

Evaluation of Fraser Health's Adapted Dialectical Behaviour Therapy Program

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Introduction

Borderline Personality Disorder (BPD) has high rates of self-harm, emergency service use and hospitalization [1]. Standard Dialectical behavioral therapy (DBT) is recognized as effective evidence-based treatment for BPD [2] and consists of 4 modalities: individual therapy, skills group, on-demand phone coaching, and team consultation for therapists [3]. Resource intensive nature of standard DBT renders it a challenge to offer [4]. Fraser Health (FH) implemented an adapted DBT program that consists of skills group for all eligible patients, with case management and other DBT modalities as possible for patients with more severe or complex symptoms. We conducted a quality improvement project to evaluate effects of the adapted program on acute service use, defined as psychiatric and non-psychiatric emergency (ED) visits and inpatient (IPU) days.

Methods

We requested patient lists from all 12 FH sites offering the adapted DBT program. Patients that started DBT skills group between 2013 and 2020 were included. We reviewed patient charts one year before skills group start (baseline) and one year after for:

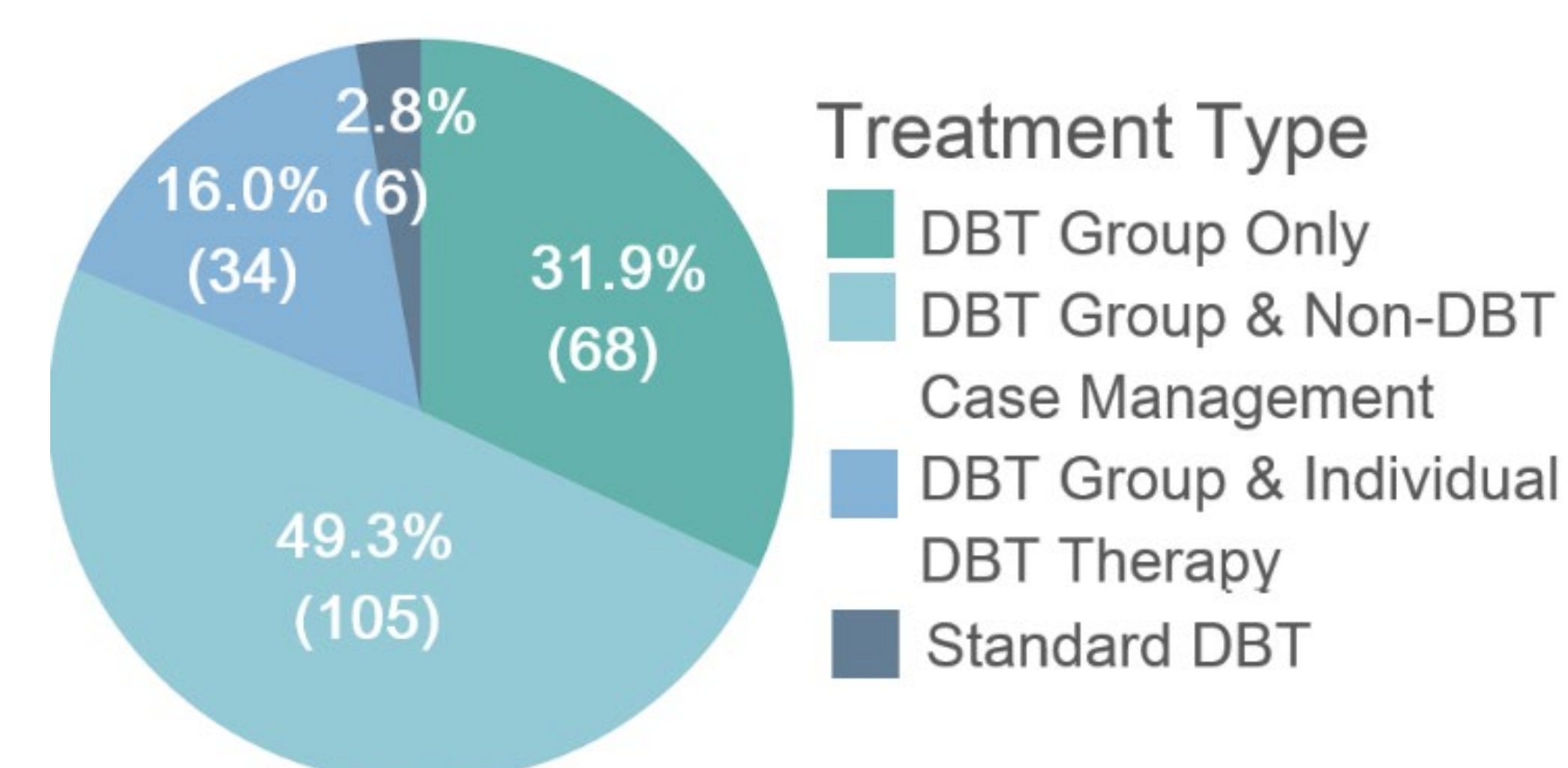
- Additional treatment types patients received, to describe the extent of program adaptations;
- Number of psychiatric and non-psychiatric ED visits and IPU for each patient, to determine changes in acute service use.

We used McNemar's and Wilcoxon signed-rank tests to evaluate whether there were significant changes in proportions of patients with 0 ED visits and 0 IPU days before compared with after group skills start.

Results

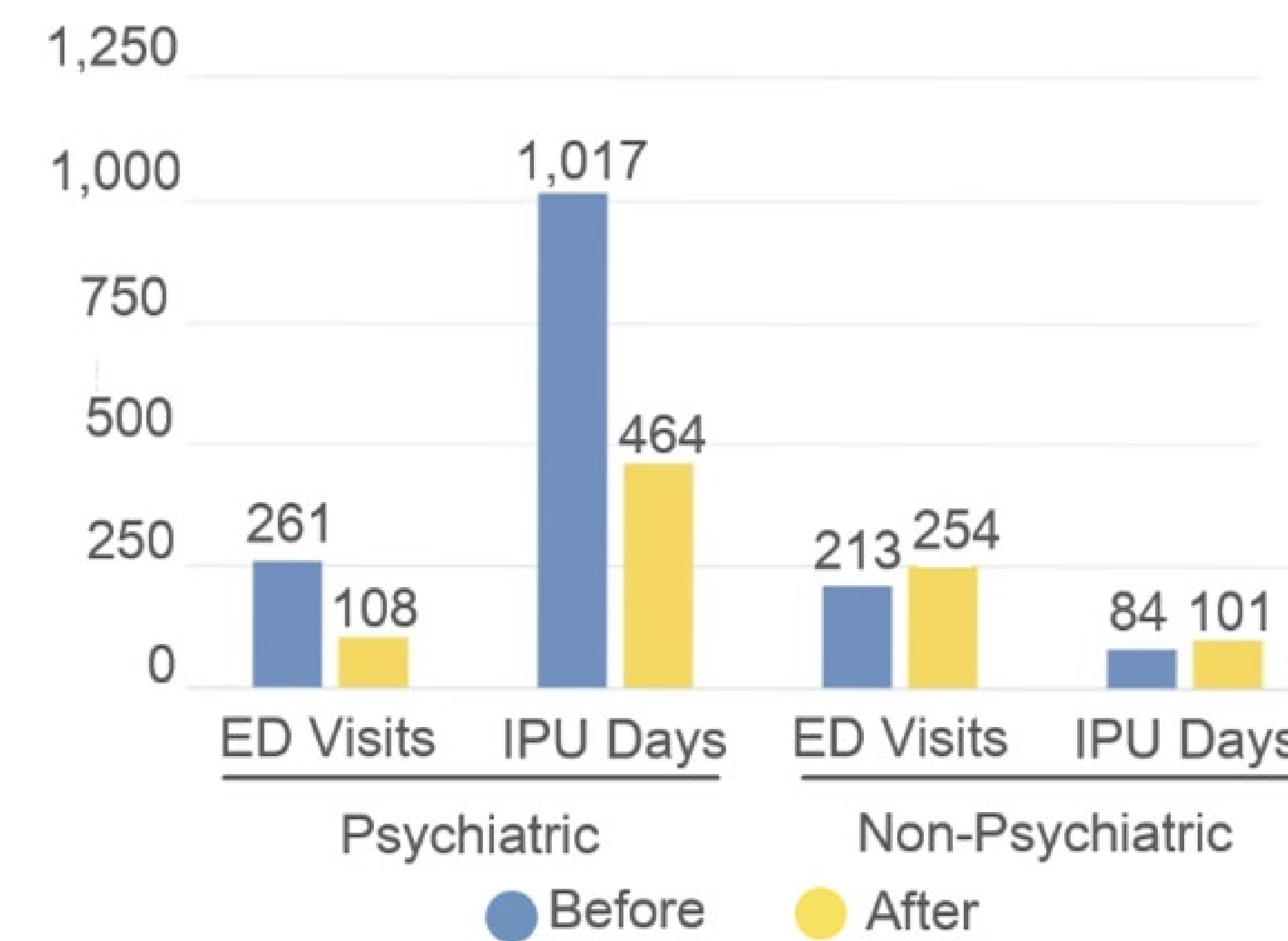
We received patient lists from 5 of 12 sites yielding 323 records. After excluding duplicate records, individuals who started group less than 1 year before start of data collection and 1 death (unknown cause) less than 1 year after group start, we were left with 214 participants. Participants had a mean age of 35.1, and 80.8% were female. Majority (65%) completed treatment. Figure 1 shows types of treatments that participants received.

Figure 1. Treatment Types



Psychiatric ED visits and IPU days decreased by 58.6% and 54.4% respectively after treatment start. Non-psychiatric ED visits and IPU days increased by 19.2% and 20.2% respectively. In total, there were 153 fewer ED visits and 553 fewer IPU days in the year after group skills start compared to year before.

Figure 2. Acute Service Use Before and After Treatment Start



McNemar's tests determined changes were statistically significant for psychiatric ED visits ($p < 0.001$) and psychiatric IPU days ($p = 0.002$). Differences for non-psychiatric ED visits and IPU days were not statistically significant ($p = 0.457$ and $p > 0.999$ respectively). Wilcoxon signed-rank tests also showed that the decreases in psychiatric ED visits ($Z = -5.051$, $p < 0.001$) and IPU days ($Z = -3.295$, $p = 0.001$) were significant, whereas the increases in non-psychiatric ED visits ($Z = -0.105$, $p = 0.917$) and IPU days were not significant ($Z = -0.443$, $p = 0.657$).

Discussion

Our results demonstrate that an adapted DBT program where most patients receive skills group as primary intervention is effective for reducing acute service use. Our findings are in line with current research. Several RCTs show that DBT skills group reduces healthcare utilization by decreasing self-injurious and suicidal behaviors [5-7].

These reductions in service use translate into significant savings. Assuming a conservative \$1,500 per ED visit or IPU day, 153 fewer ED visits and 553 fewer IPU days translate into \$1,059,000 saved [8].

Our study has several limitations. Only 5 of 12 sites generated patient lists, potentially excluding many eligible participants. Sites that responded may be more invested in DBT. Another confounding variable is that patients were not randomly assigned to treatment types. Patient severity and readiness, as well as differences between sites in treatment availability all played a role.

Conclusions

Our findings may be relevant to limited resource settings wishing to increase accessibility of DBT.

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