

# Integrating Mindfulness and Acceptance Into Traditional Cognitive Behavioral Therapy During the COVID-19 Pandemic: A Case Study of an Adult Man With Generalized Anxiety Disorder

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## Abstract

Generalized Anxiety Disorder (GAD) can be chronic and impairing, highlighting the need for effective treatments. Although Cognitive Behavior Therapy (CBT) is an effective treatment for GAD, a number of patients continue to report GAD symptoms treatment. Integrating evidenced-based treatment components into CBT treatments, such as mindfulness- and acceptance-based treatment components found in Acceptance and Commitment Therapy (ACT), may help improve the efficacy of treatment. Emerging interventions and research suggest that the cognitive restructuring aspect of CBT and acceptance stance of ACT (e.g., cognitive defusion) can be implemented into treatment concurrently from a stance of increasing a patient's coping skills repertoire and psychological flexibility. This systemic case analysis examined the efficacy and clinical utility of integrating ACT into a manualized CBT treatment for GAD. Furthermore, this study examined treatment efficacy and therapeutic alliance as the treatment rapidly and unexpectedly transitioned from in-person to telehealth due to the COVID-19 pandemic. Pre- to post-treatment and time-series analyses showed significant decreases in anxiety symptoms, worry, depressive symptoms, and emotion dysregulation. Although there was an initial increase in depressive and anxiety symptoms, worry, and emotion dysregulation following the switch from in-person to telehealth services, these quickly subsided and resumed a downward trend. The therapeutic relationship did not deteriorate during the transition to telehealth. This case study provides evidence of feasibility and efficacy of an integrated CBT/ACT approach in treating GAD. It also suggests that despite some temporary increase in symptoms, therapeutic alliance and treatment efficacy were not impacted by the switch to telehealth.

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cognitive-behavioral therapy, acceptance and commitment therapy, generalized anxiety disorder

**I Theoretical and Research Basis for Treatment**

Generalized anxiety disorder (GAD) is characterized by excessive, difficult to control, and psychosocial impairing anxiety and worry regarding multiple aspects of one's life ([American Psychiatric Association, 2013](#)). This anxiety and worry can manifest in symptoms such as restlessness, difficulty concentrating, muscle tension, fatigue, irritability, and difficulty sleeping. These symptoms occur most of the time over the course of six or more months. GAD has high comorbidity with other psychological disorders including major depressive disorders ([American Psychiatric Association, 2013](#)). Approximately 3–4% of adults in the United States experience GAD in the past year and 7.8% report experiencing GAD in their lifetime ([Ruscio et al., 2017](#)). GAD tends to be chronic in nature, following a course of periods of full or partial remission and relapse of symptoms. Over the course of 8 years, 43% of men and 36% of women will experience another episode of GAD ([Yonkers et al., 2003](#)). Of respondents who reported a lifetime history of GAD, 48% reported experiencing GAD in the past year ([Ruscio et al., 2017](#)). The high-risk of GAD recurrence highlights the need for effective treatments.

There are numerous cognitive behavior therapy (CBT) protocols and manuals to treat GAD. The CBT model of GAD suggests that uncontrollable worry associated with GAD is the result of threatening and catastrophic thoughts about future events ([LeBlanc et al., 2021](#)). This worry serves as means of avoiding threatening, unpleasant experiences ([Lee et al., 2010](#)). For example, the worry of the future threatening event causes an individual to engage in excessive checking behaviors or distract themselves from negative internal experiences. The worry is then maintained via negative reinforcement as it provides immediate relief and prevents the individual from engaging in effective coping strategies. Since the feared event did not occur, the worry creates a sense of control and predictability. CBT approaches focuses on changing the threatening thoughts through cognitive restructuring by evaluating the evidence and developing alternatives, as well as strengthening the patient's belief that they can cope with unpleasant events ([Craske & Barlow, 2006](#)). CBT protocols focus on psychoeducation about anxiety and worry, relaxation, cognitive restructuring, behavioral experimentation, and imaginal exposure ([LeBlanc et al., 2021](#)). Meta-analyses showed CBT to be an effective treatment of GAD ([Carpenter et al., 2018](#); [Hoffman et al., 2012](#)). However, not all who complete treatment report remission of symptoms. For example, 62% of GAD patients had clinically significant improvement post-treatment which reduced to 56% at one year follow-up ([Öst & Breitholtz, 2000](#)). This has resulted in a call for enhancing the efficacy of existing CBT therapies for GAD with empirically supported treatment components ([Behar et al., 2009](#)).

Integrating mindfulness and acceptance treatment elements to existing CBT manuals may enhance the effectiveness of the treatment. The worry associated with anxiety can be conceptualized as a form of experiential avoidance. Experiential avoidance is the attempt to control or alter internal experiences even when it causes psychological suffering ([Hayes et al., 2012](#)). This avoidance can result in the paradoxical effect of an increase in the avoided internal experiences ([Luoma et al., 2007](#)). [Hayes et al. \(2012\)](#) developed Acceptance and Commitment Therapy (ACT) and suggested that addressing experiential avoidance involves developing a stance of mindfulness and acceptance. That is, to be aware of and experience fully, without judgment or defense, present-moment experiences. Mindfulness and acceptance, rather than avoidance, of internal experiences allows for flexibility in response and increasing behaviors that are in accordance with the patient's values ([Luoma et al., 2007](#)). Techniques such as cognitive defusion are utilized to help patients

view thoughts as something they experience without literal meaning and implications. Mindfulness- and acceptance-based therapies, such as ACT, are effective treatments of GAD. A randomized controlled trial study compared CBT and ACT and found that both resulted in a reduction in GAD symptoms (Stefan et al., 2019). Treatment components of mindfulness/acceptance therapies such as mindfulness exercises and valued actions are common in CBT treatments for GAD (LeBlanc et al., 2021).

A mindfulness and acceptance stance within ACT emphasizes changing the relationship and reaction to thoughts (e.g., cognitive defusion). Since thoughts are experiences without literal meaning, the focus of treatment is not on the content of the thought but acceptance of the experience of thoughts coming and going. A CBT approach emphasizes changing the anxiety-provoking thought (e.g., cognitive restructuring). It may seem conflicting to incorporate these two perspectives into therapy. For example, Roemer & Orsillo (2007) developed Acceptance-Based Behavior Therapy for GAD with the specific purpose of blending CBT with ACT, but they did not include cognitive restructuring in their treatment and instead focused on acceptance of internal experiences. However, incorporating both approaches is possible. Ciarrochi and Bailey (2008) proposed an integrated approach where ACT and CBT techniques are offered to patients as a means of increasing the reservoir of coping skills. Patients develop the skill to identify under which circumstances ACT versus CBT techniques may be more helpful. When combining these two approaches therapists should explain to patients that these techniques promote thinking about thoughts differently and encourage whichever strategy is the most beneficial and thus promote psychological flexibility (Blackledge, 2018; Wenzel, 2018). Case studies provide support for the successful implementation of a blended ACT/CBT approach for other problems including depression, chronic pain, and emotional difficulties (Lunde & Nordhus, 2009; Marino et al., 2015; Pavlacic & Young, 2020). One small study found that combining CBT with ACT resulted in improvements in GAD symptoms (Carrier & Côté, 2010).

### *COVID-19 and the Rapid Switch to Telehealth Services*

The onset of the COVID-19 pandemic and the subsequent lockdowns resulted in in-person psychotherapy services being quickly shifted to telehealth (i.e., phone or video sessions). Telehealth is an effective method of treating mental health problems, including GAD, and its effectiveness is often comparable to in-person psychotherapy (Poletti et al., 2021). However, previous studies on its effectiveness involved treatment where telehealth was provided for the entire course of therapy rather than treatment that shifted modalities during the therapy. This leaves questions on the impact this rapid switch had on the therapeutic relationship and the efficacy of treatment. Preliminary findings showed that the transition did not negatively impact the therapeutic relationship from the therapist's perspective (Stefan et al., 2021).

The following case study details the implementation of a traditional CBT manualized treatment for GAD while incorporating mindfulness- and acceptance-based principles in the treatment of a white, American male with GAD. Treatment involved use of the *Mastery of Your Anxiety and Worry* manual (Craske & Barlow, 2006), an empirically supported CBT treatment for GAD (Zinbarg et al., 2006), while integrating mindfulness and acceptance components from *Learning ACT: An Acceptance and Commitment Therapy Skills-Training Manual for Therapists* (Luoma et al., 2007). Furthermore, this case study details the implementation of this treatment as it shifted from in-person to telehealth due to the COVID-19 pandemic.

## 2 Case Introduction

The client's name and identifying details were altered for confidentiality; however, the client's symptoms and course of treatment remain the same. "Fred" was a 28-year-old, White, cis-gender, straight man, and graduate student, who self-referred to a large, southeastern university psychological clinic for relationship and anxiety-related concerns. Fred and his girlfriend of over one year had ended their relationship approximately one month prior to intake. The therapist was a female clinical psychology doctoral student who was under the supervision of two licensed clinical psychologists during this case.

## 3 Presenting Complaints

At intake, Fred reported symptoms of anxiety including excessive and difficult to control worry, restlessness, difficulty concentrating, muscle tension, and difficulty sleeping. These symptoms persisted for over the past year. Fred described a long history of anxiety, beginning in childhood, and his most recent exacerbation in anxiety symptoms coincided with his relationship with his girlfriend at the time. He explained he would become highly anxious regarding multiple aspects of the relationship including how he and his girlfriend would spend their time together and he was excessively concerned with his girlfriend's wellbeing. Fred would attempt to alleviate and control the anxiety and worry. For example, before spending time with his girlfriend he would thoroughly plan out their activities. He would often leave his home in the middle of the night to console his girlfriend when she was upset. He described being preoccupied by and frequent rumination on his anxious thoughts to the point that he was unable to think about anything else or engage in other activities. Fred would often come to catastrophizing conclusions about himself while ruminating on his anxious thoughts and experience fear and panic that these evaluations about himself were true. Fred also noted when his anxiety was particularly high this would result in avoidance. He would worry that he was not a "good" boyfriend resulting in urges to end the relationship and eventually became overwhelmed to the point he ended the relationship. While Fred was primarily concerned with the anxiety and worry related to his relationship, he also described a history of anxiety and worry, along with attempts to control or avoid the anxiety, in other contexts including school performance and familial relationships.

Fred described several depressive symptoms including a saddened mood, loss of interest in pleasurable activities, and loss of appetite, as well as difficulty concentrating and sleeping. He reported the onset of these symptoms began when he ended the relationship with his girlfriend one month prior. Fred did not report any difficulties with substance use and did not report any suicidal ideation or intent. There were no concerns regarding personality disorders or traits.

## 4 History

Fred was raised by biological, married parents who eventually divorced when Fred was in his mid-20's. Fred is the youngest child with one older brother. He reported meeting all developmental milestones on time and no significant physical health problems. He noted a family history of mental health difficulties including anxiety and depression. He described a consistently positive relationship with his family; however, he noted feeling as if he was his mother's caretaker, even as a child, when it came to her mental and physical health struggles.

Fred's anxiety symptoms began in childhood. He described anxiety whenever he was separated from his family, worry about his performance in school, and difficulty sleeping due to rumination. As a teenager, Fred would experience anxiety regarding romantic relationships, specifically worry that he would not be/was not a good enough partner, which prevented him from obtaining and

developing long-term, intimate relationships. As an adult Fred's anxiety was primarily related to relationships, his performance in school compared to his peers, and his mother's health. He engaged in psychotherapy twice prior to intake due to his anxiety and difficulty obtaining and maintaining intimate relationships. Fred was prescribed Valium (benzodiazepine) in his early 20's. He stated they were prescribed "as needed" to help him sleep.

Fred began his graduate studies in his mid-20's. During his second year, he began his relationship with his first serious, long-term girlfriend who attended the same graduate program. Fred noted his anxiety regarding the relationship increased as the relationship continued. He stated that towards the end he and his partner were having verbal arguments at least once a week. Fred described the relationship as unstable and "too hard." He noted his ability to handle his anxiety related to other stressors began to diminish. He felt overwhelmed by these worries and ended his relationship of over one year with his girlfriend despite still having intimate feelings.

## 5 Assessment

Fred's psychosocial history was gathered over the course of two intake sessions. Fred completed a clinical interview and the Diagnostic Interview of Anxiety, Mood, and OCD and Related Neuropsychiatric Disorders (DIAMOND, [Tolin et al., 2018](#)) along with the following measures: the Patient Health Questionnaire-9 (PHQ-9; [Kroenke & Spitzer, 2002](#)), the Generalized Anxiety Disorder-7 (GAD-7; [Spitzer et al., 2006](#)), the Difficulties in Emotion Regulation Scale (DERS; [Gratz & Roemer, 2004](#)); the Acceptance and Action Questionnaire-II (AAQ-II; [Bond et al., 2011](#)), and the Depression Anxiety Stress Scales-21 (DASS-21; [Lovibond & Lovibond, 1995](#)). The Penn State Worry Questionnaire (PSWQ; [Meyer et al., 1990](#)) and the Working Alliance Inventory-Short Form Revised (WAI-SR; [Hatcher & Gillaspay, 2006](#)) were administered one month after the beginning of treatment. These seven measures were also administered throughout treatment, termination, and one month post treatment at varying frequencies to reduce patient burden. The PHQ-9 and GAD-7 were administered prior to every therapy session, as well as at termination and one month post treatment. The DERS, PSWQ, and WAI-SR were administered monthly, as well as at termination and one month post treatment. The AAQ-II was administered at termination and one month post treatment, while the DASS-21 was administered at termination.

The DIAMOND ([Tolin et al., 2018](#)) is a semi-structured clinical interview that assesses for symptoms that meet diagnostic criteria for several Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5; [American Psychiatric Association, 2013](#)) disorders. Patients are queried on different DSM-5 symptoms and any associated distress or impairment due to the endorsed symptoms. A diagnosis may be warranted when the patient endorses all the listed symptoms and criteria for a given disorder. The DIAMOND is a reliable and valid semi-structured diagnostic interview for DSM-5 disorders ([Tolin et al., 2018](#)).

The PHQ-9 ([Kroenke & Spitzer, 2002](#)) is a nine-item, self-report measure of depressive symptoms. The nine depressive symptom items are rated on a 4-point Likert scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*). Total scores range from 0 to 27, with higher scores indicating greater depression severity. Cutoff points of 5, 10, 15, and 20 indicate mild, moderate, moderately severe, and severe depression, respectively. The PHQ-9 is a reliable and valid measure of depressive symptoms ([Beard et al., 2016](#)).

The GAD-7 ([Spitzer et al., 2006](#)) is a seven-item, self-report measure of GAD symptoms. Scored items on GAD-7 are rated on a 4-point Likert scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*) with total scores ranging from 0 to 21. High scores on the GAD-7 suggest more severe GAD symptoms. The GAD-7 includes cutoff points of 5 (mild anxiety), 10 (moderate anxiety), and 15 (severe anxiety). This measure demonstrated good psychometric properties among clinical populations ([Spitzer et al., 2006](#)).

The DERS (Gratz & Roemer, 2004) is a 36-item, self-report measure of emotional dysregulation. Respondents rate items on the DERS on a 5-point Likert Scale ranging from 1 (*almost never [0–10%]*) to 5 (*almost always [91–100%]*). Responses are summed to obtain a total score ranging from 36 to 180 with higher scores suggesting greater emotional dysregulation. The DERS is a reliable and valid assessment of emotional dysregulation (Hallion et al., 2018).

The AAQ-II (Bond et al., 2011) is a seven-item, self-report measure of lack of acceptance, avoidance, and psychological inflexibility related to emotions, memories, and experiences that may make living life according to one's values difficult. Items on the AAQ-II are rated on a 7-point Likert scale ranging from 0 (*never true*) to 7 (*always true*). Total scores range from 0 to 49, with higher scores indicating greater psychological inflexibility. The AAQ-II demonstrated good psychometric proprieties among a variety of populations (Bond et al., 2011).

The DASS-21 (Lovibond & Lovibond, 1995) is a 21-item, self-report measure comprising of three subscales measuring the symptom severity of depression, anxiety, and stress. Items are rated on a 4-point Likert scale ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much or most of the time*). The respective items for each subscale are summed and then multiplied by two to obtain each subscale's total score, ranging from 0 to 42. High scores on the subscales reflect greater symptom severity. The cutoffs for the Anxiety subscale are 8 (mild), 10 (moderate), 15 (severe), and 20+ (extremely severe). The cutoffs for the Depression subscale are 10 (mild), 14 (moderate), 21 (severe), and 28+ (extremely severe). Last, the cutoffs for the Stress subscale are 15 (mild), 19 (moderate), 26 (severe), and 34+ (extremely severe). The DASS-21 is a reliable and valid measure within clinical samples (Antony et al., 1998).

The WAI-SR (Hatcher & Gillaspay, 2006) is a 12-item, self-report measure of therapeutic alliance. Respondents rate items on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). A mean total score is achieved by summing items and dividing the sum by 12 with scores ranging from 1 to 5. Higher scores indicate greater therapeutic alliance. The WAI-SR demonstrated good psychometric properties among clinical populations (Munder et al., 2010).

The PSWQ (Meyer et al., 1990) is a 16-item, self-report measure of worry that is typically present with GAD. Items are rated on a 5-point Likert Scale ranging from 1 (*not at all typical of me*) to 5 (*very typical of me*). Items are summed to obtain the total score, ranging from 16 to 80, with higher scores indicating greater worry. The PSWQ displayed good psychometric properties among clinical samples (Fresco et al., 2003).

## 6 Case Conceptualization

Fred's clinical presentation was consistent with a DSM-5 (American Psychiatric Association, 2013) diagnosis of GAD. While he reported several depressive symptoms, given the overlap in his depressive symptoms with his GAD symptoms (e.g., difficulty sleeping, difficulty concentrating), assessment data, and the situational nature, a mood disorder diagnosis was not provided at intake nor during treatment. Fred's case conceptualization is based on the *Mastery of Your Anxiety and Worry: Therapist Guide* (Zinbarg et al., 2006) which is derived from the theoretical models by Barlow (2002) and Zinbarg (1998). Fred's developmental learning history reinforced a belief that he was "not good enough," "incompetent," and "bad." As a child, Fred felt responsible for the needs of his emotionally and physically ill mother but felt his attempts were unsuccessful as her illnesses continued. In his teenage years, Fred's attempts to obtain and maintain intimate relationships were equally unsuccessful despite putting forth a great deal of effort. This sense of failure despite his efforts created a sense of uncontrollability and unpredictability in his life. This resulted in a cognitive bias to scan for threats, interpreting ambiguous events as threatening, and automatic thoughts that were catastrophizing and "all or nothing" which resulted in anxiety and worry. To control this anxiety and worry, Fred engaged in preventative behaviors (e.g., thoroughly

planning his time with his girlfriend to ensure she was happy) or avoidance behaviors (e.g., immediately going to his girlfriend whenever she was upset). These behaviors would provide Fred with immediate relief and a sense of controllability over his feelings, thus maintaining the cycle of anxiety/worry and avoidance. Fred viewed any amount of anxiety and worry as “pathological” and would experience distress at its presence. This resulted in a cycle of worry about worrying as an attempt to control the worry and anxiety.

### **Treatment Plan**

Fred’s reported goals for treatment included reducing his symptoms of anxiety, especially anxiety related to intimate relationships and gaining the ability to have an intimate relationship. He also wanted to understand the nature of his catastrophizing thoughts about himself without fear of what these thoughts mean about himself. In order to address his treatment goals, intervention began utilizing the *Mastery of Your Anxiety and Worry* manual (Craske & Barlow, 2006) and incorporated mindfulness- and acceptance-based interventions from *Learning ACT: An Acceptance and Commitment Therapy Skills-Training Manual for Therapists* (Luoma et al., 2007) when needed and upon completion of the manual.

## **7 Course of Treatment and Assessment of Progress**

Treatment consisted of 29 weekly and every-other-week sessions over 10 months. Treatment began in-person with 11 sessions. Four months into treatment the COVID-19 pandemic resulted in therapy sessions being moved to phone sessions for 15 sessions and then videoconferencing sessions for 3 sessions to termination. Fred remained on his prescription of Valium throughout treatment, using “as needed,” once or twice a month, as a sleep aid.

### ***In-Person Sessions: Pre–COVID-19***

*Sessions 1–4: Introduction to Treatment and Psychoeducation.* Treatment began with clarifying Fred’s treatment goals, developing a treatment plan, and introducing him to the manual. Fred learned about the nature and function of anxiety, as well as developed insight into his learning history that contributed to his anxious beliefs about himself and the world. Fred acknowledged struggling with the concept of automatic thoughts but agreed to engage in the self-monitoring assignments including the “Worry Record” to help him recognize and identify his automatic thoughts, as well as develop insight into his avoidance behaviors. Throughout the remainder of treatment, Fred diligently completed his homework assignments and self-monitoring assessments. During this time, Fred’s ex-girlfriend had asked if they could remain friends, which Fred declined. Fred came to the realization that this decision was an example of his avoidance behaviors. He decided to remain friends with his ex-girlfriend to better address his anxiety and improve his relationship with his ex-girlfriend, especially since he would have to regularly see his ex-girlfriend as they attended the same graduate program.

*Sessions 5–8: Relaxation and Cognitive Restructuring.* Fred was introduced to progressive muscle relaxation training. It was explained to him that the goal of progressive muscle relaxation training was to help Fred develop the ability to physically relax by focusing attention on the physical sensation of tensing and relaxing various body parts. The importance of following the practice outlined in the manual was stressed and that the benefits would include eventually developing the ability to relax his entire body in one step. Through use of the “Worry Record,” Fred noticed a tendency to over-estimate his anxiety. He began noticing situations which would previously evoke

a high anxiety rating were now eliciting lower levels of anxiety. Fred began developing the skills to identify his automatic anxious thoughts. Initially, Fred struggled to understand why the automatic thoughts he identified in his Worry Records would provoke anxiety. For example, thoughts that if he did not study he would fail the test did not feel particularly distressing. Fred was encouraged to ask, “if this thought is true, what would it mean about me?” to get at the underlying meaning and worry. Fred noticed themes of perfectionism, that he is not “good enough,” “unworthy” of others, “incompetent,” and “bad,” and responsible for the wellbeing of his loved ones, in his anxious thoughts. Fred learned to identify the assumed risk associated with, and the tendency to catastrophize within, his anxious thoughts. Fred began considering the probability of these risks and worst-case-scenarios coming true and developing alternative possibilities. While he noticed reduction in his anxiety after engaging in these cognitive restructuring skills, he would occasionally report distress that his anxiety was not “going away.” The therapist would highlight how the same themes of perfectionism and tendency to catastrophize were resulting in anxious thoughts about his anxiety and encouraged Fred to utilize his cognitive restructuring skills when experiencing these thoughts.

*Sessions 9–11: Imagined Exposure.* Fred continued to practice the progressive muscle relaxation training. He reported improvement in his relaxation ratings warranting moving to the one-step, cued recall relaxation. He initially found that he did not achieve as much relaxation with the one-step practice and would occasionally revert to the four-muscle group practice. Fred was introduced to imagery exposure, or the practice of imagining the worst-case scenarios without avoidance to reduce the anxious response these images can cause. Fred picked an image to practice in session that corresponded to an anxious thought from the prior week. Fred described the scenario in session and rated his anxiety and the vividness of the image on a 0 (*None*) to 100 (*Extreme*) scale. By the end of the exercise, Fred reported high levels of vividness, a 50 or higher on the 1 to 100 scale, but only achieved the highest rating of 30 on the anxiety scale. Fred was encouraged to continue practicing the imagery exposure and to utilize memories and take the memory to the extreme scenario to help elicit an anxious response. Fred continued to practice at home, but despite high levels of vividness of the images (highest of 75 on a 1 to 100 scale) his anxiety levels peaked at 40, on a 1 to 100 scale, and in subsequent practices his anxiety did not get higher than 40. Fred and the therapist brainstormed these issues, checking that Fred was not engaging in avoidance and that his images were specific and vivid. The therapist noted how through the process of identifying the probability of these scenarios and developing alternative plans, these images may not be evoking heightened anxiety because Fred has already recognized that they were not likely to occur or were manageable. This is consistent with the inhibitory learning approach of exposure therapy which suggests that the anxiety/fear response is due to the consistent pairing of a neutral stimulus with an adverse stimulus (Craske et al., 2014). Thus, an important aspect of exposure therapy from this perspective is for the patient to notice the discrepancy between their expectation and the outcome. Craske et al. (2014) note that cognitive interventions such as cognitive restructuring being utilized prior to or during exposure could lessen the effectiveness of exposure due to reducing the severity of the patient’s expectations and creating a decreased mismatch between expectancy and outcome. As a result, Craske et al. (2014) recommended such cognitive interventions occurring after the exposure portion of therapy. After several weeks of practice, without producing high levels of anxiety, Fred and the therapist agreed Fred could discontinue the practice to devote more time to coping skills Fred found more useful.

Fred continued to examine his anxiety utilizing the “Worry Record.” When he had difficulty getting to the personal meaning of his anxious thoughts, Fred would make a point to bring these “Worry Records” into the session to brainstorm with the therapist the personal meaning. Fred continued to engage in his friendship with his ex-partner. He noticed urges to engage in previous



safety behaviors such as go to her home when she was upset but would not act on these urges. Fred began to discuss with the therapist uncertainty and confusion that his hesitancy in rekindling his relationship with his ex-girlfriend was due to avoidance and anxiety, or a lack of intimate feelings for her. The therapist lead Fred in a values clarification exercise where Fred described what actions he would be engaging in if he were living a life in line with his values. The therapist noted that at times following his values would be anxiety provoking, as often our values reveal our vulnerabilities (Wilson & Sandoz, 2008). The therapist had Fred reflect on the difference between anxiety from engaging in valued action versus anxiety from a place of worry and avoidance. Fred was encouraged to consider his values and if a relationship with his ex-partner felt like it was moving towards or away from those values to clarify if his hesitancy was coming from avoidance, anxiety from trying something new but values consistent, or a lack of intimate feelings for his ex-partner.

### *Phone Sessions: COVID-19*

At this point in treatment, the COVID-19 pandemic hit the local area of the university psychological clinic resulting in its closure. With the uncertainty of the situation, the clinic created the policy that clients would receive the following based on level of client's need: temporary pause in treatment, 15-minute phone check-ins, or phone sessions. Given that Fred was two or three sessions away from completing the manual, the therapist was allowed to complete the final sessions via phone sessions. Fred agreed to this plan.

*Sessions 12–14: Behavioral Changes and Completion of the Manual.* Fred initially reported increased and “constant” anxiety symptoms due difficulties regarding his ex-girlfriend, finals, family medical issues, and changes related to the COVID-19 pandemic including the suddenness of the upcoming ending of treatment. He noted that he continued to practice the cued recall relaxation but due to the increased anxiety was finding it difficult to notice the reduction in physical tension. Fred's anxiety symptoms subsided as he continued to practice his cognitive restructuring skills.

Fred had begun to examine the behaviors he engaged in when worried and anxious, particularly his tendency to immediately leave anxiety provoking situations or engage in safety checking behaviors. He developed and began engaging in alternative behavioral practices such as staying in the anxiety provoking event until he engaged in one of his coping skills (e.g., cognitive restructuring, cued recall relaxation). Fred and the therapist discussed information from the manual on goal setting and problem solving to develop a plan of implementing his coping skills in anxiety provoking situations. Fred developed a plan to continue to practice his copings skills after therapy was terminated, including utilizing the “Worry Records” and the cued recall relaxation. The therapist highlighted the improvements Fred had made over the course of treatment and encouraged him to enact his plan after treatment.

*Sessions 15–21: Reinforcing Skills and Incorporating Mindfulness and Acceptance.* At this point in treatment, the university's psychological clinic's policy shifted so that telehealth sessions would be the norm. Fred agreed to continue treatment and his treatment continued without interruption. With the completion of the manual, the therapist and Fred agreed treatment would focus on Fred's continued practice of his cognitive restructuring and relaxation skills, while also developing and incorporating mindfulness and acceptance into his coping skillset.

While Fred and his ex-girlfriend had explored the possibility of resuming their intimate relationship, after consideration of his values Fred concluded that he did not want to resume an intimate relationship. Fred reported he was sad about this decision, but he was comfortable in continuing being friends with her. Fred continued to examine his anxious thoughts and utilized his

cognitive restructuring skills. Fred and the therapist began discussing mindfulness and acceptance. Fred was introduced to mindfulness as the practice of present moment awareness with curiosity and acceptance. He learned that acceptance is the opposite of avoidance and is an attitude of allowing all experiences to occur without trying to control or change the experiences. Fred explored how being caught up in his anxious thoughts prevented him from experiencing life and kept him in the same pattern of anxiety and avoidance. He recognized his avoidance behaviors were often inconsistent with his values. The therapist acknowledged the difference in taking an acceptance stance compared to cognitive restructuring. The therapist encouraged Fred to consider which approach felt most beneficial in the moment, try it, and then move onto another if the first coping skill was not effective. In this way, Fred would develop flexibility in his approach to his anxiety rather than remain in the same ridge pattern.

Fred began practicing mindfulness and acceptance of his anxious thoughts and emotions. As he noticed anxious thoughts, he would acknowledge the thought and remind himself that it is “just a thought” and something separate from himself. Fred noted finding it easier to allow and accept the anxiety related to things such as school and his future; however, he continued to experience his anxiety with “relationships” as “bad.” In session, Fred explored the negative associations linked with “relationships” including that he will always fail in relationships and that relationships were filled with uncertainty. Fred realized how the fusion of these rules and judgments to “relationships” was resulting in avoidance of developing and fostering intimate relationships. He began practicing the ACT defusion technique of repeating the word “relationship” for a minute to disentangle the meaning he had placed on the word “relationship” and open space to act according to his values rather than avoidance. Fred also began to practice using the phrase “I’m having the thought...” when he noticed experiencing words or thoughts that evoked painful emotions to separate himself from his thoughts.

*Sessions 22–26: Values and Flexibility in Utilizing Coping skills.* Fred and the therapist returned to a discussion about Fred’s values. Fred developed an understanding that there are times in his life where living according to his values came with anxiety, but he accepted this anxiety because it meant moving in accordance to his values. Fred reflected on the different thoughts and feelings that were evoked when he experienced anxiety while moving towards his values versus when he was trying to move away from the anxiety with avoidance. Fred was introduced to and encouraged to practice “willingness” or making the choice to sit with the thoughts and emotions that comes with choosing acceptance and working towards his values. Fred began to develop committed actions that were in line with his values and he and the therapist would reflect on his committed actions in session. Fred continued to utilize the coping skills developed throughout treatment including cognitive restructuring, cued relaxation recall, mindfulness, and acceptance, in a flexible manner. He considered which coping skill would be most beneficial given the circumstances and which would help him move towards his values. Fred reported improvements in managing his anxiety and a decrease in his view of remaining anxiety as “bad” or pathological. Fred and the therapist agreed to move towards termination.

### *Videoconferencing Sessions: COVID-19*

*Sessions 27–29: Wrap Up and Termination.* Fred and the therapist agreed to conduct sessions via videoconferencing in line with the change in the clinic’s policy. Fred discussed his plans and the coping skills he could utilize to handle anxiety as he pursues a new relationship, completes graduate school, and completes therapy. Fred told his ex-girlfriend that he was ready to begin dating other women. He noted the conversation was sad and difficult, but he was able to sit with those feelings and realize they were the result of mourning the end of his relationship rather than an

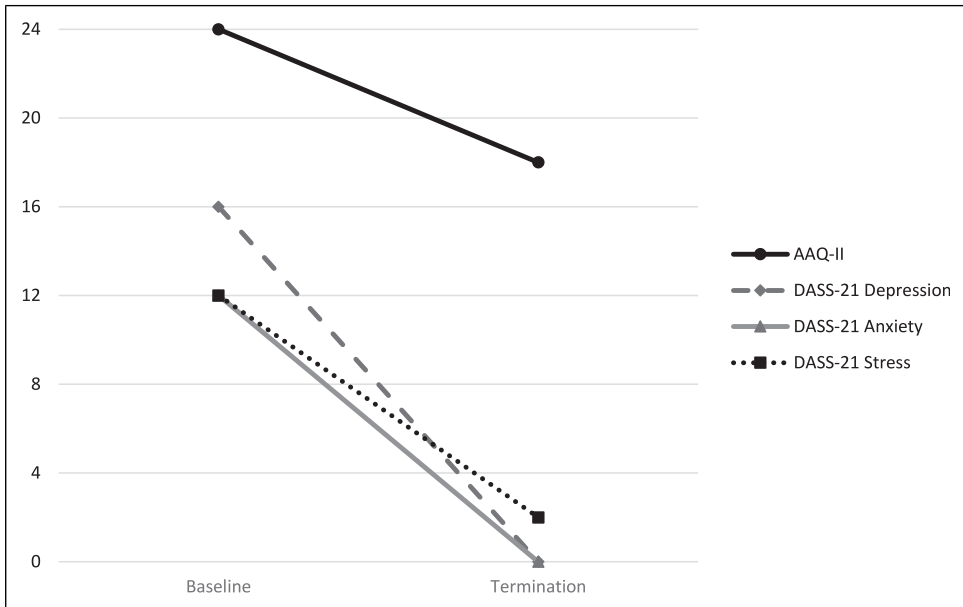
indication there was something wrong with him. Fred signed up on dating applications and though he experienced nervousness and anxiety as he began taking steps towards dating again, he reported willingness to engage in these committed actions and move towards his values. Fred went on a date and noted that he was able to accept the anxiety he experienced while on the date. Fred also experienced sadness and anxiety regarding nearing completion of his graduate program but he again reported being able to accept and not be overwhelmed by the anxiety and willingly engage in the next steps of looking for a job. He noted feeling “bittersweet” that therapy was coming to an end, feeling both nervous but ready to practice his skills on his own. Fred reported the biggest changes he saw in himself was his understanding of his anxious thoughts and his increased acceptance. Fred expressed his appreciation for the therapist’s flexibility in treatment modalities that fit his needs.

### Assessment of Progress

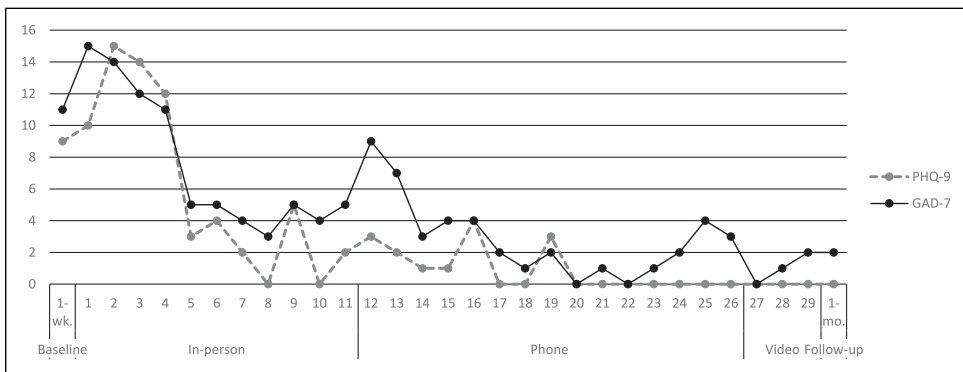
**Baseline Assessment.** At intake, Fred reported mild (PHQ-9 = 9) and moderate (DASS-21 Depression = 16) depression symptoms, and moderate (GAD-7 = 11; DASS-21 Anxiety = 12) anxiety symptoms. He scored in the normal range for stress (DASS-21 Stress = 12). Fred scored below average among clinical samples on the DERS (88;  $M = 89.33$ , [Hallion et al., 2018](#)) and AAQ-II (24;  $M = 28.34$ , [Bond et al., 2011](#)), suggesting slightly better than average emotion regulation and psychological flexibility compared to clinical samples. At one month into treatment, Fred scored below average compared to clinical samples on the PSWQ (60;  $M = 68.11$ , [Fresco et al., 2003](#)) and WAI-SR (3.42;  $M = 3.8$ , [Munder et al., 2010](#)), suggesting slightly lower than average symptoms of worry and therapeutic alliance compared to clinical samples.

**Post-Treatment Assessment.** For measures only administered at baseline and termination, Reliable Change Index (RCI) scores were calculated to assess clinically significant and reliable change. Statistical significance in changes were determined by comparing his baseline and termination scores to means reported by general and clinical populations ([Jacobson & Truax, 1991](#)). The difference in baseline and termination scores was divided by the standard error of measurement to obtain the RCI. An RCI score that exceeds the  $z$  score for the 97<sup>th</sup> percentile ( $-1.96$  or  $1.96$ ) indicates a change that is statistically significant ( $p < .05$ ). Fred’s termination assessment showed significant improvements in depression, anxiety, and stress (see [Figure 1](#)). His scores on the DASS-21 Depression (0) and Anxiety (0) subscales dropped to the normal range, while his score on the DASS-21 Stress (2) remained in the normal range. These changes showed statistically significant reductions in depression ( $RCI = 3.78, p < .05$ ), anxiety ( $RCI = 5.20, p < .05$ ), and stress ( $RCI = 3.94, p < .05$ ) symptoms. While Fred’s AAQ-II score reduced to 18 at termination, this change was not statistically significant ( $RCI = 6.43$ ).

For measures administered regularly throughout treatment, Simulation Modeling Analysis (SMA; [Borckardt et al., 2008](#)) was utilized to examine linear change in assessments through the course of treatment. SMA is a time-series analysis technique for short time-series data which accounts for autocorrelations among values. Slope vectors were examined to assess the linear change in assessments. Linear regression using SPSS 27.0 were then examined to confirm the SMA results. See [Figure 2](#) for weekly assessments (PHQ-9, GAD-7) and [Figure 3](#) for monthly assessments (DERS, PSWQ). For Fred’s PHQ-9 assessments, results of the regression analyses showed time in treatment explained 55% of the variance,  $R^2 = .551, F(1, 28) = 34.34, p < .001$ , and significantly associated with a decrease in PHQ-9 scores ( $\beta = -.742, p < .001$ ). Fred’s PHQ-9 score was 0 at termination, indicating “None/Minimal” depressive symptoms. Analysis of Fred’s GAD-7 scores showed time in treatment explained 63% of the variance,  $R^2 = .628, F(1, 28) = 47.27, p < .001$ , and significantly associated with a decrease in GAD-7 scores ( $\beta = -.792, p < .001$ ). Fred’s

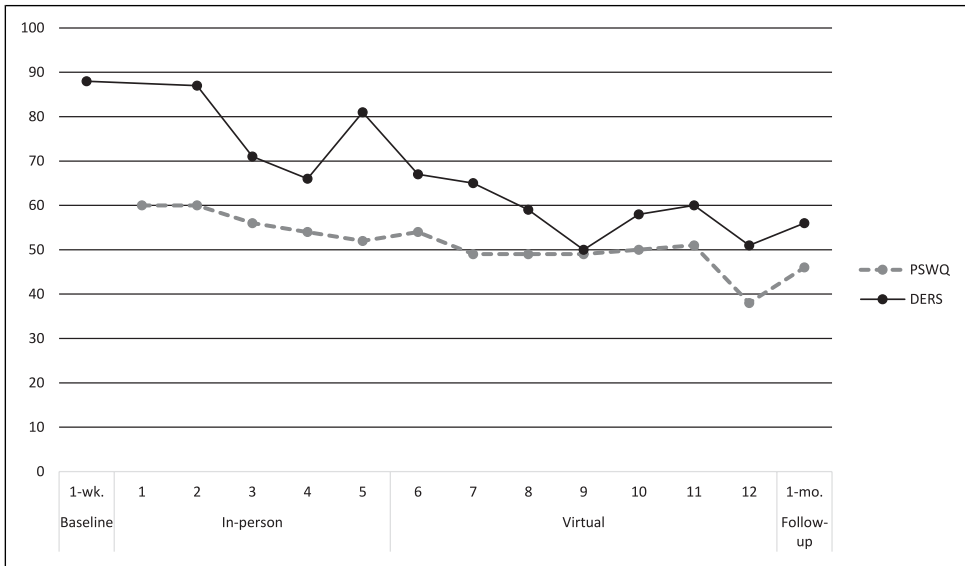


**Figure 1.** Baseline and Termination changes on the AAQ-II and DASS-21 Subscales. Note. AAQ-II = Acceptance and Action Questionnaire-II. DASS-21 = Depression Anxiety Stress Scales-21. Reduction in DASS-21 scores significantly decreased over time. AAQ-II score at termination was not significantly lower than intake score.



**Figure 2.** Changes in Anxiety and Depression Symptoms. Note. GAD-7 = Generalized Anxiety Disorder-7; PHQ-9 = Patient Health Questionnaire-9

GAD-7 score of 2 at termination suggested “None to Minimum” anxiety symptoms. Fred’s PSWQ analysis results showed time in treatment explained 75% of the variance,  $R^2 = .752$ ,  $F(1, 10) = 30.25$ ,  $p < .001$ , and significantly associated with a decrease in PSWQ scores ( $\beta = -.867$ ,  $p < .001$ ) with a score of 38 at termination. Time in treatment explained 77% of the variance,  $R^2 = .769$ ,  $F(1, 10) = 33.28$ ,  $p < .001$ , and significantly associated with a decrease in DERS scores ( $\beta = -.877$ ,  $p < .001$ ) with a score of 51 at termination. Last, results of the regression analysis for the WAI-SR showed time in therapy did not significantly associate with change in WAI-SR scores ( $\beta = -.457$ ,



**Figure 3.** Changes in Worry and Emotion Dysregulation. Note. DERS = Difficulties in Emotion Regulation Scale; PSWQ = Penn State Worry Questionnaire.

$p = .135$ ). While Fred initially showed a slightly lower than average therapeutic alliance compared to clinical samples at the beginning of treatment, the remainder of his scores were above average.

Additionally, examination of these assessments showed increased scores on the PHQ-9, GAD-7, PSWQ, and DERS during the time of transition from in-person therapy to phone sessions as a result of COVID-19. However, Fred's scores quickly returned to similar or lower levels than they were before the switch and resumed their downward trend. Fred's WAI-SR were not impacted during the switch to telehealth services.

## 8 Complicating Factors

While Fred actively engaged in treatment, there were occasions when the therapist and Fred would decide to spend additional sessions on a chapter of the manual rather than move forward. Fred reported struggling with identifying his automatic anxious thoughts, especially ones that were meaningful. As a result, the therapist and Fred agreed to spend additional sessions focusing on identifying meaningful automatic anxious thoughts. When engaging in imagined exposure, Fred would experience highly vivid images, but the images would not provoke equally anxious responses. Fred engaged in the practice for several weeks and he and the therapist spent several sessions brainstorming the reason for the difficulty. However, he was never able to produce a heightened anxious response. The therapist and Fred agreed that Fred could discontinue the practice since it did not appear to be an effective exercise for Fred.

The largest complicating factor of this case is the disruption in treatment due to the COVID-19 pandemic. There were several weeks of uncertainty in the situation which caused a rush in completing the manual via phone sessions. During the termination session, Fred noted the difficulties in the shift from in-person to phone sessions including not being able to see body language and not having a physical location that was solely dedicated to therapy. He added that therapy felt like it improved after switching to videoconferencing session.

## 9 Access and Barriers to Care

Fred's graduate program provided financial support for their students to receive care through the university psychological clinic, thus eliminating financial costs as a barrier for care. As Fred and the therapist were both students, their schedules only overlapped by one day. Thus, if either could not meet on their scheduled day, then they were unable to reschedule for a different day that week. Furthermore, Fred would often use breaks in the university schedule to return home to visit his family. This resulted in several cancellations over the course of treatment.

## 10 Follow-Up

A follow-up session was conducted one month after termination. Fred reported managing his anxiety utilizing his coping skills and has continued to willingly engage in committed actions despite anxieties related to dating and his future career. He added that he has accepted that anxiety is a part of his life rather than something he wished was gone from his life. Fred reviewed his plans to continue managing his anxiety and engage in committed action.

Analyses of follow-up assessments showed Fred's AAQ-II score slightly increased with a score of 18 at termination to 19 at one-month follow-up. The change in his AAQ-II score from baseline assessment was not significant ( $RCI = 6.43$ ). SMA and corresponding linear regression analyses were examined to see linear progression of assessments from beginning of treatment to one-month follow-up (See [Figures 2](#) and [3](#)). Time in treatment significantly associated with a decrease in PHQ-9 scores ( $\beta = -.717, p < .001$ ) and GAD-7 scores ( $\beta = -.764, p < .001$ ). Fred's anxiety (GAD-7 = 2) and depression (PHQ-9 = 0) remained at "None to Minimal" levels at one-month follow-up. Time in treatment also significantly associated with a decrease in PSWQ scores ( $\beta = -.832, p < .001$ ) and DERS scores ( $\beta = -.825, p < .001$ ), but was not significantly associated with change in WAI-SR scores ( $\beta = .044, p = .902$ ). Fred's worry and emotion dysregulation rose slightly from termination (PSWQ = 38; DERS = 51) at one-month follow-up (PSWQ = 46; DERS = 56), while his WAI-SR score remained the same (4.67).

## 11 Treatment Implications of the Case

Both CBT and mindfulness- and acceptance-based therapies demonstrated efficacy in the treatment of GAD ([Carpenter et al., 2018](#); [Hoffman et al., 2012](#); [Stefan et al., 2019](#)). Blending the two approaches may be beneficial in that it increases the patient's coping skills repertoire and psychological flexibility ([Blackledge, 2018](#); [Ciarrochi & Bailey, 2008](#); [Wenzel, 2018](#)). The current case study provides evidence of the feasibility and efficacy of a blended CBT/ACT approach for GAD. Fred's depressive and anxiety symptoms, emotion dysregulation, and worry significantly decreased throughout treatment and at follow-up. His AAQ-II score reduction did not significantly change and increased slightly at follow-up, suggesting Fred may have benefited from additional time devoted to ACT interventions. Only one prior study demonstrated the feasibility and benefit of incorporating ACT into CBT for GAD ([Carrier & Côté, 2010](#)). However, this study only had three participants. Future research should examine the efficacy of an integrated approach in larger, diverse samples. Additionally, this case study examined the efficacy of treatment and the therapeutic alliance during the switch from in-person to telehealth. Fred did show a slight increase in depressive and anxiety symptoms, emotion dysregulation, and worry during the transition from in-person to telehealth, but this temporary increase quickly subsided. The therapeutic alliance was not impacted during the transition. This suggests that the shift from in-person to telehealth did not negatively impact the efficacy of treatment or the therapeutic relationship. It should be noted that the therapeutic alliance was high prior to the shift. It is possible that the strength of the therapeutic

alliance and frequent communication with Fred regarding the changes in clinic policy helped ameliorate potential problems.

## 12 Recommendations to Clinicians and Students

The current case study suggests students and clinicians should consider using a flexible approach in treating GAD. Students and clinicians should consider the techniques in CBT and ACT that would benefit the patient given their case conceptualization and treatment plan. Both cognitive restructuring and cognitive defusion skills can be incorporated within the same treatment when they are framed as different ways of approaching thoughts that may be beneficial in certain situations versus others. Clinicians and students should take the time to address any confusion by their clients when incorporating both approaches and help their patients develop an understanding of when one technique may be more beneficial than the other. Furthermore, flexibility in how the treatment is implemented whether it is in-person or telehealth should be considered given the patient's case conceptualization, treatment plan, and other external factors.

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### Ethical Approval

All identifying information that was not deemed central to the conceptualization and treatment of this client has been removed to maintain confidentiality. Additionally, the patient signed a consent form for their case to be used for publication.

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