

EXAMINING THE DBT WAYS OF COPING CHECKLIST AND THERAPIST
EXPECTANCIES AS PREDICTORS OF SUCCESS IN DBT GIFT GROUP

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by

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ABSTRACT

Researchers have long focused on which variables play a role in managing the stress-illness relationship, and more specifically, emotion dysregulation (Linehan, 1993; McCrae, 1984). The current study examined psychologically dysregulated individuals (n=22), who had been recommended by their primary therapists, to participate in an 18 week outpatient DBT skills group. We were interested in determining whether participants' strategies for coping changed from maladaptive to adaptive over the course of group, specifically between pre-intervention waitlist (Initial Assessment) and after completing the first module of the skills group (Reassessment 2). The DBT Ways of Coping Checklist (DBT-WCCL, Neacsieu et al., 2010) was used as a way of determining change across time and a DBT Deficiencies measure was sent to participants' therapists every six weeks. Correlations between the DBT Deficiencies measure and DBT-WCCL Dysfunctional subscale revealed moderately significant findings, suggesting a possible relationship between therapists' predictive assessments of client deficiencies, and subsequent reports of their clients after a period of time. Analyses of the DBT-WCCL subscales suggested moderate improvement from Initial to Reassessment 2 with a 9.7% increase in reported DBT coping skill use, and a 7.6% decrease in dysfunctional coping skill use. Despite discouraging attrition rates, implications of the study include an added support for the DBT-WCCL in monitoring adaptive and maladaptive skill use in clinical populations. Finally, data demonstrated moderate changes in skill use after only six weeks of DBT skills group, which supports the efficacy of the DBT-WCCL measure, as well as the structure of the DBT group's structure as it pertains to positive changes in participants.

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It is a primary goal of many clinical psychologists to determine how to most effectively understand and manage symptoms of psychopathology (Andraesen et al., 1992; Falloon et al., 1982; Schaub et al., 1987; Wheaton, 1978). Researchers continue to investigate which specific variables play a role in moderating the stress-illness relationship, uncovering that coping has repeatedly reemerged as a major candidate in the search for moderators of psychopathological symptomology (McCrae, 1984). The goal of this thesis is to outline the structure and functions of coping strategies, both adaptive and maladaptive, and discuss how the use of a measure specific to the DBT skills training utilized in this study was able to capture the changes in reported baseline coping of participants across time.

Coping Strategies and Their Outcomes

Lazarus and colleagues (1984) define coping as the conscious effort to manage stressful environmental demands, regardless of their outcome. They distinguish coping, at least initially, from automatized responses to one's situation. Any event that could be construed as a loss, harm, threat, or challenge, in alignment with the individual's unique perspective of the event, prompts a particular response involving a specific set of coping responses (Lazarus & Launier, 1978). Coping and its adaptive function for the individual stems from the ability to learn to apply these skills automatically, so that he or she might begin to effectively and efficiently manage stressful experiences (Lazarus & Folkman, 1984).

Pearlin and Schooler (1978) define coping as any behavior that defends against the psychological harm that can follow from difficult social experiences. The protective

function of coping behavior plays three roles. First, coping may eliminate or tweak the conditions that give rise to the problem. Next, coping might help to control the perception of the experience in a way that neutralizes its negative character. Finally, coping may confine the emotional consequences of the problem to within reasonable and manageable limits (Pearlin and Schooler, 1978). Unfortunately, it can be difficult to determine the difference between what is generally considered adaptive coping versus maladaptive or dysfunctional coping.

Another interesting element of coping is that those who are most exposed to hardship are generally the least equipped to deal with it (Pearlin & Schooler, 1978). Stable, adaptive functioning often develops in those individuals who were raised in relatively low-risk social environments (Seiffge-Krenke, 2004). However, exposure to chronic stress and adversity due to a lack of social or personal resources, could lead to serious risk factors for later development of psychosocial disorders and generally maladaptive coping as a result (Seiffge-Krenke, 2004). The ongoing accumulation of stressors, the use of potentially maladaptive coping styles, and relationship deficits in these individuals' daily lives fosters a vicious cycle that can drastically increase psychological symptoms (Seiffge-Krenke, 2004). Thus, there is a great deal of urgency in understanding the reasons why individuals who struggle with psychological disorders are led toward or away from certain coping responses.

Further, it has been theorized that for any group of individuals exposed to the same frequency of stress, those with fewer coping resources often have a greater chance of developing disorders in the first place (Wheaton, 1978). Aldwin and Revenson (1987) found that the existence of chronic stress, which they measured through life change or

occurrence of stressful life events, may be less important to participants' well-being than how they actually appraise and cope with this stress. In addition, those individuals who were currently in poorer mental health or undergoing great stress experienced some level of symptom alleviation after utilizing adaptive coping strategies, regardless of their prior symptom levels or existing degree of stress (Aldwin & Revenson, 1987). Their results suggest that how people choose to react to aversive situations, given the "tool belt" of strategies available to them, can make a difference to their overall well-being.

It is important to realize that as humans, everyone is likely exposed to *some* level of stress in their environments, but what differentiates successful coping from maladaptive functioning could simply be how effectively this stress is handled. Finally, there are definitely cases in which individual coping mechanisms might not be effective. The efficacy of a coping behavior should not solely be based on how effective it was at alleviating the problem, but on how well it alleviates the emotional distress that results from these problems (Pearlin & Schooler, 1987). For this reason, certain individuals might require interventions that target skills deficits in order to gain control and understanding of effective strategies. In Dialectical Behavior Therapy (DBT), skills are often taught in a group context because this is cost-effective and because many clients can benefit from the listening to and observing other group members' skill use..

Maladaptive coping strategies are those that do not better our daily psychological functioning (Brown et al., 2005). While acting as temporary buffers to uncomfortable levels of distress, they do little to alleviate the source of the stress, which generally grows in severity, therefore increasing subsequent distress later on (Lazarus & Folkman, 1984; Zeidner & Saklofske, 1996). Further, there appear to be several coping mechanisms that

ought to be considered inherently maladaptive, as they offer no inherent stress relief and ultimately the individual could be considered worse off if these strategies are employed (Lazarus & Folkman, 1984; Snyder, 1999; Zeidner & Saklofske, 1996). Examples of these strategies include drinking and abusing drugs or medications, overeating, and self-injury. Denial, behavioral disengagement, and blaming others, as well as any behaviors or cognitions which could be considered socially deviant, are often noted to be signs of inherently maladaptive coping mechanisms (Pearlin and Schooler, 1978; Zeidner & Saklofske, 1996). Specifically, individuals with depressive disorders tend to employ emotional and avoidant coping, rather than task coping and problem solving strategies believed to be generally effective in reducing emotional distress (Nyklicek et al., 2010; Zeidner & Saklofske, 1996). As we have discussed, and as has been suggested in the existing literature, maladaptive coping mechanisms may be directly implicated in causing, maintaining, and aggravating mental and physical health problems (Aldwin & Revenson, 1987; Lazarus & Folkman, 1984; Snyder, 1999; Stein et al., 2015; Zeidner & Saklofske, 1996). It is for this reason that we would be empirically justified in moving forward with teaching more adaptive coping strategies as an effective intervention strategy in a group or individual therapy context.

In order to further investigate what makes a coping strategy adaptive or maladaptive, it is necessary to understand the relationship between the coping process and its outcomes (Lazarus, 1993). Researchers are specifically interested in how individuals' conscious choice of coping strategies affects their psychological and emotional outcomes, and how these strategies then interact with factors such as

personality and stress management experiences (Aldwin & Revenson, 1987; McCrae, 1984; Pearlin & Schooler, 1978; Seiffge-Krenke, 2004; Zeidner & Saklofske, 1996).

Zeidner and Hammer (1990) determined that there was a very small association between life stressors and outcome measures, which suggests that coping is a more critical moderating factor in determining outcome than the actual severity or frequency of the stressor. This realization is reason to continue investigating coping mechanisms, particularly those that should be considered either adaptive or maladaptive in effectively relieving symptoms of those struggling with a number of psychological disorders. Before moving forward, however, it is important to acknowledge that research has strongly and consistently suggested that coping mechanisms should not be prejudged as being inherently adaptive or maladaptive (Lazarus, 1993; Zeidner & Saklofske, 1996). Rather, defining under which conditions a particular coping mechanism can be considered most effective at alleviating stress and keeping the original source of distress and dysfunction at bay, all while maintaining a positive emotional outlook should be the goal of any coping investigation.

Several criteria for adaptive coping have been established in recent years (Zeidner & Saklofske, 1996). Ideally, an effective coping mechanism should be able to:

- Resolve the conflict or stressful situation
- Reduce physiological reactions
- Reduce psychological distress
- Allow optimal and normative social functioning to resume
- Resume the overall well-being of oneself and others affected by the situation
- Maintain one's positive self-esteem

Richard Lazarus (1993) cautioned that *both* adaptive and maladaptive coping mechanisms often maintain the ability to do many of these things. Therefore, this acts as further justification to utilize an evidence-based approach that has been shown to effectively teach adaptive coping skills that allow the participant to grow in terms of their baseline adaptive coping. Ideally, individuals who participate in such training will learn to recognize the difference between how specific coping strategies, recognized as either effective or poor mediators of emotion dysregulation, act to either alleviate or worsen negative symptoms of their respective psychological disorder(s).

DBT Skills Group and the DBT-WCCL

In order to effectively combat emotion dysregulation among individuals currently suffering from a number of psychological disorders including, but not limited to, depression, anxiety, post-traumatic stress disorder (PTSD), and borderline personality disorder (BPD), clinicians have found success in recent developments of Dialectical Behavioral Therapy (DBT). DBT, which was developed by Marsha Linehan in the late 1980s, originally focused its energy around alleviating negative symptoms of BPD and those struggling with suicidal tendencies. This evidence-based therapy has recently been found to be effective at managing emotion dysregulation stemming from disorders other than BPD (Stein et al., 2015). It is one of the most effective treatments currently available for sufferers of chronic emotion regulation issues (Linehan, 1993).

DBT is based on the assumption that those suffering with varying levels of emotion dysregulation are often dealing with skill deficits and a significant lack of motivation, both of which contribute to the failure of these individuals to utilize skillful

coping mechanisms in everyday life, but most frequently in response to highly stressful events (Neacsiu et al., 2010). DBT helps disordered individuals by targeting their varying levels of emotion dysregulation, and the often uncomfortable aftermath, and then encouraging building skill sets aimed at their specific areas of deficit (Linehan, 1993). It is also the goal of DBT training to teach the specific function of the coping mechanism itself, rather than simply the act, in order to truly assess the efficacy of a specific strategy (Neacsiu et al., 2010; Zeidner & Saklofske, 1996). In addition, the peer support approach common in DBT skills training has also been shown to encourage participants to assume an active role in dealing with their problems (Seiffge-Krenke, 2004).

Overview of Current Study

In the current study, we conducted an abbreviated DBT skills group, taking place over the course of 18 weeks, which incorporated several skills, the goals of which included decreasing symptoms of emotion dysregulation through the development of positive coping mechanisms. At each assessment, participant surveys included the DBT Ways of Coping Checklist (Neacsiu et al., 2010) as one measure of participants' reported use of coping skills. This measure has been validated as an effective assessment tool to monitor DBT skill use among a diagnostically diverse psychiatric population (Stein et al., 2015).

Because DBT rests on the assumption that many disorders and their respective symptoms are the result of skill deficits in many areas of daily functioning, the motive behind the WCCL follows this assumption that an increase in skills ought to act as a mechanism of change (Stein et al., 2015). This measure is the first to incorporate all four tenets of DBT skills from each of its four modules of skills training: interpersonal

effectiveness, mindfulness, distress tolerance, and emotion regulation (Neacsiu et al., 2010; Stein et al., 2015;).

The WCCL measure aids in determining whether there is a relationship between participants' ratings at their Initial Assessment and Reassessment 2, which took place after six weeks of DBT skills group attendance. We hypothesized that there would be a positive change in reported use of adaptive coping strategies, and a subsequent decrease in reported use of maladaptive coping strategies. In the measure itself, participants were asked to recall when in the past month they were confronted by stress and utilized specific coping mechanisms at either no point in time, rarely, sometimes, or regularly.

Items were divided into two subscales, with a positive set including DBT skills usage, and a dysfunctional coping set, including items that would be widely considered maladaptive (Neacsiu et al., 2010). Examples of positive DBT skill use items included focusing on the good aspects of life rather than focusing attention on negative thoughts or feelings, responding in a way that still resulted in respecting oneself afterward, accepting those things that are next-best to one's original desires, and accepting strong feelings but not allowing them to interfere. Examples of dysfunctional or maladaptive items included improving feelings by eating, drinking, smoking, or talking, refusing to believe the event happened, avoiding the problem, avoided people, figuring out who to blame, and keeping feelings to oneself. It was important to note, for analysis purposes, that several of the items could often be argued to act as a helpful and effective coping strategy in some instances, however, the intent of the original measure was to distinguish DBT skills specifically from those that are historically unable to prevent long-term distress.

In addition to examining whether group participants demonstrated an increase of reported coping skills use over time, the investigator was interested in participants' primary therapists' perceived levels of deficiencies in their clients, as they pertained to the same four major areas of DBT skills group's focus. It was anticipated that these reported levels of deficiencies would correlate with their clients' reports, so that a high level of reported deficiency was correlated with high levels of participants' reports of maladaptive coping mechanisms, and that a decrease of reported deficiencies should correlate with an increase in reported adaptive, or positive, skill use.

This measure was developed, in brief, as a way to examine an added "third party" perspective of change in our sample of participants, and additionally, to further investigate whether previous researchers' conclusions regarding whether therapists' expectancies and overall predictive validity is as weak as has been previously reported (Borgh, 1968; Heller & Goldstein, 1961; Rakoff et al., 1975).

Method

Participants

All study protocols were reviewed and approved by the University of Utah's Institutional Review Board (IRB). Study personnel obtained informed consent from all participants prior to initiating any study-related procedures. The results and procedures discussed in this paper are a subset of data from a larger study, which attempted to examine whether any psychological and physiological changes in participants' psychopathology, emotion regulation, reported self-efficacy, overall well-being, and prosocial behavior emerged as a result of training received in DBT skills group.

Participants were recruited through direct contact with therapists at the Utah Center for Evidence Based Treatment (UCEBT; $n = 22$) by reaching out to various clinicians in the Salt Lake Valley and through listservs including the Utah Psychological Association and Women in Private Practice. In order to be considered for group membership, participants were required to be actively attending individual therapy with a primary therapist, and have been diagnosed with one or more anxiety, mood, or personality disorder, while also demonstrating deficits in two of the four following areas: distress tolerance, attention, interpersonal effectiveness, or emotion regulation. Additional inclusion criteria included participants having an annual household income below \$50,000 a year, a willingness to undergo assessment while on a wait list, and a willingness to design and participate in a self-directed altruistic project of their choice following their graduation from the study. Participants were excluded if they had been given a diagnosis of mental retardation or a developmental disorder, schizophrenia or another psychotic disorder, or a severe eating disorder requiring medical attention. If a participant met these inclusion and exclusion criteria, they were invited to attend a 180 minute initial assessment at the University of Utah's Psychology Department.

To date, recruited participants include 17 adult females and 5 adult males between the ages of 20 and 51 ($M = 31.7$, $SD = 9.3$). Participants are Caucasian ($n = 21$) and African American ($n = 1$) with annual household incomes between \$0 and \$36,000 ($M = \$15,622$, $SD = \$14,000$). Clinical diagnoses, obtained through participants' self-report and through confirmation with each primary therapist, are reported in Table 1:

Table 1

Participants' Clinical Diagnoses

Diagnosis	N=	%
Depressive Disorders	15	31
Anxiety Disorders	12	25
Borderline Personality Disorder	9	19
Post-Traumatic Stress Disorder	7	15
Bipolar Disorders	3	6
Obsessive Compulsive Disorder	1	2
Eating Disorders	1	2
TOTAL	48	100

Enrolled participants from the first time point (T1) were automatically assigned to begin group, with no random selection or waitlist utilized. Subsequent participants were expected to remain on a waitlist for six weeks following their initial assessments, and began group immediately after the next assessment period. Participants were not compensated for their time or travel to assessments or to the group location at UCEBT.

Primary Therapists

In order for the participants to remain in the study, they were required to sign a consent form during their initial assessment which allowed study personnel to reach out to their primary therapist with a short survey every six weeks during their time in the study, as well as a follow-up survey at a two-month mark following graduation, or an

attrition survey should the participant fail to complete group. Demographic information for primary therapists is included in Table 2.

Table 2

Therapist Demographics

<u>Gender</u>	<u>Race</u>	<u>Level of Education</u>	<u>Therapeutic Approach(es)</u>
Male (n=4)	Caucasian (n=16)	Master's degree (n=8)	Manualized (n=10)
Female (n=16)	African American (n=1)	Doctoral program (n=5)	Acceptance Based (n=6)
	Asian American (n=1)	Ph.D. (n=4)	Eclectic (n=7)
	American Indian (n=1)	MD/post-doctoral (n=4)	Humanistic (n=5)
	Hispanic (n=1)		Mentalization-based (n=1)
			Principal-driven (n=11)
			Psychodynamic (n=2)
			Other (n=11)

Therapists were contacted via email, which included instructions and a link to LimeSurvey to complete the initial clinician expectancy survey. Subsequent surveys withheld the original demographic questions for added convenience. Reminder emails were sent periodically beginning a week from the last assessment date until the survey was completed, and participants were also encouraged to remind their therapists of the survey's importance for their continuation in Gift Group.

Materials and Procedure

Coping Mechanisms Measure. The Dialectical Behavioral Therapy Ways of Coping Checklist (DBT-WCCL; Neacsiu et al., 2010) measures how individuals cope both positively and negatively, by utilizing skills learned in DBT therapy and skills

groups while also demonstrating whether they continue to utilize ineffective methods of managing emotions in stressful situations. The maladaptive sub score, specifically, served as an indicator of ongoing emotion dysregulation among group participants, allowing investigators to gauge whether gains in adaptive skill sets correlated with a decrease in maladaptive strategies.

The DBT-WCCL has been shown to be effective at discriminating between individuals who have completed DBT modules from those who have not (Neacsieu et al., 2010). Therefore, its inclusion in the participant survey was an important indicator of improvement and skill retention from group. The DBT-WCCL measure was divided into Positive Skills and Dysfunction subscales, and results were obtained for each participant by finding sum scores for each. High scores on the Positive Skills subscale indicated the participant was currently reporting significant use of DBT skill sets. High scores on the Dysfunction scale indicated significant amounts of dysfunctional coping mechanisms in use. This thesis examined whether there was a positive or negative change from baseline measures to Reassessment 2.

Clinician Demographics. Clinicians were asked for their full name and credentials, gender and race, the name of their client, time spent meeting with client, highest level of education completed, and primary therapeutic approaches used with their client. They were also asked to indicate in which schools of thought they had received formal training or supervision. Study personnel utilized this information in order to determine if there might be a relationship between any of these variables and the client's outcome in group.

DBT Perceived Deficiencies. A five-question measure of perceived levels of deficiency in DBT-related skills was developed by this investigator to assess primary clinicians' perceived levels of deficiency in each of the four major areas of DBT. Clinicians were asked to rank perceived deficiencies on a 7-Point Likert Scale for Emotion Regulation, Distress Tolerance, Interpersonal Skills, and Mindfulness, with 1 indicating little to no deficiencies, and 7 indicating extreme deficiencies. Clinicians were asked to include their thoughts on how they feel DBT Gift Group will serve, or has served, to diminish maladaptive behaviors and perceived distress in their client. This measure was included in order to determine if there were any changes in perceived deficiencies as their client progressed through DBT skills group, with the added ability to include more specifically how their client may have benefitted from group itself.

Suicide Risk Assessment. This measure was included in the clinician survey as an additional safeguard for preventing harm to study participants. Clinicians were asked to rate their current levels of concern for self-harm, harm to others, and suicide risk on a 7-Point Likert Scale ranging from 1 being little to no concern, and 7 being extreme concern. Study personnel and advisors reviewed changes in these risk-for-harm scores during each assessment period in order to determine whether participants were safe to continue in group, and did not pose an active threat to themselves or others.

Gift Group Survey. At the initial assessment, participants were asked to complete the Gift Group Survey, administered through LimeSurvey online. Each participant was logged in to a laboratory computer with their participant ID. Time spent taking the survey varied from 20-60 minutes. The questions remained the same for each survey, which were completed once every six weeks at laboratory assessments. The survey's purpose

was to assess a number of different variables, including depression, self-efficacy, and prosocial behaviors, in order to measure reported change during their time in skills group; however, only the DBT-WCCL (Neaucsiu et al., 2010) was utilized as an indicator of change in this analysis.

Participant Follow-Up Survey. Participants were emailed a link to complete an additional survey approximately two months following graduation from DBT Skills group. This survey inquired about whether the participant had completed their prosocial project, as well as whether participants felt they had managed to maintain DBT skills acquired in group. In addition, the survey inquired about whether participants continued to attend individual therapy, and if they had any feedback relevant to their time in the study.

Clinician Expectancies Survey. Participants' primary therapists were contacted via email following the initial assessment. A link to the Clinician Expectancies Survey was included, along with a brief explanation of the survey's purpose and future contact dates. Clinicians were invited to contact the lab with any questions or concerns regarding the surveys. Reminder emails were sent out each week following the assessment period until the survey was completed.

Clinician Follow-Up Survey. Clinicians were sent an optional follow-up survey approximately two months following their client's successful completion of Gift Group. The purpose of this survey was to inquire about their client's continued application of DBT skills in their treatment. In addition, the survey confirmed their client's clinical diagnoses, and inquired about any changes in their risk for self-harm or harm to others.

Clinician Attrition Survey. Clinicians were sent a final survey at any point that their client dropped out of the study. The attrition survey was intended to determine which factors may have led to the client's decision to leave the study. Clinicians were asked to confirm their client's clinical diagnoses, as well as to note whether there was any change noted in regards to risk for self-harm or harm to others. In addition, the survey inquired about their expectations for Gift Group, factors they believed contributed to the attrition, and if they noted any changes in their interaction with the client during their time in the group.

Results

Statistical analyses were run to test the investigator's preliminary hypotheses regarding participants' change in coping skills, as well as changes in relation to primary therapists' reports of clients' DBT deficiencies:

H1: Reported use of positive coping strategies and decreased report of negative coping strategies will increase from pre-treatment to reassessment two.

H2: Clinicians' perceived levels of deficiencies in DBT areas will correlate with participants' perceived deficiencies, as measured by the WCCL and DBT Deficiencies measures.

Statistical analyses were conducted using IBM SPSS Statistics 21 software for Mac. Multivariate analyses were run in order to determine whether there was a change from Initial Assessment to Reassessment 2 in three categories: Therapists' reports of DBT deficiencies in their clients, and participants' self-reports of their usage of both positive and negative coping strategies, as measured by the DBT Ways of Coping Checklist

(DBT-WCCL). H1 stated that we would expect to see a decrease in reported dysfunctional coping mechanisms, and a subsequent increase of positive DBT-related coping skills in our participants. In addition, H2 stated that we expected a correlation of clinician reports of DBT deficiencies with participants' ratings of skills use. In both of these instances, it was helpful to run repeated-measures ANOVA analyses, which visually demonstrated a change in all three areas.

Correlations were computed between groups, with the DBT Deficiencies at the Initial Assessment, and the WCCL for both DBT Skill Use and Dysfunctional Coping subscales at Reassessment 2. Change scores were calculated for each participant for the WCCL DBT Skills and Dysfunction subscales, and then correlated with primary therapists' change scores taken from the DBT Deficiencies scale. H2 expected to uncover a significant correlation between clinicians' reported deficiencies at Initial Assessment, and participants' reported use of adaptive and maladaptive coping skills at Reassessment 2. Our correlational analyses allowed us to examine and draw conclusions from the strength of the relationship.

DBT-WCCL Adaptive Coping Skills Use *Initial Assessment to Reassessment 2*

A repeated-measures ANOVA was run between participants at Initial Assessment ($n=21$) and Reassessment 2 ($n=15$) revealing the following data set represented in Figure 1. The results demonstrate an average point increase of 6.2 after participants remained on a waitlist and then successfully completed six weeks of DBT skills group. The average range of scores fell around 50 points during Initial Assessment, and climbed to 56.2 by Reassessment 2. This change also translated to a 9.7% increase in reported use of

adaptive DBT coping skills. The reported significance level of .040 also supports the conclusion that there was a moderate increase in adaptive skills use for those individuals who stayed enrolled in the study beyond the waitlist period ($n=15$). These results were encouraging, and seemed to suggest an upward trend of participants utilizing adaptive DBT coping skills. The high rate of attrition following this particular time point in the study made it difficult to analyze data beyond Reassessment 2.

Mean Change of the DBT-WCCL Adaptive Coping Skills Subscale

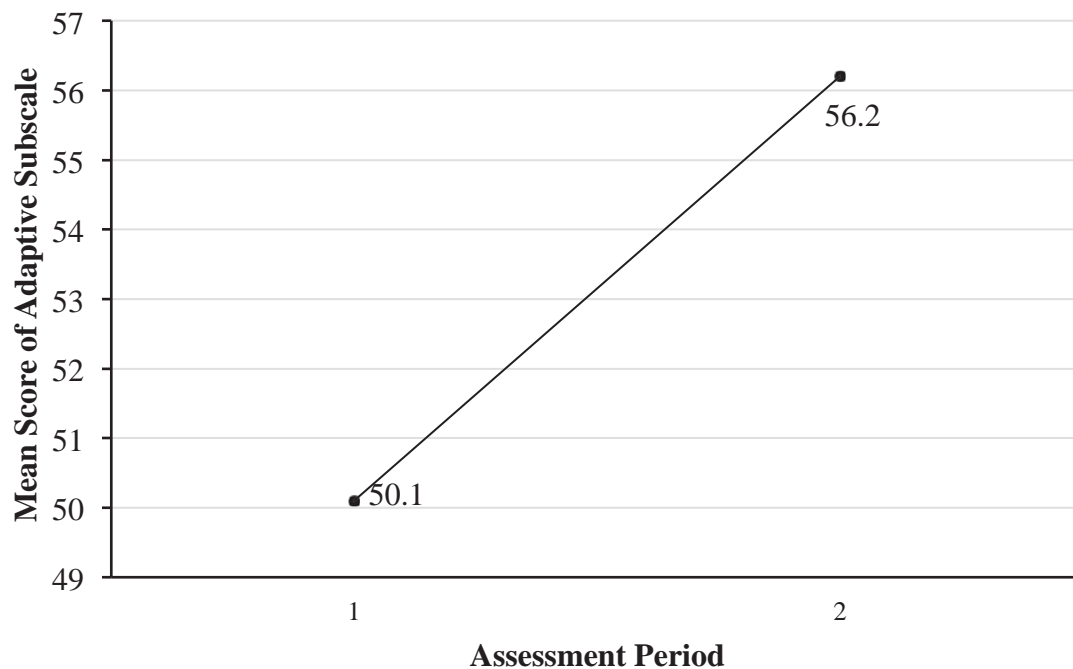


Figure 1. Results from a repeated-measures ANOVA, which looked at the average change in reported scores from the DBT WCCL Skills subscale from Initial Assessment to Reassessment 2. Initial Assessment: $M=50.1$, $SD=7.59$. Reassessment2: $M=56.2$, $SD=8.13$.

Table 3

Descriptive Statistics for DBT-WCCL Adaptive Skills Use

	<i>M</i>	<i>SD</i>	<i>n</i>
Initial Assessment	50.1	7.59198	15
Reassessment 2	56.2	8.1258	15

DBT-WCCL Dysfunctional Coping Use*Initial Assessment to Reassessment 2*

A repeated-measures ANOVA was run between participants at Initial Assessment ($n=21$) and Reassessment 2 ($n=15$) revealing the following data set represented in Figure 2. The results demonstrate a 3-point decrease on average after participants had remained on a waitlist and then successfully completed six weeks of DBT skills group. The average range of scores started at 36.4 points during Initial Assessment, and dropped slightly to 33.4 points by Reassessment 2. This change also translated to a 7.6% decrease in reported use of maladaptive, or dysfunctional, DBT coping skills. The reported significance level ($R^2 = .065$), although weak, suggested that there was a slight decrease in maladaptive skills use for those individuals who stayed enrolled in the study beyond the waitlist period ($n=15$).

Mean Change of the DBT-WCCL Dysfunctional Strategies Subscale

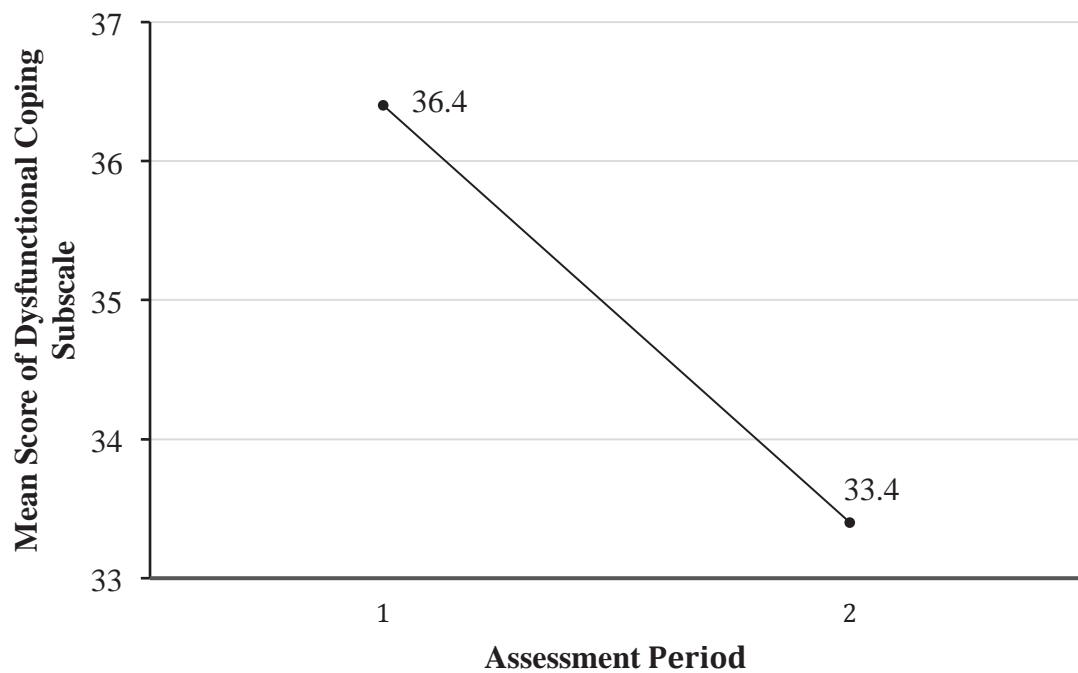


Figure 2. Results from a repeated-measures ANOVA, which looked at the average change in reported scores from the DBT WCCL Dysfunction subscale from Initial Assessment to Reassessment 2. Initial Assessment: $M=36.4$, $SD=4.74$. Reassessment 2: $M=33.4$, $SD=6.35$.

Table 4

Descriptive Statistics for DBT Dysfunction

	<i>M</i>	<i>SD</i>	<i>n</i>
Initial Assessment	36.4	4.74793	15
Reassessment 2	33.4	6.3561	15

DBT Deficiencies

Initial Assessment to Reassessment 2

A repeated measures ANOVA was run between assessment periods for primary therapists ($n=11$), and revealed the following data set represented in Figure 3 and Table 5. The results demonstrate a small point decrease of 1.8, which suggests a minimal change in reported levels of perceived deficiencies of DBT skills in their clients, at least during their time on waitlist and the first six weeks of skills group. The average range of scores stayed around 21.5 points during Initial Assessment, and dropped slightly to 19.6 points by Reassessment 2. This change, while appearing to be highly insignificant, translated to a 7.5% decrease in clinicians' perceived deficiencies. In addition, while the reported significance level of .277 was also statistically insignificant, it suggests a slight decrease, or at least downward trend, in reported deficiencies among those therapists' clients who stayed enrolled in the study beyond the waitlist period ($n=15$).

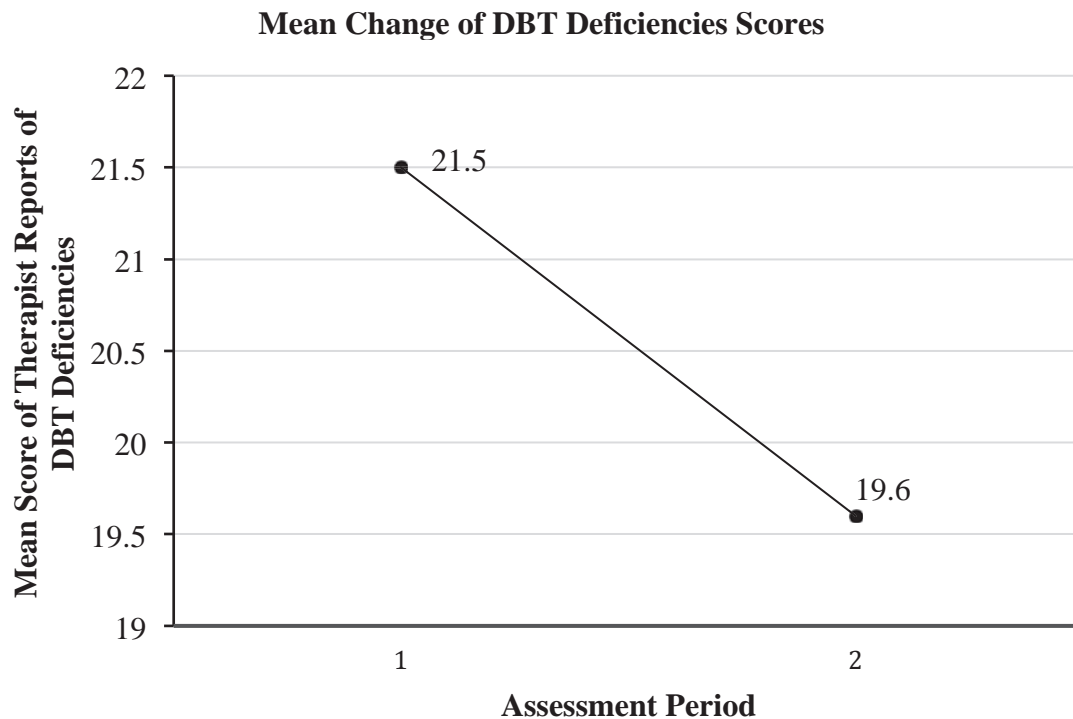


Figure 3. Results from a repeated-measures ANOVA is shown, which looked at the average change in therapists' reports from the DBT Deficiencies measure from Initial Assessment to Reassessment 2. Initial Assessment: $M=21.45$, $SD=4.50$. Reassessment 2: $M=19.64$, $SD=4.25$.

Table 5

Descriptive Statistics for DBT Deficiencies

	<i>M</i>	<i>SD</i>	<i>n</i>
Initial Assessment	21.5	4.50252	11
Reassessment 2	19.6	4.24906	11

DBT Deficiencies and WCCL Adaptive Coping

A correlation was run between DBT Deficiencies for Initial Assessment and the WCCL Adaptive Coping subscale, in order to determine whether there was any predictive power in therapists' ratings of their clients' deficiencies when compared to participants' ratings of their use of adaptive coping skills at Reassessment 2. Results are displayed below in Figure 4 and Table 6. With a p-value of .690 and r-value of -.123 ($df=11$), the results must be considered statistically insignificant. According to the output, there is no significant relationship between therapists' ratings of clients' deficiencies at Initial Assessment ($n=18$), and the later reports of participants' use of adaptive DBT coping skills at Reassessment 2 ($n=13$). Figure 4 appears to suggest that a high rating of perceived deficiencies correlated slightly with higher reports of adaptive skills use.

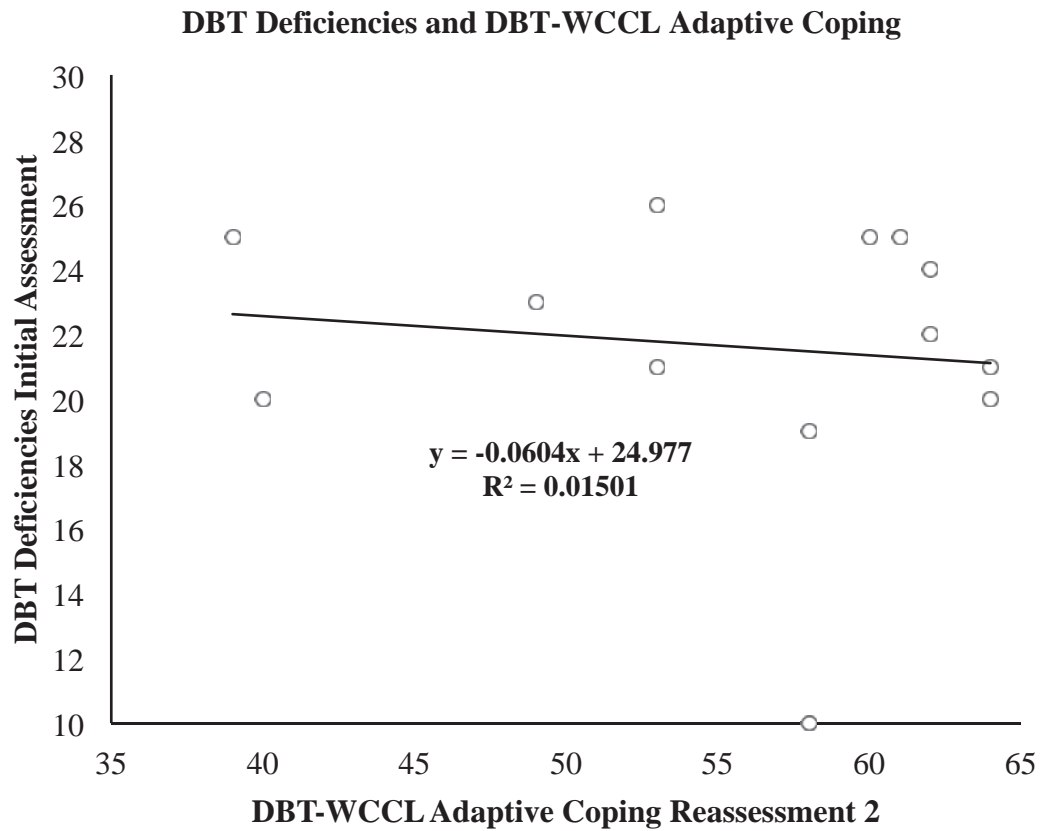


Figure 4. Correlational results between therapists' DBT Deficiencies measure at the Initial Assessment, and participants' DBT-WCCL Adaptive Coping reports at Reassessment 2 ($r = -.123$, $p = .690$).

One of the reasons for this counterintuitive result, aside from a low sample size ($n=13$), could be that clients reporting high levels of positive skill use are seen by therapists who are able to look beyond a client's possible state of denial in regards to their actual DBT skills use. Alternatively, the inverse results could suggest that therapists who are reporting positive changes in their client, in regards to deficiencies (via lower scores), tend to have clients who are internally harder on themselves and thus report

lower usage of positive DBT skills. Regardless, stronger conclusions might have been reached with a higher sample size.

Table 6

<i>Initial Assessment DBT Deficiencies and Reassessment 2 DBT WCCL Skills</i>	
Correlation	-0.123
Significance (2 tail)	0.69
N	13

WCCL Dysfunctional Coping and DBT Deficiencies

A correlation was run between DBT Deficiencies for Initial Assessment and the WCCL Dysfunctional Coping subscale, in order to determine whether there was any predictive power in therapists' ratings of their clients' deficiencies when compared to participants' ratings of their use of dysfunctional coping skills at Reassessment 2. Results are displayed below in Figure 5 and Table 7. According to the output, there appears to be a fairly moderate relationship between therapists' ratings of clients' deficiencies at Initial Assessment ($n=18$) and the later reports of participants' use of adaptive DBT coping skills at Reassessment 2 ($n=13$, $p=.006$, $r=-.714$). It appears that a high rating of perceived deficiencies correlated significantly with higher reported use of dysfunctional coping skills (*see Figure 5*).

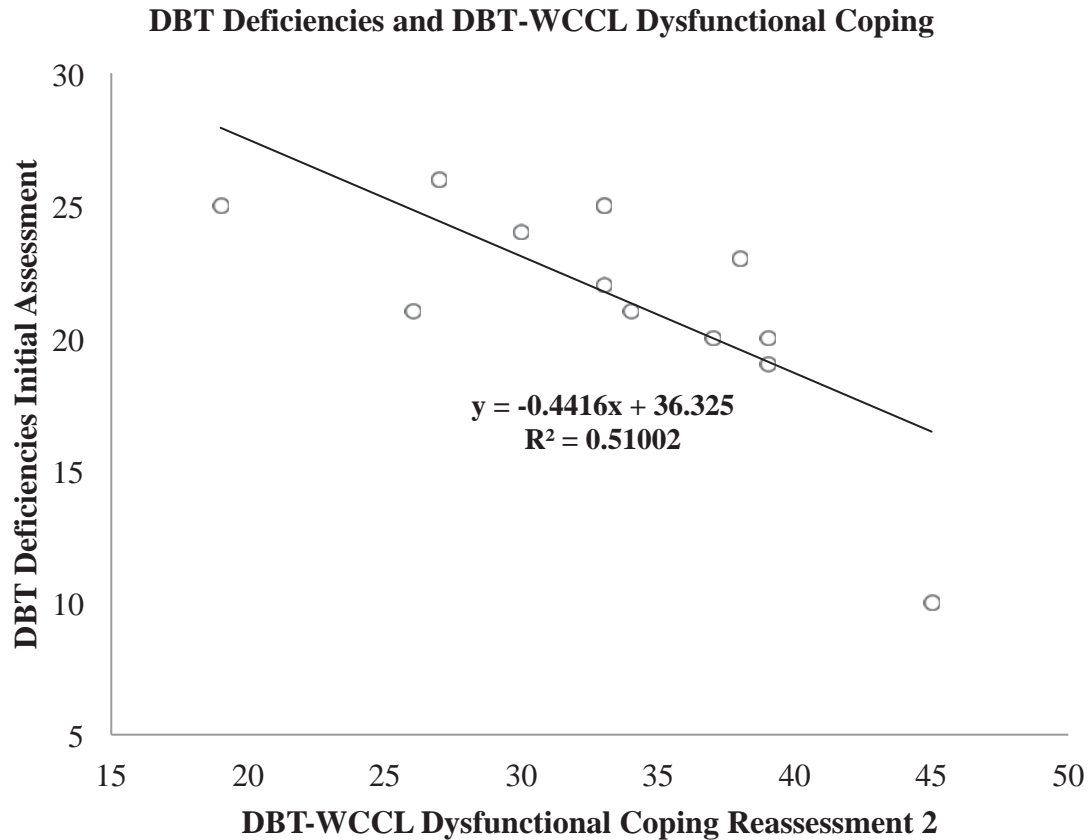


Figure 5. Correlational results between therapists' DBT Deficiencies measure at the Initial Assessment, and participants' DBT-WCCL Dysfunctional Coping scores at Reassessment 2 ($r = -.714$, $p = .006$).

While this trend toward maladaptive coping in this particular output is less than ideal, it does seem to suggest that therapists' initial ratings of their clients' deficiencies in DBT skills are fairly in line with how participants believe they are functioning, in terms of maladaptive coping strategies at Reassessment 2. One explanation for why we might see this trend, in contrast with the relationship between DBT deficiencies and positive coping skills use, is simply that the deficiencies measure was originally aimed to seek out problem behaviors, while the DBT-WCCL positive skills subscale was interested in how

participants thought they were applying adaptive skills. This contrast might have led to fairly insignificant correlations. The change in statistical significance for the Dysfunction subscale might demonstrate a stronger relationship between that particular subscale and the DBT Deficiencies measure.

Table 7

<i>Initial Assessment DBT Deficiencies and Reassessment 2 DBT WCCL Dysfunction</i>	
Correlation	-0.714
Significance (2 tail)	0.006
N	13

WCCL Dysfunctional Coping and DBT Deficiencies *Skills Group Graduates Only*

After observing a significant relationship between therapists' analysis of initial DBT deficiencies, and dysfunctional coping scores from participants at Reassessment 2, a difference in correlation strength among those participants who graduated, or who were one assessment period away from graduating skills group ($n=9$), as compared to the group as a whole ($n=22$) was investigated. There appears to be a fairly strong relationship between therapists' deficiency ratings of clients able to graduate skills group at Initial Assessment, and the later reports of graduated participants' use of adaptive DBT coping skills at Reassessment 2 ($p=.017$, $r=-.726$). Figure 6 appears to suggest that a high rating of perceived deficiencies correlated significantly with higher reported use of

dysfunctional coping skills, and even appears to have a slightly stronger correlation than that of the group as a whole.

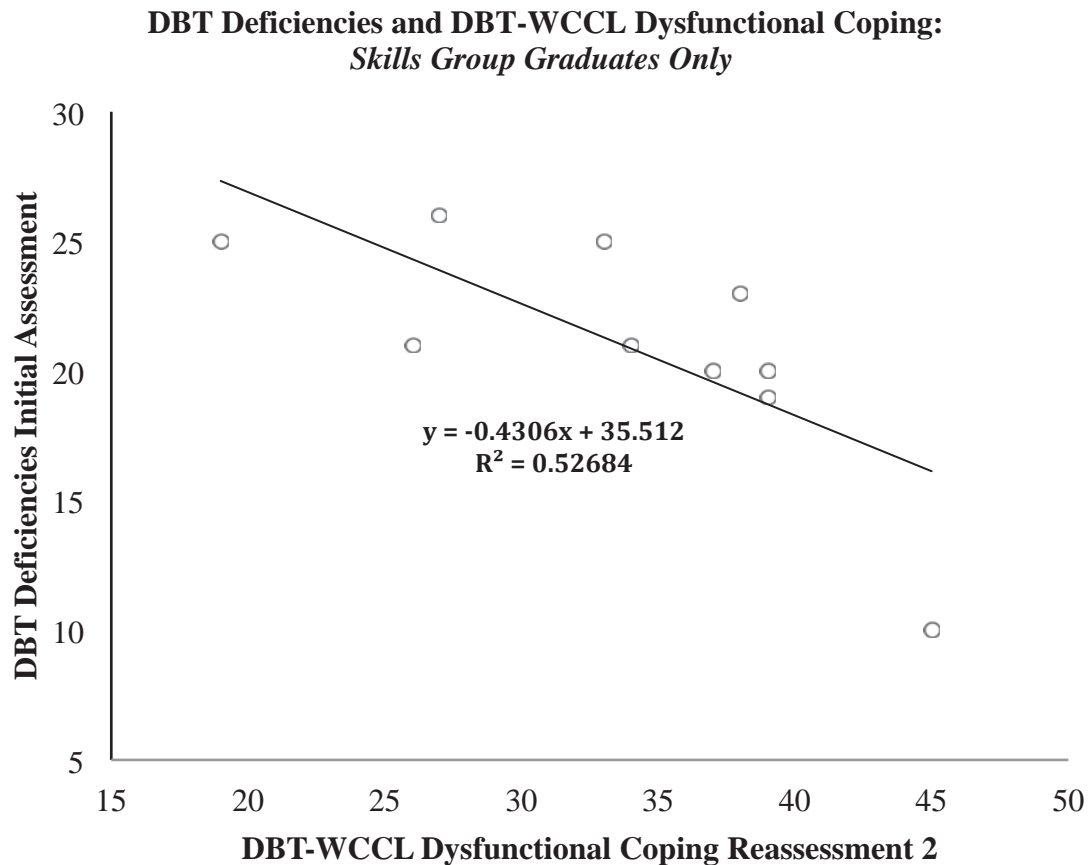


Figure 6. Correlational results, using data from group graduates only, between therapists' DBT Deficiencies measure at the Initial Assessment, and participants' WCCL Dysfunctional Coping reports at Reassessment2. ($r = -.726$, $p = .017$)

There are several suppositions that could be made from this data. First, it may be plausible that those individuals who successfully completed DBT skills group represented a cluster of symptomology or diagnoses that were predetermined to be, on average, more successful in DBT, or group therapy in general. It is also possible that those individuals

with stronger relationships with their therapists were more invested in skills group, and in turn, their therapist's relationship would explain the stronger predictive ability in terms of rating existing and future deficiencies. Clearly a larger sample size of graduates would help to support these theories in future investigations, but the trend with the existing data is encouraging.

Table 8

<i>Initial Assessment DBT Deficiencies and Reassessment 2 DBT WCCL Dysfunction</i>	
Correlation	-0.726
Significance (2 tail)	0.017
N	10

Discussion

The data that was collected for this portion of the study allowed investigators to examine whether there were trends in the maintenance of dysfunctional coping skills, or the building of positive, DBT oriented coping skills. Overall, it was determined that there were moderate positive trends in terms of improvement from Initial Assessment to Reassessment 2, and stronger negative trends in terms of reduction of maladaptive coping use during this same time period. These findings helped to support the hypothesis that positive DBT coping skills use would increase, and maladaptive skills use would decrease over the course of skills group.

However, the second hypothesis, which theorized a correlation between clinicians' perceived levels of deficiencies in DBT and participants' perceived deficiencies, as measured by the WCCL, was not fully supported by the data. Specifically, there did not appear to be a statistically significant relationship between the DBT Deficiencies measure and the DBT-WCCL Adaptive Coping subscale, but there was a relationship between the DBT Deficiencies measure and the WCCL Dysfunctional Coping subscale.

The results were generally supported by much of the existing literature on coping mechanisms. Specifically, those who reported growing up in volatile environments tended to display traits of maladaptive functioning (Seiffge-Krenke, 2004). Further, findings from Aldwin and Revenson (1987), declaring that those who have undergone greater stress may experience some level of symptom reduction after utilizing adaptive coping mechanisms, was supported by the decrease of maladaptive coping mechanisms, and increase of adaptive mechanisms, which was observable after only six weeks of skills group.

Limitations

One major limitation of the study, which affected all areas of data collection and the ability to draw statistically significant conclusions, stemmed from the unexpectedly high rates of attrition, and therefore the low sample size. Due to the significant time commitment required of enrollment in group, it is possible that this, along with other factors related to participants' psychological conditions and social or financial circumstances, led to the high dropout rates. This attrition rate also meant that

investigating trends beyond Reassessment 2 was not possible at this time, due to a lack of data.

Maintaining consistent contact with several clinicians over the course of their clients' time in the study was also difficult. Also, surveys were being returned at varying points between assessment periods, which could have skewed scores. Finally, there were participants ($n=4$) who changed primary therapists during their time in group, and who did not have the ability to maintain consistent therapy appointments. These factors could have easily affected reports of deficiencies, and additionally affected participants' ratings of skill use if the clinician they had switched to did not emphasize the importance or necessity of group participation or DBT skills use.

Implications and Future Directions

Despite discouraging attrition rates, this study was still able to extend current use of the DBT-WCCL to a multidagnostic clinical sample. Limited research exists that utilizes this measure, as it pertains to monitoring adaptive or maladaptive skills use in clinical populations. The ability of this study to demonstrate moderate changes in skills use, even after only six weeks of DBT skills group, not only validated the efficacy of the measure, but the efficacy of the DBT skills group's structure as it pertained to positive changes in participants. Additionally, data collected from therapists' DBT Deficiencies measure maintained consistent and strong correlations with other measures utilized in participant surveys. While not yet verified as an official clinical measure, this finding is encouraging as an avenue of further research and potential verification of this measure for clinical use.

Several measures were utilized in the makeup of both participant and therapist surveys. It would be interesting to examine several of these in more depth, perhaps to better determine which factors might have led to a participant's success or failure in terms of completing skills group. Investigating whether a relationship existed between therapeutic optimism and expectancies, along with participants' reports of increasing or decreasing self-efficacy, would provide an interesting extension to the conversation surrounding the individual's decision to employ adaptive versus maladaptive coping skills.

Additional research on the topic of therapist expectancies or therapeutic alliance in terms of client improvement or decline are areas in which larger sample sizes could provide compelling answers into which factors play a role in an individual's success or failure in treatment. Specifically, further investigation into what makes a successful recipient of DBT would be extremely valuable in advancing this fairly recent evidence-based treatment, allowing it to be applied to a variety of clinical populations. Having a greater understanding of the relationship between therapist and client that best develops effective coping would only further strengthen the effect that DBT has on alleviating emotion dysregulation.

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