The Effects of a Modified Dialectical Behavior Therapy Program on Male Inmates' Coping Skills

Doctoral Dissertation by Carolyn Ferreira, M.S.

Pacific University School of Professional Psychology

EXECUTIVE SUMMARY

Although there have been positive outcomes from using Dialectical Behavior Therapy (DBT) in correctional settings, research in this area is limited. Additionally, only one published study to date has included male inmates (Shelton et al., 2009). Given that males constitute the majority of the correctional population, more research that focuses on the effects of DBT with male inmates is clearly warranted. As a result, the purpose of the present study was to add to the existing research of DBT in correctional settings with male inmates.

Purpose

- Examine the effects of a modified DBT program on the coping skills of male inmates participating in DBT groups at Oregon State Penitentiary (OSP) and Oregon State Correctional Institution (OSCI).
- It was hypothesized that participants would show increases in task-oriented coping and decreases in emotion- and avoidance-oriented coping over the course of the group.

Method

- Administer a self-report coping skills measure to participants in the DBT groups at various points of treatment.

Sample Size

- 66 male inmates total (43 from OSCI and 23 from OSP)
    - 51 inmates from general population; 15 were housed in Special Management Housing (SMH)

Findings

- By the end of data collection, 15 participants from OSP and 26 participants from OSCI had completed surveys on one occasion (Group 1), 8 participants from OSP and 8 participants from OSCI had completed surveys on two separate occasions over an 8-week period (Group 2), and 2 participants from OSP and 11 participants from OSIC had completed surveys on three separate occasions over a 16-week period (Group 3).
- Participants in Group 3 showed significant improvements in task-oriented coping scores.
- Emotion-oriented coping appeared to decrease over time for Groups 2 and 3, though without statistical significance.
- Avoidance-oriented coping remained stable or increased over time for Groups 2 and 3 (though again, without statistical significance).
- Coping style use was not significantly correlated with how long a participant had been involved in the DBT group for Group 1, 2, and 3.

Conclusions

The purpose of this study was to add to add to the existing research of the effects of DBT in correctional settings with male inmates. A significant increase in task-oriented coping was found for male inmates who had been participating in the DBT groups for at least a 16-week period. Decreases were also noted in emotion-oriented coping for the same group of inmates and a group of inmates who had been participating in the DBT groups for at least an 8-week period, yet these results were not statistically significant. Avoidance-oriented coping skills remained the same over time for both groups. Length of time in the DBT group did not affect scores on the coping style measure, which suggests other factors were involved that influenced coping style. In sum, it appears that DBT was helpful for improving male inmates' coping skills, though additional research is needed to support this conclusion.

THE EFFECTS OF A MODIFIED DIALECTICAL BEHAVIOR THERAPY PROGRAM ON MALE INMATES' COPING SKILLS

A DISSERTATION

SUBMITTED TO THE FACULTY

OF

SCHOOL OF PROFESSIONAL PSYCHOLOGY

PACIFIC UNIVERSITY

HILLSBORO, OREGON

BY

CAROLYN COVILLE FERREIRA

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

DOCTOR OF PSYCHOLOGY

JULY 20, 2012

APPROVED:

Genevieve L. Y. Arnaut, Psy.D., Ph.D.

Michelle Guyton, Ph.D.

Abstract

The effects of Dialectical Behavior Therapy (DBT) in correctional settings, especially with male inmates, have not been extensively researched within the correctional literature. I sought to add to the existing literature by examining the effects of a modified DBT program on the coping skills of male inmates in the Oregon Department of Corrections. It was hypothesized that participants would show increases in task-oriented coping and decreases in emotion- and avoidance-oriented coping over time as they progressed through treatment. A total of 66 male inmates who were participating in DBT groups from two Oregon prisons completed a coping skills measure at various stages of treatment. Participants completed surveys on one, two, or three separate occasions, depending on their length of time in the group. Participants who completed surveys on three occasions showed significant improvements in task-oriented coping scores. Although there was a trend toward improvements in emotion-oriented coping, no other significant results were found. Implications of the study and for future research are discussed.

Acknowledgments

Many people made this project possible. First, I would like to thank my committee, Dr. Genevieve Arnaut and Dr. Michelle Guyton, for their support and encouragement. I would also like to thank Dr. Paul Michael for helping me to make sense of the statistical analyses. Next, I would like to thank Jan Premo, Helen Webber, and John Sickler, the DBT facilitators who allowed me to survey their groups, for their cooperation and contributions. From the Oregon Department of Corrections, I would like to thank Margaret Braun, Claudia Fischer-Rodriguez, Brian Walker, Regina Nekuda, and Linn Menzie for their assistance. I thank my research assistants, Elizabeth Milligan, Natasha Holmes, and Lisa Cannizzaro for saving me countless hours by scoring surveys for me. Lastly, I thank all my friends and family who cheered me on each small step of the way.

Table of Contents

List of Tables

List of Figures

Introduction

A report published by the Bureau of Justice Statistics (BJS; James & Glaze, 2006) indicated that more than half of all prison and jail inmates had a mental health concern at midyear 2005. James and Glaze (2006) estimated that 56% of state inmates and 64% of jail inmates had a mental health diagnosis or had experienced mental health symptoms within the prior 12 months. The most common mental health symptoms were mania, depression, and psychosis. Dishearteningly, only 1 in 3 state inmates and 1 in 6 jail inmates who had mental health problems received treatment after their admission to the correctional facilities.

Untreated mental illness presents additional problems to the inmate, the criminal justice system, and society. According to O'Connor, Lovell, and Brown (2002), inmates with a mental health diagnosis committed more crimes, served longer sentences, and were more likely to be victimized relative to inmates without a mental health diagnosis. Furthermore, recidivism rates for inmates with a mental illness have been reported to be higher than rates for inmates without a mental illness. For example, Ditton (1999) reported that 49% of federal inmates with a mental illness had three or more prior probations, incarcerations, or arrests, compared to 28% of federal inmates without a mental illness. Similarly, James and Glaze (2006) reported that 25% of state and jail inmates who had mental health concerns had had three or more prior incarcerations compared to 20% of those who had no mental health concerns.

Zamble and Porporino (1990) posited that coping deficits played a major role in the mental health concerns of inmates as well as in the maintenance and repetition of

criminal behaviors. For example, in comparison to nonincarcerated adult males, adult male inmates were more likely to engage in coping styles characterized by emotional reactivity and avoidance rather than problem-solving coping styles; in addition, inmates who engaged in reactive and avoidance coping styles were more likely to be anxious or depressed and to have lower self-esteem relative to inmates who used problem-solving coping styles (Gullone, Jones, & Cummins, 2000). As a result of the intensity and frequency of coping deficits among inmates in their sample, Zamble and Porporino advocated for correctional mental health treatment programs aimed at improving inmate coping skills through behavioral methods.

Courts have indicated that inmates have a constitutional right to mental health treatment while they are incarcerated. In *Estelle v. Gamble* (1976), the U.S. Supreme Court ruled that inmates had a right to medical treatment in prison and that prison authorities who acted in a "deliberate indifference to serious medical needs of prisoners" (p. 429) violated the Eighth Amendment prohibition against cruel and unusual punishment. This right to medical treatment was extended to mental health treatment the following year in *Bowring v. Godwin* (1977).

One type of mental health treatment that is common in correctional settings is group psychotherapy. In their national survey, Morgan, Winterowd, and Ferrell (1999) found that approximately 20% of adult male inmates in state correctional facilities received some form of group psychotherapy. However, only 16% of personnel in mental health departments in state correctional facilities conducted outcome research on the effectiveness of their group psychotherapy programs (Morgan et al., 1999). Despite this lack of research, a range of benefits of group psychotherapy have been noted by

researchers. In their meta-analysis of 26 studies on correctional group psychotherapy, Morgan and Flora (2002) found that, compared with inmates in control groups, inmates who participated in group psychotherapy reported improvements on outcome measures of institutional adjustment, anger, anxiety, depression, interpersonal relations, locus of control, and self-esteem.

In addition to improving an inmate's mental health, another purpose of correctional treatment is to reduce future criminal behaviors (Olver, Stockdale, & Wormith, 2011). As described by Andrews and Bonta (2010), interventions associated with the largest reductions in criminal recidivism follow the principles of risk, need, and responsivity (RNR); that is, interventions that match the risk level of the offender (risk principle), that target social and emotional factors that could lead to re-offending (need principle), and that are structured and cognitive-behavioral in nature (responsivity principle). As a result, cognitive-behavioral therapy (CBT) is generally considered to be the most effective treatment for reducing behavioral problems in inmates (Fishbein et al., 2009; Morgan et al., 1999). However, some inmates do not benefit from CBT, as indicated by poor attendance, early drop-out rates, and noncompliance with group treatment (Fishbein et al., 2009).

Another treatment that may be beneficial in improving inmates' mental health concerns and coping deficits as well as reducing their likelihood to recidivate is Dialectical Behavior Therapy (DBT). The focus of this skills-based treatment is to target problematic behaviors by improving the client's ability to be mindful of his or her own external and internal experiences, to better regulate emotions, to tolerate distress, and to communicate effectively with others (Linehan, 1993). The skills taught in DBT match

the demands of a correctional population. For example, McMurran, Theodosi, Sweeney, and Sellen (2008) reported that improving relationships and increasing self-control were the most commonly cited treatment goals in a sample of 129 adult male inmates. Furthermore, the emotional regulation and distress tolerance modules of DBT may address an inmate's negative emotions that could lead him or her to re-offend, because there is some evidence that emotional distress may be associated with committing crimes (Day, 2009; Hanson & Harris, 2000). Additionally, the inability to process emotions accurately may lead to a distorted perception of social cues, which could lead to aggressive behaviors (Fishbein et al., 2009).

The purpose of the current study was to add to the existing research of DBT in correctional settings with male inmates. In the following sections, I will discuss literature on male inmate coping styles as well as on the relationship between coping style and psychological well-being. I will also discuss the specific components of DBT and the reasons it is applicable to a correctional population. I will then focus on research on the use of DBT in correctional settings with both male and female inmates.

Review of the Literature

Male Inmate Coping Styles

Zamble and Porporino (1988) were the first to study male inmates' coping styles. Specifically, Zamble and Porporino wanted to know how inmates interpreted and solved problems, as well as whether imprisonment changed inmates' coping styles over the course of their incarceration. Participants included 133 males incarcerated in the Canadian federal prison system in Ontario. Zamble and Porporino developed a structured interview for the study, in which they asked participants about their personal backgrounds, their life outside of prison 6 months prior to their arrest, their most salient problems outside of prison and how they responded to those problems, and their life inside prison and how they responded to problems while incarcerated. Participants were assessed three times: during the first, fifth, and 18th months of their incarceration.

Zamble and Porporino (1988) reported that participants experienced common difficulties prior to incarceration, such as familial conflict and money problems, yet they coped with problems in ineffective or inconsistent ways. For example, Zamble and Porporino noted that all of their participants engaged in some type of reactive problem-oriented styles both inside and outside of prison, in which they attempted to deal with their problems but lacked the persistence or planning skills to resolve their problems successfully. There were some changes in coping styles while participants were incarcerated. On one hand, compared with their use of coping styles outside of prison, participants were more likely to cope inside prison by escaping the situation (either physically or ceasing to think about the problem), participating in favored activities

(palliative), changing their perception of the problem (reinterpretive re-evaluation), or using self-control techniques. On the other hand, participants were less likely to use drugs and to seek out social support while they were incarcerated. However, Zamble and Porporino noted that participants' coping styles did not change significantly over the course of the study, with the exception that the percentage of participants engaging in favored activities as a way to cope increased over time.

Rokach (1997) explored how inmates differed from the general population in coping with loneliness. A loneliness questionnaire derived from Rokach and Brock (1998) that assessed six strategies for coping with loneliness was given to 145 adult male inmates from a jail in Ontario, Canada, and to 112 males from the community. Rokach found that participants who were incarcerated were more likely than participants in the community to cope with loneliness through Self-Development and Understanding (M = 0.85 vs. M = 0.06, respectively), Social Network Support (M = 1.06 vs. M = 0.64, respectively), Increased Activity (M = 1.00 vs. M = 0.83, respectively), and Distancing and Denial (M = 1.46 vs. M = 0.29, respectively). Rokach suggested that using coping styles such as increasing activity level and turning to social supports may be useful to inmates who identified as lonely because such styles may increase their sense of personal control and may reduce depression. Rokach acknowledged that it was difficult to determine whether inmates who used the Distancing and Denial coping style had done so prior to their incarceration or had only begun using this style as a way to cope with the prison environment; in either case, Rokach advocated for inmates to learn more effective ways of coping with loneliness through therapeutic interventions.

Sappington (1996) examined the relationships among prison adjustment, cognitive coping styles, and time served in prison in a sample of 48 adult male inmates housed in a correctional facility in Alabama. Outcome measures for prison adjustment included the number of inmate disciplinary actions in the last year, the Brief Affect Adjective Checklist, trait version (BAACL; Zuckerman, Lubin, & Robin, 1965), and the Brief Novaco Anger Scale (BNAS; Novaco, 1975). Participants also completed a questionnaire that measured the following coping styles: problem solving, blaming others, dwelling on problems, self-blame, distraction, Pollyanna, and problem solving plus distraction.

Sappington (1996) reported that cognitive coping styles were significantly correlated with a number of measures of prison adjustment and time served in prison. A coping style of tending to blame others showed positive correlations with poor adjustment as measured by number of disciplinary actions (r = .30), anger scores on the BNAS (r = .30), and scores on the BAACL for anger (r = .38), anxiety (r = .34), and depression (r = .32). A coping style of tending to dwell on problems was positively correlated with anger scores on the BNAS (r = .34). A coping style of blaming oneself was positively correlated with scores on the BAACL for anxiety (r = .29) and depression (r =.32). A tendency to look for the positive was negatively correlated with disciplinary actions (r = -.31), and a tendency to use a problem-solving coping style was negatively correlated with depression as assessed on the BAACL (r = -.35). Sappington also found that time served correlated negatively with the tendency to use the problem-solving (r = -.49) and Pollyanna (r = -.39) coping styles, meaning that inmates were less likely to use problem solving or to look on the bright side the longer they had been incarcerated.

Mohino, Kirchner, and Forns (2004) explored coping styles of male inmates as well as how the use of coping styles was related to inmates' time spent incarcerated and their number of previous convictions. Participants included 107 males between the ages of 18 and 25 who were housed in a penitentiary in Spain. Participants completed the Coping Responses Inventory Adult Form (CRI-Adult; Moos, 1993), which was translated into Spanish and back-translated into English. The items of the CRI-Adult are separated into eight scales, including approach (Logical Analysis, Positive Reappraisal, Seeking Guidance and Support, Problem Solving) and avoidance coping styles (Cognitive Avoidance, Acceptance-Resignation, Alternative Rewards, Emotional Discharge), as well as cognitive (Logical Analysis, Positive Reappraisal, Cognitive Avoidance, Acceptance-Resignation) and behavioral coping styles (Seeking Guidance and Support, Problem Solving, Alternative Rewards, Emotional Discharge). Overall, Mohino et al. found that inmates were significantly more likely to use approach rather than avoidance coping styles and to use cognitive rather than behavioral coping styles.

Mohino et al. (2004) found that time spent in prison influenced the type of coping styles inmates used. Mohino et al. noted that participants who had spent more than 3 months in prison used the Positive Reappraisal style significantly more often than participants who had spent less than 3 months in prison; this difference remained after 4 months of incarceration and then disappeared. Additionally, participants who had been incarcerated for less than 4 months were significantly more likely to use the Emotional Discharge style than were participants who had been incarcerated for longer than 4 months. Furthermore, participants who had been incarcerated for less than 15 months used the coping style Seeking Guidance more frequently than participants who had been

incarcerated longer than 15 months. Participants without prior incarcerations were more likely to engage in Seeking Alternate Rewards than were participants with multiple convictions. Mohino et al. concluded that the length of time of exposure to a stressor (in this case, incarceration) was a factor that caused changes in the specific coping styles that were adopted by the inmate. Mohino et al. also suggested that the decreased use of Emotional Discharge and Seeking Alternative Rewards may have indicated feelings of resignation or helplessness in the inmate about being incarcerated.

Gullone et al. (2000) examined the relationship between male inmate coping styles and psychological well-being. Participants included 81 male inmates between the ages of 18 and 73 who were housed in a maximum-security prison in Australia. Participants completed four self-report questionnaires to assess psychological well-being: the Self-Esteem Inventory (SEI; Coopersmith, 1975), Beck Depression Inventory (BDI; Beck, 1978), State-Trait Anxiety Inventory (STAI; Spielberger, 1977), and Comprehensive Quality of Life Scale for Adults (ComQol-4; Cummins, 1993). Participants also completed the Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990), which measured task-oriented, emotion-oriented, and avoidance-oriented coping styles.

Gullone et al. (2000) reported that the distribution of CISS scores for their sample of inmates on task-oriented coping ($M = 54.00$), emotion-oriented coping ($M = 45.90$), and avoidance-oriented coping ($M = 46.16$) was similar to those found by Endler and Parker (1990) with a normative prison sample (Task: $M = 51.90$; Emotion: $M = 45.46$; Avoidance: $M = 42.42$). Gullone et al. also noted that participants scored lower in task-oriented coping and higher in emotion- and avoidance-oriented coping than did the

normative sample of nonincarcerated adult males (Task: $M = 58.56$; Emotion: $M = 39.21$; Avoidance: $M = 38.10$). Therefore, Gullone et al. concluded that male inmates may be more likely than are males in the general population to engage in emotional or avoidance coping styles rather than task-oriented coping styles.

Gullone et al. (2000) also found that inmates' coping styles were significantly correlated with their psychological well-being. Emotion-focused coping was positively correlated with depression ($r = .47$), as well as state anxiety ($r = .55$) and trait anxiety ($r = .77$), and it was negatively correlated with self-esteem ($r = -.50$). Task-focused coping was positively correlated with self-esteem ($r = .30$) and negatively correlated with depression ($r = -.26$) and trait anxiety ($r = -.23$, $p < .05$). Additionally, a longer time served in prison was positively correlated with task-oriented coping ($r = .31$). Interestingly, avoidance-oriented coping was a significant predictor of higher subjective quality of life ($R^2 = .07$). Gullone et al. suggested that avoidance-oriented coping may be beneficial to inmates' well-being given their lack of control in a correctional setting.

Similar to Gullone et al. (2000), van Harreveld, van der Pligt, Claassen, and van Duk (2007) studied the relationship between coping styles of male inmates and their psychological and physical well-being. Participants included 30 male inmates from two correctional facilities in The Netherlands. Participants completed a semistructured interview in which they were asked about their current emotional states and their methods of coping with negative feelings. Physical well-being was assessed by asking participants whether they experienced various somatic complaints. Participants also completed self-report questionnaires to assess psychological well-being, including the Positive and Negative Schedule (PANAS; Watson, Clark, & Tellegen, 1988), Distress

Disclosure Index (Kahn & Hessling, 2001), and Depressed Mood Scale (Kandel & Davies, 1982).

van Harreveld et al. (2007) found that psychological and physical health were related to participants' inclinations to share negative emotions, such that inmates who were more inclined to disclose their negative emotions with others were in better health than were those who kept their negative emotions to themselves. van Harreveld et al. reported that half of the participants engaged in active coping styles, such as talking to others about their worries, and the other half engaged in passive coping styles, such as isolating themselves from others, suppressing their negative thoughts and emotions, and watching television. On the PANAS, compared to the group who engaged in active coping styles, the group who engaged in passive coping styles reported feeling significantly more guilt ($M = 2.93$ vs. $M = 2.08$), more fear ($M = 1.93$ vs. $M = 1.46$), less alert ($M = 3.73$ vs. $M = 4.38$), and higher levels of regret ($M = 3.36$ vs. $M = 2.27$). The subjective well-being of participants who discussed their problems was higher than it was for participants who did not discuss their problems, as indicated by significant negative correlations of the Distress Disclosure Index with psychological stress ($r = -.39$), depressed mood ($r = -.42$), and physical well-being ($r = -.46$). Furthermore, a lack of a social network as indicated by scores on the Social Network Scale was related to psychological stress ($r = .40$), depressed mood ($r = .42$), and physical well-being ($r = .48$). As a result, van Harreveld et al. concluded that trying to suppress negative emotions had detrimental consequences for inmates and encouraged social integration to enhance their physical and psychological well-being.

In sum, coping styles play a significant role in inmates' adaptations to stressful situations. According to the research just described, inmates have been found to use a variety of active and effective coping styles, such as seeking out others (Mohino et al., 2004; Rokach, 1997; van Harreveld et al., 2007), increasing their activity level (Mohino et al., 2004; Rokach, 1997; Zamble & Porporino, 1988) and working toward solving the problem (Mohino et al., 2004; Gullone et al., 2000). Inmates also had a tendency to use coping styles characterized by avoiding their problems or emotions (Gullone et al., 2000; Rokach, 1997; van Harreveld et al., 2007; Zamble & Porporino, 1988). Gullone et al. (2000) reported that using an avoidance coping style was advantageous in their sample of inmates, whereas van Harreveld et al. (2007) reported that an avoidance coping style negatively affected their inmates' psychological and physical health. Coping styles were related to inmates' psychological functioning such that inmates who used active and task-oriented coping styles had higher levels of self-esteem and were less likely to feel anxious or depressed than were inmates who used avoidance or emotional-oriented coping styles (Gullone et al., 2000; Sappington, 1996; van Harreveld et al., 2007). Furthermore, the length of time incarcerated was related to coping style use (Mohino et al., 2004; Sappington, 1996) as well as the number of prior incarcerations (Mohino et al., 2004). Finally, inmates coped with stressors differently than did people who were not incarcerated (Gullone et al., 2000; Rokach, 1997).

Dialectical Behavior Therapy

In this section, I discuss the theoretical and practical components of Dialectical Behavior Therapy (DBT). DBT was originally developed by Marsha Linehan (1993) as a treatment for suicidal and self-injurious women who met diagnostic criteria for

Borderline Personality Disorder (BPD). Individuals diagnosed with BPD have persistent and pervasive cognitive, emotional, and behavior dysregulation (Crowell, Beauchaine, & Linehan, 2009). The symptoms of BPD, as outlined in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (*DSM-IV-TR*; American Psychiatric Association, 2000), include five or more of the following criteria:

> (1) frantic efforts to avoid real or imagined abandonment...
> (2) a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation
> (3) identity disturbance: markedly and persistently unstable self-image or sense of self
> (4) impulsivity in at least two areas that are potentially self-damaging...
> (5) recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior
> (6) affective instability due to a marked reactivity of mood...
> (7) chronic feelings of emptiness
> (8) inappropriate, intense anger or difficulty controlling anger...
> (9) transient, stress-related paranoid ideation or severe dissociative symptoms (p. 710)

In this section I present DBT as discussed by Linehan (1993), Dimeff and Koerner (2007), and Crowell et al. (2009). Several core elements constitute DBT, including (a) a dialectical world view, (b) biosocial theory, (c) a framework for stages of treatment, (d) treatment functions and the modes that are utilized to fulfill these functions, and (e) the different modules of skills training. Each of these elements will be reviewed.

World view. The basis of DBT is viewing the world in terms of dialectics. The essential idea is that each statement of position contains within it an opposite position. In regard to treatment, Linehan (1993) noted three dialectics that make progress difficult for the client, including (a) the dialectic between the clients' needs to accept themselves as they are in the moment versus the need for change, (b) the dialectic between clients getting what they need versus losing what they need if they become more competent, and

(c) the dialectic between clients maintaining personal integrity and validating their own views of their difficulties versus learning new skills that will help them overcome their hardships. Dialectical change, or progress, occurs when the resolution of these opposing positions forms into a synthesized view.

Biosocial theory. According to Linehan (1993), the primary characteristic of BPD is emotion dysregulation that affects the individual's thoughts and behaviors. Emotion dysregulation is the combination of an emotional response system that is both oversensitive and unable to modulate strong emotions and the actions associated with them. From this perspective, BPD criterion behaviors are either ways to regulate emotions (e.g., suicidal behavior) or consequences of failed emotion regulation (e.g., dissociative symptoms).

According to this theory, emotional dysregulation that leads to the development of BPD is created and maintained by multiple biological and environmental factors that include child and caregiver characteristics as well as the context of the child's environment. It is currently hypothesized that early biological vulnerabilities for impulsivity and emotional sensitivity may contribute to temperamental and behavioral qualities of children who later meet criteria for BPD. Crowell et al. (2009) asserted that impulsivity in childhood is among the earliest emerging traits among individuals who later receive a diagnosis of BPD. Impulsive aggression and emotional instability are related to impairments within the neurotransmitter serotonin system; prior researchers have found an association between BPD and serotonin deficits, particularly reduced serotonin activity (Crowell et al., 2009). Additional researchers have found circuitry deficits of the frontal lobe, the amygdala, hippocampus, fusiform gyrus, anterior

cingulate cortex, basal ganglia, and thalamus in individuals diagnosed with BPD. Crowell et al. also proposed that emotional instability may be explained by deficits in the cholinergic and noradrenergic neurotransmitter systems and by elevations in the hypothalamic-pituitary-adrenal system.

The environmental component is what Linehan (1993) termed "the invalidating environment" (p. 3). An invalidating environment consists of family members or caregivers who communicated to the child that his or her typical responses to events, particularly emotional responses, were incorrect, inappropriate, pathological, or not to be taken seriously. Thus, the invalidating environment exacerbated emotion dysregulation by failing to teach the client to label, modulate, and tolerate stress, or to trust his or her own emotional responses as valid interpretations of events. Additionally, in an invalidating environment, extreme emotional displays are used by the child in order to gain helpful responses from caregivers. As a result, the caregiver punishes communication of negative emotions while irregularly reinforcing extreme emotional outbursts and actions. A history of neglect, physical abuse, and/or sexual abuse is common among individuals diagnosed with BPD, although this history is neither necessary nor sufficient for the development of BPD (Crowell et al., 2009).

Stages of treatment. As described by Dimeff and Koerner (2007), the first stage of treatment with all DBT clients is pretreatment, followed by one to four subsequent stages. The number of stages the client goes through depends on the severity of behavioral disorder when the client starts treatment. During the pretreatment stage, the client and the therapist collaboratively agree to the essential goals and methods of treatment. The first stage of treatment is for clients who are experiencing the most severe

level of disorder. The goal of the first stage of treatment is to target and stop behaviors that may interfere with skills training, including suicidal or life-threatening behaviors, therapy-interfering behavior (e.g., arriving late to session) by the therapist or client, behaviors that compromise the client's quality of life (e.g., involvement with the legal system), and lack of knowledge of deficits in behavioral capabilities needed to make life changes. The second stage of treatment is for clients who are not behaving impulsively, but who are still experiencing emotional pain due to posttraumatic stress responses. Although the behaviors are contained, the client might be isolated from having meaningful connections to other people or might experience emotional numbing. Therefore, the goal of the second stage is to increase the client's ability to appropriately experience emotions. In the third stage of treatment, the client moves toward synthesizing the skills and knowledge of behavioral patterns he or she has learned and begins to work toward problem-solving. The goals of the third stage are ordinary happiness and unhappiness, improved relationships, and self-esteem. The fourth stage of treatment prepares the client to become aware of and accept the sense of incompleteness that many individuals still experience after problems in living are resolved. As a result, the goal of the fourth stage is to move the client away from problem-solving and to help him or her discover ways to promote an increased sense of connectedness, joy, and/or freedom.

Treatment functions and modes. Linehan (1993) proposed that comprehensive treatment for clients with BPD should serve four functions: (a) help the client develop new skills, (b) address motivational obstacles to skills use, (c) help clients generalize what they learn to their daily lives, and (d) keep therapists motivated and skilled. These

functions are addressed through group skills training, individual psychotherapy, telephone coaching between sessions when needed, and a therapist consultation team meeting, respectively.

As described by Dimeff and Koerner (2007), group skills training is conducted weekly for approximately 2.5 hr by a leader and a co-leader. Four skills training modules are taught over the course of approximately 6 months. During this time, the client also participates in weekly individual therapy. Individual sessions are devoted to reinforcing the use of the skills learned in skills training and validating the client's thoughts, emotions, and behaviors. The individual therapist may also conduct a chain analysis with the client, which is an in-depth analysis of situational factors that occurred before, during, and after a targeted behavior. The goal of this chain analysis is to help the client gain insight by recognizing behavioral and environmental events and patterns that are associated with problematic behaviors. Individual therapists are also the point of contact through telephone consultations when clients need help generalizing the skills to everyday situations outside of session.

Skills training modules. As defined by Linehan (1993), skills are organized into four modules including mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness skills. Although there are no empirical data to suggest how to order the modules, mindfulness skills are taught first because they are a central theme throughout treatment. Mindfulness skills are based on meditation practices from Eastern spiritual training, particularly the practice of Zen. Examples of mindfulness skills that are interwoven throughout treatment are to take a nonjudgmental stance and to do what is effective in any particular situation. Distress tolerance skills are designed to help the

client to both tolerate crises and accept life as it is in the moment. An example of a distress tolerance skill is "turning the mind" (Linehan, 1993, p. 176), in which the therapist teaches the client to turn his or her mind in the direction of accepting current crises as opposed to dwelling on the pain he or she is experiencing. Emotion regulation skills are behavioral and cognitive strategies for reducing unwanted emotional responses and impulsive behaviors that occur in the context of intense emotions. One emotion regulation skill is to be mindful of positive experiences by focusing attention on positive events that occur. Interpersonal effectiveness skills include effective strategies to help the client achieve his or her own objectives while maintaining relationships and self-respect. An example of an interpersonal effectiveness skill is FAST, an acronym that stands for "be fair to yourself and the other person, apologize less, stick to your own values, and be truthful" (Linehan, 1993, p. 128).

Empirical support for DBT. DBT has been shown to be effective in multiple randomized controlled trials for women who met diagnostic criteria for BPD (Koons et al., 2001; Linehan, Armstrong, Suarez, Allmon, & Heard, 1991; Linehan et al., 2006; Verheul et al., 2003). Although other therapies, such as transference therapy (Doering et al., 2010), schema therapy (Giesen-Bloo et al., 2006), and mentalization-based treatment (Bateman & Fonagy, 2009) have been effective in decreasing symptoms of BPD, there is more empirical support for the efficacy of DBT for this population (Dimeff & Koerner, 2007). DBT has also been designated as an empirically supported treatment by the Clinical Psychology Division of the American Psychological Association (Robins & Chapman, 2004).

DBT has been adapted for and evaluated in several other populations with overall

success. The majority of researchers have reported that DBT was superior to treatment-as-usual (TAU) in decreasing symptoms of various mental health concerns, including bulimia (Safer, Telch, & Agras, 2001), binge eating (Telch, Agras, & Linehan, 2001), attention deficit hyperactivity disorder and depression (Hesslinger et al., 2002), and depression in the elderly (Lynch, Morse, Mendelson, & Robins, 2003). However, the effectiveness of DBT in treating individuals with substance use concerns has had mixed results. On one hand, Linehan et al. (1999) reported that patients who participated in DBT experienced greater reductions in drug use, as assessed by structured interviews and urinalyses, than did those who received TAU. On the other hand, in a sample of women diagnosed with BPD and heroin dependency, Linehan et al. (2002) reported no significant difference between DBT combined with opiate agonist therapy and Comprehensive Validation Therapy combined with attendance in 12-step meetings in reducing drug use.

DBT in Forensic and Correctional Settings

The first survey of DBT in forensic and correctional settings in the United States and the United Kingdom was conducted by Ivanoff (1998). Of the 14 programs included in the survey, 11 were forensic institutions and four were correctional facilities. In most of the programs, there was an effort to implement comprehensive DBT, and all reported some actions toward program evaluation. Since then, the use of DBT in these settings has increased to 12 forensic institutions and at least eight correctional facilities in North America, the United Kingdom, and Australia (Berzins & Trestman, 2004). However, despite this increase, there has been a widespread difficulty collecting data to document the effectiveness of DBT in forensic facilities due to staff burn-out, small group sizes, and low levels of retention among group participants (Berzins & Trestman, 2004). In this

section, I present the rationale for utilizing DBT in forensic and correctional settings and review literature on DBT with correctional populations.

Rationale for inpatient forensic and correctional application of DBT.

McCann, Ivanoff, Schmidt, and Beach (2007) noted several factors that justify the use of DBT in forensic inpatient settings (forensic inpatient hospitals and criminal justice settings). The first factor is the high incidence of personality disorders in these settings, including BPD. For example, Rotter, Way, Steinbacher, Sawyer, and Smith (2002) reviewed admission records of 159 female and male inmates who were referred for inpatient psychiatric services and reported that 36% met diagnostic criteria for a personality disorder based on *DSM-IV* diagnoses. Similarly, Blackburn and Coid (1999) noted high rates of personality disorders in their sample of 164 male offenders, including 62% who met diagnostic criteria for antisocial personality disorder (ASPD) and 57% who met criteria for BPD. Despite the high rates of personality disorders in correctional settings, treatments that have targeted symptoms of personality disorders in this population have little to no research basis and have been ineffective (Trupin, Stewart, Beach, & Boesky, 2002). Therefore, McCann et al. suggested that applying DBT to this population might help remedy this gap.

The second reason that DBT may be useful in a correctional setting is that DBT encompasses many elements that have been reported to be effective in correctional treatment, including skills training and emotion regulation (McCann et al., 2007). DBT is a type of cognitive-behavioral treatment that is structured and has a clear behavioral target hierarchy. Andrews and Bonta (2010) noted that behavioral or cognitive-behavioral treatments are the most effective match for inmates with respect to their

learning style. There is also some indication that appropriate treatment can decrease recidivism rates by as much as 50% (Andrews, Bonta, Gendreau, & Cullen, 1990) and, as previously mentioned, DBT has been designated as an empirically supported treatment. McCann et al. (2007) theorized that, by teaching inmates skills in emotion regulation, problem solving, and self-management, DBT may be able to target risk factors associated with recidivism, including substance use, poor problem solving, anger, emotion dysregulation, and antisocial beliefs and behaviors.

The third reason McCann et al. (2007) suggested that DBT is applicable to correctional settings is that the biosocial theory can be used to explain the development of other personality disorders found in these settings, especially ASPD. Behavioral dysregulation, impulsivity, irresponsibility, angry outbursts, frequent lying, aggression, and violent acts toward self and others are common attributes associated with ASPD (Black, Baumgard, & Bell, 1995). According to McCann et al., ASPD may result from an interaction between a biological predisposition to emotional insensitivity and an invalidating environment characterized by disturbed caring and models of positive reinforcement for antisocial behavior. Disturbed caring is described as harsh and inconsistent discipline, little positive parental involvement, and inadequate supervision. Additionally, family members and friends may have directly or indirectly reinforced antisocial behaviors; for example, caring acts performed by the individual as a child may not have been validated or may even have been punished.

The fourth reason McCann et al. (2007) suggested that DBT may be useful in a correctional setting is that it may help to reduce staff burnout. Correlates of burnout include high client-to-staff ratios, frequent direct care with difficult clients (Maslach &

Jackson, 1999), and less experienced staff (Morgan, Van Haveren, & Pearson, 2002), all of which are common in correctional settings. The use of a DBT case consultation group might help to maintain motivation and address the challenge of therapeutic providers and staff members to remain on task.

Studies with DBT in correctional settings. Having reviewed the rationale for the use of DBT in a correctional setting, I now turn to studies in which researchers examined the use of DBT with male and female inmates in correctional settings. Nee and Farman (2005) conducted pilot DBT programs with female inmates diagnosed with BPD in the U.K. prison system. The DBT programs were modified from Linehan's (1993) manual and consisted of programs in three prisons: a year-long DBT program conducted in two separate prisons, and one 16-week and two 12-week programs implemented in another prison. All programs included a weekly 1-hr session of individual therapy, a weekly 2-hr skills group, the completion of diary cards, and an answer-phone system in place of 24-hr telephone consultation. A total of 14 inmates completed the programs, and five inmates were placed in a wait-list group. At pretreatment, midtreatment, posttreatment, and at a 6-month follow-up, participants completed a test battery consisting of the Borderline Syndrome Index (Conte, Lutchik, Karasu, & Jerrett, 1980), Emotion Control Questionnaire-Rehearsal Scale, Eysenck's Impulsivity Scale, Locus of Control Questionnaire, Rosenberg's Self-Esteem Inventory (Rosenberg, 1965), Dissociative Experiences Scale, and the Survival and Coping Scale of the Reasons for Living Inventory. Incidents of self-harm were tallied at the four time points from prison records.

For the participants who completed the year-long DBT programs, Nee and

Farman (2005) reported significant improvements on four of the tests in the battery, including the Borderline Symptom Index, Eysenck's Impulsivity Scale, and the Locus of Control Questionnaire. However, the authors noted an increase in incidents of self-harm in the DBT group at the 6-month follow-up, which they suggested may have been due to the decrease in therapeutic support or the suicide of a fellow prisoner. The authors also reported statistically significant improvements on Rosenburg's Self-Esteem Inventory, Eysenck's Impulsivity Scale, the Dissociative Experiences Scale, and a marginally statistically significant improvement in on the Survival and Coping Scale for participants who completed the shorter programs. The authors also noted a reduction in incidents of self-harm from pretreatment to follow-up in participants who completed the shorter programs.

Bradly and Follingstad (2003) conducted a pilot study for a group therapy program that included DBT affect-regulation skills for incarcerated female inmates who had experienced past interpersonal violence. Group sessions were 2.5 hr in length and consisted of 18 sessions total, with nine sessions dedicated to skills training and education about interpersonal victimization and nine sessions dedicated to structured writing assignments in order to create narratives of the participant's life experiences. A total of 13 female inmates completed the treatment and another 18 female inmates completed measures for a no-contact comparison condition. Participants completed self-report measures including the BDI and the Trauma Symptom Inventory (TSI; Briere, 1995) prior to the first session and 1 week after the end of treatment. Bradley and Follingstad reported a significant reduction in symptoms of depression as measured by the BDI and in posttraumatic stress as measured by the TSI in the treatment group at

posttest. No significant results were reported for the comparison group.

Lemmón (2008) examined the effectiveness of a DBT-influenced treatment conducted with female inmates incarcerated within the Oregon Department of Corrections (ODOC). The adapted DBT group, called "Coping Skills," ran for 24 weeks. Due to the inmate-staff ratio at the facility, no individual sessions were included and a single therapist facilitated the group sessions as opposed to two co-therapists. A total of 42 female inmates who completed the Coping Skills group were compared to a group of 16 female inmates who received treatment-as-usual (a 6-week, psychoeducational group). Participants completed two self-report questionnaires, including the COPE (Carver, Scheier, & Weintraub, 1989), which assesses coping skills, and the Barratt Impulsiveness Scale (Patton, Stanford, & Barratt, 1989). Data were collected during the first week of treatment, midtreatment (the 12th week for Coping Skills, third week for TAU), posttreatment, and 12 weeks after treatment. Between the two groups, changes in coping ability and levels of impulsivity in the Coping Skills group over time were not significantly greater than were changes in the comparison group. However, when the within-group data were examined, participants in the Coping Skills group had significantly improved coping abilities and decreased impulsivity relative to their own pretreatment scores, whereas changes in the comparison group from pre-to posttreatment were not significant.

Shelton, Sampl, Kesten, Zhang, and Trestman (2009) examined a corrections modified DBT (DBT-CM) program for inmates in the Connecticut state prison system. DBT-CM skills groups were co-led by a team of two research clinicians who were trained in an unpublished treatment manual created by one of the authors. DBT-CM skills

groups were held twice a week for 16 weeks. After completing the DBT-CM skills group sessions, participants were randomly assigned to either an individual DBT-CM coaching or individual case management condition for 8 weeks; each of the conditions was provided by one of the clinicians who had conducted the skills training groups. Participants included 18 female and 45 male inmates between the ages of 16 and 59 years. Participants from three separate facilities with impulsive behavior problems (defined as affective, reactive, emotional, hostile, or expressive) were recruited to participate through recommendations by correctional facility unit majors and correctional mental health personnel.

Shelton et al. (2009) hypothesized that (a) participants would show reduced aggression, impulsivity, and psychopathology, as well as improved coping skills, after completing the DBT-CM groups; and (b) participants randomly assigned to DBT-CM coaching would show greater reductions in aggression, impulsivity, and psychopathology than would those receiving case management at follow-up. Participants were assessed pre- and post-DBT-CM skills group, and 6 and 12 months after receiving either DBT-CM coaching or case management. Participants completed the Buss-Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992), the Overt Aggression Scale-Modified (OAS-M; Coccaro, Harvey, Kupsaw-Lawrence, Herbert, & Bernstein, 1991), the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962), the Ways of Coping Checklist (WCCL; Folkman & Lazarus, 1988), and the PANAS at each assessment interval. Disciplinary information was also collected on participants 12 months prior to starting groups and 6 months after completing groups.

Shelton et al. (2009) did not find ample evidence to support their hypotheses.

There were no significant changes in participants' standardized measure scores over the course of the study. However, when main effects were examined, scores on the BPA physical aggression and anger management subscales significantly decreased from baseline to follow-up for adult and young male participants. There were also significant improvements from baseline to follow-up on the seeking social support, accepting responsibility, planful problem solving, and escape-avoidance subscales of the WCCL. Additionally, there were significant decreases in disciplinary tickets from pre- to post-DBT-CM skills group assessment; however, there were no significant reductions in disciplinary tickets at the later 6-month and 12-month follow-up assessments relative to pre-group assessments. Shelton et al. also described anecdotal support for the DBT-CM intervention from participants who reported they enjoyed attending the groups and from correctional staff who noted positive behavioral changes in participants and stated that they liked having alternatives to punitive measures to help de-escalate inmates.

In sum, there are notable consistencies and inconsistencies in the literature regarding DBT in correctional settings. With respect to inconsistencies, DBT has been implemented in various ways across studies. For example, individual sessions were not conducted in some studies (Bradley & Follingstad, 2003; Lemmón, 2008). The length of time for the group sessions has varied between 2.5 hr (Bradley & Follingstad, 2003) and 2 hr (Nee & Farman, 2005). The length of the DBT program has also varied, including sessions of 12 weeks (Nee & Farman, 2005), 16 weeks (Nee & Farman, 2005; Shelton et al., 2009), 18 weeks (Bradley & Follingstad, 2003), and 6 months (Lemmón, 2008). The lack of a consistent adaptation makes it difficult to determine the actual effects of the treatment across studies. However, one of the major reasons for the inconsistent

application of DBT is the fact that there is no standardized treatment manual for DBT with a correctional population (Berzins & Trestman, 2004).

Currently, the biggest gap in the literature is the overall lack of outcome research for facilities in which DBT is conducted. As previously mentioned, DBT programs have been implemented in at least 20 institutions, but the majority of these institutions have no outcome data for the treatment programs. Some of the commonly identified obstacles to collecting data have included a lack of resources to train staff (Berzins & Trestman, 2004; Nee & Farman, 2005), lack of staff member adherence to DBT training (Nee & Farman, 2005), and lack of a treatment comparison group (Bradley & Follingstad, 2003). A consistent challenge in correctional outcome research has been small sample sizes, partially due to high participant drop-out rates, which has made it difficult for researchers to draw conclusions about the effectiveness of the treatment programs.

Despite these challenges, promising results have been indicated from the application of DBT in correctional settings. Treatment gains were noted in all the reviewed studies, even though sample sizes were small. As Nee and Farman (2005) noted, "To find any statistically significant change and large effect sizes with such small samples is very encouraging" (p. 12). Furthermore, treatment gains have been reported across multiple variables, including decreases in self-harm (Nee & Farman, 2005), impulsivity (Lemmón, 2008), disciplinary citations (Shelton et al., 2009), and symptoms of BPD (Nee & Farman, 2005), depression, and posttraumatic stress (Bradley & Follingstad, 2003). Improvements in emotional control (Nee & Farman, 2005) and coping skills (Lemmón, 2008; Shelton et al., 2009) have also been noted. Correctional officers who received training in DBT reported that they enjoyed having additional skills

to use with inmates and observed positive behavioral changes in inmates who were participating in DBT groups (Shelton et al., 2009). These findings indicate that DBT may be effective at targeting a multitude of mental health concerns of inmates.

Purpose of the Present Study

Although there have been positive outcomes from using DBT in correctional settings, research in this area is limited. Further research is needed to see if similar positive outcomes generalize to inmates in other correctional facilities. Additionally, only one of the reviewed studies included male inmates (Shelton et al., 2009). Given that males constitute the majority of the correctional population, more research that focuses on the effects of DBT with male inmates is clearly warranted. As a result, the purpose of the present study was to add to the existing research of DBT in correctional settings with male inmates.

In this study, I examined the effects of modified DBT groups on the coping skills of male inmates housed within the ODOC. A self-report measure assessing coping style was administered to participants throughout the course of treatment. Some of the goals of the DBT skills are to improve an individual's coping abilities by targeting emotional regulation and problem-solving abilities, which supported the use of a coping style measure. I hypothesized that participants in the modified DBT groups would report an increase in adaptive coping abilities and a decrease in maladaptive coping abilities relative as they progressed through treatment.

Method

Participants

Participants were 66 male inmates who were participating in DBT groups at a medium-security institution and a maximum-security institution in ODOC. Participants had been referred to the DBT groups by a counselor in Behavioral Health Services (J. Sickler, personal communication, December 13, 2011). Participants had to have an Axis I or an Axis II mental health diagnosis in order to be referred to the group (J. Premo, personal communication, December 29, 2011). Male inmates who were housed in disciplinary segregation, were not fluent in English, or were under the age of 18 were excluded from participation. Fifteen participants from the maximum-security institution were housed in Special Management Housing (SMH), which is ODOC's housing for chronically mentally ill and violent offenders. The remaining 51 participants were housed in their institutions' general populations.

The demographics of the participants were compared to the demographics of the population of their respective institutions. This information is shown in Table 1. Differences and similarities between the study sample and the institution populations were noted. Similar to the population of the medium-security institution, participants from this institution were most likely to be White men between the ages of 31 and 45 years; however, participants were more likely to have been incarcerated for property and sex crimes relative to the population of the institution. Similar to the population for the maximum-security institution, participants from this institution were most likely to be White men who were incarcerated for crimes against another person; however, participants were more likely to be between the ages of 46 and 60 years than were

inmates in the total population. Hispanics were under-represented in both groups relative to their respective institutions' population. African Americans were under-represented in the maximum-security group. Native Americans were over-represented in both groups. Other small differences can be seen in Table 1.

Table 1

Demographics of the Study Sample and the Institution Population

	Medium-Security Sample	Institution total – Medium	Maximum-Security Sample	Institution total – Maximum
N	43	849	23	2,100
Age				
18-24	7 (16%)	193 (23%)	1 (4%)	217 (10%)
25-30	6 (14%)	157 (18%)	2 (9%)	368 (18%)
31-45	19 (44%)	330 (39%)	8 (35%)	850 (40%)
46-60	11 (26%)	142 (52%)	11 (48%)	514 (25%)
61+	0 (0%)	22 (3%)	1 (4%)	151 (7%)
Race[a]				
White	35 (82%)	627 (74%)	21 (91%)	1,429 (68%)
Hispanic	1 (2%)	100 (12%)	1 (4%)	311 (15%)
Black	5 (11%)	97 (11%)	1 (4%)	254 (12%)
Native American	3 (7%)	15 (2%)	3 (13%)	72 (3%)
Asian	2 (4%)	10 (1%)	0 (0%)	34 (2%)
Offense group[b]				
Person	12 (27%)	284 (33%)	19 (83%)	990 (47%)
Property	19 (44%)	218 (26%)	4 (17%)	320 (15%)
Sex	11 (26%)	162 (19%)	3 (13%)	406 (19%)
Drug offenses	3 (9%)	74 (9%)	2 (9%)	196 (9%)
Driving offenses	3 (7%)	27 (3%)	1 (4%)	47 (2%)
Other offenses	4 (9%)	84 (10%)	1 (4%)	141 (7%)

Note. Crimes against persons included murder and attempted murder, assault and attempted assault, manslaughter, kidnapping, and robbery offenses. Crimes against property included theft, burglary and arson offenses. Sex crimes included rape, sodomy, sex abuse, and unlawful penetration offenses. Felony firearm possession was the only offense counted in the Other offenses category for the Medium and Maximum participants.

[a]Medium and Maximum race percentage totals more than 100% because some participants gave more than one answer.

[b]Medium and Maximum offense group percentage totals more than 100% because some participants were incarcerated for multiple offenses.

Some demographic information was asked of the participants that was not recorded by ODOC and that therefore could not be compared to the prison population. This information is presented in Table 2. In general, the majority of participants had obtained a high-school or equivalent level of education or higher, were not married, had previous incarcerations, and had participated in mental health treatment prior to

Table 2

Demographic and Incarceration-Related Variables of the Study Sample of Inmates

	Medium-Security	Maximum-Security
	N = 43	*N* = 23
Education level		
< 8 years	0 (0%)	2 (9%)
8-12 years	7 (16%)	5 (22%)
HS/GED	28 (65%)	11 (48%)
13+ years	8 (19%)	4 (17%)
N/A	0 (0%)	1 (4%)
Marital status		
Single	19 (44%)	11 (48%)
Married	12 (27%)	0 (0%)
Divorced	11 (26%)	11 (48%)
N/A	0 (0%)	1 (4%)
Length of sentence		
1 year or less	2 (4%)	0 (0%)
1-3 years	18 (42%)	2 (9%)
3-5 years	4 (9%)	3 (13%)
5-10 years	9 (21%)	3 (13%)
10+ years	9 (21%)	8 (35%)
Life	1 (2%)	7 (30%)
Mental health concerns[a]		
PTSD	7 (16%)	5 (22%)
ADHD	4 (9%)	0 (0%)
Bipolar disorder	7 (16%)	5 (22%)
Schizophrenia	6 (14%)	0 (0%)
Schizoaffective	0 (0%)	3 (13%)
Anxiety	4 (9%)	2 (9%)
Depression	7 (16%)	6 (26%)
Dysthymia	2 (4%)	2 (9%)
Borderline PD	0 (0%)	1 (4%)
Narcissistic PD	1 (2%)	0 (0%)
None	9 (21%)	1 (4%)
N/A	10 (23%)	6 (26%)
Previous Treatment		
Yes	32 (74%)	19 (83%)
No	11 (26%)	2 (9%)
Previous Incarceration(s)		
Yes	27 (63%)	12 (52%)
No	15 (35%)	10 (44%)
N/A	1 (2%)	1 (4%)

[a]Mental health concerns percentage totals more than 100% because some participants gave multiple answers.

participating in the DBT groups. Sentence lengths of participants in the maximum-security institution were longer than sentence lengths of participants in the medium-security institution. Interestingly, some participants denied having any mental health concerns despite the fact that a mental health diagnosis was a requirement for a referral to the group.

Treatment

The DBT groups were based on the Dialectical Behavior Therapy Program Skills Manual, which was adapted by the ODOC from Miller (1999) and Linehan (1993). Similar to standard DBT, the modules were organized into Core Mindfulness, Distress Tolerance, Emotional Regulation, and Interpersonal Effectiveness skills. Prior to the modules, the group began with participants receiving an orientation component, in which the facilitator of the group explained DBT, biosocial theory, the invalidating environment, dialectics, diary cards, and common target behaviors in prison. Each participant in the group was given a copy of the manual to review during and after group. The groups occurred weekly for 1 hr and were facilitated by licensed counselors and a licensed social worker who were contracted workers for the ODOC. According to the manual, each group is to begin with mindfulness practice, followed by a skills check-in and diary report, then new skills are taught, and the group ends with closing observations from the group.

The groups in the study had an open enrollment, meaning participants could begin and leave the group at any time during treatment. The medium-security DBT group had been meeting for approximately one year prior to the start of data collection. Although

participants in the maximum-security groups were beginning Core Mindfulness, most had previously participated in a prior cycle of DBT group treatment.

Measures

Participants were assessed using the Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990; Appendix A). The CISS is a 48-item self-report questionnaire that measures an individual's preferred coping style. It was developed and has normative data for adults, university students, psychiatric patients, and male inmates in a correctional institution. Respondents are asked to rate how often they engage in specific reactions, activities, or behaviors when faced with a difficult or stressful situation. Some of the activities included on the CISS (e.g., *Go window shopping*) are not available for a correctional population. Therefore, I asked participants to replace such activities with a prison-related activity, such as going to the canteen. Ratings are made on a 5-point Likert scale ranging from 1 *(not at all)* to 5 *(very much)*; therefore, the maximum score that a participant can obtain on each scale of the CISS is 80. For this study, if a participant gave two ratings for an item (e.g., circling both a 3 and a 4), no score was given for that particular item.

Endler and Parker (1990) reported that factor analysis revealed three separate 16-item factors that each reflected a different style of coping, including task-oriented coping, emotion-oriented coping, and avoidance-oriented coping. Task-oriented coping describes attempts aimed at solving the problem, either cognitively or behaviorally (e.g., *Think about how I have solved similar problems*). Emotion-oriented coping describes emotional reactions that a person uses to decrease stress, but this may actually increase stress (e.g., *Worry about what I'm going to do*). Avoidance-oriented coping describes

cognitive, behavioral, and social diversion strategies aimed at avoiding the situation (e.g., *Go see a movie*). According to the normative sample, individuals who completed the CISS obtained higher scores in task-oriented coping than in emotion- or avoidance-oriented coping. Endler and Parker (1990) reported that internal consistency using Cronbach's alpha reliability ranged from .76 to .91 across the three subscales. Endler and Parker also reported that when the measure was given to a group of undergraduates on two separate occasions 8 weeks apart, test-retest correlations for the task, emotion, and avoidance scales were .74, .66, and .68, respectively.

Participants were also given a demographic questionnaire (Appendix B) that asked them to identify their age, race or ethnicity, education level, marital status, current offense(s), length of prison sentence, length of time incarcerated, and previous incarcerations. Participants' age, race, current offense(s), length of prison sentence, and length of time incarcerated were verified using the ODOC public online offender database. Information from the database was used if there was a discrepancy between a participant's response and the public database. Participants also completed a treatment questionnaire (Appendix C) that asked them to identify whether they had prior treatment experience(s) inside or outside prison, whether they were currently taking medication, their mental health diagnosis, and the length of time they had participated in the current group. They were also asked how helpful they considered the group to be, using a scale ranging from 1 (*not at all)* to 5 (*extremely)*.

Procedure

I contacted the Behavioral Health Services managers at both institutions and explained the study to them. The manager at the medium-security institution gave me the

contact information for the facilitator of the DBT groups. I called the facilitator and we set a date for me to go to the group during a regularly scheduled session to begin data collection. The manager at the maximum-security institution e-mailed the information about my study to the three facilitators, each with their own DBT group, at that institution. Two of the facilitators responded to the e-mail, and I set a date with them to go to their groups during a regularly scheduled session to begin data collection.

I attended the groups at the beginning of each session. Each facilitator was present, introduced me to the group, and waited for the participants to finish the surveys before starting the group. All facilitators helped participants complete the surveys when the participants had questions. At each contact, I explained to the inmates in the group the purpose of the study and gave them the option to participate. About eight inmates participated in each group. Inmates who were interested in participating were given a copy of the informed consent form (Appendix D) and had the opportunity to decline participation and/or to ask questions. Participants were then given the CISS, demographic, and treatment surveys and had as much time as they needed in order to complete them (materials were typically completed in 25-35 min). Participants completed the CISS and treatment survey at subsequent data-collection periods.

Data were marked with a personal identification number to ensure confidentiality. Only I had access to the participants' last names, State Identification (SID) numbers, and personal identification numbers. Whether or not an inmate participated in the study did not affect the conditions of his release plan or parole. Inmates who declined participation waited quietly for the group to begin or reviewed their DBT manuals while participants completed the surveys.

Data were collected at several time points. Data were collected at the medium-security institution over a period of 28 weeks: at Week 1, Week 8, Week 20, and Week 28. I attempted to collect data every 8 weeks at the medium-security institution, but this was not always possible because of federal holidays and schedule conflicts.

Data were collected at the maximum-security institution over a period of 24 weeks. Data were collected from one DBT group at the maximum-security institution at Week 1, Week 9, and Week 24. Participants were beginning Core Mindfulness at Week 1, had just begun Distress Tolerance at Week 9, and were halfway through Emotional Regulation by Week 24. Data were collected from another DBT group at the maximum-security institution at Week 1, Week 11, and Week 24. Participants were beginning Core Mindfulness at Week 1, were still learning those skills at Week 11, and had advanced to Distress Tolerance by Week 24. Data were collected from the maximum-security groups at the specified intervals in order to allow participants sufficient time to advance through the modules. I e-mailed the facilitators of each group in the medium-security institution every 8 weeks to determine whether the group had progressed to the next module.

By the end of data collection, a total of 70 participants had completed surveys; 41 participants had completed surveys on one occasion, 16 participants had completed surveys on two separate occasions, and 13 participants had completed surveys on three separate occasions. Of participants who only completed one set of surveys, 12 completed surveys during the last week of data collection. Additionally, 14 participants were transferred to a different facility and 11 participants were released by the time of the next data collection period. One participant was sick and one participant was in disciplinary segregation at the medium-security facility at the second data-collection time. Two

participants from the medium-security facility declined participation at the second data-collection time. Three participants from the maximum-security facility were no longer participating in the group at the second and third data-collection periods.

Results

By the end of data collection, 15 participants from the maximum-security institution and 26 participants from the medium-security institution had completed surveys on one occasion (Group 1), eight participants from the maximum-security institution and eight participants from the medium-security institution had completed surveys on two separate occasions (Group 2), and two participants from the maximum-security institution and 11 participants from the medium-security institution had completed surveys on three separate occasions (Group 3). The length of time of participation in the DBT groups was also calculated for each group of participants. This information is presented in Table 3.

Table 3

Number of Weeks of Participation in DBT Groups

Group	*M*	*SD*	*Range*
1	20.05	42.33	1-260
2	42.43	29.82	12-112
3	38.46	19.63	20-68

Combining Groups

Due to the small number of participants, the possibility of combining participants from both institutions into the three groups for analyses was explored. To determine whether data from the two institutions could be combined, an independent samples

Mann-Whitney *U* test was conducted using scores on each outcome measure (Table 4). No significant differences between institutions were found for any of the participants, and thus participants were combined into Group 1, Group 2, or Group 3 for analysis.

Descriptive Statistics

The outcome measures of interest were scores on the Task, Emotion, and Avoidance scales of the CISS. A high score on a scale indicated that participants were likely to use such skills when they experienced a stressful situation, and a low score indicated that they were not likely to use such skills. I hypothesized that Task scores would increase over time in the DBT groups and that Emotion and Avoidance scores would decrease over time. Descriptive statistics were calculated for the outcome measures for all groups of participants. The results are displayed in Table 5.

Correlational Analysis for Group 1

A Pearson product-moment correlation was conducted for the group of participants who completed surveys once to determine the relationship between CISS scores and the number of weeks that the participants had been in the DBT groups. This analysis was conducted separately from the analyses for the other groups because this group had only one score for each outcome measure, whereas the other groups had multiple scores for each outcome measure. Prior to analysis, data for two participants were deleted from the sample because the Task and Emotion scores were more than 3 standard deviations from the sample mean. No significant correlations were found between the outcome measures and the number of weeks in group. The results are

Table 4

Significance Levels of the Mann-Whitney U test for All Groups on the Outcome Variables

Group 1 *(N = 39)*	Time 1	
Scale	*Z*	*p*
Task	-1.763	0.078
Emotion	-1.243	0.214
Avoidance	-0.275	0.783

Group 2 (*N* = 14)	Time 1		Time 2	
Scale	*Z*	*p*	*Z*	*p*
Task	-0.647	0.518	-0.323	0.747
Emotion	-1.295	0.195	-1.099	0.272
Avoidance	-0.712	0.477	-0.455	0.647

Group 3 (*N* = 13)	Time 1		Time 2		Time 3	
Scale	*Z*	*p*	*Z*	*p*	*Z*	*p*
Task	-0.297	0.767	-0.397	0.691	-0.299	0.765
Emotion	-0.896	0.370	-0.791	0.429	-0.198	0.843
Avoidance	-1.680	0.093	-1.382	0.167	-1.382	0.167

Note. *Z* = Mann-Whitney U statistic.

Table 5

Scores on the CISS Scales for All Groups

Group 1 *(N = 39)*	Time 1
Scale	*M (SD)*
Task	47.62 (9.32)
Emotion	48.51 (8.67)
Avoidance	43.97 (8.92)

Group 2 (*N* = 14)	Time 1	Time 2
Scale	*M (SD)*	*M (SD)*
Task	54.71 (7.41)	55.79 (7.42)
Emotion	51.57 (7.43)	46.00 (8.96)
Avoidance	50.86 (11.06)	51.57 (7.59)

Group 3 (*N* = 13)	Time 1	Time 2	Time 3
Scale	*M (SD)*	*M (SD)*	*M (SD)*
Task	51.31 (11.49)	56.46 (12.27)	57.46 (8.86)
Emotion	45.00 (5.42)	41.31 (16.17)	40.46 (7.63)
Avoidance	51.23 (12.83)	48.92 (12.00)	50.54 (11.44)

presented in Table 6. These results indicate that, for this group, coping style use was not significantly correlated with how long a participant had been involved in the DBT group.

Table 6

Pearson Product-Moment Correlations Between Weeks in Group and Coping Scales for Group 1

Measure	*Weeks in Group*
Task	.110
Emotion	.115
Avoidance	.217

*$p < .01$

Multivariate Analysis of Covariance (MANCOVA) for Groups 2 and 3

A repeated-measures multivariate analysis of covariance (MANCOVA) was conducted for the group of participants who completed surveys twice (Group 2) to determine the effect of time on each of the three CISS scale scores while controlling for the number of weeks participants had been in the DBT groups. Prior to analysis, data for two participants were deleted from the sample because the Task and Emotion scores were more than 3 standard deviations from the sample mean at Time 1. The covariate did not significantly influence scores on the Task scale, Wilks' $\Lambda = .987$, $F(1, 12) = .161$, $p = .696$, multivariate $\eta^2 = .013$, the Emotion scale, Wilks' $\Lambda = .762$, $F(1, 12) = 3.743$, $p = .077$, multivariate $\eta^2 = .238$, or the Avoidance scale, Wilks' $\Lambda = .996$, $F(1, 12) = .046$, $p = .833$, multivariate $\eta^2 = .004$. These results indicate that the total number of weeks that

participants were in the group did not affect CISS scores on any of the three scales for participants who completed surveys twice over a period of 8 weeks.

A repeated-measures MANCOVA was also conducted for the group of participants who completed surveys three times (Group 3). Mauchly's Test of Sphericity was significant for Task (p = .017) and Avoidance (p = .012) scores; thus, equal variances could not be assumed and the Pillai's Trace statistic was interpreted instead of Wilk's Lambda. The covariate did not significantly influence scores on the Task scale, Pillai's trace = .208, $F(2, 10) = 1.316$, p = .311, multivariate η^2= .208; the Emotion scale, Wilks' Λ = .733, $F(2, 10) = 1.819$, p = .212, multivariate η^2 = .267; or the Avoidance scale, Pillai's trace = .201, $F(2, 10) = 1.26$, p = .325, multivariate η^2 = .201. These results indicate that the total number of weeks that participants were in the group did not affect CISS scores on any of the scales for participants who completed surveys three times over a period of 16 weeks.

Nonparametric Tests

Friedman tests were conducted to determine whether there were significant differences in mean scores on the Task, Emotion, and Avoidance scales over time. Each outcome measure was analyzed first and then pairwise comparisons were conducted to determine significant differences. For participants who completed surveys twice (Group 2), there were no significant differences between Time 1 and Time 2 in Task scores, χ^2 (1, N = 14) = .077, p = .782; Emotion scores, χ^2 (1, N = 14) = 1.33, p = .248; or Avoidance scores, χ^2 (1, N = 14) = .000, p = 1.00. Changes in mean scores for Group 2 are displayed in Figure 1.

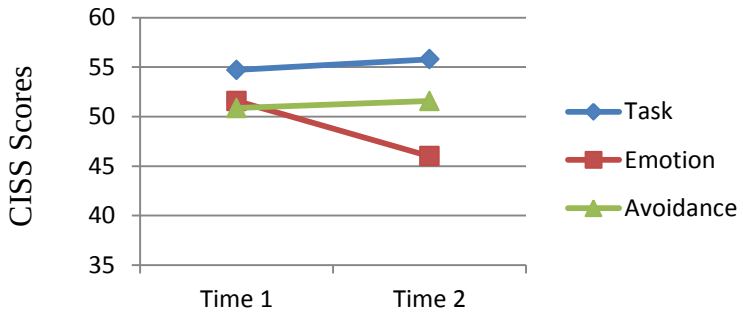

Figure 1. Mean CISS scores for Group 2 at Time 1 and Time 2

For participants who completed surveys three times (Group 3), there was a significant difference in Task scores, χ^2 (2, N = 13) = 10.978, p = .004. The Kendall coefficient of concordance was .422, which indicates a strong difference among the means. Follow-up pairwise comparisons were conducted using the Wilcoxon Signed Ranks test. The mean score at Time 3 was significantly greater than the mean score at Time 1, p = .031. No significant differences were in found in Emotion scores (χ^2 [2, N = 13] = 4.308, p = .116) for Group 3. However, a noticeable trend was observed such that Emotion scores decreased at each data-collection time. There were also no significant differences in Avoidance scores (χ^2 [2, N = 13] = 1.440, p = .487) for Group 3. Changes in mean scores for Group 3 are displayed in Figure 2.

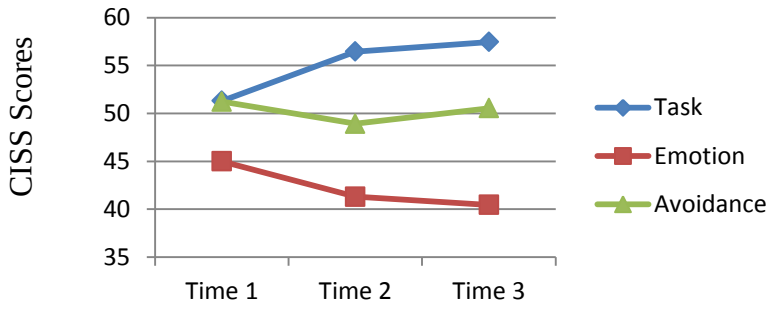

Figure 2. Mean CISS scores for Group 3 at Time 1, Time 2, and Time 3

Discussion

The purpose of the current study was to determine whether male inmates who were participating in modified DBT groups improved their coping skills over the course of the group. Coping skills were assessed using scores on the Task, Emotion, and Avoidance scales on the CISS (Endler & Parker, 1990). Task-oriented coping describes attempts aimed at solving the problem, either cognitively or behaviorally. Emotion-oriented coping describes emotional reactions that a person uses to decrease stress, but may actually increase stress (such as getting angry or taking anger out on other people). Avoidance-oriented coping describes cognitive, behavioral, and social diversion strategies aimed at avoiding the stressful situation. Task-oriented coping is generally regarded as more effective than the other two styles (Endler, 1997). I hypothesized that inmates would show increased scores in task-oriented coping and decreased scores in emotion- and avoidance-oriented coping over time as they participated in the DBT groups.

Summary of Results

Task-oriented coping. Task scores significantly increased over time for the group who completed surveys on three occasions (Group 3), which supported this part of my hypothesis. Compared to prior research with inmates (Endler & Parker, 1990; Gullone et al., 2000), Task scores for this group at Time 1 were similar; however, by Time 3, this group of participants scored higher on Task-oriented coping relative to the normative prison sample for the CISS (Endler & Parker, 1990). In fact, the mean Task

score at Time 3 resembled the mean Task score for the male normative nonincarcerated sample (Endler and Parker, 1990).

Task scores for the group who completed surveys on two occasions (Group 2) increased between Time 1 and Time 2, but only by 1 point. Task scores for Group 2 were similar to the Task scores for inmates in previous research (Endler & Parker, 1990; Gullone et al.,2000).

For the group who completed surveys on only one occasion (Group 1), Task scores were not correlated with how long participants had been in the DBT groups. The mean Task score for Group 1 was lower than the mean Task scores for the other two groups in this study; it were also lower than the mean Task scores reported by previous researchers (Endler & Parker, 1990; Gullone et al., 2000). Therefore, the participants in Group 1 were less likely to use task-oriented coping skills than were the other inmates in the current study and inmates in previous research.

Emotion-oriented coping. Although emotion scores decreased over time as hypothesized for both Groups 2 and 3, these results were not significant. Compared to prior research with inmates (Endler & Parker, 1990; Gullone et al., 2000), Group 2 had a higher Emotion score at Time 1; when the Emotion score decreased at Time 2, however, it was similar to the Emotion scores from prior research with inmates. This trend may have been due to the mental health diagnoses of the current sample. It may be that participants in Group 2 were experiencing mental health symptoms that could have resulted in higher Emotion scores than the normative prison sample for the CISS. Emotion scores for Group 3 at Time 1 and Time 2 were similar to prior research with inmates (Endler & Parker, 1990; Gullone et al., 2000). As with the mean Task score, the

mean Emotion score at Time 3 for Group 3 resembled the mean Emotion score for the male normative nonincarcerated sample (Endler & Parker, 1990). For Group 1, Emotion scores were not correlated with how long participants had been in the DBT groups. The mean Emotion score was higher for Group 1 than Group 3. It was also slightly higher than the reported Emotion scores from Gullone et al. (2000) and Endler and Parker (1990). This suggests that Group 1 participants were more likely to use emotion-oriented coping relative to other participants in this study as well as to inmates in prior research.

Avoidance-oriented coping. Avoidance scores did not decrease for any of the groups of participants; thus, this part of my hypothesis was not supported. Avoidance scores for Group 1 were not correlated with how long participants had been in the DBT groups. Interestingly, for Groups 2 and 3, avoidance-oriented coping remained stable or increased over time. This may have been due to the unique conditions of prison and the specific items on the Avoidance scale. For example, most participants endorsed that they engaged in many activities on the Social Diversion subscale of the Avoidance scale, such as "Phone a friend" and "Talk to someone whose advice I value" when they were feeling distressed. Additionally, some items on the Distraction subscale of the Avoidance scale are skills that are taught and encouraged in a prison environment when an inmate is distressed, such as "Take time off and get away from the situation" and "Go for a walk." Therefore, as in the Gullone et al. (2000) study, avoidance-oriented coping may be advantageous for the current study sample of inmates.

It is also noteworthy that Group 1 had the lowest Avoidance score; it could be that these participants were less likely to seek out others when confronted with a stressful situation than were participants in the other two groups. Avoidance scores for Group 1

were similar to Avoidance scores in prior research with inmates (Endler & Parker, 1990; Gullone et al., 2000). On the other hand, Avoidance scores for Groups 2 and 3 were higher than in the samples reported by Gullone et al. and Endler and Parker. Avoidance scores for all current groups were higher than the normative sample of nonincarcerated males (Endler and Parker, 1990), which suggests that inmates in this study were more likely to use avoidance-oriented coping than were nonincarcerated male adults.

Summary. In sum, task-oriented coping increased significantly over time for Group 3, and emotion-oriented coping appeared to decrease over time for Groups 2 and 3 (though without statistical significance). Avoidance-oriented coping remained stable or increased over time for Groups 2 and 3 (though again, without statistical significance). Avoidance scores for all three groups were higher than Avoidance scores reported in previous research with male inmates (Endler & Parker, 1990; Gullone et al., 2000). Group 3 appeared to be different from the other two groups in this study in that the mean scores for task-oriented and emotion-oriented coping at Time 3 more closely resembled the mean scores of the normative nonincarcerated sample of the CISS as opposed to the normative prisoner sample. Additionally, Group 1 appeared to be different from the other two groups in this study in that participants in Group 1 tended to use fewer task- and avoidance-oriented coping skills than did participants in Groups 2 and 3.

Strengths and Limitations of the Current Research

The biggest strength of this study is that it was the first formal investigation of the effects of modified DBT groups with male inmates housed in the ODOC. It provided information that may be useful to ODOC staff in making decisions about treatment. Another strength is that the study included male inmates from both Special Management

Housing and general population. Furthermore, this study was conducted with males, and only one other study to date (Shelton et al., 2009) has been published regarding the effects of DBT with male inmates. Additionally, the CISS has normative data for a prison population, which allowed for comparisons of the study sample to a normative group.

There are several limitations to the current study. First, it was not possible to obtain pre-test data because most participants had previously been enrolled in a DBT group. Only six participants who completed surveys did so on their first day of treatment. It would have been impossible to go to the groups and administer the surveys when new participants joined the group because the facilitators usually did not know whether there would be new members in the group until they saw the roster sheet, which was not printed until the day of the group. Even then, a group member may not have attended the group due to other institutional responsibilities, placement in disciplinary segregation, or illness.

Another limitation to the current study was the lack of a control or comparison group. Comparing the DBT groups to a group of inmates who were either in another form of treatment or waiting to enter the DBT group would have been desirable. Due to budget cuts, several programs in Behavioral Health Services had been canceled by the start of the study, and the DBT groups were the only groups being conducted by Behavioral Health Services staff. Furthermore, there was no wait-list to join the DBT groups.

An additional limitation is that there were no follow-up data to see whether participants retained skills over time. Follow-up data would not have been possible due

to the continuous nature of the groups. Additionally, the majority of participants who initially completed surveys were either released back into their communities or transferred to another institution. At that point, it would have been difficult and time-consuming to track participants throughout Oregon and have them complete follow-up surveys.

Anther limitation was the small number of participants who completed surveys more than once. A larger sample size would have been preferred in order to provide additional power for statistical analysis and to improve generalizability. Although high participant drop-out rates are expected in correctional research and treatment, only five participants in this study declined further participation or treatment, whereas the majority of participants did not complete additional surveys because they had been either released or transferred to another institution.

A final limitation is that there were differences in the ways the three DBT groups were conducted. For example, the facilitator from the medium-security facility indicated that she did not adhere to the order of the modules; for instance, she would teach a distress tolerance skill one week and then teach an interpersonal skill the next week (H. Webber, personal communication, September 26, 2011). She also did not make participants complete diary cards because she stated that the participants did not complete them consistently. Instead, she began each group with a brief check-in by asking each participant how his week went and which skills he had used. Conversely, the facilitators from the maximum-security facility began each group by reviewing the participants' diary cards (J. Premo, personal communication, December 29, 2011). Another difference stemmed from the fact that one of the groups from the maximum-security institution

consisted of inmates from Special Management Housing; as a result, a correctional officer had to be present in the group for security reasons. The facilitator of the group stated that correctional officers' attitudes and behaviors made an impact on how the group progressed through treatment. She explained that a negative attitude from a correctional officer may impede participants' willingness to disclose information in the group. During the study, this facilitator noted that the current correctional officer was a positive contributor to the group because he also completed diary cards and gave real-life examples of how he used the skills. Some of the inmates' case managers also attended the treatment groups with participants from SMH, whereas they did not do so in other groups. A program evaluation of the DBT groups has never been completed by Behavioral Health Services. Therefore, it is difficult to determine how these variations in treatment groups may have impacted participants.

Implications of the Current Study

The most important implication of the current study is that participants who completed surveys on three occasions had significantly increased scores on the task-oriented coping scale, which suggests that participants were more likely to use purposeful problem-solving behaviors by the end of the study than they were at the beginning of the study. This is an important finding given that prior researchers have noted deficits in this type of coping style in inmates (Zamble & Porporino, 1998), and that inmates who have used task-oriented coping skills have had higher levels of self-esteem (Gullone et al., 2000) and lower levels of anxiety and depression than inmates who did not use task-oriented coping skills (Gullone et al., 2000; Sappington, 1996; van Harreveld, 2007).

Although there were no significant results for the group who completed surveys once, possibly due to the small sample size, nonsignificant results have implications as well. It was expected that participants' coping skills would improve over time, yet length of time in the DBT groups did not affect CISS scores for this group. Thus, other variables may have affected CISS scores, such as the group and prison environment or demographics of the participants. Additionally, all participants had mental health concerns, which may have affected their scores and coping skills. It would have been helpful to administer an assessment of mental health functioning to determine whether coping skills were related to mental health concerns as they were in previous research (Gullone et al., 2000; Sappington, 1996; van Harreveld et al., 2007). Also, using another coping skills measure in addition to or in lieu of the CISS may have been more helpful in assessing coping skills.

Directions for Future Research

A replication of this study with a larger sample size would be helpful to determine whether DBT is effective at improving male inmate coping skills over time. Pretreatment data would also be helpful to determine the true effects of DBT on male inmate coping skills. If number of weeks in treatment did not affect coping skills, then perhaps other outcome measures (e.g., number of disciplinary reports) should be explored in future research. It is also possible that demographic variables, such as offense type or number of previous incarcerations, affect coping skills.

Prison research is difficult to conduct due to the institutional culture. In this study, there were multiple barriers to access that interrupted or prolonged data collection, including having to re-obtain proper identification for admission into the facility, a lock-

down, data collection periods that fell on federal holidays, group facilitators who did not return my phone calls or e-mails, and groups being canceled due to facilitator illness or other responsibilities. Added to these difficulties were loss of participants due to inmates being released, transferred, or dropping out of treatment. It would be helpful if prison administrators could keep inmates who are involved in treatment or research studies from being moved to another facility; however, many factors determine an inmate's transfer to a different facility. Conducting large research designs may not be the most effective way to study the effects of DBT in inmates unless the researcher is prepared to collect data for a year or longer. Collecting data as a team of researchers would also be more helpful than collecting data by oneself, as this would allow easier access to multiple institutions on multiple days, thus increasing sample size. Future researchers should also prepare to be flexible in data-collection schedules as well as study design because access to the facility or to the inmates at any point is not guaranteed.

Conclusions

The purpose of this study was to add to add to the existing research of the effects of DBT in correctional settings with male inmates. In this study, I examined the effects of DBT groups on male inmate coping styles. I hypothesized that participants in the modified DBT groups would report an increase in task-oriented coping skills and a decrease in emotion- and avoidance-oriented coping skills as they progressed through treatment. This hypothesis was partially supported. A significant increase in task-oriented coping was found for male inmates who had been participating in the DBT groups for at least a 16-week period. Decreases were also noted in emotion-oriented coping for the same group of inmates and a group of inmates who had been participating

in the DBT groups for at least an 8-week period, yet these results were not statistically significant. Avoidance-oriented coping skills remained the same over time for both groups. Length of time in the DBT group did not affect CISS scores, which suggests other factors were involved that influenced CISS scores. In sum, it appears that DBT is helpful at improving male inmates' coping skills, yet additional research is needed to support this conclusion.

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). Newark, NJ: LexisNexis.

Andrews, D. A., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work?: A clinically relevant and psychologically informed meta-analysis. *Criminology, 28*(3)*,* 369-403. doi:10.1111/j.1745-9125.1990.tb01330.x

Bateman, A., & Fonagy, P. (2009). Randomized controlled trial of outpatient mentalization-mased treatment versus structured clinical management for borderline personality disorder. *American Journal of Psychiatry, 166,* 1355-1364. doi: 10.1176/appi.ajp.2009.09040539

Beck, A. T. (1978). *Beck Depression Inventory (BDI).* San Antonio, TX: Harcourt Brace Jovanovich.

Berzins, L. G., & Trestman, R. L. (2004). The development and implementation of dialectical behavior therapy in forensic settings. *International Journal of Forensic Mental Health, 3*(1), 93-103. Retrieved from http://www.iafmhs.org/iafmhs.asp

Black, D. W., Baumgard, C. H., & Bell, S. E. (1995). A 16- to 45-year follow-up with 71 men with antisocial personality disorder. *Comprehensive Psychiatry, 36*(2), 130-140. doi:10.1016/S0010-440X(95)90108-6

Blackburn, R., & Coid, J. W. (1999). Empirical clusters of DSM-III personality disorders in violent offenders. *Journal of Personality Disorders, 13*(1), 18-34. Retrieved from www.guilford.com/pr/jnpd.htm

Bowring v. Godwin, 551 F.2d 44 (4th Cir. 1977).

Bradley, R. G., & Follingstad, D. R. (2003). Group therapy for incarcerated women who experienced interpersonal violence: A pilot study. *Journal of Traumatic Stress, 16*(4), 337-340. doi:10.1023/A:1024409817437

Briere, J. (1995). *Trauma Symptom Inventory (TSI) professional manual*. Odessa, FL: PAR.

Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology, 63(*3), 452-459. doi:10.1037//0022-3514.63.3.452

Coccaro, E. F., Harvey, P. D., Kupsaw-Lawrence, E., Herbert, J. L., & Bernstein, D. P.

(1991). Development of neuropharmacologically based behavioral assessments of impulsive aggressive behavior. *Journal of Neuropsychiatry and Clinical Neurosciences, 3*(2), S44-S51. Retrieved from http://www.appi.org/SearchCenter/Pages/Journal.aspx?ItemId=JNP

Carver, C. S., Scheier, M. F., & Wientraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267-283. doi:10.1037//0022-3514.56.2.267

Conte, H. R., Plutchik, R., Karasu, T. B., Jerrett, I. (1980). A self-report borderline scale: Discriminative validity and preliminary norms. *Journal of Nervous and Mental Disease, 168*, 428-435. Retrieved from http://journals.lww.com/jonmd/pages/default.aspx

Coopersmith, S. (1975). *Coopersmith Inventory. Adult Form.* Palo Alto, CA: Consulting Psychological Press.

Crowell, S. E., Beauchaine, T. P., & Linehan, M. M. (2009). A biosocial developmental model of borderline personality: Elaborating and extending Linehan's theory. *Psychological Bulletin, 135*(3), 495-510. doi:10.1037/a0015616.

Cummins, R. A. (1993). *Manual: Comprehensive Quality of Life Scale for Adults (ComQol-4* 4th ed.). Toorak, Australia: Psychology Research Centre, Deakin University.

Day, A. (2009). Offender emotion and self-regulation: Implications for offender rehabilitation programming. *Psychology, Crime, and Law, 15*(2), 119-130. doi: 10.1080/10683160802190848

Dimeff, L. A., & Koerner, K. (2007). Overview of dialectical behavior therapy. In L. A. Dimeff & K. Koerner (Eds.), *Dialectal behavior therapy in clinical practice* (pp. 1-18). New York, NY: Guilford Press.

Ditton, P. M. (1999). *Mental health and treatment of inmates and probationers (NCJ 174463).* Washington, DC: Office of Justice Programs, Bureau of Justice Statistics, U.S. Department of Justice. Retrieved from http://bjs.ojp.usdoj.gov/content/pub/pdf/mhtip.pdf

Doering, S., Hoerz, S., Rentrop, M., Fischer-Kern, M., Schuster, P., Benecke, C., . . . Buchheim, P. (2010). Transference-focused psychotherapy v. treatment by community psychotherapists for borderline personality disorder: Randomised controlled trial. *British Journal of Psychiatry, 196*(5), 389-395. doi:10.1192/bjp.bp.109.070177

Endler, N. S. (1997). Stress, anxiety, and coping: The multidimensional interaction model. *Canadian Psychology, 38*(3), 136-153. doi:10.1037/0708-5591.38.3.136

Endler, N. S., & Parker, J. D. A. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology, 58*(5), 844-854. doi:10.1037/0022-3514.58.5.844

Estelle v. Gamble, 426 U.S. 97 (1976).

Fishbein, D., Sheppard, M., Hyde, C., Hubal, R., Newlin, D., Serin, R.,…Alesci, S. (2009). Deficits in behavioral inhibition predict treatment engagement in prison inmates. *Law and Human Behavior, 33*, 419-435. doi:10.1007/s10979-008-9163-7

Folkman, S., & Lazarus, R. S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology, 54*, 466-475. doi:10.1037//0022-3514.54.3.466

Giesen-Bloo J., van Dyck, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Asselt, T.,… Arntz, A. (2006). Outpatient psychotherapy for borderline personality disorder: Randomized trial of schema-focused therapy vs transference-focused psychotherapy. *Archives of General Psychiatry, 63*(6), 649-658. doi:10.1001/archpsyc.63.6.649

Gullone, E., Jones, T., & Cummins, R. (2000). Coping styles and prison experience as predictors of psychological well-being in male prisoners. *Psychiatry, Psychology, and Law, 7*(1), 170-181. doi:10.1080/13218710009524983

Hanson, R. K., & Harris, A. J. R. (2000). Where should we intervene? Dynamic predictors of sexual offense recidivism. *Criminal Justice and Behavior, 27,* 6-35. doi:10.1177/0093854800027001002

Hesslinger, B., Tebartz van Elst, L., Nyberg, E., Dykierek, P., Richter, H., Berner, M., & Ebert, D. (2002). Psychotherapy of attention deficit hyperactivity disorder in adults: A pilot study using a structured skills training program. *European Archives of Psychiatry and Clinical Neuroscience, 252*(4), 177-184. doi:10.1007/s00406-002-0379-0

Ivanoff, A. (1998). *Survey of criminal justice and forensic dialectical behavior therapy programs in the U.S. and U.K*. Seattle, WA: Linehan Training Group.

James, D. J., & Glaze, L. E. (2006). *Bureau of Justice Statistics special report: Mental health problems of prison and jail inmates (NCJ 213600).* Washington, DC: Office of Justice Programs, Bureau of Justice Statistics, U.S. Department of Justice. Retrieved from http://bjs.ojp.usdoj.gov/content/pub/pdf/mhppji.pdf

Kahn, J. H., & Hessling, R. M. (2001). Measuring the tendency to conceal versus disclose psychological distress. *Journal of Social and Clinical Psychology, 20*(1), 41-65.

doi:10.1521/jscp.20.1.41.22254

Kandel, D., & Davies, M. (1982). Epidemiology of depressive mood in adolescents. *Archives of General Psychiatry, 39*(10), 1205-1212. doi:10.1001/archpsyc.1982.04290100065011

Koons, C. R., Robins, C. J., Tweed, J. L., Lynch, T. R., Gonzalez, A. M., Morse, J. Q.,...Bastian, L.A. (2001). Efficacy of dialectical behavior therapy in women veterans with borderline personality disorder. *Behavior Therapy, 32*(2), 371-390. doi:10.1016/S0005-7894(01)80009-5

Lemmón, G. (2008). *Impact of a modified dialectical behavior therapy treatment on coping methods and impulsivity in female inmates.* (Unpublished doctoral dissertation). Pacific University, Hillsboro: OR.

Linehan, M. M. (1993). *Skills training manual for treating borderline personality disorder.* New York, NY: Guilford Press.

Linehan, M. M., Armstrong, H. E., Suarez, A., Allmon, D., & Heard, H. L. (1991). Cognitive-behavioral treatment of chronically suicidal borderline patients. *Archives of General Psychiatry, 48*(12), 1060-1064. Retrieved from http://archpsyc.ama-assn.org/

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L.,…Lindenboim, N. (2006). Two-year randomized trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry, 63*(7), 757-766. doi:10.1001/archpsyc.63.7.757

Linehan, M. M., Dimeff, L. A., Reynolds, S. K., Comtois, K. A., Welch, S. S., Heagerty, P., & Kivlahan, D. R. (2002). Dialectical behavior therapy versus comprehensive validation therapy plus 12-step for the treatment of opioid dependent women meeting criteria for borderline personality disorder. *Drug and Alcohol Dependence, 67*(1), 13-26. doi:10.1016/S0376-8716(02)00011-X

Linehan, M. M., Schmidt, H., III, Dimeff, L. A., Craft, J. C., Kanter, J., & Comtois, K. A. (1999). Dialectical behavior therapy for clients with borderline personality disorder and drug-dependence. *American Journal on Addictions, 8*(4), 279-292. doi:10.1080/105504999305695

Lynch, T. R., Morse, J. Q., Mendelson, T., & Robins, C. J. (2003). Dialectical behavior therapy for depressed older adults: A randomized pilot study. *American Journal of Geriatric Psychiatry, 11*(1), 33-45. doi:10.1176/appi.ajgp.11.1.33

Maslach, C., & Jackson, S. E. (1999). *Maslach Burnout Inventory*. Palo Alto, CA: Consulting Psychologists Press.

McCann, R. A., Ball, E. M., & Ivanoff, A. (2000). DBT with an inpatient forensic population: The CMHIP forensic model. *Cognitive and Behavioral Practice, 7*(4), 447-456. doi:10.1016/S1077-7229(00)80056-5

McCann, R. A., Ivanoff, A., Schmidt, H., & Beach, B. (2007). Implementing dialectical behavior therapy in residential forensic settings with adults and juveniles. In L. A. Dimeff & K. Koerner (Eds.), *Dialectal behavior therapy in clinical practice* (pp. 112-144). New York, NY: Guilford Press.

McMurran, M., Theodosi, E., Sweeney, A., & Sellen, J. (2008). What do prisoners want? Current concerns of adult male prisoners. *Psychology, Crime, & Law, 14*(3), 267-274. doi:10.1080/10683160701770161.

Miller, A. L. (1999). DBT-A: A new treatment for parasuicidal adolescents. *American Journal of Psychotherapy, 53*, 413-417. Retrieved from http://www.ajp.org/

Mohino, S., Kirchner, T., & Forns, M. (2004). Coping strategies in young male prisoners. *Journal of Youth and Adolescence, 33*(1), 41-49. Retrieved from http://www.springer.com/psychology/child+%26+school+psychology/journal/10964

Moos, R. H. (1993). *Coping Responses Inventory. CRI-Adult Form*. Manual. Psychological Assessment Resources, Inc. Odessa, FL.

Morgan, R. D., & Flora, D. B. (2002). Group psychotherapy with incarcerated offenders: A research synthesis. *Group Dynamics: Theory, Research, and Practice, 6*(3), 203-218. doi:10.1037//1089-2699.6.3.203

Morgan, R. D., Van Haveren, R., & Pearson, C. A. (2002). Correctional officer burnout: Further analyses. *Criminal Justice and Behavior, 29*, 144-160. doi:10.1177/0093854802029002002

Morgan, R. D., Winterowd, C. L., & Ferrell, S. W. (1999). A national survey of group psychotherapy services in correctional facilities. *Professional Psychology: Research and Practice, 30*(6)*,* 600-606. doi:10.1037/0735-7028.30.6.600

Nee, C., & Farman, S. (2005). Female prisoners with borderline personality disorder: Some promising treatment developments. *Criminal Behaviour and Mental Health, 15*(1), 2-16. doi:10.1002/cbm.33

Novaco, R.W. (1975). *Anger control: The development and evaluation of an experimental treatment.* Lexington, MA: Lexington Books, D.C. Heath.

Patton, J. H., Stanford, M. S., & Barratt, E. S. (1989). Factor structure of the Barratt Impulsiveness Scale. *Journal of Personality and Social Psychology, 56,* 267-283. doi:10.1002/1097-4679(199511)51:6<768::AID-JCLP2270510607>3.0.CO;2-1

O'Connor, F. W., Lovell, D., & Brown, L. (2002). Implementing residential treatment for prison inmates with mental illness. *Archives of Psychiatric Nursing, 16*(5), 232-238. doi:10.1053/apnu.2002.36236

Olver, M. E., Stockdale, K. C., & Wormith, J. S. (2011). A meta-analysis of predictors of offender treatment attrition and its relationship to recidivism. *Journal of Counseling and Clinical Psychology, 79*(1), 6-21. doi:10.1037/a0022200

Overall, J. E., & Gorham, D. R. (1962). The brief psychiatric rating scale. *Psychological Reports, 10*, 799-812. Retrieved from http://www.amsciepub.com/loi/pr0

Robins, C., & Chapman, A. L. (2004). Dialectical behavior therapy: Current status, recent developments, and future directions. *Journal of Personality Disorders, 18*(1), 73-89. doi:10.1521/pedi.18.1.73.32771

Rokach, A. (1997). Loneliness in jail: Coping strategies. *International Journal of Offender Therapy and Comparative Criminology 41*(3), 260-271. doi:10.1177/0306624X97413005

Rokach, A., & Brock, H. (1998). Coping with Loneliness. *The Journal of Psychology, 132*(1), 107-127. doi:10.1080/00223989809599269

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rotter, M., Way, B., Steinbacher, M., Sawyer, D., & Smith, H. (2002). Personality disorders in prison: Aren't they all antisocial? *Psychiatric Quarterly, 73*, 337-349. Retrieved from http://www.springer.com/medicine/psychiatry/journal/11126

Safer, D. L., Telch, C. F., & Agras, W. S. (2001). Dialectical behavior therapy for bulimia nervosa. *American Journal of Psychiatry, 158*(4), 632-634. doi:10.1176/appi.ajp.158.4.632

Sappington, A. A. (1996). Relationships among prison adjustment, beliefs, and cognitive coping style. *International Journal of Offender Therapy and Comparative Criminology, 40*(1), 54-62. doi:10.1177/0306624X96401007

Shelton, D., Sampl, S., Kesten, K. L., Zhang, W., & Trestman, R. L. (2009). Treatment of impulsive aggression in correctional settings. *Behavioral Sciences and the Law, 27*, 787-800. doi:10.1002/bsl.889

Spielberger, C. D. (1977). *State-Trait Anxiety Inventory: STAI*. Palo Alto, CA: Consulting

Psychologists Press

Telch, C. F., Agras, W. S., & Linehan, M. M. (2001). Dialectical behavior therapy for binge eating disorder. *Journal of Consulting and Clinical Psychology, 69*(6), 1061-1065. doi:10.1037//0022-006X.69.6.1061

Trupin, E. W., Stewart, D. G., Beach, B., & Boesky, L. (2002). Effectiveness of a dialectical behaviour therapy program for incarcerated female juvenile offenders. *Child and Adolescent Mental Health, 7*(3), 121-127. doi:10.1111/1475-3588.00022

van Harreveld, F., van der Plight, J., Claassen, L., & van Duk, W. W. (2007). Inmate emotion coping and psychological and physical well-being: The use of crying over spilled milk. *Criminal Justice and Behavior, 34*(5), 697-708. doi: 10.1177/0093854806298468

Verheul, R., van Den Bosch, L. M. C., Koeter, M. W.J., de Ridder, M. A. J., Stijnen, T. & van Den Brink, W. (2003). Dialectical behaviour therapy for women with borderline personality disorder: 12 month, randomised clinical trial in The Netherlands. *British Journal of Psychiatry, 182,* 135-140. Retrieved from http://bjp.rcpsych.org/cgi/reprint/182/2/135

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology 54*(6), 1063-1070. doi:10.1037//0022-3514.54.6.1063

Zamble, E., & Porporino, F. (1990). Coping, imprisonment, and rehabilitation: Some data and their implications. *Criminal Justice and Behavior, 17*(1), 53-70. doi: doi:10.1177/0093854890017001005

Zamble, E., & Porporino, F. (1988). Coping, behavior, and adaptation in prison inmates. New York, NY: Springer-Verlag.

Zuckerman, M., Lubin, B., & Robin, S. (1965). The validation of an affect adjective checklist in clinical situations. *Journal of Consulting Psychology, 29*, 544. Retrieved from http://www.apa.org/pubs/journals/ccp/

Appendix A

CISS

Instructions: The following are ways people react to various difficult, stressful, or upsetting situations. Please circle a number from 1 to 5 for each item. Indicate how much you engage in these types of activities when you encounter a difficult, stressful, or upsetting situation.

		Not at all				Very much
1.	Schedule my time better	1	2	3	4	5
2.	Focus on the problem and see how I can solve it	1	2	3	4	5
3.	Think about the good times I've had	1	2	3	4	5
4.	Try to be with other people	1	2	3	4	5
5.	Blame myself for procrastinating	1	2	3	4	5
6.	Do what I think best	1	2	3	4	5
7.	Preoccupied with aches and pains	1	2	3	4	5
8.	Blame myself for having gotten into this situation	1	2	3	4	5
9.	Window shop	1	2	3	4	5
10.	Outline my priorities	1	2	3	4	5
11.	Try to go to sleep	1	2	3	4	5
12.	Treat myself to a favorite food or snack	1	2	3	4	5
13.	Feel anxious about not being able to cope	1	2	3	4	5
14.	Become very tense	1	2	3	4	5
15.	Think about how I have solved similar problems	1	2	3	4	5
16.	Tell myself that it is really not happening to me	1	2	3	4	5
17.	Blame myself for being too emotional about the situation	1	2	3	4	5
18.	Go out for a snack or meal	1	2	3	4	5
19.	Become very upset	1	2	3	4	5
20.	Buy myself something	1	2	3	4	5
21.	Determine a course of action and follow it	1	2	3	4	5
22.	Blame myself for not knowing what to do	1	2	3	4	5
23.	Go to a party	1	2	3	4	5
24.	Work to understand the situation	1	2	3	4	5
25.	"Freeze" and don't know what to do	1	2	3	4	5
26.	Take corrective action immediately	1	2	3	4	5
27.	Think about the event and learn from my mistakes	1	2	3	4	5
28.	Wish that I could change what had happened or how I felt	1	2	3	4	5
29.	Visit a friend	1	2	3	4	5
30.	Worry about what I am going to do	1	2	3	4	5
31.	Spend time with a special person	1	2	3	4	5
32.	Go for a walk	1	2	3	4	5
33.	Tell myself that it will never happen					

	again	1 2 3 4 5
34.	Focus on my general inadequacies	1 2 3 4 5
35.	Talk to someone whose advice I value	1 2 3 4 5
36.	Analyze the problem before reacting	1 2 3 4 5
37.	Phone a friend	1 2 3 4 5
38.	Get angry	1 2 3 4 5
39.	Adjust my priorities	1 2 3 4 5
40.	See a movie	1 2 3 4 5
41.	Get control of the situation	1 2 3 4 5
42.	Make an extra effort to get things done	1 2 3 4 5
43.	Come up with several different solutions to the problem	1 2 3 4 5
44.	Take time off and get away from the situation	1 2 3 4 5
45.	Take it out on other people	1 2 3 4 5
46.	Use the situation to prove that I can do it	1 2 3 4 5
47.	Try to be organized so I can be on top of the situation	1 2 3 4 5
48.	Watch TV	1 2 3 4 5

Appendix B

Demographic Information

Please answer the following questions as honestly as you can. This information will not be used to identify you. It will only be used to describe the overall group of men who participated in this study.

Age: _____

Race or Ethnicity (mark all that apply):
____ White/Caucasian
____ Black/African-American
____ Asian-American or Pacific Islander
____ Hispanic/Latino
____ American Indian or Alaskan Native
____ Other; please specify _____

Marital Status:
____ Single and never married
____ Divorced or legally separated
____ Widowed
____ Married or in a long-term relationship

Highest level of education completed:
____ Grade school; last grade completed__
____ High school diploma/GED
____ Some college; number of years completed ____
____ College degree; degree earned _____

Current Conviction Offense(s): _____
_____
_____

Length of Current Sentence: _____

Time Served for this Incarceration: _____

Previous Incarceration(s):
____ Yes
____ No

If yes:
Age at first incarceration: _____
Number of times in prison? _____

Appendix C

Treatment Information

Please answer the following questions as honestly as you can. This information will not be used to identify you. It will only be used to describe the overall group of men who participated in this study.

Are you currently taking any medication(s)? ____ Yes
____ No

Do you have a mental health diagnosis? ____ Yes ____ No
If yes, please describe:

_____

Have you previously participated in group treatment? ____ Yes ____ No
If yes:

____ Inside prison
____ Outside prison

How long have you been participating in the current treatment group?
_____

How much do you feel this group has helped you so far? (mark one)

___1 (not at all)

___2 (a little)

___3 (somewhat)

___4 (very much)

___5 (extremely)

Appendix D

Informed Consent

Pacific University
Institutional Review Board
Proposal to Conduct Human Subjects Research
Adult, Prisoner Population

2043 College Way
Forest Grove, OR 97116
FWA: 00007392 **IRB: 0004173**
P: 503-352-1478 **F: 503-352-1447**
www.pacificu.edu/research/irb

1. Study Title
The Effects of a Modified DBT Program on the Coping Skills of Male Inmates.

2. Study Personnel

Name	Carolyn Ferreira, M.S.	Genevieve Arnaut, Psy.D., Ph.D.	Michelle Guyton, Ph.D.
Role	Graduate Student Investigator	Faculty Advisor	Faculty Advisor
Institution	Pacific University	Pacific University	Pacific University
Program	School of Professional Psychology	School of Professional Psychology	School of Professional Psychology
Email	carolyncf@pacificu.edu	arnaut@pacificu.edu	guyton@pacificu.edu
Telephone	(503)352-7277	(503)352-7277	(503)352-7277
Address	190 S.E. 8th Avenue, Suite 260, Hillsboro OR 97123		

3. Study Invitation, Purpose, Location, and Dates
A researcher from Pacific University is doing a study. This study involves research and is to see if the group treatments in prison are helpful for male inmates. Taking part in this study will help the ODOC make good treatment programs. The results of this study will be used to help more people that are in prison in Oregon. The study has been approved by the Pacific University IRB and will be completed by July 2012. The study will take place at Oregon State Correctional Institution, Oregon State Penitentiary, and Columbia River Correctional Institution.

4. Participant Characteristics and Exclusionary Criteria
You can participate if you are male, at least 18 years-old, and can speak and read English. You cannot participate if you are younger than 18 years-old or you do not speak or write English fluently.

5. Study Materials and Procedures

You will take the same two surveys at 4 time points (CISS and treatment information survey). You will also take a survey that asks you questions about your age and race (demographic information survey). You will only answer this survey once, which will be during the first week of group.

You will be asked to complete the surveys at different times, including during the first week of group, the last week of group, some time in between the first and last weeks (about 8 weeks), and six months after you finish the group. The surveys will take about 20 minutes. The surveys will ask you questions about these topics:

- How you deal with problems.
- If you think the treatment group is helpful.
- If you have been in treatment before.
- If you have any mental health issues.

There will be about 50 other inmates like you who will participate in the study. It will not cost you anything to be part of the study.

6. Risks to participating

It is possible that participation in this study may expose you to currently unforeseeable risks. Some of the questions may remind you of a hard time you had in the past and may cause you to feel angry, sad, or anxious.

If you begin to feel this way, you can talk to a counselor at Behavioral Health Services or a staff member you trust.

There is not a need for follow-up examination or care after the end of study.

This study does not involve a clinical experimental trial.

7. Adverse Event Handling and Reporting Plan

While you are taking the survey, all rules and regulations of ODOC still count. For example, if you write on the surveys or tell the researcher that you or someone else did something bad when you are taking the survey, the researcher might have to tell a staff member. The researcher might also have to notify the IRB at Pacific University within 24 hours.

8. Direct Benefits and/or Payment to Participants

It is important for you to understand that parole boards will not take into account your participation in this project in making decisions regarding your parole in any way.

You will not be paid for participating in the study.

9. Promise of Privacy

A private number, not your name or State Identification Number (SID) number, will identify the answers to your survey, so that no one can match up your name or SID

number with your answers except for the investigators. Your SID number and name, which we need so we can keep track of who takes the survey, will be kept on a separate piece of paper in a locked file cabinet inside a locked office. Your name and study ID number will also be kept on a list on a computer that is password protected that only the investigators can get to. The lists with your name, SID number, and study ID number will be destroyed 6 months after the study is done. All the surveys will be carried in and out of ODOC in a locked case that nobody but the principal investigator can open. When we write or talk about what we learned in this study, we will leave things out so no one will be able to tell we are talking about you.

10. Medical Care and Compensation In the Event of Accidental Injury

During your participation in this study, it is important to understand that you are not a Pacific University clinic patient or client, nor will you be receiving complete mental health care as a result of your participation in this study. If you are injured during your participation in this study and it is not due to negligence by Pacific University, the researchers, or any organization associated with the research, you should not expect to receive compensation or medical care from Pacific University, the researchers, or any organization associated with the study.

11. Voluntary Nature of the Study

Your decision whether or not to participate will not affect your current or future relations with Pacific University or ODOC. If you decide to participate, you are free to not answer any question or withdraw at any time without prejudice or negative consequences. If you drop-out of the group before it is done, or if you choose to withdraw from the study after beginning the study, we will not use the CISS and treatment information surveys you already completed, but we will still use information from the demographic information survey. We will keep all surveys for our records in a locked cabinet for 5 years.

12. Contacts and Questions

The researchers will be happy to answer any questions you may have at any time during the study. If you are not happy with the answers you receive, please call Pacific University's Institutional Review Board (IRB), at (503) 352-1478 to discuss your questions or concerns further. You can also send the IRB a letter to Pacific University IRB Office, UC Box A-133, Forest Grove, OR, 97116. If you become injured in some way and feel it is related to your participation in this study, please contact the investigators and/or the IRB office. All concerns and questions will be kept in confidence.

13. Statement of Consent

Yes	No	
○	○	I am 18 years of age or over and can speak and write English fluently.
○	○	All my questions have been answered.
○	○	I have read and understand the description of my participation duties
○	○	I have been offered a copy of this form to keep for my records.
○	○	I agree to participate in this study and understand that I may withdraw at any time without consequence

Participant's Signature	Date
Investigator's Signature	Date