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The Effects of a DBT Informed Partial Hospital Program on: Depression, Anxiety, Hopelessness, and Degree of Suffering

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Abstract

Objective: Mental health programs are increasingly being asked to evaluate the effectiveness of the treatment they provide. This study looks to examine the efficacy of a Dialectical Behavioral Therapy (DBT) informed Partial Hospital (PH) program on different clinical symptoms.

Method: This study examines a Quality Improvement study that was conducted at a DBT informed PH program in the Southeast Region of the United States. This article presents the results of one program's attempt to assess treatment outcomes of clients for depression, anxiety, hopelessness and perceived degrees of suffering. Participants (N=38, ages 19-67 (M=37), 29 females and 9 males) were evaluated for medical necessity at admission and at discharge.

Results: Paired t-test results show that a DBT informed PH program did significantly reduce depression, anxiety, hopelessness, and perceived degrees of suffering in a clinical population from time of intake to discharge.

Conclusion: This article outlines the procedure that was used for assessment and uses the results to show that a DBT informed PH Program may help in reducing depression, anxiety, hopelessness and degrees of suffering from time of admission to discharge.

Keywords: Dialectical behavioral therapy; Partial hospital program

Introduction

Partial Hospital (PH) programs are outpatient programs that are designed to assist with continued stabilization of clients in newly established and fragile states after a brief inpatient stay, or as an alternative to inpatient hospitalization. As such, it is expected that attending a PH program will reduce the potential for inpatient hospitalizations. PH programs are utilized to transfer patients from an inpatient hospital setting to an outpatient treatment facility, typically using group therapy to teach psychosocial skills to individuals [1]. Individuals in PH programs may have severe mood and anxiety disorders as well as comorbid personality disorders. Individuals with these particular disorders often experience suicidal ideation, which has been poorly treated in the past [2]. In order to serve these individuals, PH programs use intensive group therapy (usually 4 to 5 hours a day) combined with individual psychotherapy and psychopharmacological treatment.

Recently an increasing number of PH programs have been required to measure treatment effectiveness and client outcomes [3,4]. For instance, Bateman and Fonagy [5] found that eight years after initial treatment in a PH program 14% of the clients with BPD still met the diagnostic criteria for BPD compared to 87% of the participants that were in a comparison outpatient treatment group. Individuals who complete long-term (several months to 18 months) PH programs tend to have enduring functional improvements and use less inpatient services than those who seek other treatment or none [6]. DBT was originally developed as a 1-year outpatient psychosocial treatment for individuals with borderline personality disorder [7,8], but has since been used to treat a wide variety of disorders [9] over different periods of time. However, very little research has assessed short-term (several days to a month) PH program outcome data as well as different types of PH programs [10]. The present study attempts to address these issues by examining outcome data for individuals who average a shorter length of stay with a Dialectical Behavioral Therapy (DBT) [11] informed PH program.

Research confirms DBT can be an effective treatment modality for outpatient programs, specifically for individuals with BPD [1]. For example, McQuillan et al. [12] found individuals enrolled in three weeks of DBT group therapy and weekly individual sessions in an outpatient setting had significantly lower depression and hopelessness ratings on the Beck Depression Inventory (BDI) and Beck Hopelessness Scale (BHS), respectively. In addition, Simpson et al. [8] assessed DBT in a PH setting among women with BPD and comorbid anxiety, substance abuse, eating, depression, and trauma-related disorders. The PH program offered intensive DBT groups as well as individual therapy. This program was operational for two years at the time of study and it provided promising anecdotal evidence that DBT could be modified and used in PH settings for a more diverse group of individuals. However, clearly more research is necessary to look at specific outcome measures of DBT informed PH programs and there use among both males and females. Perhaps evaluating outcome measures such as depression and anxiety will allow clinicians to better understand how implementing DBT into a PH program can be beneficial.

Few studies have assessed specific outcome data including depression scores among individuals enrolled in PH programs. However, Drymalski and Washburn [13] examined outcome data among patients in a PH setting; including what Tang and DeRubeis [14] termed sudden gains (SGs), a substantial decrease in depressive symptoms between one session and the next in PH programs. Results indicated SGs were present in approximately 40% of the sample, with 78% of them occurring in the first two weeks of treatment. Further, individuals who experienced an SG had significantly better outcomes than those that did not in terms of depression and quality of life scores. In general, there is a scarce amount of research looking at other types of specific outcome data for individuals enrolled in PH programs, specifically looking at outcomes after short periods of treatment with DBT informed programs.

As PH program outcome studies become increasingly ubiquitous, researchers are posed with a particularly challenging question: what specific outcomes should be assessed? Recently, there has been controversy as to the most preeminent measures to use and how to evaluate client outcome data in PH programs [15]. Granello et al. [15] offer a variety of factors that should be considered when evaluating treatment effectiveness in PH programs, including, the study design, setting, participants, and instruments. Specifically, they suggest that quasi-experimental designs can be very effective in assessing client outcomes, especially in PH programs with individuals experiencing mood and personality disorders.

There is a clear need for assessment of outcome data in PH programs, specifically those that are DBT informed. Although a number of studies have examined depression scores for PH programs more research is necessary to assess other outcome data including anxiety, hopelessness, and degree of suffering. The aim of the present study is to measure levels of reported depression, anxiety, hopelessness and self-reported degree of suffering at intake and discharge to assess the effectiveness of a DBT informed PH Program in the Southeast Region of the United States. Typical DBT programs are a one year process; however we attempt to address Ritschel, Cheavens and Nelson's [10] concerns that DBT informed programs for short durations have not been extensively researched by examining clients who averaged 29 days in a DBT informed PH program.

The PH program assessed for this study is an intensive outpatient day treatment option for adults with acute mental illness. PH program clients meet 5 days a week for 4 hours per day. The curriculum for this program is based on Marsha Linehan's DBT [16]. Treatment includes skills training in mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness, as well as process groups, individual therapy, 24-hour coaching phone consultations, DBT team meetings, medication management, and psychiatric care. Therapists included master's level licensed clinicians who were eligible for a master's level licensure. All individuals running groups had extensively studied DBT before teaching groups. All group instructors and individual therapists also attended a DBT team meeting once a week to ensure they were staying true to the fidelity of the model of DBT. While clients were in program they were offered individual therapy once a week by one of the DBT trained therapists who also taught group.

This study was exploratory in nature and asked the following questions:

Is there a difference in depression ratings from time of intake to time of discharge?

Is there a difference in anxiety ratings from time of intake to time of discharge?

Is there a difference in hopelessness ratings from time of intake to time of discharge?

Is there a difference in self-reported degrees of suffering from time of intake to time of discharge?

Method

Participants

Participants consisted of a sample of 38 clients, ages 19-67 (M=37, SD=12), 29 females and 9 males, after 5 participants were excluded from analysis due to missing data points (e.g. BDI forms were not completely filled out by client) (Table 1).

Female	29 (76%)
Male	9 (24%)
Caucasian	28 (74%)
African American	8 (21%)
Other	2 (5%)

Table 1: Demographics

All enrolled in a PH program in the Southeast Region of the United States. Client's length of stay ranged from eight to 73 program days (4 hours per day), with an average of 29 days. Twenty-six participants (68%) attended less than 30 program days, and 12 participants (32%) attended 30 days or more of program. Clients did not receive compensation for participation. Of the 38 participants included in this study a total of 15 (39%) had a single diagnosis. 53% of these individual had a diagnosis of depression. Twenty three (61%) of the participants were given a co-morbid diagnosis; the two most common being depression with PTSD (N=11) and Major Depression with GAD (N=6). Table 2 shows the demographic information of the most prominent dual diagnoses for the sample.

	#
1) Major Depression	23
2) PTSD:	11
2) Bipolar:	11
4) GAD:	8

Table 2: Most Common Diagnosis Overall

Materials

The Beck Depression Inventory two (BDI-II), a 21-item questionnaire (ranging from 0-63) was used to assess client's self-report intensity of depression at intake and discharge. Studies have established validity and reliability for the use of the BDI in general adult populations [17], as well as psychiatric populations [18,19]. The Burns Anxiety Inventory (BAI) [20] is a 33-item self-report inventory (ranging from 0-99) and was used to assess self-report intensity of anxiety. The BHS is a 20-item self-report inventory (ranging from

0-20) assessing three major aspects of hopelessness: feelings about the future, loss of motivation, and expectations. The BHS was used to assess self-report levels of hopelessness at intake and discharge. Validity and reliability has been well established for this scale [21,22]. Self-report degree of suffering scores were collected on a Likert Scale ranging from zero (no suffering at all) to 10 (worst suffering ever) at intake and discharge.

Procedure

All clients that came into the PH program were asked to fill out the BDI, BAI, BHS and report their degree of suffering at intake. These assessments were conducted at time of intake to assess for medical necessity into the PH program. If clients did not meet medical necessity they were referred to an individual therapist or other more appropriate resources in the community. Information on referrals was not collected.

The data on depression, anxiety, hopelessness and degree of suffering was collected at intake and at time of discharge for the assessment of medical necessity and to see any discrepancies in scores. These assessments were not pre- post- for the purpose of study. The researchers examined this information as an exploratory study approved by the IRB at the University of North Carolina Wilmington, and all participants were given an informed consent to participate in the program. The assessments were not part of the research design, which is the reason for no collection of referral data for the clients that did not meet medical necessity.

Data Analysis

We used a paired t-test pre and post-survey design as well as an ANCOVA to test the effect of length of stay on treatment outcomes. The current study is a small scale pilot study with the intent to collect data and ensure that we are instituting a manageable system to collect information. We also hope to establish baselines in order to determine treatment outcome standards.

Results

The mean score for depression at intake was 34 (range 7-55) and at discharge 19 (range 0-49). A paired t-test analysis showed a significant difference in these scores from time of intake to discharge ($t=7.078$, $df=37$, $p<0.0001$). The mean score for anxiety at intake was 52 (range 10-88) and at discharge 31 (range 2-76). A paired t-test showed that these scores were significantly different from time of intake to discharge ($t=5.275$, $df=37$, $p<0.0001$). The mean score for hopelessness at intake was 11 (range 2-20) and at discharge 5 (range 0-20). A paired t-test showed that these scores were significantly different from time of intake to discharge ($t=6.477$, $df=37$, $p<0.0001$). The mean score for degrees of suffering at intake was 7 (range 2-9) and at discharge 4 (range 0-9). A paired t-test showed that these scores were significantly different from time of intake to discharge ($t=6.825$, $df=37$, $p<0.0001$). All scores showed a significant decrease in depression, anxiety, hopelessness and self-reported degrees of suffering from intake to discharge (Figure 1).

An ANCOVA for time in treatment did not show a significance effect for anxiety, hopelessness and degrees of suffering. ANCOVA for depression did show a significant interaction effect for time in treatment and reduction in scores of depression ($F(1,36)=4.319$, $p<0.0449$).

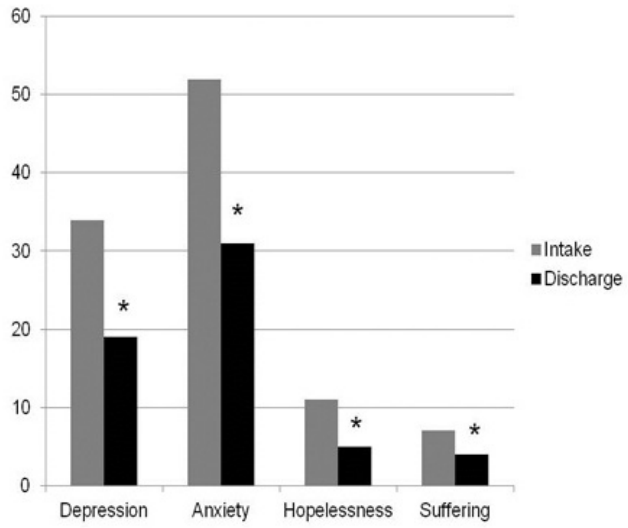

Figure 1: Pre (Intake)/Post (Discharge) results for Depression, Anxiety, Hopelessness and Degrees of Suffering. A paired t-test analysis showed a significant difference in these scores for depression ($t=7.078$, $df=37$, $p<0.0001$), anxiety ($t=5.275$, $df=37$, $p<0.0001$), hopelessness ($t=6.825$, $df=37$, $p<0.0001$), and suffering ($t=6.825$, $df=37$, $p<0.0001$) from time of intake to time of discharge. Error bars represent 95% confidence intervals.

Discussion

The purpose of the current study was to assess the efficacy of a DBT informed PH program on depression, anxiety, hopelessness and degree of suffering. Overall, preliminary data suggest that a DBT informed PH program is effective in reducing depression, anxiety, hopelessness and client's levels of suffering from time of intake to discharge. Even with ANCOVA showing a relationship between length of stay and depression, this study does show promising evidence that overall, a short duration of treatment (M=29 days) in a DBT informed program may be beneficial in reducing anxiety, hopelessness, degrees of suffering and depression. It is important to note that significant changes in depression, anxiety, hopelessness and degrees of suffering may play a pivotal role in reducing risk for suicide [23]. Clients were not matched to a wait list control group due to the severity of risk level at time of referral. It might be useful for future studies to look at comparing DBT informed PH programs to other treatment informed PH programs.

With typical antidepressant response time being 4-6 weeks [24] we would expect a significant interaction between time and depression scores. However, since DBT embraces a non-judgmental and accepting environment, we would also expect to see hopelessness and degrees of suffering to reduce rather quickly once patients started the program. Also, DBT has an array of skills that are taught that can be used for anxiety reduction; Mindfulness, Distress Tolerance and Emotion Regulation skills all have hands on applications that patients can practice in group and/or with their individual therapist employing some systematic desensitization that should also show a relatively quick decline in anxiety scores, therefore, not showing an interaction effect for anxiety, hopelessness and degrees of suffering.

Other factors that contribute to the effectiveness of PH programs should be incorporated and examined. For example, adding pre/post measures of pathology and examining any demographic variables that may affect the success of treatment. Follow up studies (i.e. 3 months post discharge, 6 months post discharge and/or 12 months post discharge) are recommended for future studies to see if depression, anxiety, hopelessness, and degrees of suffering are still below intake level. It may be useful to evaluate variable durations of stay in order to see if total number of PH program days is related to outcome measures. In addition, follow up studies need to assess if clients have returned to inpatient facilities or not.

The authors feel that the examination of PH programs are important due to these types of programs often being a transitional phase for clients between inpatient care and individual therapy, or from inpatient facilities back into the community. It is important for future studies to examine follow up data after discharge from PH programs. The results of this study suggest a DBT informed PH program does help reduce depression, anxiety, hopelessness and degrees of suffering from intake to discharge. The results suggest that PH programs may be useful in transitioning clients from inpatient facilities back into the community or as a valuable resource for referral before having clients committed to an inpatient facility. However, further studies like this one need to be conducted to assure that PH programs do have efficacy in treating psychopathology.

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