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THE EFFECTIVENESS OF THE DIALECTICAL BEHAVIOR THERAPY MODULE OF INTERPERSONAL EFFECTIVENESS COMPARED TO TRADITIONAL ASSERTIVENESS TRAINING: A RANDOMIZED CONTROL TRIAL.

Daniella DiFabio

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Daniella DiFabio

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Daniella DiFabio	Raymond DiGiuseppe, Ph.D

ABSTRACT

THE EFFECTIVENESS OF THE DIALECTICAL BEHAVIOR THERAPY MODULE OF INTERPERSONAL EFFECTIVENESS COMPARED TO TRADITIONAL ASSERTIVENESS TRAINING: A RANDOMIZED CONTROL TRIAL.

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This study examined the efficacy of the Dialectical Behavior Therapy (DBT) module of Interpersonal Effectiveness compared to Traditional Assertiveness Training. In recent years, DBT has become one of the most effective psychotherapeutic treatments for individuals with borderline personality disorder (Linehan et al., 1991). DBT has been determined to be effective across inpatient, outpatient, and school settings and across multiple populations (i.e., BPD, PTSD, eating disorders, etc.). Traditional Assertiveness Training has been forgotten despite some of its skills being similar or identical to DBT (Goldfried et al., 2017). In the past, Assertiveness training was found to be effective across various populations.

Given the effectiveness of both treatments, it is surprising that there needs to be more empirical evidence comparing specific components of DBT as a standalone treatment versus traditional assertiveness training. This study aimed to (1) add to what we already know about these evidence-based treatments and (2) shed some light on the forgotten assertiveness training. The design of this study was a randomized control trial that sought to answer the following research question: What is the difference between the efficacy of the DBT module of Interpersonal effectiveness compared to traditional assertiveness training? In a sample of 20 participants, ten were in the DBT trial, and ten were in the traditional assertiveness trial. The study compared the effectiveness of each

treatment to determine if one treatment was more effective than the other. The results support the hypothesis that Interpersonal Effective is more effective than Assertiveness within the area of Avoidance Behaviors. There was no evidence found for a within-subjects effect of treatment amongst Nonassertive, Aggressive, and Social Problem Solving. Lastly, there was a significant effect for time for both treatments within the area of Fear relating to social interactions. These findings provide researchers with baseline empirical evidence for future replication studies in this area. These findings also provide practicing school psychologists with insight into the effectiveness of skills-based treatment as a standalone intervention.

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Chapter 1

Introduction

Since the development of Dialectical Behavior Therapy (DBT), more than 300 research publications have appeared to support its efficacy. More than half of these publications have appeared within the past 5 years (Dialectical Behavior Therapy, 2019, p. 297). For example, past studies have been conducted with DBT and its efficacy amongst borderline personality disorder (BPD) (Clarkin et al., 2007), bipolar disorder (Goldstein et al., 2007), depression (Harley, et al., 2008), anger (Davarani & Heydarinasab, 2019), posttraumatic stress disorder (PTSD) (Harned et al., 2010), substance use (Linehan et al., 2002), and eating disorder populations (Safer et al., 2001). More recently, DBT research has focused on randomized control trials of DBT group skills training for individuals with attention deficit-hyperactivity disorder (ADHD) (Fleming et al., 2015), suicidal and/or self-injuring women with BPD (Harned et al., 2010), and randomized control trials of group therapy for binge eating disorder (Safer et al., 2010). Despite this growth in DBT research, it is still difficult to determine whether individual modules within DBT are effective as a standalone treatment (i.e., Interpersonal Effectiveness by itself) or whether they are superior to earlier behavioral treatments from which they were derived.

While Dialectical Behavior Therapy has grown in popularity and efficacy, Traditional Assertiveness Training has been underutilized. Traditional assertiveness training was once found to be an effective treatment for clinical problems. However, the amount of research involving assertiveness as a standalone treatment within the last decade is scarce. Research on Traditional Assertiveness training was widespread between

the 1970s-2000s. According to a recent database search, between this period, there were approximately 50 publications relevant to Traditional Assertiveness Training during that period.

Given the ever-growing research of DBT and the scarcity of traditional assertiveness training, and a scarcity of randomized controlled trials concerning individual skills as a standalone treatment, I compared the effectiveness of the DBT module of Interpersonal Effectiveness to the Effectiveness to Traditional Assertiveness training as a standalone treatment.

The current gap within the empirical literature poses a significant problem for the field of psychology, practice, and research. For example, this gap leads to a stronger emphasis of disorder-specific treatment packages (i.e., DBT skills as a whole), and therefore presents a problem for training and leads to a decreased emphasis on individual constructs that may moderate/mediate comorbid symptoms. Most of what we know in terms of research about traditional assertiveness training dates to the late 1970s and has declined in recent years. The utility of my study is that it adds an update to the current research and knowledge of what we know. It sheds more light on traditional assertiveness training and distinguishes whether the Interpersonal Effectiveness module of DBT is more effective compared to traditional assertiveness training as a standalone treatment. The results of this research can be beneficial for trainees in psychotherapy, licensed psychotherapists, clients in treatment, and nonclinical populations with skills deficits (Goldfried, 2017).

Chapter 2

Literature Review

Traditional Assertiveness Training

Traditional Assertiveness Training was once a popular area of study; however, in recent years has been neglected by the field of psychotherapy. Assertiveness Training ("AT") was introduced by Andrew Salter (1961) and popularized by Wolpe (1969). Wolpe believed that a person could not be both assertive and anxious at the same time, and thus acting assertively would inhibit anxiety. Traditional assertiveness training is followed by a long history dating back to 1949 (Goldfried et al., 2017). At that time, assertiveness training was an intervention technique used for individuals who were deemed to have inhibitory personalities and who needed the skill of how to express themselves more freely and openly. In the mid-1960's, assertiveness continued to evolve and was defined as a behavior of social competence, whereas unassertive behavior was defined as a social deficit. In the late 1970's, Assertiveness training began to take a cognitive and behavior role. It was hypothesized that unassertive individuals might also be inhibited from expressing themselves. For example, both behavioral skill training and cognitive restructuring became components that increased assertiveness. This new cognitive-behavioral approach suggested that by targeting cognitions, one might be able to increase assertiveness by targeting their anxiety that led to their avoidance behaviors. The behavioral component of assertiveness training focuses on both verbal and nonverbal communication, such as eye contact, volume, affect, and posture) (Speed et al., 2017). In addition, traditional assertiveness training can teach valuable communication skills and can more generally help you navigate broad situations such as: asking for a raise, dealing

with an unpleasant worker, clarifying communication, and putting your ideas forward in work meetings or in educational environments. Traditional assertiveness training is typically conducted within a behavioral therapy framework and while effective, it is conducted more broadly.

Assertiveness Training was defined as a form of social skills training that conduct context-appropriate assertive behaviors that an individual lacks (i.e., initiating social contact; continuing social contact; responding to requests, demands, and/or annoying behaviors; expressing feelings; exercising own rights while respecting other people's rights (Wolpe, 1969). The overarching goals and steps of assertiveness training include increasing awareness of one's personal rights, differentiating between non-assertive and assertive behavior, differentiating between passive-aggressive behavior versus assertive behavior, differentiating between aggressive insulting behavior and assertive behavior, and learning both verbal and non-verbal assertiveness skills. Assertive behavior is respecting our own and other's rights, communicating effectively, dealing with conflict effectively, handling and receiving feedback, setting boundaries, and problem-solving instead of attacking and/or ignoring the other person. According to Wolpe (1969), one can learn to be assertive by learning how to ask or make requests for something you want, compliment others, show gratitude, and refuse to comply with a request (i.e., saying 'no'). The process of adapting assertiveness behaviors includes role-playing, modeling, receiving feedback from digital or video recording, homework of increasingly difficult social tasks, praise of progress made, and contingency management (Wolpe, 1969).

What we know about Traditional Assertiveness training stems from past research,

given its decrease in both the clinical and therapy literature. In the most recent article that discusses Traditional Assertiveness Training, Speed, and colleagues (2017), summarizes past research evidence involving assertiveness training. Traditionally, the goal of assertiveness training was to help individuals become more skillful in being able to verbalize what they want in various life situations (Speed et al., 2017). There has been an established link between unassertiveness behaviors and clinical problems, and it was suggested that assertiveness skills training could benefit these various populations. For example, assertiveness training has been investigated within populations of individuals with anxiety, depression, serious mental illness (i.e., chronic schizophrenia), self-esteem, and relationship satisfaction.

Assertiveness Training was first conceptualized as a treatment goal for social anxiety. In one of the first studies examining assertiveness training, researchers found that assertiveness group therapy significantly reduced depression and anxiety symptoms in psychiatric inpatients with social anxiety (Speed, et al., 2017). Additionally, assertiveness training has also been compared to cognitive restructuring and relaxation treatment in terms of its efficacy for the treatment of speech anxiety (Fremouw & Zitter, 1978). They found that each treatment was equally effective and superior to wait-list and placebo control groups. Other studies completed within the 1970s also compared assertiveness training, rational therapy, and combined treatment for social anxiety and found that all treatments involved were considered equally effective in promoting assertive behavior and reducing social anxiety. Overall, research completed in the past has found that social anxiety is linked to unassertiveness difficulties and that these skills deficits can be intervened and benefited by assertiveness training. However, it should be

noted that while assertiveness training was deemed effective, the results of past studies do not suggest that it was significantly more effective than other forms or treatment.

Most of the research completed in the past has suggested Assertiveness Training was effective for treating depression (Speed et al., 2017). For example, individuals enrolled in an assertiveness training group were compared to a wait-list control group. It was founded that women who were depressed and in the assertiveness training group became significantly more assertive (Hayman & Cope, 1980). Assertiveness training has also been compared to traditional group psychotherapy in treating depression. Results suggested that the assertiveness training group demonstrated increased comfort with assertiveness and more likeliness to participate in assertive behaviors compared to the traditional psychotherapy group (Sanchez et al., 1980). Additionally, those individuals who received assertiveness training experienced a significant reduction in depressive symptoms.

As mentioned in Speed and colleagues (2017) article, individuals with serious mental illness (i.e., chronic schizophrenia) may experience negative symptoms, and display deficits in emotion recognition, cognitive ability, and social skills, including assertiveness. Assertiveness training has been shown to benefit individuals within this population. For example, when the assertiveness group training was compared to control groups, the assertiveness group significantly improved both self-report and behavioral areas of anxiety and assertive behaviors in inpatients with serious mental illness. Consistent with the previously mentioned research, assertiveness group training when compared to process-oriented group therapy has been shown to significantly increase assertiveness and improve self-esteem within inpatient adolescents and young adults

(Fiedler, Orenstein, Chiles, & Breitt, 1979).

Past research links unassertiveness with decreased self-esteem and self-concept. A review of the research demonstrates that when assertiveness skills were improved, individuals became less worried about the opinions of others and felt more comfortable in asserting themselves therefore leading them to become more self-confident in the validity of what they want, think, and feel (Speed, et al., 2017). Similarly, there has been a small section of research that examines assertiveness in the context of couple relationships. For example, as stated in Speed and colleague's (2017) article, previous research found that when either individual men or women from a couple participated in assertiveness training, they self- reported more levels of trust and intimacy than the compared wait-list control group.

In a PsycINFO search revealed that the article "Assertiveness Training: A Forgotten Evidence-Based Treatment (Speed et al., 2017)," was at the forefront of the most up to date research regarding traditional assertiveness. That said, there is a lack of updated research in this area. However, another additional research article was found on the effectiveness of assertiveness training on stress, anxiety, and depression. This study focused on determining the effectiveness of assertiveness training on levels of stress, anxiety, and depression in high school students (Eslami et al. 2014). The results of this study found that giving assertive training in high school students helped decrease their anxiety, stress, and depression.

Dialectical Behavior Therapy

Dialectical Behavior Therapy (DBT) is a multi-component treatment that teaches clients numerous skills to cope with serious symptoms of BPD and suicidal urges. It rests

on behavior and cognitive interventions that are under a cognitive- behavioral therapy (CBT) orientation. DBT was originally adapted and designed by Linehan who wished to work with populations with borderline personality disorder and clients who were suicidal and/or self- injuring (Linehan, 2020). This treatment was first empirically assessed among individuals within this population through a randomized controlled trial (RCT) that compared DBT to treatment- as- usual. The findings of this initial study conducted by Linehan, et al (1991) found that participants in the DBT condition were more likely to adhere to treatment, had fewer occurrences of non-suicidal self-injury and suicide attempts, had less severe self-injury and suicide attempts, and spent less time within inpatient settings.

DBT has its theoretical underpinnings in biosocial theory. For example, the model of DBT suggests that individuals with BPD have problems within five areas of dysregulation: (1) emotion dysregulation, (2) relationship dysregulation, (3) self-dysregulation, (4) behavioral dysregulation, and (5) cognitive dysregulation (Linehan, 2015). This theory posits that emotion dysregulation is at the center of BPD and that all other areas and criteria can be considered as attempts to regulate emotions and/or the consequences of emotion dysregulation (i.e., relationship conflict).

One of the components of DBT is a module to improve interpersonal effectiveness, which is an elaboration on AT. For this study, the area of interpersonal effectiveness and individual communication will be explained further. With the biosocial theory in mind, an individual has a genetic predisposition to the following characteristics: lower thresholds for emotional cues and stimuli, higher reactivity, and slow return to baseline. Social factors, such as an invalidating environment, also trigger these specific

features. An invalidating environment can manifest in many shapes and forms. For instance, the environment can communicate intolerance of emotional expression and therefore punish the expression of emotions when they do come up for an individual. Similarly, an invalidating environment can intermittently reinforce the expression of emotions where sometimes the emotion is validated, and sometimes the emotion is ignored. This leads an individual to take increasingly extreme emotional expressions until they eventually receive a response from the environment. These environmental patterns teach the individual that their intense emotional expressions are needed to communicate one's needs and wants (Dobson & Dozois, 2019, Chapter 12).

DBT consists of four individual modules: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. Given that most studies look at DBT in terms of the full treatment instead of skills groups alone, I placed specific focus here on the module of interpersonal effectiveness. The interpersonal effectiveness module covers skills aimed at clarifying goals and priorities in any interaction with others and provides methods for how to achieve those goals (Dobson & Dozois, 2019, Chapter 12). The interpersonal skills within DBT enable clients with many clinical problems to break the pattern of extreme and intense emotional expressions to communicate their needs and wants. Interpersonal skills also help clients change their social environment to build and maintain supportive relationships and minimize unsupportive ones. The interpersonal effectiveness module consists of four main objectives: clarifying priorities, objectives effectiveness, relationship effectiveness, and self-respect effectiveness (Linehan, 2015, p. 123). Objectives effectiveness focuses on how to ask for something or how to deny a request (i.e., DEAR MAN skills), whereas relationship effectiveness focuses on

improving and/or maintaining a relationship (i.e., GIVE skills). Additionally, the area of self-respect effectiveness focuses on how to maintain one's self-respect by using FAST skills. DBT offers concrete behavioral skills designed to promote interpersonal effectiveness and assertiveness. Three DBT interpersonal effectiveness skills are: DEAR MAN, GIVE, and FAST. Depending on the specific situation, you can decide which skill set would be most effective. The purpose of DEAR MAN is to ask directly for what you want or how to say "no" to a request. The letters of the acronym stand for: **D**escribe the situation, **E**xpress an opinion/feeling, **A**ssert what you want or say "no," **R**einforce the person ahead of time, stay **M**indful of what you want despite the other person's behavior, **A**ppear confident, and **N**egotiate.

The purpose of the GIVE skills is to learn a communication style that keeps relationships strong: be Gentle- no attacking, threatening, or judging, act interested, add validating statements, use an easy manner. The purpose of FAST is to learn a communication style that builds self-esteem and self-respect. The acronym stands for: be Fair, no unnecessary Apologies, Stick to your values, and be Truthful.

DBT's interpersonal effectiveness differs from that of traditional assertiveness training in several ways. For one, while there is a structure in traditional assertiveness training, the structure is briefer. For example, DBT not only consists of individual therapy sessions but also group skills training. Clients in DBT are given Diary Cards and frequently conduct behavioral chain analyses to prioritize and assess target behaviors. DBT also consists of peer consultation, team meetings, and intersession contact between therapist and patient. Therefore, there are multiple opportunities for practice, maintenance, and generalization of skills. DBT also strongly emphasizes commitment.

For instance, the structure of standard DBT involves a pre-treatment period where both the patient and the therapist determine whether they can work with one another and whether the patient is willing to enter a DBT plan. The most pivotal parts of the agreement between patient and therapist involve a one-year agreement to stay in therapy and one year is the minimum requirement for engaging DBT with adults. Presently there is a lack of research looking at this individual module as a stand-alone treatment.

According to past research, we know that DBT was first empirically tested with chronically suicidal and/or self-injuring women who met the criteria for borderline personality disorder (Linehan et al.,1991). We know that this study compared DBT to treatment as usual and found that individuals who were in the DBT condition were more likely to stay in treatment, had fewer instances of non-suicidal self-injury and suicide attempts, and spent less time in psychiatric inpatient treatment (Linehan et al., 1991). We do know that DBT continues to be the first line of treatment for individuals with BPD. Additionally, we also know that DBT has been compared to validation therapy for the treatment of opioid dependent women meeting criteria for borderline personality disorder. While results of urinalyses indicated that both DBT and validation treatments were effective in decreasing opiate use compared to baseline, those assigned to the DBT group maintained the decrease of substance abuse through a 12-month period (Linehan, et al., 2002). However, this same study also suggested that at the 16-month treatment follow-up assessment, participants in both treatment conditions showed improvement in terms of reductions in psychopathology compared to baseline. Past empirical evidence regarding the efficacy of DBT has also been examined in populations with treatment-resistant depression. For example, a study done by Harley, et al., (2008) examined the

outcome of a DBT based skills training group to treat depressive symptoms in adult outpatient for whom antidepressant medication did not result in remission. This study consisted of a 16-session, once-weekly group covering the four modules of DBT (i.e., mindfulness, interpersonal effectiveness, emotion regulation, and distress tolerance). Results of this study demonstrated that compared to the control condition skills group participants showed greater improvements in depressive symptoms. Past empirical evidence has also deemed DBT effective in populations who experience anger and PTSD. For example, Linehan, McDavid, Brown, Sayrs, and Gallop (2008) examined whether olanzapine would increase the efficacy of DBT in reducing anger and hostility in BPD patients. Results of this study demonstrate that both treatment conditions (i.e., olanzapine versus placebo) resulted in significant improvement in irritability/aggression, depression, and self-inflicted injury. It should be noted that irritability and aggression tended to decrease more quickly for the olanzapine group than for the placebo group. Furthermore, it can be suggested that use of medication may promote a more rapid reduction in symptoms when paired with treatments like DBT. DBT has also been found effective when adapted for the treatment of bulimia nervosa and has been associated with a decrease in binge/purge behaviors (Safer et al., 2001).

DBT has been compared to other treatments. For example, in one study, Clarkin, Levy, Lenzenweger, and Kernberg (2007) compared three yearlong outpatient treatments for borderline personality disorder. The treatments compared in this study were: DBT, transference-focused psychotherapy, and a dynamic, supportive treatment. According to the results of this study, patients in all three treatment groups showed significant positive changes in depression, anxiety, global functioning, and social adjustment across one year

of treatment. Additionally, transference-focused psychotherapy and DBT were significantly associated with improvement in suicidality.

In addition to past research, it is crucial to investigate current studies within the area of DBT. Investigating the current literature has allowed us to find areas where DBT modules have been studied as standalone treatments and which areas of DBT have been efficacious. We hoped to find studies that would support our hypothesis that the specific module of Interpersonal Effectiveness is effective as a standalone intervention. However, research in this area was scarce. We did find that within the past 10 years, studies have examined DBT in populations with PTSD, ADHD, emotion regulation problems, self-harming and suicidal behavior, and executive functioning deficits among adolescents. Despite DBT serving these symptoms amongst various populations, none of these studies demonstrated the use of individual modules as a standalone treatment. Thus, reinforcing the lack of research in this area.

Knowing what we know about DBT so far, we have yet to discover whether individual DBT modules could be used as a standalone treatment. While questions are beginning to be asked within this area of research, there is little empirical evidence for the use of DBT skills training as a standalone treatment (Valentine, et al., 2015). Our study sought to expand the current literature of the original Assertiveness Training to the new expanded DBT module of Interpersonal Effectiveness.

Present Study

The assertiveness training was the empirically supported treatment for effective communication at the time Linehan developed DBT. She augmented the components to become the Interpersonal Effectiveness module in DBT to address such skills deficits and

relationship dysregulation.

The present study builds upon the existing literature on DBT and assertiveness training by examining the effect of the original treatment, Assertiveness Training, and the expanded DBT module, Interpersonal Effectiveness, targeting social anxiety (i.e., fear, avoidance, nonassertive behavior, aggressive behavior, social problem solving). Both DBT and assertiveness are found to be effective as separate treatments; however, we hypothesized that the Interpersonal Effectiveness module of DBT would demonstrate more of an effect size given that it is comprehensive and follows a multi-system approach for generalization and maintenance of therapeutic gains. Although, there have been no studies conducted that specifically examine DBT Interpersonal Effectiveness versus Traditional Assertiveness. This study compared the Interpersonal Effectiveness module in dialectical behavior therapy to see if it would be more effective than the original assertiveness training as a standalone treatment. Even though there is a deep theoretical interest in Linehan's Dialectical Behavior Therapy in the current literature, this present study would like to walk the middle path and give credit to its predecessors. Regardless, this study adds to the literature pertaining to assertiveness training.

Chapter 3

Research Questions and Hypotheses

Research Questions

The present study examined the following research question:

1. What is the difference between the efficacy of the DBT module of Interpersonal effectiveness compared to traditional assertiveness training?

Hypotheses

1. Given that DBT teaches multiple skills and includes various steps across treatment settings and populations (Linehan, 2015) it was hypothesized that the individual DBT module of Interpersonal Effectiveness would be more effective than Traditional Assertiveness training as a standalone treatment.

Chapter 4

Methods

Objectives

Primary objectives. The primary objective of this study is to investigate the clinical efficacy of the DBT module of Interpersonal Effectiveness as compared to traditional assertiveness training. It is hypothesized that the individual module of Interpersonal Effectiveness will result in a higher effect size compared to traditional assertiveness training.

Secondary objectives. The secondary objective of this study is to add to the current literature more generally regarding individual modules of DBT as a standalone treatment. The aim of this study is to also shed light on the forgotten treatment of traditional assertiveness training.

Study Design and Setting

This study investigated the comparative efficacy of Interpersonal Effectiveness versus Traditional Assertiveness training within a parallel group design, in which each group of participants is exposed to only one of the study interventions. This study followed a randomized controlled design and took place via WebEx. After obtaining informed consent, clients are randomly assigned to DBT: Interpersonal Effectiveness, Traditional Assertiveness Training. Participants were randomized into groups following a basic method of randomization (i.e., coin flip). The side of the coin determined the assignment of each participant (i.e., heads- interpersonal effectiveness group, tails- AT). Various psychological factors were assessed over a total of six time points. This study was conducted within a group therapy environment. The researcher was a 5th year School

Psychology, PsyD student with both Cognitive Behavioral Therapy and Dialectical Behavior Therapy training. The researcher taught groups their respective skills one time per week over the course of 6 weeks. Each skills group had a length of 45-minutes.

Procedure

Participants

The participants in the present study were undergraduate students enrolled at St. John's University in Queens, New York. Participants from St. John's University were recruited through the SONA program. SONA is a web-based appointment management system used by St. John's to manage access to the participant pool from the Curricular Enhancement Program (CEP). Participants were also recruited from social media sites such as Facebook. A description of the study was posted to academic group pages on Facebook where interested participants would be directed to a Qualtrics survey to express interest. For inclusion in the study, participants had to be 18 years old and above. Exclusionary criteria included (1) previous DBT experience, (2) previous Assertiveness skills training, and (3) participation in another research project that requires the patient to receive psychotherapy outside of the current study. A total of thirty-one participants were recruited across SONA and Facebook. Of these participants, only twenty individual participants completed all six time points. Included participants were assigned a participant ID to maintain confidentiality during skills groups and data collection. Ten participants were randomly assigned to the Interpersonal Effectiveness group while 10 others were assigned to the Assertiveness training group.

The participants included within the analyses consisted of 20 students ranging in age from 18 to 65 years old ($M = 29.15$, $SD = 15.8$). Amongst those included, 80% were

female (n = 16) and 20% were male (n = 4). The ethnicities of the participants were 20% Black, 25% Asian, 50% White or Caucasian, and 5% identified as Other. Informed consent was obtained for this study for all participants who expressed interest in participating in the study. All data collected for this study was gathered via Qualtrics.

Outcome Measures

To gather baseline data as well as treatment outcomes the following questionnaires and assessments were utilized: These included the Liebowitz Social Anxiety Scale (LSAS), the Social Problem-Solving Inventory, and the Assertiveness Inventory. Participants were assessed at the start of the study using a Qualtrics survey that included each measure. The Qualtrics survey was administered once a week across six weeks, totaling to six total time points.

Liebowitz Social Anxiety Scale. The Liebowitz Social Anxiety Scale (LSAS) is a questionnaire developed by Liebowitz, a psychiatrist and researcher (Heimburg et al., 2002). This measure assesses the way social phobia plays a role in an individual's life. The LSAS consists of twenty-four individual items rated on a Likert Scale from 0 to 3 on fear felt during situations, and then the same items were rated regarding avoidance of the situation. Items ask how anxious or fearful individuals feel in a situation, how often the situation is avoided (i.e., "participating in a small group activity"). Research on this scale supports a cut-off point of 30, in which social anxiety is unlikely. The next cut-off point is 60, in which social anxiety is likely. Scores between 60 and 90 suggest that social anxiety is highly likely. The LSAS has excellent internal consistency (Heimburg et al., 1999). The LSAS is a reliable, valid, and treatment sensitive measure of social phobia (Heimburg et al., 1999). For this study, internal consistency statistics were calculated for

our sample using the first administration data. The value for Cronbach's Alpha for the scale was α = 0.651, which suggests acceptable internal consistency (see table 1). The subscales of Fear and Avoidance were measured over time.

Table 1
Scale Reliability Statistics- LSAS

Estimate	Cronbach's α
Point Estimate	.651
95% CI lower bound	.152
95% CI upper bound	.870

Social Problem- Solving Inventory-Revised. The Social Problem-Solving Inventory-Revised (SPSI-R; D'Zurilla et al., 2002) consists of 52 individual items rated on a Likert Scale from 0 to 4 on scenarios participants feel are true to them (i.e., "I feel threatened and afraid when I have an important problem to solve"). This measure assesses individual strengths and weaknesses and is used for educational, health care, or business environments with people who want to explore and develop their social problem-solving skills (D'Zurilla et al., 2019). Using this inventory, "good" social problem-solving ability is indicated by high scores on the scale whereas "poor" social problem solving-ability is indicated by low scores. There are no noted clinical cut-off scores for this scale. Evaluation of the psychometric properties of SPSI-R among various diverse populations suggests that it demonstrates strong internal consistency and is stable over time. It has strong structural, concurrent, predictive, convergent, and discriminant validity (D'Zurilla, et al., 2002). For this study, internal consistency statistics were calculated for our sample using the first administration data. The value for Cronbach's

Alpha for the scale was α = 0.927, which suggests acceptable internal consistency (see table 2).

Table 2
Scale Reliability Statistics- SPSI-R

Estimate	Cronbach's α
Point Estimate	.927
95% CI lower bound	.854
95% CI upper bound	.967

Assertiveness Inventory. The Assertiveness inventory consists of 17 items rated on a Likert Scale from 0 to 4. The inventory includes a list of questions that allowed the researcher to assess levels of assertiveness (i.e., "When a person is highly unfair, do you call it to their attention?"). This inventory has been helpful in increasing awareness of behavior in situations that require assertive responding. The results of this inventory help with treatment planning and monitoring symptom changes over time. It should be noted that the inventory is not a standardized psychological test and does not include clinical cutoff scores. The studies required to thoroughly evaluate and approve this test have not been conducted (Alberti & Emmons, 1995). For this study, internal consistency statistics were calculated for our sample using the first administration data. The value for Cronbach's Alpha for the scale was α = 0.512, which suggests acceptable internal consistency (see Table 3). This inventory has been adapted from Alberti and Emmons' (1995) book *Your Perfect Right: A guide to Assertive Living***.** From this inventory, the subscales of Nonassertive Behavior and Aggressive Behavior were measured over time.

Table 3
Scale Reliability Statistics- AI

Estimate	Cronbach's α
Point Estimate	.512
95% CI lower bound	-.119
95% CI upper bound	.808

Interventions

The interventions in this study were conducted in a virtual group setting. Ten participants were included in each of the treatment groups. A fifth-year doctoral student delivered each intervention. The following steps and manuals for each treatment were used: DBT Skills Training Handouts and Worksheets for interpersonal effectiveness (Linehan, 2015), Key Components of An Assertiveness Training Protocol from a chapter in the Cognitive Behavior Therapy textbook (O'Donahue & Fisher, 2008), and supplemental Assertiveness Training handouts pulled from online resources.

The assertiveness training group utilized the following protocol taken from O'Donahue and Fisher (2008) from the chapter Assertiveness Skills and Management of Related Factors (Duckworth, 2008, pp. 30-31). The steps used for this treatment included: (1) presenting the rationale for assertiveness skills training, (2) Defining aggressive, passive, and assertiveness behaviors, (3) Reviewing Content and procedural guidelines governing assertive behavior, (4) Defining and identifying nonverbal behavior as communication, giving and receiving compliments, giving and receiving criticism, and making/refusing requestions, (5) Modeling of assertive behaviors, (7) In-session practice

of assertive behavior, (8) Providing reinforcement and corrective feedback, (9) Real-world practice of assertive behavior. Supplemental handouts were also used to provide psychoeducation in the following areas: assertive, passive, and aggressive communication, setting personal boundaries, and active listening.

The interpersonal effectiveness group utilized handouts and worksheets taken from DBT Skills Training text (Linehan, 2015). The following handouts were used: Guidelines for Objectives Effectiveness: Getting What You Want (DEAR MAN) (Linehan, 2015, pg. 125-126), Guidelines for Relationship Effectiveness: Keeping the Relationship (GIVE) (Linehan, 2015, pg. 127-128), and Guidelines for Self-Respect Effectiveness: Keeping Respect for Yourself (FAST) (Linehan, 2015, pg 130). Additional handouts and worksheets will supplement the skills training handouts. These additional handouts include the following: Clarifying Goals in Interpersonal Situations (Linehan, 2015, pg 124), Applying DEAR MAN Skills to a Difficult Current Interaction (Linehan, 2015, pg 127), Evaluating Options for Whether or How Intensely to Ask for Something or Say No (Linehan, 2015, pg 131), Factors to Consider and Trouble Shooting: When What You Are Doing Isn't Working (Linehan, 2015, pp. 132-135). Skills were provided via a didactic format and supplemented with individual participant examples and role play. For the sake of this study, the DBT coaching component will not be made available to participants.

Statistical Methods

Means and standard deviations were computed to describe continuous variables, while frequencies and percentages were used for categorical variables. A split-plot repeated measures analysis of variance (ANOVA) was used to test the hypothesis that the

DBT module of Interpersonal Effectiveness would be more efficacious and result in a higher significant interaction effect size than Traditional Assertiveness Training. A split-plot ANOVA is a statistical test used to determine if two or more repeated measures from two or more groups are significantly different from each other on a variable of interest. Scores on five different scales (i.e., Fear, Avoidance, Nonassertive Behavior, Aggressive Behavior, and Social Problem Solving) were used as the outcome variable and treatment (either DBT or assertiveness) was used as the predictor variable. Data was examined across six timepoints.

Chapter 5

Results

The participants included within the analyses consisted of 20 students ranging in age from 18 to 65 years old (M = 29.15, SD = 15.8). The sample was 80% female (n = 16) and 20% male (n = 4). The ethnicities of the participants were 20% Black, 25% Asian, 50% White or Caucasian, and 5% identified as Other. Participant attendance was 100% over the course of the study. Table 4 below provides additional demographic information.

Table 4
Demographic Characteristics of Treatment Sample (N = 20)

Characteristic	**N**	**%**
Gender		
Female	16	80%
Male	4	20%
Race		
African American/Black	4	20%
Asian	5	25%
White/Caucasian	10	50%
Other	1	5%
Education		
Bachelor's Degree	5	25%
Graduate Degree	4	20%
High school diploma	6	30%
Some college, no degree	5	25%
Age (M, SD)	29.15	(15.81)

Fear Scores

There was a statistically significant effect of time on Fear scores amongst both treatments, $F(5,19) = 3.301$ $p = .009$. Data suggests that Fear scores decreased over time for both treatments. Although a significant interaction effect of time and treatment was

not found, F (5,19) = 2.093, p = .073. This contradicts the initial hypothesis that DBT would have more of an effect on Fear scores across time than Assertiveness Training. In fact, the results suggest negligible effect of treatment across Fear scores (see Figure 1). Table 5 provides statistics for scores on the Fear scale.

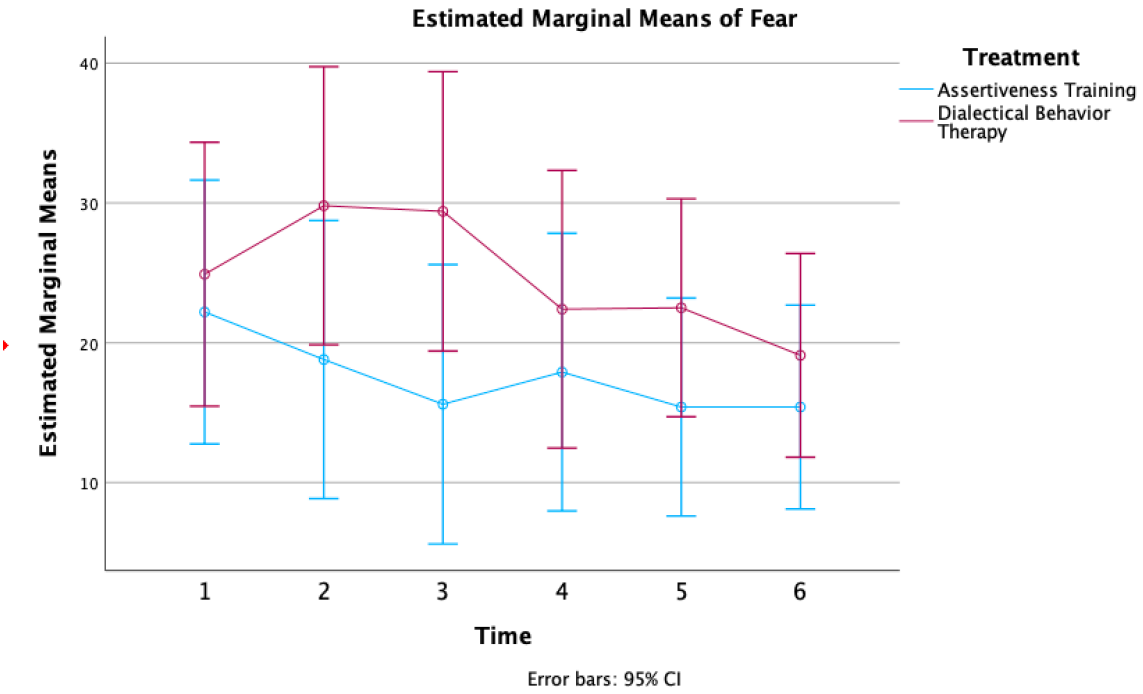
Table 5

Test of Within-Subject Effects using Fear as the criterion.

Predictor		Sum of Squares	*df*	Mean Square	*F*	*p*	Partial η_p^2	Noncent. Parameter	Observed Power
Time	Sphericity Assumed	770.967	5	154.193	3.301	.009	.155	16.507	.879
Time x Treatment	Sphericity Assumed	488.867	5	97.773	2.093	.073	.104	10.467	.670
Error (time)	Sphericity Assumed	4203.500	90	46.706					

. Note: Computed using alpha = .05

Figure 1



Avoidance Behavior Scores

There was a statistically significant main effect of time on Avoidance behavior scores amongst both treatments, $F(5,19) = 4.872$, $p < .001$. Data suggests the Avoidance behaviors decreased over time for both treatments (see Table 6). Figure 2 also demonstrates this change using a plot graph as a visual. A significant interaction effect of time and treatment was also found, $F(5,19) = 2.778$, $p = .022$, with a greater change in means for the DBT group. This supports the initial hypothesis that DBT would be more efficacious than Assertiveness training and in fact suggests a large interaction effect of treatment impact on avoidance behaviors.

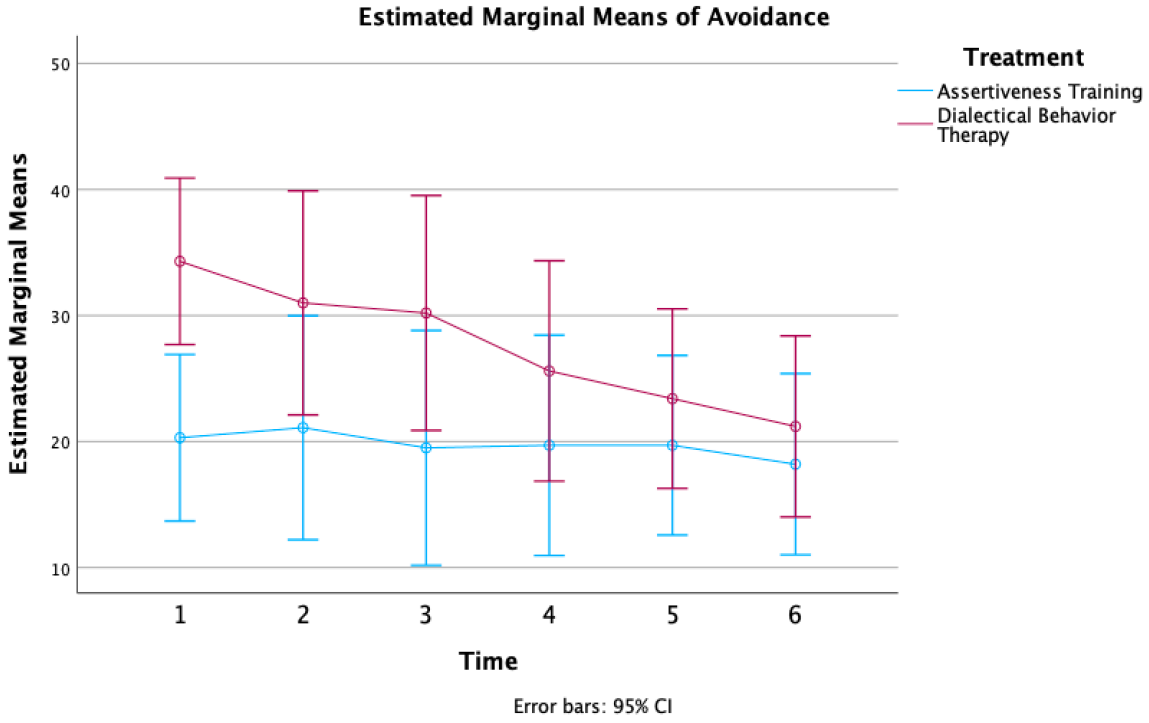
Table 6

Test of Within-Subject Effects using Avoidance as the criterion

Predictor		Sum of Squares	*df*	Mean Square	*F*	*p*	Partial η_p^2	Noncent. Parameter	Observed Power
Time	Sphericity Assumed	830.567	5	166.113	4.872	<.001	.213	24.362	.975
Time x Treatment	Sphericity Assumed	473.467	5	94.693	2.778	.022	.134	13.888	.808
Error (time)	Sphericity Assumed	3068.300	90	34.092					

a. Computed using alpha = .05

Figure 2



Nonassertive Behavior Scores

The main effect for nonassertive behavior across time was NOT significant for both treatments, F (5,19) = 1.323, p = .262. A statistically significant interaction effect between time and treatment was also unfounded, F (5,19) = .342, p = .886 (see Table 7). This suggests that neither treatment nor time had a significant impact on nonassertive behavior scores. Both treatment groups demonstrated minor changes across time (see Figure 3).

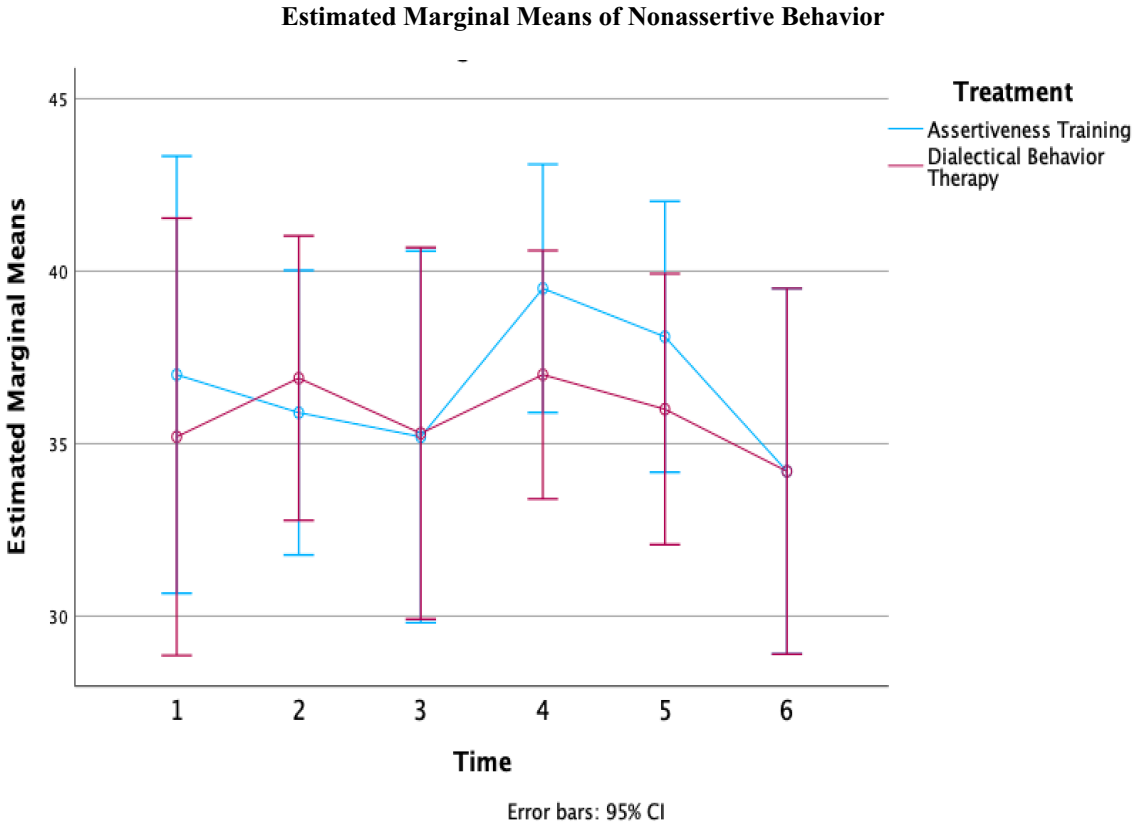
Table 7

Test of Within-Subject Effects using Nonassertive Behavior as the criterion

Predictor		Sum of Squares	*df*	Mean Square	*F*	*p*	Partial η_p^2	Noncent. Parameter	Observed Power
Time	Sphericity Assumed	197.542	5	39.508	1.323	.262	.068	6.614	.448
Time x Treatment	Sphericity Assumed	51.142	5	10.228	.342	.886	.019	1.712	.133
Error (time)	Sphericity Assumed	2688.150	90	29.868					

a. Computed using alpha = .05

Figure 3



Aggressive Behavior Scores

A statistically significant effect was unfounded for time on Aggressive Behavior scores amongst both treatments, F (5,19) = 1.349, p = .251. A statistically significant interaction effect between time and treatment was also unfounded, F(5,19) = .446, p = .815 (see Table 8). This suggests that neither treatment nor time had a significant impact on aggressive behavior scores. Both groups demonstrated minor changes across time, rejecting the initial hypothesis. (See Figure 4).

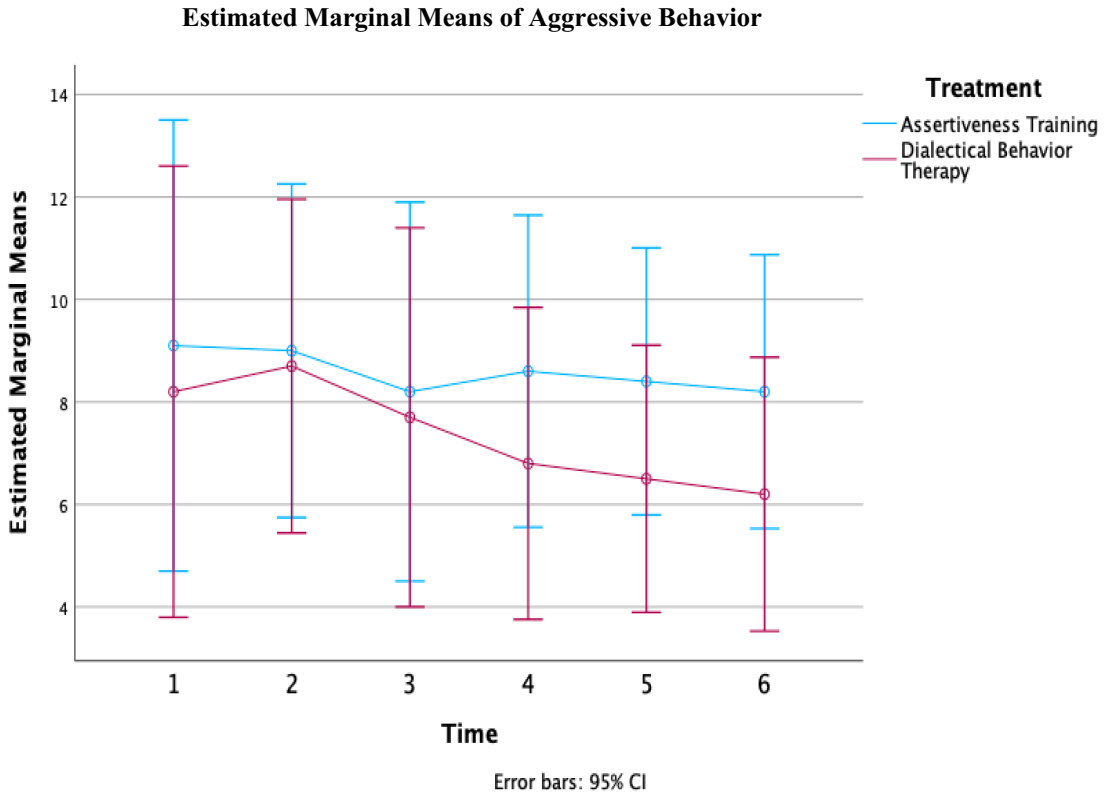
Table 8

Test of Within-Subject Effects using Aggressive Behavior as the criterion

Predictor		Sum of Squares	*df*	Mean Square	*F*	*p*	Partial η_p^2	Noncent. Parameter	Observed Power
Time	Sphericity Assumed	43.467	5	8.693	1.349	.251	.070	6.743	.457
Time x Treatment	Sphericity Assumed	14.367	5	2.873	.446	.815	.024	2.229	.163
Error (time)	Sphericity Assumed	580.167	90	6.446					

a. Computed using alpha = .05

Figure 4



Social Problem-Solving Scores

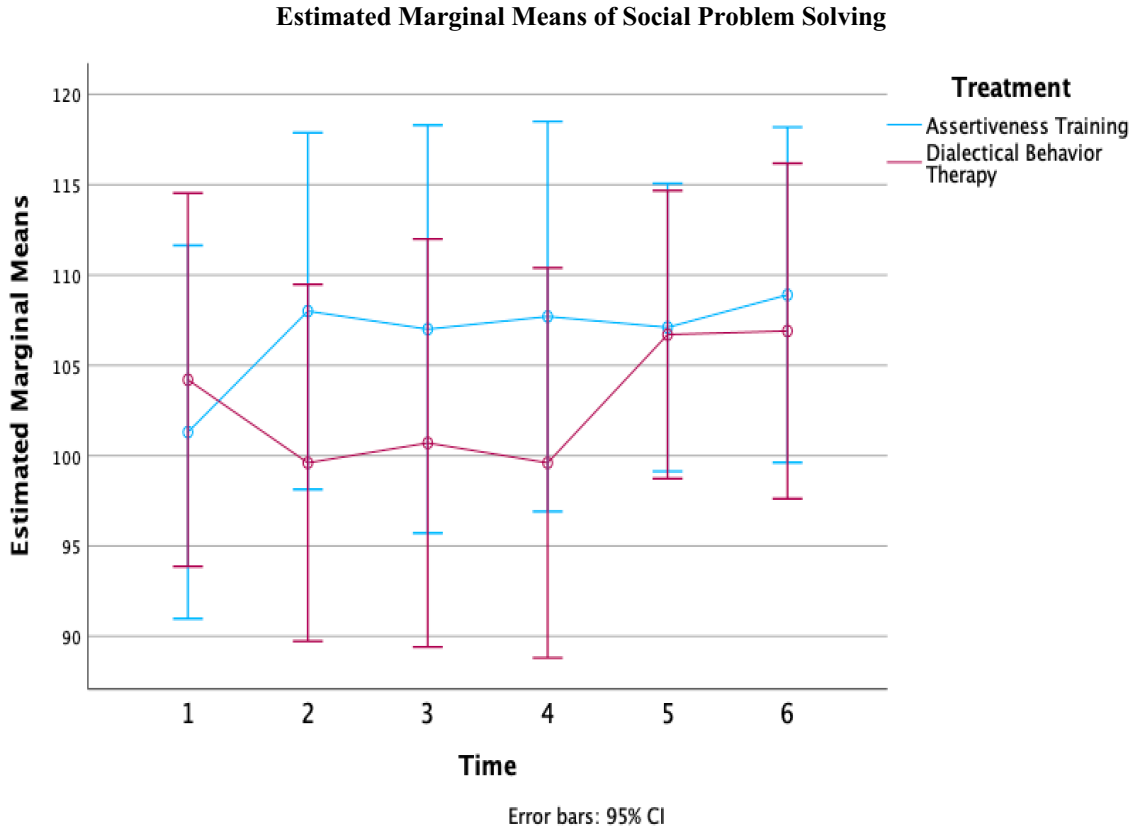
There was not a statistically significant effect for time on Social Problem-Solving scores amongst both treatments [$F(5, 19) = 1.236$, $p = .299$}. Similarly, there was not a statistically significant interaction effect between time and treatment, $F(5, 19) = 1.521$, $p = .191$ (see Table 9). This suggests that neither treatment nor time had a significant impact on Social Problem-Solving scores. Both groups did not demonstrate change over time, rejecting the initial hypothesis (see Figure 5).

Table 9

Test of Within-Subject Effects using Social Problem Solving as the criterion

Predictor		Sum of Squares	*df*	Mean Square	*F*	*p*	Partial η_p^2	Noncent. Parameter	Observed Power
Time	Sphericity Assumed	428.942	5	85.788	1.236	.299	.064	6.180	.420
Time x Treatment	Sphericity Assumed	527.742	5	105.548	1.521	.191	.078	7.603	.511
Error (time)	Sphericity Assumed	6247.150	90	69.413					

Figure 5


Estimated Marginal Means of Social Problem Solving
Estimated Marginal Means
120
115
110
105
100
95
90
1
2
3
4
5
6
Time
Treatment
Assertiveness Training
Dialectical Behavior Therapy
Error bars: 95% CI

Chapter 6

Discussion

The following section provides a discussion that reflects upon the current study. First, the statistical results are summarized, including what they suggest with respect to the independent and dependent variables. The results are then connected to previous literature and how they enhance previous findings. Next, the limitations of this study are described followed by future research directions. The implications of the results and significance to the practice of school psychology are highlighted.

Results and Previous Literature

There is a wealth of evidence supporting the efficacy of both Dialectical Behavior Therapy and Traditional Assertiveness Training; however, in recent years Assertiveness Training has been deemed a "forgotten treatment" (Speed et al., 2017). DBT has also been deemed an effective treatment that seeks to decrease various maladaptive behaviors (i.e., self-harm/suicidal behavior, impulsivity) (Fleming and colleagues, 2015; Mehlum, et al., 2019). While DBT is an effective treatment, DBT skills training as a standalone treatment is considered a premature concept (Valentine and colleagues, 2015). There continues to be a lack of randomized control group studies regarding either of these treatments, which reinforce this study's results. The purpose of this study was to investigate the clinical efficacy of the DBT module of Interpersonal Effectiveness as compared to Traditional Assertiveness Training. While this study did find some significance across variables, findings were inconsistent for variables of nonassertive behavior, aggressive behavior, and social problem solving. It should be noted for the aggressive behavior subscale, participants had an overall low baseline score for both

groups, which could have accounted for the lack of significance across time and treatment.

Our hypothesis that the DBT treatment would be found to be more effective than assertiveness training was supported with regard to the construct of Avoidance Behaviors. We found that avoidance behaviors pertaining to social events decreased over time for both treatments, although, the DBT treatment group had a more drastic decrease in scores over six time points, as demonstrated by a plot graph (see Figure 2). While the Assertiveness training group resulted in a lower avoidance behavior score, it did not demonstrate much change compared to time point one (see Figure 2). A significant decrease for avoidance behaviors in the DBT group is not surprising given that DBT targets specific problem behaviors before attempting to target skillful behaviors. We also found that both groups demonstrated less Fear over time, with both groups sharing the same amount of change (see Figure 1). Regarding fear scores amongst both groups, it is also unsurprising that both groups shared the same amount of change, considering both treatments have been shown to improve emotional functioning and regulation (Davarani & Heydarinasab, 2019; Speed, et al., 2017).

While we did find significant change across some of our variables, the current literature examining Assertiveness Training and standalone skills groups for DBT is still scarce. Therefore, there may have been other factors impacting the data that researchers are not yet aware of. Factors that should be considered involve participant demographics, the difficulty level of each treatment, and skills group environment (i.e., in-person versus virtual). According to the researcher, Assertiveness training was deemed more conversational and feasible, which easily applied to relevant examples regarding social

interactions. Whereas the Interpersonal Effectiveness module includes multiple acronyms, handouts, and more steps to becoming assertive. Additionally, it should be noted that scores might have demonstrated more of an effect if the DBT module of emotional regulation was included in the study.

Limitations of the Present Study

Although the results of this study offered significant implications and add to the research literature, it is beneficial to highlight several potential limitations present within this study. The first limitation involves the sample size. Approximately eleven participants (35%) from the original sample were excluded from this study due to screening administration errors and participant drop out. We did not have a large sample size making it more difficult to identify outliers present within the data. Similarly, the decrease in usable data and simultaneous decrease in sample size could have impacted effect size and statistical power (Ebrahim Valojerdi et al, 2017).

Secondly, length of study could also be considered a limitation considering the pool participants were recruited from. This study required participants to attend six overall skills groups and complete weekly surveys over the course of six weeks via WebEx. The time commitment could have been a barrier in terms especially amongst college age participants. Similarly, overall time constraints could also be considered a limitation in that participants recruited from St. John's University were only available for a certain period (i.e., semester length). Thus, resulting in a shorter duration in which the study could be conducted. Another related limitation included a non-diverse sample size. As noted in Table 2 participants were mostly female or Caucasian, limiting diversity.

Having a non-diverse sample impedes our ability to generalize study results (Palmer & Burchard, 2015).

Additionally, the present study did not assess the stages of change for each participant. Given that the Transtheoretical model has been deemed a gold standard for change, it would have been helpful to know each participant's stage of change to prevent dropout, increase motivation, and aid in increasing social problem-solving behavior (Raihan & Cogburn, 2023).

Lastly, a significant limitation of this study includes the lack of research within this area. There are limited randomized controlled trials examining the efficacy of DBT modules as a standalone treatment. Similarly, the most up to date literature regarding Assertiveness Training refers to the treatment as a "forgotten evidence-based treatment" which further reinforces the lack of updated research within this area (Speed et al., 2017). While this is a limitation, it may inspire future research in this area.

Future Research

Reviewing the results of this study and its limitations points towards areas of future research. Future studies can enhance knowledge of the efficacy of Interpersonal Effectiveness as a standalone treatment and add to the Assertiveness Training literature by efforts to increase the sample size. Having a larger sample size can benefit the statistical power and generalizability of the findings. It is recommended that future studies recruit a larger sample size to better understand the effects of treatment on variables such as: nonassertive behavior, aggressive behavior, and social problem-solving.

Given the vital role of recruitment in conducting randomized control trials (RCTs), future studies could also utilize incentives and enhance recruitment strategies to prevent early termination of trials. Studies that have examined the use of incentives in RCT's have found that response rate and consent rates were significant when an incentive was offered to participants (Abdelazeem et al., 2022). Even a small number of incentives could show significant improvement in both consent and response rates. By increasing recruitment strategies, the benefits would be two-fold. Firstly, enhanced recruitment could increase sample size, diversify the participant pool, and allow the researcher flexibility to alter the length of the study based on time restraints. Future studies should also focus on increasing the amount of time points to detect delayed treatment outcomes.

As this study represents one of the first RCTs that has compared the effectiveness of Interpersonal Effectiveness to Traditional Assertiveness training, future studies could focus on replication to provide further confirmation or contradiction that DBT modules are more efficacious than Assertiveness training. Additional areas that future researchers could explore include assessing the stages of change for each participant. Given that the Transtheoretical model has been deemed a gold standard for change, it would have been helpful to know each participant's stage of change to prevent dropout, increase motivation, and aid in increasing social problem-solving behavior (Raihan & Cogburn, 2023). Future researchers could also include a Cognitive Behavior Therapy component to hold a stronger focus on thoughts and emotions. It is recommended that future studies include a follow-up period to determine which group maintained the most change over time. Moreover, other factors affecting dropout rates could also be examined. Regarding

demographics, future studies should include more diversity to investigate gender or ethnicity related implications.

Chapter 7

Implications for the Practice of School Psychology

These results also offer significant implications for the practice of school psychology. School psychologists can use this data to engage in the delivery of evidence-based treatments. The focus on evidence-based practices involves not only using research to determine what works, but also how to implement these practices effectively (Shaw, S.R., 2021). An important problem that continues to be prevalent is implementing interventions and practices that have been proved to be ineffective. This study offers increased evidence for the areas in which DBT, or Assertiveness may be most effective, therefore, providing school psychologists with additional research to guide their clinical practices. The findings of this study also shed light on Traditional Assertiveness training and shows that despite the lack of research, it can still be an effective treatment when used for extended periods. Additionally, the data shows that while DBT is effective, each module may not produce consistent improvement across symptoms.

This study assists school psychologists and faculty in schools by providing a glimpse into the patterns of symptom improvement and the importance of time. Understanding the degree of impact of treatment and time can help school psychologists to better provide interventions for students and to remain flexible when symptoms remain unchanged. Being aware of these variables is especially important when planning socioemotional learning for a group of students who might otherwise not have the opportunity to engage in treatment outside of the school setting. Having a deeper understanding of the way treatments impact various symptoms can also help school psychologists differentiate treatment strategies to better understand the factors that impact

treatment progress. School psychologists can utilize this information to engage in future research and treatment monitoring to help students thrive when faced with social obstacles.

Conclusion

Overall, there is extensive research concerning the current efficacy of DBT; however, there is a clear gap within the research in terms of the current efficacy of traditional assertiveness training. Additionally, an in-depth literature review also suggests that there is a gap within the DBT literature in that individual skills module have not been studied as a standalone treatment. Therefore, this current study sought to synthesize the gaps present in the literature for both treatments by comparing the efficacy of the individual DBT module of interpersonal effectiveness to traditional assertiveness training as a standalone treatment.

By synthesizing the gap in the research, this study added to the literature and built upon what we already know, and provided answers to what we do not. Closing this gap is a significant benefit for the field of psychology, practice, and research. For example, this study hopefully shifted the focus from disorder-specific treatment packages to more individual constructs that may moderate or mediate symptoms and target possible comorbid symptoms. Additionally, furthering research in this area is beneficial for school psychologists, trainees in psychotherapy, licensed psychotherapists, individuals in treatment, and nonclinical populations with skills deficits. It was hypothesized that given the extensive up to date research on DBT it will be deemed more effective as a standalone treatment compared to Traditional Assertiveness training. However, our results showed that our hypotheses were not supported consistently amongst variables.

DBT was deemed more effective and demonstrated more change in mean Avoidance behavior scores from timepoint 1 and timepoint 6. Time was also shown to have a statistically significant main effect on Avoidance behaviors amongst both treatments. Both groups demonstrated change; however, the DBT group demonstrated more drastic change over time. Similarly, Time demonstrated a statistically significant effect for Fear scores amongst both treatments. Therefore, suggesting that neither treatment was more effective than the other across time because both treatment groups improved. Our hypothesis was rejected for variables including Nonassertive Behavior, Aggressive Behavior, and Social Problem Solving. Regardless of these outcomes, we hope that this study sheds light on the forgotten treatment of Traditional Assertiveness Training and motivates researchers to continue examining DBT modules as a standalone treatment. By extending the time points and increasing the sample size, we hope that future researchers will continue to explore the impact these treatments have on symptomology related to social anxiety.

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Vita

Name	Daniella DiFabio
Baccalaureate Degree	Bachelor of Arts and Sciences, Pace University, New York, NY Major: Psychology
Date Graduated	May 2018
Other Degrees and Certificates	Master of Science, St. John's University, Jamaica NY, Major: School Psychology
Date Graduated	May 2021