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A Pragmatic Randomised Controlled Trial of Dialectical Behaviour Therapy: Effects on Hospitalisation and Post-Treatment Follow-Up

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In 2012 in this journal we published the results of a pragmatic randomised controlled trial (RCT) of dialectical behaviour therapy (DBT) versus treatment as usual (TAU) in the United Kingdom National Health Service for patients with borderline personality disorder (BPD) and frequent self-harm [1]. This was a sample of 80 patients, 40 allocated to DBT and 40 to TAU. In this publication we reported on the primary outcome, self-harm, and showed that patients in the DBT condition achieved a significantly greater reduction in self-harm frequency over time than patients in the TAU condition. We report here the effect of DBT compared to TAU on inpatient service use, and a follow-up 6 months after the end of treatment. The sample and treatment characteristics are reported in full in the original RCT publication [1].

Data on psychiatric hospitalisation were collected by interviewing patients at two monthly intervals using the Client Service Receipt Inventory [2], which was then triangulated with data from electronic patient records. Figure 1 shows the percentage of patients admitted to hospital in each condition in the year before and the year during treatment. In the year prior to treatment, 24 patients had been hospitalised with the number of inpatient days ranging from 0 to 365 (mean 20.5, SD 63.1). The number of inpatient days in the year prior to treatment did not differ between conditions. During the 12-month intervention period, 2 patients allocated to DBT and 11 allocated to TAU were hospitalised. For the 2 patients hospitalised in the DBT condition, 1 was hospitalised following dropping out of DBT, whilst the other was a long-term inpatient when beginning DBT, and remained so for the first 3 months of treatment. A logistic regression showed that the odds of hospitalisation during the intervention period were significantly higher in patients allocated to the TAU condition (odds ratio 4.68, 95% CI 1.20–18.3, $p = 0.03$). This difference remained significant after adjusting for whether patients had been hospitalised in the year prior to treatment (adjusted odds ratio 10.77, 95% CI 1.96–59.2, $p < 0.01$). The total number of inpatient days per person over the year was lower in the DBT condition (mean 4.0 days, SD 20.0) than in the TAU condition (mean 8.4 days, SD 17.6), but a negative binomial regression showed that this was not a statistically significant difference (incidence rate ratio 2.06, 95% CI 0.21–20.5,

$p = 0.54$). However, removing the hospitalisation days for the patient who began treatment as a long-term inpatient, the difference was statistically significant (incidence rate ratio 9.08, 95% CI 1.01–81.6, $p = 0.05$).

Six-month post-intervention follow-up data was obtained for 14 of the 19 patients allocated to DBT who completed the full 12 months of treatment. A standardised self-harm interview was used to assess self-harm frequency during the follow-up period. The mean number of days with self-harm in the last 2 months of treatment for DBT completers was 1.79 (SD 3.68) whilst the mean number of days with self-harm during the 6 months after treatment was 1 (SD 1.80), i.e. a rate of 0.33 days per 2-month period. A Wilcoxon signed-rank test showed that this was not a significant difference ($z = 1.42$, $p = 0.16$). No DBT completers had any inpatient hospitalisations during the 6-month follow-up period. For treatment dropouts, the rate of follow-up was too low (8 of 21 participants) to render statistical comparison valid.

Our findings on hospitalisation concur with international RCTs that have shown DBT can reduce hospitalisation [3, 4], but are in contrast with another UK RCT which found hospitalisation days did not differ between DBT and TAU [5]. Treatments which reduce the use of inpatient resources are particularly important, given that patients with BPD have been found in several studies to make greater use of inpatient psychiatric services than patients with other personality disorders [6] and than patients with major depressive disorder [7]. The high healthcare costs (and presumably patient distress) resulting from such frequent hospitalisation render the implementation of interventions that can reduce hospitalisation an important priority for this patient group.

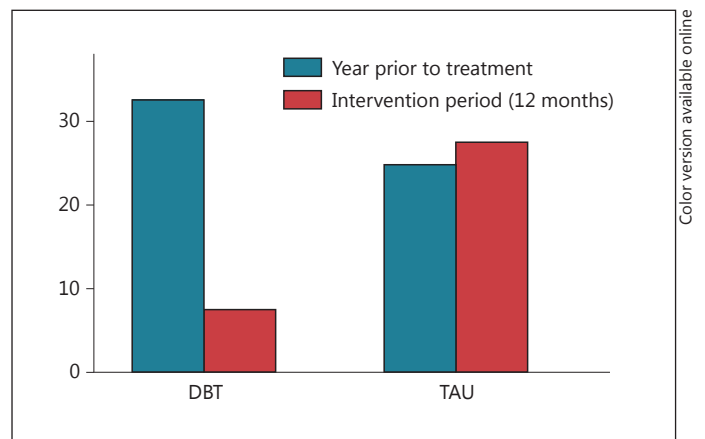


Fig. 1. Percentage of patients hospitalized in each condition.

We showed that patients completing DBT did not experience an increase in self-harming behaviour once discharged from treatment. In fact, self-harm on average continued to decrease following treatment, although this decrease was not statistically significant. This occurred despite their high initial rate of self-harm (mean 23 days per 2-month period, SD 26.0). Thus self-harm was initially a major problem for these patients, yet they did not regress once treatment finished. This is significant given that discharge from DBT entails a large reduction in support and therapeutic time. In addition, therapeutic endings are known to sometimes be distressing and problematic for patients with BPD [8]. The findings concur with other post-intervention follow-ups of patients receiving DBT [4, 9, 10].

The findings presented here indicate that DBT should be considered an effective intervention for keeping self-harming patients with BPD out of hospital, and that positive effects on self-harm and hospitalisation are sustained once treatment is over. Limitations included the poor follow-up rate amongst treatment dropouts, and the impossibility of making a comparison with follow-up data from those allocated to the TAU condition, since once the initial 12-month study period was over, patients allocated to TAU began a course of DBT. In addition, it may have been challenging for patients to recall accurately all episodes of self-harm over the 6-month post-intervention follow-up period. Future research on DBT should include a longer post-treatment follow-up period and should direct more resources towards following up treatment dropouts.

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Disclosure Statement

The authors have no conflicts of interest to disclose.

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