An Examination of Mental Health Symptoms and Related Factors in Participants of a Dialectical Behavior Therapy Skills Group

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Abstract

This study examined the relationship between client engagement and mental health symptoms in a Dialectical Behavior Therapy (DBT) skills group in a community mental health center. Women (N=43) diagnosed with borderline personality disorder were included in the pre and post-test examination of several variables related to quality of life, symptom distress, and feelings of empowerment. Results showed a significant increase in feelings of empowerment, quality of life, self-esteem, optimism, righteous anger, and financial status, while participants experienced a decrease in symptom distress and feelings of powerlessness. Implications for the implementation of DBT in community mental health are discussed, including the strengths and barriers involved.

Keywords: Dialectical Behavior Therapy, Borderline Personality Disorder, Treatment

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Dialectical Behavior Therapy (DBT) was developed by Linehan for the treatment of Borderline Personality Disorder, (BPD) and has been a welcome strategy for clinicians working with a population that is often difficult to treat. Since its development, several studies have validated its use in randomized controlled trials, supporting the efficacy of DBT in reducing symptoms of BPD in outpatient settings over treatment as usual (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991; Koons et al., 2006; Verheul et al., 2003). As result of this success, DBT's use has spread rapidly over the past decade, and adaptations of its original form are used in numerous settings, including inpatient units, prisons, and intensive outpatient units (Bohus et al., 2004; Nee and Farman, 2005; McQuillan et al., 2005). Dialectical Behavior Therapy has also been expanded for use in treating people who have other diagnoses, with some positive preliminary results with major depressive disorder, substance dependence disorders, and eating disorders (Telch, Agras, & Linehan, 2001; Holdcraft & Comtois, 2002; Lynch, Morse, & Vitt, 2002).

One of the most common settings where DBT is used is the community mental health center (CMHC). Community mental health centers are often the 'front line' for treatment of clients with BPD, which can be extremely difficult for clinicians, and can lead to clinician burn out. Preliminary studies on DBT in CMHC's have shown positive results, though many of them adapted the treatment to fit the setting. In one study on the effectiveness of DBT in a CMHC, researchers randomly assigned patients to DBT treatment or Client Centered Therapy (CCT). After one year, participants receiving DBT showed more improvement in decreased suicide

attempts, hospitalizations, and mental health symptoms than those in CCT. However DBT was adapted in this study and skills were taught in individual therapy sessions as opposed to group. Further, some positive findings may have been related to the clinician the subject was working with (Turner, 2000). Comtois, Elwood, Holdcraft, Smith, and Simpson (2007) completed a study of 24 subjects in an outpatient CMHC, incorporating all aspects of traditional DBT, including weekly individual treatment, weekly psycho-educational skills group, and intersession phone coaching. After one year's time, participants showed a decrease in emergency room visits, non-suicidal self-injury (NSSI), and overall utilization of crisis services. This implementation reduced inpatient treatment costs for all subjects by $12,850 in the first year of treatment. Nevertheless, there were modifications to this implementation of DBT as well. One of the major modifications was the addition of 'DBT case management,' in which patients were assigned a caseworker to help them with issues regarding housing, financial aid, and other tangible needs. This access to resources not offered in traditional comprehensive DBT treatment may have decreased symptom distress in many clients regardless of DBT treatment.

In another study, Holdcraft and Comtois (2002) applied DBT in a dual-diagnosis treatment program for women in the community. Several other modalities were implemented along with DBT, including the community reinforcement approach (i.e., a CBT group treatment focused on PTSD,) and contingency management procedures with regard to productive activities. The focus of DBT treatment in this adaptation was on contingency management and skills training. Clients were assigned to one of two tracks: emotion dysregulation, which was a two year DBT treatment for clients with mood related disorders, or the cognitive disorders track, which had no time limitation and was for clients who struggled with schizophrenia, learning disabilities, and other cognitive disorders. Results showed that at the end of one year, clients

experienced a significant decrease in hospitalizations and a significant increase in sobriety. Unfortunately, there was no control group in this study to compare this treatment with others, and is unclear the degree to which DBT alone accounted for the variance in these improvements.

In another investigation of DBT in a community mental health setting, 23 subjects were selected who had a history of behaviors that over utilized mental health crisis services (Ben-Porath, Peterson, & Smee, 2004). Though there was no control group in this study, patients reported significant decreases in suicidal thoughts, increased treatment compliance in comparison with other clients diagnosed with BPD, and a significant reduction in unemployment after six months of treatment. This implementation focused on maintaining the fidelity of the treatment, and incorporating all aspects of traditional DBT, including afterhours phone coaching. However treatment in this study also included case management and pharmacological management (Ben-Porath et al., 2004).

Though the benefits of implementation of DBT treatment in a CMHC can be great, including clients' decreased use of emergency mental health services, and increased daily functioning, there are limitations. Some of the major concerns regarding implementation of DBT in community mental health include staff selection and turnover, staff training, billing issues, fitting DBT into the current treatment structure, and support from administration (Ben-Porath et al.2004; Herschell, Kogan, Celedonia, Gavin, & Stein, 2009; Swenson, Torrey, & Koerner, 2002). This explains why many CMHC's have only implemented aspects of DBT treatment; for example, only the weekly psycho-educational skills group. Preliminary data that indicates positive results after implementation of a DBT skills group may be necessary before administrators at the CMHC are willing to consider a full DBT program. This study was an examination of the relationship between mental health symptoms and daily functioning in clients

who participated in a DBT skills group implemented in a CMHC. The variables included in this exploration were symptom distress, quality of life, and empowerment. This study was descriptive in nature and was analyzed using multivariate procedures.

Methods

Participants

The subjects included in this study were all participants who engaged in a weekly two hour psycho-educational DBT skills group at a CMHC over a two year time period. Participants who did not dropout completed all four DBT skills modules (i.e., Mindfulness, Emotion Regulation, Interpersonal Effectiveness, and Distress Tolerance; Linehan, 1993). The mindfulness module was three weeks long, while the other three modules were six to eight weeks long. Groups were led by two therapists who had received the ten-week DBT training and were members of a county-wide consultation team. Though the researcher did not have access to specific diagnoses, all clients treated at this CMHC were diagnosed with at least one Axis I disorder via the *Diagnostic and Statistical Manual of Mental Disorders*, and all subjects in this study were diagnosed with Borderline Personality Disorder via a structured admission interview (American Psychological Association, 2000). Though it was not a requirement for participation, all of the subjects in this study were female. There were 43 subjects total – six dropouts and 37 graduates- and all participants were included in data analysis. This included all of the clients who had been enrolled in the DBT skills group at any point over the past three years. Eighty seven percent of subjects were Caucasian, and 42% reported they had ‘some college’ experience. Seventy-eight percent of subjects reported they were single, and 44% were living independently while 42% reported they were dependent on others for housing. Finally, the majority (56%) reported that they were unemployed.

Adult Outcomes Measure

The variables in this study were measured and operationalized using the Adult Outcomes Measure (AOM; Ohio Department of Mental Health, 2008). The sections of the assessment used included: Quality of Life Scale, Symptom Distress Scale, Making Decisions Empowerment Scale, and Demographics. The AOM is used by the CMHC to monitor treatment outcomes, and is administered to all clients upon admission, and at least three months following admission.

The Symptom Distress scale is comprised of questions from the Symptom Checklist-10 (Nguyen, Attkisson, & Stegner, 1983), and five questions from the Anxiety Scale of the Symptom Checklist -90 (Derogatis & Cleary, 1977). Each possible response is given a value from one to five, with higher scores indicating higher levels of distress from mental health symptoms. The SCL-10 has been validated against the Beck Depression Inventory (Beck & Steer, 1987) as well as the Minnesota Multiphasic Personality Inventory-II (Butcher, Dahlstrom, Graham, Tellegen, & Kraemmer, 1989), and has an internal reliability coefficient of .93 (Cronbach's alpha; Rooney, 2008).The Making Decisions Empowerment Scale (Rogers,Chamberlin, Ellison, & Crean, 1997) consists of 28 questions, with five subscales including self-esteem, powerlessness, autonomy, optimism and locus of control, and righteous anger. Each possible response is given a value from one to five, and higher scores indicate higher levels of each subscale and overall feelings of empowerment. The overall scales have a reliability coefficient of .77 (Chronbach's alpha; Rooney, 2008).The Quality of Life Scale (Greenley, Greenberg, & Brown; 1997) consists of twelve items, and includes a financial status subscale. Each possible response is given a value from one to five, and higher scores indicate more positive feelings about financial status and Quality of Life. The overall quality of life scale

has a reliability coefficient of .87 (Cronbach's alpha), and the Financial Status subscale has a reliability coefficient of .89 (Cronbach's alpha, Rooney, 2008).

Procedures

This was a correlational ex post facto study. After obtaining Institutional Review Board approval through a large Midwestern university to conduct this study, subjects were identified by the DBT therapists at the CMHC. The AOM scores used in this study were from the first administration of the AOM upon the client's admission to the CMHC, and the most recent administration at the time the data was collected. Data from the AOM were collected and entered into an electronic data file by the CMHC employees. The DBT therapists furnished the client information to the agency IT department, and the department provided the researcher with the appropriate anonymous data set. The researcher then coded this data into SPSS 19 for analysis. The data was assessed for normality, and Paired Samples T-Tests were conducted to identify any differences from the preliminary administration of the AOM and the most recent administration of the AOM. There were no known conflicts of interest in this study. The author certifies responsibility for this manuscript.

Results

Paired Samples T-Tests were conducted to evaluate differences in subjects' responses on the Adult Outcomes Measure (AOM) from their initial administration to the most recent administration. As shown in Table 1, results showed that there were significant differences between the first administration and the most recent administration for subjects on all of the scales. Subjects showed a significant increase in feelings of empowerment, quality of life, self-esteem, optimism, and financial status, while they experienced a decrease in symptom distress

and feelings of powerlessness. Unexpectedly, subjects also reported an increase in feelings of righteous anger.

Discussion

The results suggest that a DBT skills group intervention for clients diagnosed with borderline personality disorder in a community mental health center is related to positive outcomes in symptom distress, feelings of empowerment, and the client's perception of quality of life. When examined independently, the six subjects who dropped out did not show significant improvement on the independent variables; however the inclusion of these subjects did not affect the significance of the total sample when analyses were conducted. The findings in this study coincide with other published findings that showed DBT treatment was related to reduced mental health symptoms including NSSI, depression, and feelings of hopelessness (McQuillan et al., 2005). Other studies also supported the increase in quality of life, with DBT treatment related to a decrease in substance abuse and use of emergency mental health services, which indicates a positive increase in daily functioning (Holdcraft & Comtois, 2002).

Researchers did not expect the data to show that subjects reported an increase in feelings of righteous anger despite an increase in feelings of empowerment; however, another study found similar results (Yamada & Suzuki, 2007). There are four items included in the righteous anger subscale: 'Getting angry about something is often the first step toward changing it' (reverse scored), 'people have no right to get angry just because they don't like something', 'Getting angry about something never helps', and 'Making waves never gets you anywhere' (Rogers et al.,1997). These items are all related to having control over negative situations. In another study that utilized the Making Decisions Empowerment Scale, righteous anger scores were not correlated with feelings of empowerment, and those who scored higher on the

empowerment scale were more likely to attribute bad circumstances to others (Yamada & Suzuki, 2007). Similarly, in this study righteous anger and empowerment were not significantly correlated on the pre-test (r= .22, *p*= .18) or the post-test (r= .21, *p*= .21) of the AOM. This could suggest problems with the validity of the instrument. The developers of the Making Decisions Empowerment Scale provided some evidence of construct validity, including correlations with other measures and groups with known differences scoring in the expected directions (Rooney, 2008). However, there is a possibility that the questions on the righteous anger subscale are not related to the other items in the empowerment scale, as suggested by other researchers who found conflicting results (Yamada & Suzuki, 2007). Though these studies dealt with a version of the empowerment scale that had been translated into another language, this possible threat to internal validity should be examined further.

The results of this study add to the body of knowledge on this topic as these specific variables (Empowerment, Symptom Distress, and Quality of Life) have not been analyzed in conjunction with a DBT skills group implementation in a CMHC. Research suggests that DBT treatment is most beneficial when implemented with all aspects of treatment, including skills group, individual DBT therapy, and phone coaching (Robins, 2000). The positive preliminary findings in this study lend support to implementing other aspects of full DBT treatment in this CMHC. The DBT therapists who worked with the subjects in this study are dedicated to their clients and to providing DBT skills training in an effective manner. Unfortunately, like many CMHC's, they had limited resources, and this restricted their ability to fulfill all of the facets of DBT treatment, including pre-treatment orientation, individual therapy, and 24-hour phone coaching. Perhaps in this program, and programs like these, preliminary supportive data will lead to funding and resources that will help them implement these aspects. This could include

increased data collection, and measurement of other symptoms, such as NSSI and hospitalizations.

Limitations

There were many variables in this study that were not controlled for or measured. Although the researcher attempted to hold aspects of the study constant, including the location of the treatment and therapists involved in skills training, there were several variables the researcher was unable to control. One major variable is the time frame in which the data was collected, in relationship to the receipt of DBT treatment. The researcher was unable to collect the information on the specific dates that subjects completed the AOM. Therefore, it is unknown at what point these data were collected in relation to when DBT treatment was commenced. As this and many CMHC's incorporate a case management component, some clients may have been receiving maintenance services with the agency for several years before actually commencing DBT treatment. Other specific variables that may account for variability in treatment outcomes include clients' substance use, legal history, and medication compliance.

Conclusions

The data in this study suggest that participation in a DBT skills group is related to an increase in feelings of empowerment and perceived quality of life, and a decrease in distress from mental health symptoms. Some of these specific variables have not been measured in relationship to DBT treatment modalities in the past, and provide support to other studies that have found DBT to be related to positive outcomes in community mental health. DBT is a relatively new treatment, and there are several aspects of this modality that merit further examination. Future research should be focused on designing and implementing an active longitudinal study. This study could monitor a multitude of variables, including group cohesion

and therapist variables. DBT is complex, and the mechanisms of change remain unclear. This is also an aspect of DBT that merits further study. The interplay of client engagement, skills learned, and therapist strategies seem to promote positive change; nonetheless, it is unclear exactly how these mechanisms work (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). Clients report that one helpful aspect of DBT is the structure, including the specific guidelines and expectations (Arminta, 2000). Regardless, clinicians and administrators should spend time considering the needs of the setting and what aspects of treatment is feasible before making decisions regarding implementation (Koerner, Dimeff, & Swenson, 2007). One of the goals of DBT is to help the client actively use skills to build a life worth living (Linehan, 1993). With continued research on DBT in CMHC's, it is the hope of the researchers that this opportunity will be extended to clients throughout the United States and countries abroad.

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Table 1

Paired Samples T-Tests of AOM Scales

AOM Scales	Administration 1	Administration 2	*p*
	M(SD)	M (SD)	
Feelings of Empowerment	2.62(.27)	2.75(.32)	.009
Symptom Distress	44.75(11.5)	38.67(12.3)	.013
Quality of Life	2.85(.66)	3.12(.74)	.001
Self Esteem	2.46(.48)	2.63(.64)	.034
Feelings of Powerlessness	2.56(.42)	2.60(.46)	.009
Community Activism	3.06(.41)	3.25(.51)	.057
Optimism	2.54(.38)	2.77(.53)	.011
Righteous Anger	2.64(.42)	2.69(.59)	.011
Financial Status	2.14(1.22)	2.22(1.13)	.003

N=43