addresses two cognitive distortions and thinking the worst is the second cognitive distortion. The basic strategy to counteract the cognitive distortion of thinking the worst is to go with the logical conclusions of this thought, imagining the worst possible outcomes, and then consider how to solve those problems or cope with those outcomes.

These strategies fit perfectly with a worry that Mary had shared from the previous week. Her daughter Jennifer applied for a job at the same place her son Jason worked and had not yet heard back. Jason is currently training another worker. Mary was worried that the boss was going to fire Jason and that this was why Jennifer has not yet heard back.

Mary's husband Greg commented that perhaps Jason was going to receive a promotion.

Greg shared an alternative possibility to Mary's negative interpretation.

Mary was still stressed over the upcoming loss of her job. She was tackling every aspect of the problem simultaneously, giving each item equal weight, and wanting each item to be resolved immediately. Mary seemed unable to recognize that some of what she was trying to do is necessarily sequential. Greg told her to "Step back. Take a breath and think about things." The therapist told Mary that Greg gives her good advice. Mary said she "can't stop worrying until everything is finalized with a job set in place."

Rather than explaining it again to Mary as a positive feedback loop, the therapist shared with Mary that her anxiety was acting like an addiction. When Mary responds to her anxiety in order to reduce the feelings of anxiety, it ultimately increases her overall anxiety.

Mary did not see it, but her anxiety was feeding her anxiety, consuming her and affecting her ability to cope. Her father was ill again, but her anxiety had left no room for coping. Mary felt that when her father had his heart attack, she made a deal with God to let her father live. She thought that meant she cannot trust God for the job situation, and that meant she had to handle it on her own.

Mary did not like the unknown. Perhaps the strength of her anxiety is what kept her from recognizing the inconsistency in her behavior. She coped well in the reality of the present when her father had his heart attack. Yet she worries that she will not be able to cope with the imagined unknowns of her future. Mary does not lack problem-solving skills. She has plans to attend job fairs, make a resume, and take courses to gain skills that will make her

more marketable. Her stress comes from feeling she must do it all immediately. She believed that the stronger the feeling, the more it was true.

At this point, it was obvious that the therapist would not be able to complete this program with Mary. They were only at Chapter 7 out of 12 chapters. Mary's grasp of the material to this point was insufficient for successful exposure exercises. Therefore, the therapist planned to make cognitive restructuring the conclusion of her work with Mary. The therapist hoped to find a cognitive-behavior therapist in the area who could continue the program with Mary.

Session 17. There is no record of what Mary accomplished in relaxation practice over the past week. She was successful in taking her husband's advice to step back, take a deep breath and realize that it does not all need to be done at once.

This was possibly the next to the last session with Mary. In order to consolidate things for Mary, the therapist reviewed with her the concepts learned to date and covered any missing elements. The therapist and Mary reviewed where she had been, where she was at now, and where she might go. The therapist was outwardly optimistic and hopeful. Privately, she wondered if there had been any improvement. Mary's worry was still entrenched. Mary's therapist brought up Mary's belief that if she does not worry about her loved one it means she is irresponsible and unloving. The therapist presented an example for Mary of her daughter Jessica and her boyfriend. How does Jessica show that she loves him? If she does not worry about him, does that mean she does not love him? Mary's response to this was, "No, I wouldn't want her to worry. I'll do the worrying for her."

Termination Sessions

Sessions 18 and 19. The final two sessions were termination sessions, a time for Mary to experience closure of the relationship and transfer of care to her new therapist. The researcher/therapist gave Mary various handouts on stress, problem solving, and mindfulness to use as extra resources. The therapist also gave Mary referral information for CBT oriented programs. Unfortunately, there was no qualified CBT therapist in the local area; however, there were good options if Mary was willing to travel a distance. The therapist shared and interpreted the assessment results with Mary and gave recommendations for areas of continuing care. The LCSW practitioner came in to the final session to offer herself to Mary for continuing care and answer any questions Mary might have. Mary scheduled an appointment with her for the following week.

Results of Treatment Outcome and Process Measures

Mary did not complete sufficient charting from any of the MAW worksheets to create usable data to analyze. The BAI, the BDI-II, the DASS, and the PSWQ are the outcome measures that were used. The BAI and the BDI-II were the initial tests given. The preliminary plan was to have Mary complete these assessments once or twice sometime mid-treatment and then again at the end of treatment. The author then learned of the existence of the DASS and the PSWQ from their mention in the MAW therapist book (Zinbarg et al., 2006). The therapist thought it would be best to stagger the assessments so that Mary would not be overwhelmed, and to minimize the effect on the therapy time. Mary began arriving early for appointments so that she could fill out the instruments before session, thus enabling

assessment that is more frequent. Time between assessments was equalized as much as possible.

Figure 1 and Table 1 illustrate Mary's responses on the BAI over the course of treatment. The BAI was administered at sessions 2, 8, 12, 14 and 16. The total score range of the BAI is from 0 to 63. According to Beck and Steer (1993), total scores of 0 to 7 reflect "Minimal level of anxiety"; scores of 8 to 15 indicate "Mild anxiety"; scores of 16 to 25 reflect "Moderate anxiety"; and scores of 26 to 63 indicate "Severe anxiety." Mary's level of anxiety as measured by the BAI was in the mild range throughout treatment, varying from 10 to 14, out of a possible 63. The BAI is largely a measure of autonomic arousal symptoms and people with GAD have less symptoms of autonomic arousal (Brown, Chorpita, & Barlow, 1998). Mary never had any of the autonomic arousal symptoms at more than a mild level. The only symptom on the BAI that Mary claimed as severe was "fear of the worst happening." Symptoms she claimed at a moderate level were, unable to relax, nervous, fear of losing control and scared. Mary's low scores are consistent with expected scores on the BAI for individuals with GAD (Cox et al., 1996; Leyter et al., 2006).

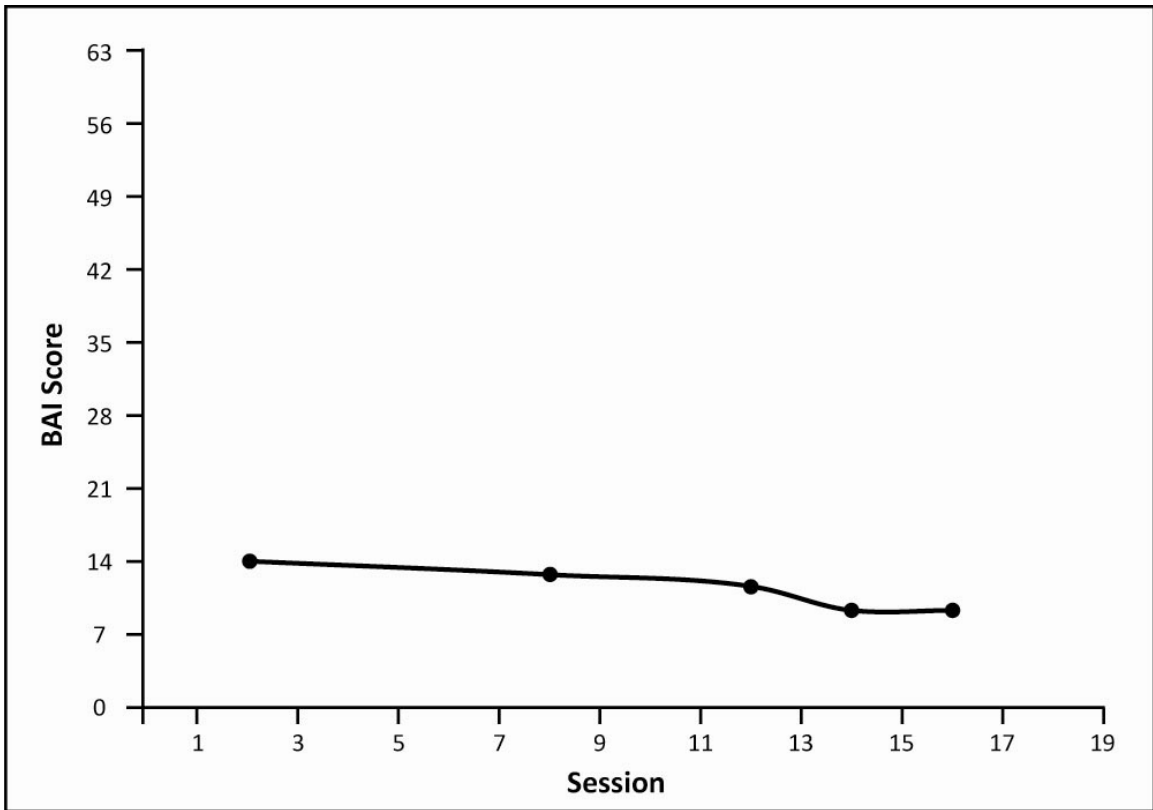


Figure 1. Mary's scores on the BAI over the course of treatment

Table 1. *BAI Scores and Life Events*

Session #	# Days between tests	Surrounding Events	BAI Score
2	n/a	2nd session	14
8	60	Blood tests, snow days	13
12	35	Fathers heart attack	12
14	12	Son's spring break	10
16	16	Post job loss, father ill	10

Figure 2 and Table 2 illustrate Mary's responses on the BDI-II over the course of treatment. The BDI-II was administered at Session 2 and then again at Session 7 and every session thereafter. The score range of the BDI-II is 0 to 63. A total score of 0 to 13 is considered to be in the minimal range for depression, 14 to 19 is mild, 20 to 28 is moderate, and 29 to 63 is severe. On the BDI-II, Mary's initial score at Session 2 was 34 points indicating severe depression and her final score at Session 18 was 13 points, indicating minimal symptoms of depression. This intake, end-of-treatment comparison indicates that Mary's symptoms of depression improved greatly. If the scores of sessions 9, 10 and 11 from the middle of treatment are added, the sequence becomes 34, 30, 26, 16, and 13. With those five scores, we still might claim improvement. However, a variable pattern with two peaks of increased depression is the pattern that emerges from more frequent testing. The lowest score was nine. No scores are higher than the intake score.

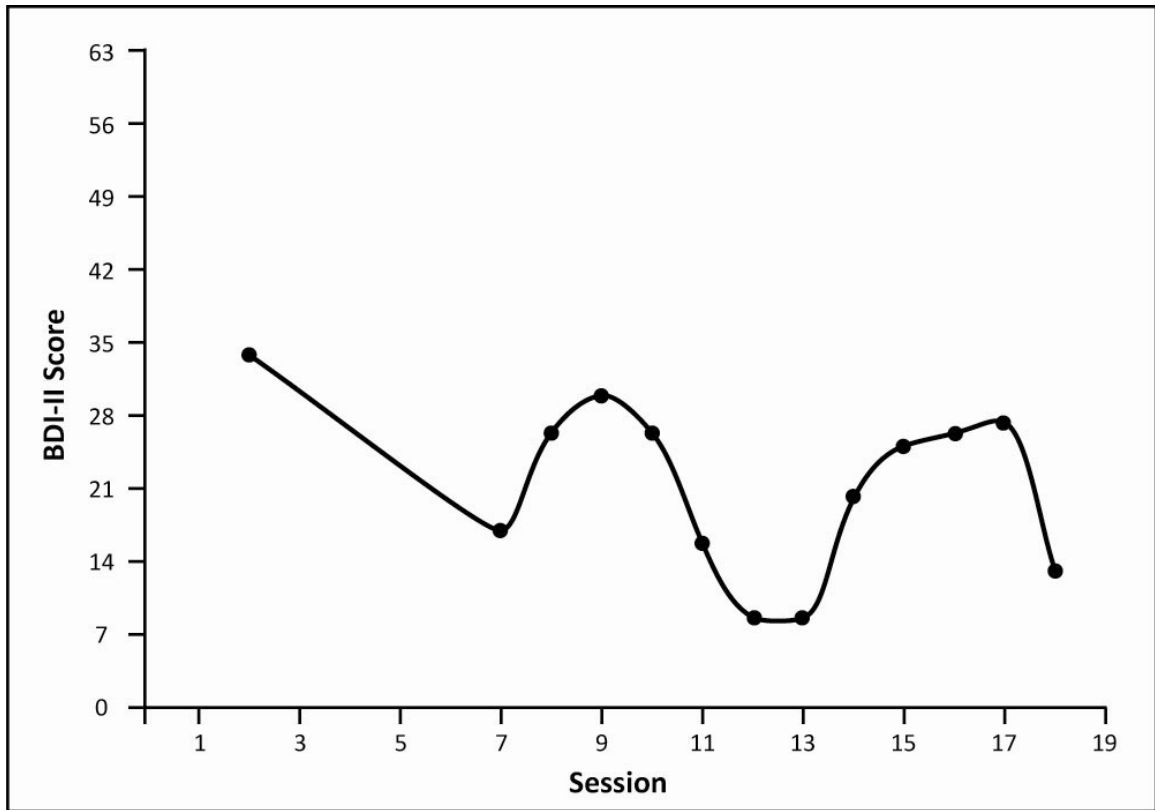


Figure 2. Mary's scores on the BDI-II over the course of treatment

It is possible that Mary's depression was lessening. It would be interesting to see the pattern for the 46-day span between the first assessment at session two and the second assessment at session seven. Perhaps additional time would show a consistent downward trend and we could say more confidently that it appears her depression was lessening. However, if her depression was lessening, the question remains. Did she improve because of treatment? She began taking an antidepressant at the same time as she began this treatment program. Perhaps what we see reflected the effects of the antidepressant. Perhaps as previously experienced, the antidepressant was ineffective, thus making it the effects of therapy alleviating her depression. Perhaps the treatment and the antidepressant were

working synergistically. Perhaps it is as Mary suggested, the episode was naturally running its course.

More intriguing to the author are the possible causes of the peaks and dip in scores. Figure 4 portrays the same pattern in the DASS-D and DASS-S subscales. The first thing that needs to be remembered is that no assessment is 100% accurate in its assessment. A self-report inventory, being a subjective measure, is even less accurate. Nevertheless, assuming a certain degree of accuracy exists, the score fluctuations might suggest ideas to explore.

The first peak took place over sessions 8, 9 and 10 with scores of 26, 30, and 26 (see Table 2). Mary had expressed distress at session 8 about the blood tests and the snow days. Yet her score was even higher at session 9 when there was nothing out of the ordinary in her week, and still had not subsided below 26 the next week. The second peak began at session 14 when her son's spring break was intensifying her worries. The score jumped even higher the next week when she received the job notice and it continued to climb over the next two weeks even though there nothing notable was apparent in her circumstances to explain this increase.

One theory the author has is that Mary's depression is secondary to stress. Figure 4 and Table 3 show a similar difference in the DASS-S and DASS-D scores at sessions 15 and 16. The DASS-S peaks at session 15 and the DASS-D peaks at session 16. However, the difference appears slight. Nevertheless, it is a possibility. Researchers have theorized that stress may play a contributory role in the development of depression.

While looking carefully at Mary's specific answers on the BDI-II, the author observed two to three symptoms that are particularly associated with the peaks. These are insomnia, agitation, and to a lesser extent, crying. Not only do these symptoms have the greatest intensity in her scores, they also have the greatest variation. Insomnia and agitation are both major symptoms of anxiety. Perhaps it is not that Mary's depression is worsening, but that her anxiety is increasing. If this is the case, then Mary's scores do not support the idea that stress contributes to depression and the puzzle remains why the peak continues past the anxiety provoking events in her life. Perhaps Mary's response to her circumstances triggers rapid physiological arousal and once aroused takes longer to dissipate.

Several other symptoms of the BDI-II are lesser, but significant contributors to the peaks. A noteworthy aspect of these symptoms is that they have constancy throughout treatment including at the one dip in scores. These include pessimism, indecisiveness, concentration difficulties, and loss of interest in sex. Pessimism and indecisiveness could be personality traits. It is the author's opinion that Mary has personality traits that probably contribute to chronic depression and anxiety. Sometimes that anxiety and depression increases, perhaps from physical, mental and/or emotional stressors of her environment. The cause of the fluctuation seen in these BDI-II scores is reactivity to short-term stressors.

Table 2. *BDI-II Scores and Life Events*

Session #	# Days between tests	Surrounding Events	BDI-II Score
2	n/a	2nd session	34
7	46	Autism workshop, niece	17
8	14	Blood tests, snow days	26
9	7	Nothing notable	30
10	7	Nothing notable	26
11	6	Shared that she likes this treatment	16
12	15	Father's heart attack	9
13	6	Nothing notable	9
14	6	Son's spring break	20
15	7	Job notice	25
16	7	Post job loss, father ill	26
17	7	Nothing notable	27
18	8	Nothing notable	13

Figures 3 and 4 and Table 3 illustrate Mary's responses on the DASS over the course of treatment. The DASS was administered weekly from Sessions 5 through Session 18 (minus Session 9). Mary's initial DASS-T score (see Figure 3) at Session 5 was 51 points and her final DASS-T score at Session 18 was 24 points. This intake, end-of-treatment comparison indicates improvement. The DASS-T shows the same variable pattern with two

peaks of increased symptoms as did the BDI-II. This is not surprising. A depression measurement is part of the total score of the DASS. However, the peaks are not an exact match. This may be an influence of the DASS-A.

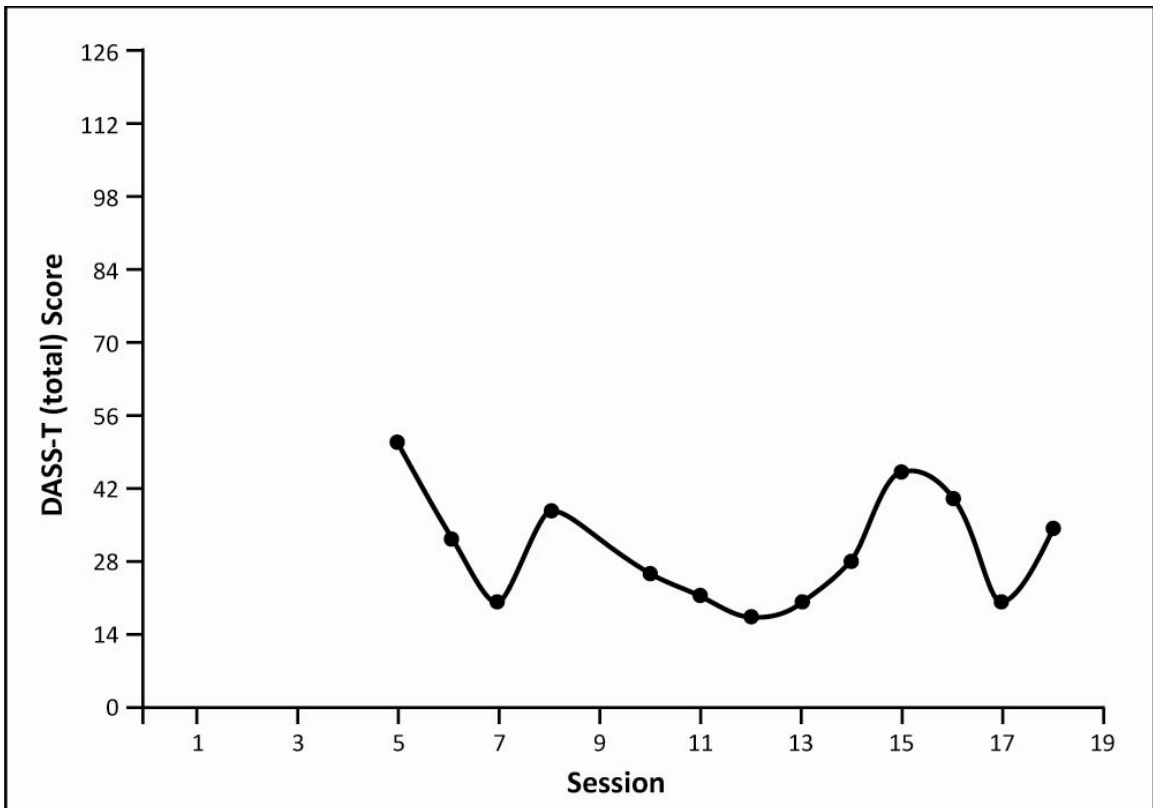


Figure 3. Mary's Total score on the DASS over the course of treatment
The DASS-T score is the combination of three subscales, DASS-D, DASS-A and DASS-S.
Possible score range of the DASS total: 0-126.

Both the DASS-D and DASS-S subscales (see Figure 4) show the same variable pattern with two peaks. These peaks seem to coincide with the peaks of the BDI-II although it is difficult to tell, as both tests were not administered on identical dates. Both DASS-D and DASS-S also show an end of treatment score lower than the intake score. The intake

score on the DASS-D was 26 and the end-of-treatment score was 13, evidencing improvement of depression. The DASS-S intake score was 23 and the end-of-treatment score was 18 showing some possible improvement although this small difference may be an artifact of measurement.

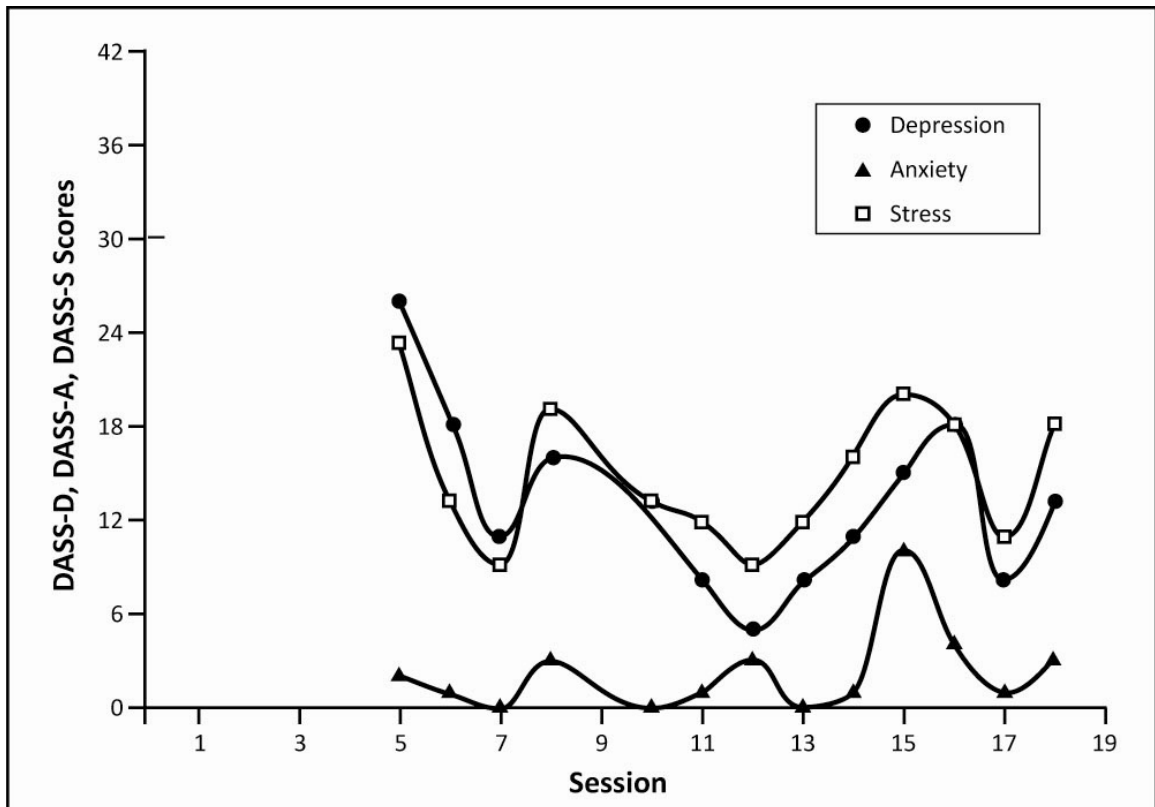


Figure 4. Mary's scores on the DASS-D, DASS-A and DASS-S over the course of treatment. Possible score range of each subscale is 0-42.

The same arguments made regarding the BDI-II can be made about the DASS-T, DASS-D, and DASS-S. These scores might be revealing improvement. If they are, we can say from them that she was experiencing less stress, less depression and less overall distress.

In contrast to the DASS-S and the DASS-D, Mary's pattern of scores on the DASS-A were unlike either the DASS-D or DASS-S. Her intake score was two points and the end-of-treatment score was three points. Other than one exception her scores on the DASS-A hover from zero to three. The exception to this occurred when she learned her job contract would not be renewed. Mary's DASS-A score went to 10 points at that assessment. That was the only assessment where Mary claimed several autonomic arousal symptoms. The most frequent symptom claimed on the DASS-A over the course of treatment was, "I found myself in situations that made me so anxious I was most relieved when they ended."

Mary's scores on the DASS-A were low as were her scores on the BAI. Both the BAI and the DASS-A largely measure autonomic arousal symptoms and thus it is not surprising that the scores would be similar. Mary's low scores on both the DASS-A and the BAI, seem to reinforce the Lovibond and Lovibond (1995b) statement that the BAI and the DASS-A are similar.

Table 3. *DASS and DASS Subscale Scores and life events possibly affecting scores*

Session #	Event	DASS-D	DASS-A	DASS-S	DASS-T
5	Nothing notable	26	2	23	51
6	Rx working?	18	1	13	32
7	Autism workshop, Niece	11	0	9	20
8	Blood tests, Snow days	16	3	19	38
10	Nothing notable	13	0	13	26
11	she likes this treatment	8	1	12	21
12	Father's heart attack	5	3	9	17
13	Nothing notable	8	0	12	20
14	Son's spring break	11	1	16	28
15	Job notice	15	10	20	45
16	Post job notice, Father ill again	18	4	18	40
17	Nothing notable	8	1	11	20
18	therapy ending	13	3	18	24

Figure 5 and Table 4 illustrate Mary's responses on the PSWQ over the course of treatment. The PSWQ was first administered at Sessions 5 and then again 49 days later at Session 9. After that, the tests were administered every two weeks. Mary's initial PSWQ score at Session 5 was 69 points and her final score at Session 16 was 61 points. The score range of the PSWQ is 16-80. This intake, end-of-treatment comparison indicates no

improvement. If the PSWQ is assessing level of worry, then Mary appeared to be worrying just as much as when she began treatment. Mary's initial score of 69 on the PSWQ was above the suggested cut-off score of 65 said to best distinguish GAD from social anxiety (Turk et al, 2004). All of the other scores are below 65.

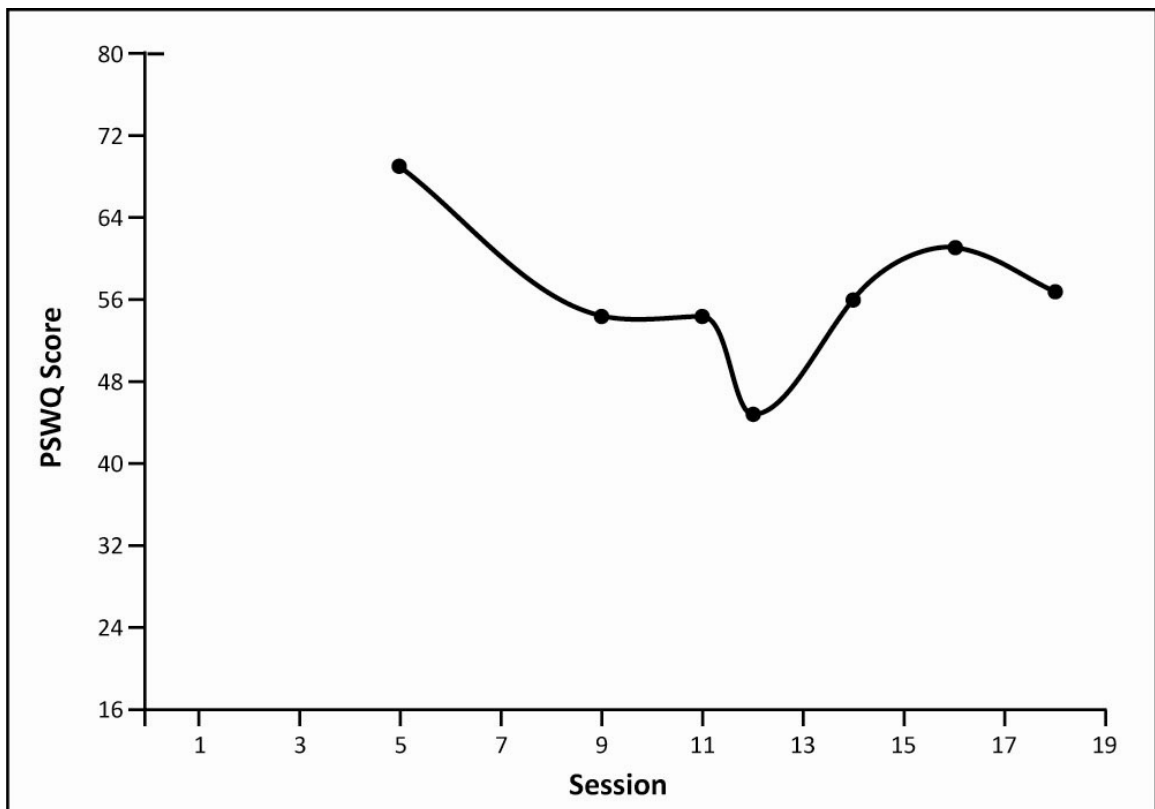


Figure 5. Mary's scores on the PSWQ over the course of treatment

All of Mary's scores on the PSWQ except one were above the cut-off score of 53 said to separate GAD from non-clinical worriers (Fresco et al., 2003). That one score intrigues this author. That score makes a visible dip at the twelfth session. Her BDI-II scores also made a sudden dip at the twelfth session as did her DASS-S and DASS-D scores. The time

of that drop in scores was when her father had a heart attack and she had been the strong one for the family. Her father had a heart attack and according to the tests, her worries went down, her stress went down and her depression went down. It begs the question; what was different about this seeming crisis compared to the other events that took place during treatment in which her scores on the assessments jumped. One answer is that Mary knew her script. She knew her part was to be the calm one for the family and take care of things. Perhaps this has been her role in the family structure of her parents and sister.

Perhaps the cause of Mary's distress when school ends for the summer, or when there are unexpected snow days are because she loses her script. She must create her own script. However, that requires making decisions and her desire to be perfect and "normal" make it difficult for her to make decisions. The uncertainty that exists until as she puts it, "her ducks are all in a row," adds to her distress. The need for a script may also be a factor in the worry she has about her son. She wants him to be independent and yet she is afraid of him leaving. She knows her script as mother to a child, ironing his shirt, making sure he gets up on time for work, washing his clothes and making his meals. Perhaps the ambiguity of changing roles frightens her. Perhaps this worry enables her to avoid the fearful image of him moving away and disappearing from her life. These are only a few of the variety of possibilities.

Table 4. *PSWQ scores and life events*

Session #	Days between tests	Score	Events
5	n/a	69	Nothing notable
9	49	54	Nothing notable
11	13	54	She likes CBT
12	16	44	Father's heart attack
13	13	57	Nothing notable
14	14	56	Son's spring break
16	15	61	1 week past job notice, father ill

Summary

Mary had 19 sessions of treatment over a span of 5 months. The treatment method chosen was a cognitive-behavioral therapy using the protocol from the manual *Mastering Your Anxiety and Worry* (Craske & Barlow, 2006; Zinbarg et al., 2006). Variations of cognitive-behavioral treatments have the largest research base and strong empirical evidence as effective treatment for GAD. The Mastering your Anxiety and Worry protocol is an empirically based approach to the treatment of GAD and worry, and teaches skills that have been tested and shown to be effective in treating GAD.

Assessment of the client was thorough and lasted four sessions. Treatment using MAW began at the fifth session and lasted a total of 13 weeks. The therapist and client accomplished the first portion of the program, psychoeducation, progressive muscle

relaxation, and cognitive restructuring. Termination needs occupied the last two weeks of therapy.

The therapist experienced both benefits and disadvantages of manualized treatment. Some of the disadvantages experienced will be discussed in Chapter 4. One advantage is that for a novice therapist unaccustomed to cognitive behavior therapy and session planning it is helpful to have a manual to guide treatment and likely improves the treatment that is provided. The manual provides structure and a focused goal. The accompanying workbook is a helpful resource for the client. First, it helps the client and the therapist focus on the same goals. A workbook to accompany treatment makes it easier for the client to socialize to the CBT format. The author agrees with Zinbarg et al. (2006, p. 15) that having workbook material to read outside of session probably increases learning in session. At the least, it maximizes session time. Additionally, the workbook is a good source of reference and review, something the client would not normally have.

The assessment results provide an ambiguous answer to whether Mary was experiencing improvement. Given the results of the PSWQ, it does not appear that her worries decreased over the course of treatment. The BDI-II and the DASS-D and DASS-S indicate that she was experiencing less stress and depression than when she initially came for treatment. As was previously discussed, it cannot be determined if that improvement was response to therapy or response to medication. Perhaps she was feeling better because of the support she received coming to therapy and the specific treatment used was inconsequential. Mary was not given a client satisfaction survey and so there is no formal measurement of

social validity of the treatment. However, there were indications that she was satisfied with therapy. She came faithfully to the very last possible day the therapist was able to remain at the facility. Immediately preceding the final two sessions, she became teary when reminded that treatment was nearing its end with this particular therapist, the author. Most encouraging to the author is that Mary continued in treatment with the author's supervisor. If nothing else, this indicates that Mary has hope for improvement.

Chapter 4

Normative Versus Best Practice

Ideally, normative practice, and best practice would be identical. However, the nature of the world being far from perfect, this will never happen. Like all treatment, the treatment given in this study was imperfect. This chapter presents the imperfect normative, that is, what actually happened in treatment, compared against what might be considered perfect, or at least, better treatment.

Zinbarg et al., (2006) report several core prerequisites for successful use of the *Mastery of Your Anxiety and Worry* (Craske & Barlow, 2006; Zinbarg et al., 2006) treatment manual. These are that the therapist should be “conversant with the nature of anxiety and worry,” as well as have “sufficient understanding of the conceptual foundations underlying treatment.” The reason for this knowledge is “in order to be able to tailor various sessions to best meet the needs of the individual” (Zinbarg et al., 2006, p. 6).

The author/therapist believes she did not sufficiently possess these prerequisites. There were several reasons the therapist lacked the prerequisites. First, the therapist had only a few months of part time experience conducting therapy prior to implementing this case study. Second, although the therapist had some knowledge of the basic principles of cognitive and behavioral treatments, this knowledge was probably not sufficient. That deficiency made it difficult to stay within what the therapist understood as CBT treatment parameters. An example is keeping the content of the session consistent with a structured

planned agenda. However, perhaps the therapist's view of the extent of structure required was inaccurate. This is another example of the effect of insufficient knowledge of CBT.

Perhaps more critically, the therapist was not conversant with the nature of anxiety and worry or the conceptual foundations underlying treatment. The therapist's understanding of GAD did not extend much beyond the *DSM-IV-TR*. Not until after rereading the manual after treatment ended did the therapist recognize how little she had known. Zinbarg et al (2006) say they "attempted to present the program in sufficient detail so that any mental health professional should be able to supervise its application." Regarding the prerequisites of understanding, they say, "the goal of this therapist guide is to impart this understanding (p. 6)." However, a certain knowledge base is required for new material to build upon. What had been obscure to the therapist in the MAW therapist manual and client workbook before the literature review had become clearer after completion of the literature review. This undoubtedly affected what the therapist was able to convey to the client.

How far treatment can diverge from a manual yet still be considered implemented with integrity was a major consideration for the therapist. How far can the protocol bend before it breaks? Sufficient understanding of the conceptual foundations of treatment for anxiety and worry might have answered that question. It would certainly have given the therapist an increased confidence when departing from prescribed practice.

Furthermore, homework completion could have been greatly improved. The author believes poor completion reflected lack of focus and impeded the progress Mary could have

made. The author places this in the category of divergence from best practice because she does not believe the onus for this falls solely on the client.

There were several factors that affected the therapist's ability to help the client in homework completion. First, many people naturally experience ambivalence about making changes. Therapist skills in motivational interviewing could have helped the client overcome that ambivalence and support successful change. Second, perhaps the most insidious reason had the greatest influence and that was the therapist's own ambivalence about the benefit of the homework. Third, the therapist could have given more attention to rewarding the efforts the client did make. There were probably missed opportunities to reinforce her efforts.

Best practice means what is best for the client. As treatment following the MAW protocol advanced, the therapist became convinced that even though already progressing through the book much slower than directed, both the volume and pace were overwhelming the client. It would have been better to break down the concepts into yet smaller components than to try to rush through the program for the sole sake of finishing. Unfortunately, by the time the therapist realized this, she felt that she had too little time left with the client for that to be worthwhile. Perhaps if there had been a follow-up provider who could work with the client from a CBT perspective it would have been worthwhile. The therapist searched and found no one closer than 50 minutes away. Another reason the therapist did not adapt the program more readily to the clients perceived needs was that she was still feeling pressure to follow the MAW protocol.

Feeling pressure to follow the MAW protocol as well as wondering how much one can vary and similar thoughts were a constant difficulty for the therapist. Perhaps the manual itself was a detriment to best practice. The therapist certainly experienced the difficulties that others have noted about treatment manuals. Addis (1997) pointed out that homogeneity does not exist in clinical practice and that following a mechanical set of rules could potentially have negative effects. Agreeing with that, Wilson (1996) adds that manual-based treatments are conceptually at odds with the fundamental principles of CBT.

In any endeavor, there is always something that could be improved and another, perhaps better approach. Critique and analysis are valuable, whether for formal case study or for everyday practice. In the end, flexible responsiveness to that analysis is what will produce best practice.

Chapter 5

Summary and Conclusions

The purpose of this case study was to track the progress of one client with an anxiety disorder whose treatment was guided by a manualized protocol. The author of this paper served as the mental health provider. The client's psychosocial assessment was shared, the literature related to her diagnosis and treatment was reviewed, her progress over the course of treatment was presented with both qualitative and quantitative outcome measures and a comparison between her current treatment and what might be considered best treatment was given.

The client was a 44-year-old Caucasian female. The results of her psychosocial assessment indicated that she was experiencing several clinical conditions. Specifically, she was diagnosed with generalized anxiety disorder, major depressive disorder, and social phobia. Her history indicated long-standing anxiety and multiple previous episodes of major depressive disorder. Prior to beginning the current treatment, the client had tried medications several times and counseling two other times. The client's current struggles were conceptualized as arising from a combination of physiological vulnerability along with maladaptive cognitions and behavior, with a specific cognitive bias towards threat and personal vulnerability.

Review of the literature looked at pharmacological treatment for GAD and depression. Benzodiazepines and antidepressants are the most common class of medication used for GAD with antidepressants considered first-line pharmacological treatment for both

GAD and depression (Ballenger et al., 2001; Lydiard & Monnier, 2004; Rouillon, 2004).

While the majority of individuals with GAD do experience some relief, most remain symptomatic. Relapse is common upon discontinuation of treatment (Pollack, 2006; Lydiard & Monnier, 2004; Allgulander, 2009).

A broad spectrum of disorders is comorbid with GAD. These are most often other anxiety or mood disorders, especially major depression (Dupuy & Ladouceur, 2008; Kessler et al., 2001; Kessler et al., 2004; Noyes, 2001). It is the norm for a person with GAD also to have a comorbid condition (Ballenger et al.; Kessler et al., 2001). GAD remission rates resulting from psychotherapy are not much more than 50% of patients and relapse is frequent. Conditions of comorbidity lower the remission rates further. Psychotherapy for people with GAD is generally long term and a person with GAD and comorbid conditions can expect to need even longer treatment in order to experience remission.

After completing the psychosocial assessment and coming to a conceptual and diagnostic understanding of the client, a treatment was chosen that had established efficacy. Specifically, a manualized cognitive-behavioral treatment from the treatment program "*Mastery of Your Anxiety and Worry*" (Craske & Barlow, 2006; Zinbarg et al., 2006) was the chosen treatment protocol. The program "is ideally suited for those who meet the criteria for the diagnosis of generalized anxiety disorder" (Zinbarg et al., 2006, p. 1). The major components of the program are cognitive restructuring, relaxation training and worry imagery exposure. The first two components are standard CBT. The basis of imagery

exposure is the cognitive avoidance model explanation that the verbal-linguistic nature of worry enables the individual to avoid distressing imagery.

Although standard cognitive-behavior therapy is an efficacious treatment for GAD, low remission and high relapse rates provided impetus to search for improved methods of treatment. The cognitive avoidance, intolerance of uncertainty, metacognitive, emotional dysregulation, and acceptance-based models are results of that research. Cognitive avoidance and intolerance of uncertainty models have assimilated with CBT to the extent that the major components of these two models are now part of standard CBT for GAD. The author believes none of the models is mutually exclusive. Each one has the potential to contribute to a more effective paradigm.

Overall, Mary's response to treatment was inconclusive. The DASS-S and the PSWQ are commonly used measures with GAD. The DASS-S shows a slight reduction of the type of anxiety addressed by that scale. The PSWQ shows no reduction of worry. The BDI-II and DASS-D indicate a slight reduction in depression. The BAI scores were mild throughout and other than one exception the DASS-A scores were under 4% of the possible total.

Treatment implementation consisted of only seven of the 12 possible treatment modules. Modules six and seven had only a cursory overview. Continuation of treatment with a therapist trained in CBT was judged the best continuing care for her needs. Those resources were not available and she continued treatment with the other provider at the agency.

After review, the author would do a number of things differently. Her greatest struggle was with the perceived constraints of the manual. First, instead of feeling tied to a manual, the author would have trusted her instincts and more readily diverged when it seemed the better choice. She would likely use a manual or two for ideas or as a rough outline. Note that the reason for this choice might only be that it is more consistent with the author's disposition. Second, the author would incorporate aspects of mindfulness and acceptance from ABBT into treatment. The author observed that focusing on worries as assigned in the MAW workbook seemed to exacerbate the client's worries. Consideration was given that mindfulness and acceptance might be a better approach. When worrying, the client focuses on the future and is unable to enjoy the present. When the client is mindful of experiencing life in the present, she is unable to worry. Additionally, when mindful, the client is not repressing the worry, but is replacing it with other thoughts. The therapist believes that some of the client's distress came from fighting against her emotions and that if she came to accept her emotions she would be relieved of that distress. Third, the author would have simplified the assignments so the client could solidly grasp a concept before moving on. Fourth, addressing maladaptive thoughts would not be limited to the two in the MAW manual, *thinking the worst*, and *overestimating the risk*. Instead, the target would be the unique thought construct of this client. For example, intolerance of uncertainty was a large difficulty for this client. If the author had not felt pressured by limited time and the feeling that she had to bring something to conclusion within that time, she might have diverged even more. This might include difficulties the client was having letting her children go. Her

statement made early in treatment that she wishes she was more independent would be explored. The author believes the client was projecting herself onto her son. Borkovec and others theorize that worry is a mechanism used to avoid awareness of the real source of distress (Borkovec et al., 2004). The author theorizes that the client's worries, particularly the obsessive nature of her worry about her son will diminish when this source of distress, what she feels about herself is resolved.

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Appendix A

MAW Worry Record

Worry Record

Date: _____ Time began: (am/pm) _____ Time ended: (am/pm) _____

Maximum level of anxiety (circle a number below)

0 --- 10 --- 20 --- 30 --- 40 --- 50 --- 60 --- 70 --- 80 --- 90 --- 100

None Mild Moderate Strong Extreme

Indicate which of the following symptoms you are experiencing:

Restlessness, feeling keyed-up or on edge _____

Easily fatigued _____

Difficulty concentrating or mind going blank _____

Irritability _____

Muscle tension _____

Sleep disturbance: _____

Triggering Events: _____

Anxious Thoughts: _____

Anxious Behaviors: _____

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Appendix B

MAW Daily Mood Record

Daily Mood Record

Rate each column at the end of the day, using a number from the 0- to 100-point scale below.

0-----10-----20-----30-----40-----50-----60-----70-----80-----90-----100

None Mild Moderate Strong Extreme

Date	Overall Anxiety	Maximum Anxiety	Overall Physical Tension	Overall Preoccupation with Worry	

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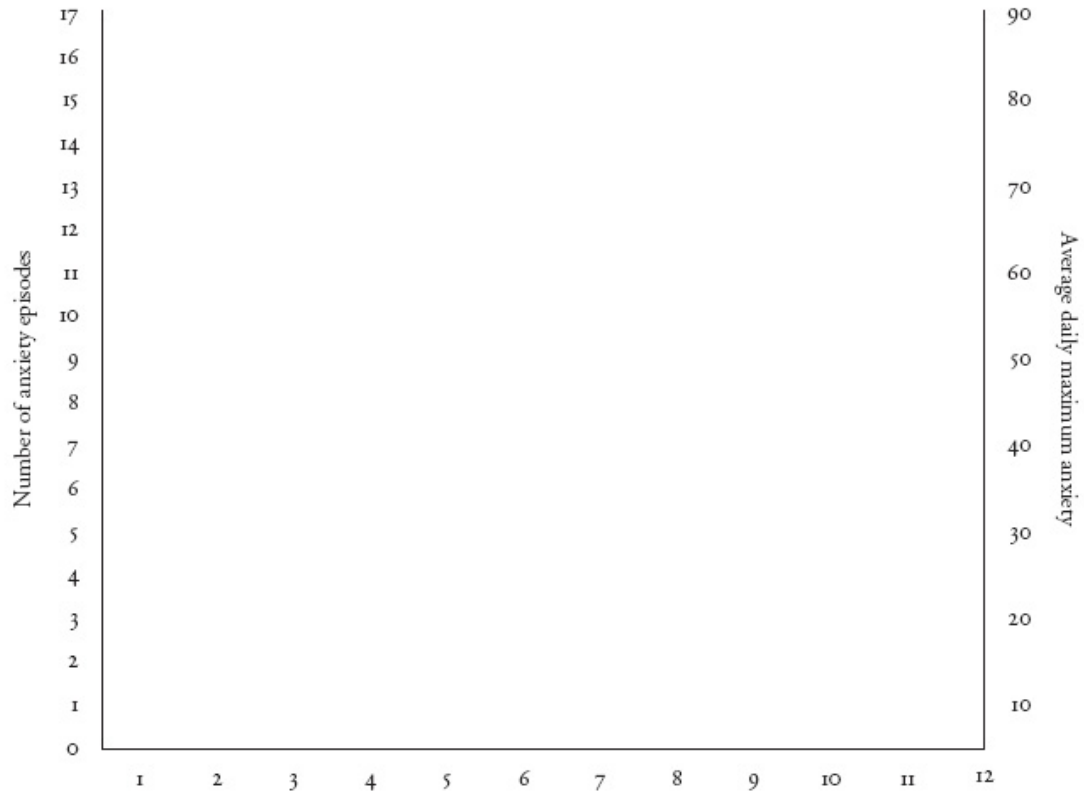
Appendix C

MAW Progress Record

Progress Record

Left axis: Number of anxiety episodes per week (from the number of Worry Records)

Right axis: Average of daily maximum anxiety per week (from the Daily Mood Record)



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Appendix D

MAW Worry Record – Real Odds

Worry Record—Real Odds

Date: _____ Time began: _____ (A.M./P.M.) Time ended: _____ (A.M./P.M.)

Maximum level of anxiety (circle a number below):

0----10----20----30----40----50----60----70----80----90----100
None Mild Moderate Strong Extreme

Indicate which of the following symptoms you are experiencing:

Restlessness, feeling keyed up or on edge _____
Easily fatigued _____
Difficulty concentrating or mind going blank _____
Irritability _____
Muscle tension _____
Sleep disturbance _____

Triggering events: _____

Anxious thoughts: _____

Real odds 0–100 _____

Alternative possibilities: _____

Anxious behaviors: _____

Appendix E

MAW Anxiety Components Record

Anxiety Components

Major physical symptoms

Major thoughts/images

Major behaviors

Appendix F

DASS Assessment

DASS	<i>Name:</i>	<i>Date:</i>
<p>Please read each statement and circle a number 0, 1, 2 or 3, which indicates how much the statement applied to you <i>over the past week</i>. There are no right or wrong answers. Do not spend too much time on any statement.</p> <p><i>The rating scale is as follows:</i></p> <p>0 Did not apply to me at all 1 Applied to me to some degree, or some of the time 2 Applied to me to a considerable degree, or a good part of time 3 Applied to me very much, or most of the time</p>		
1	I found myself getting upset by quite trivial things	0 1 2 3
2	I was aware of dryness of my mouth	0 1 2 3
3	I couldn't seem to experience any positive feeling at all	0 1 2 3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0 1 2 3
5	I just couldn't seem to get going	0 1 2 3
6	I tended to over-react to situations	0 1 2 3
7	I had a feeling of shakiness (eg, legs going to give way)	0 1 2 3
8	I found it difficult to relax	0 1 2 3
9	I found myself in situations that made me so anxious I was most relieved when they ended	0 1 2 3
10	I felt that I had nothing to look forward to	0 1 2 3
11	I found myself getting upset rather easily	0 1 2 3
12	I felt that I was using a lot of nervous energy	0 1 2 3
13	I felt sad and depressed	0 1 2 3
14	I found myself getting impatient when I was delayed in any way (eg, lifts, traffic lights, being kept waiting)	0 1 2 3
15	I had a feeling of faintness	0 1 2 3
16	I felt that I had lost interest in just about everything	0 1 2 3
17	I felt I wasn't worth much as a person	0 1 2 3
18	I felt that I was rather touchy	0 1 2 3
19	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0 1 2 3

Appendix F2

DASS Assessment continued

20	I felt scared without any good reason	0	1	2	3
21	I felt that life wasn't worthwhile	0	1	2	3
22	I found it hard to wind down	0	1	2	3
23	I had difficulty in swallowing	0	1	2	3
24	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	I felt down-hearted and blue	0	1	2	3
27	I found that I was very irritable	0	1	2	3
28	I felt I was close to panic	0	1	2	3
29	I found it hard to calm down after something upset me	0	1	2	3
30	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	I was unable to become enthusiastic about anything	0	1	2	3
32	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	I was in a state of nervous tension	0	1	2	3
34	I felt I was pretty worthless	0	1	2	3
35	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	I felt terrified	0	1	2	3
37	I could see nothing in the future to be hopeful about	0	1	2	3
38	I felt that life was meaningless	0	1	2	3
39	I found myself getting agitated	0	1	2	3
40	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41	I experienced trembling (eg, in the hands)	0	1	2	3
42	I found it difficult to work up the initiative to do things	0	1	2	3

Lovibond S. H. & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales*. (2nd Ed.). Sydney: Psychology Foundation of Australia.

Can be found at Psychology Foundation of Australia (2010). www.psy.unsw.edu.au/dass/

Appendix G

Characteristics of high scorers on each DASS scale

Depression scale

- self-disparaging
- dispirited, gloomy, blue
- convinced that life has no meaning or value
- pessimistic about the future
- unable to experience enjoyment or satisfaction
- unable to become interested or involved
- slow, lacking in initiative

Anxiety scale

- apprehensive, panicky
- trembly, shaky
- aware of dryness of the mouth, breathing difficulties, pounding of the heart, sweatiness of the palms
- worried about performance and possible loss of control

Stress scale

- over-aroused, tense
- unable to relax
- touchy, easily upset
- irritable
- easily startled
- nervy, jumpy, fidgety
- intolerant of interruption or delay

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Appendix H

Questions of the Penn State Worry Questionnaire (PSWQ)

1. If I do not have enough time to do everything, I do not worry about it.
2. My worries overwhelm me.
3. I do not tend to worry about things.
4. Many situations make me worry.
5. I know I should not worry about things, but I just cannot help it.
6. When I am under pressure, I worry a lot.
7. I am always worrying about something.
8. I find it easy to dismiss worrisome thoughts.
9. As soon as I finish one task, I start to worry about everything else I have to do.
10. I never worry about anything.
11. When there is nothing more I can do about a concern, I do not worry about it any more.
12. I have been a worrier all my life.
13. I notice that I have been worrying about things.
14. Once I start worrying, I cannot stop.
15. I worry all the time.
16. I worry about projects until they are all done.

Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and Validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy*, 28, 487-495.

Can be downloaded from www.outcometracker.org/library/PSWQ.pdf

Appendix I

Informed Consent Agreement

I agree to participate in a study entitled “Treatment of Anxiety Using Manualized Protocol: A Case Study.” This study is a research project of Deborah Stevenson, a graduate student of the Clinical Mental Health Counseling Program at Rowan University.

The primary purpose of this study is to evaluate the effectiveness of treating anxiety using the guidelines of a manualized treatment. (Definition of manualized treatment – organizing the important parts of treatment into a book to be used by counselor and client) Information gathered from this study will be written and submitted for publication as a thesis manuscript. Parts of or all of the manuscript may be referenced or used in future publications. I agree that if confidentiality is maintained, any information obtained from this study may be used in any way thought best for publication or education.

I understand that I will receive individual counseling focused on my particular anxiety. I understand that the format of therapy will be guided by the procedures set forth in the treatment manual chosen for my particular anxiety. My participation in the study involves a minimum of 10 counseling sessions and includes between session readings and various exercises. I understand that there are no physical or psychological risks involved in this study and that my participation is voluntary. I am free to withdraw my participation at any time without penalty.

I understand that any information I provide is confidential, and no information that could lead to the identification of me or any other individual will be disclosed in any reports on the project, or to any other party. I understand that all data will be kept in secure storage, accessible only to Deborah Stevenson. I understand that the data of the study will be held for three years after the completion of the study and will then be thoroughly destroyed.

I understand that my participation does not imply employment with the state of New Jersey, Rowan University, the principal investigator, or any other project facilitator.

If I have any questions or problems concerning my participation in this study, I may contact Deborah Stevenson by phone at XXX or by email at xxxxxxxxxxxxxxxx

If you have any questions about your rights as a research subject, you may contact the Associate Provost for Research at:

Rowan University Institutional Review Board for the Protection of Human Subjects
Office of Research, 201 Mullica Hill Road, Glassboro, NJ 08028-1701, Tel: 856-256-5150

Signature of Participant

(Date)

Signature of Investigator

(Date)