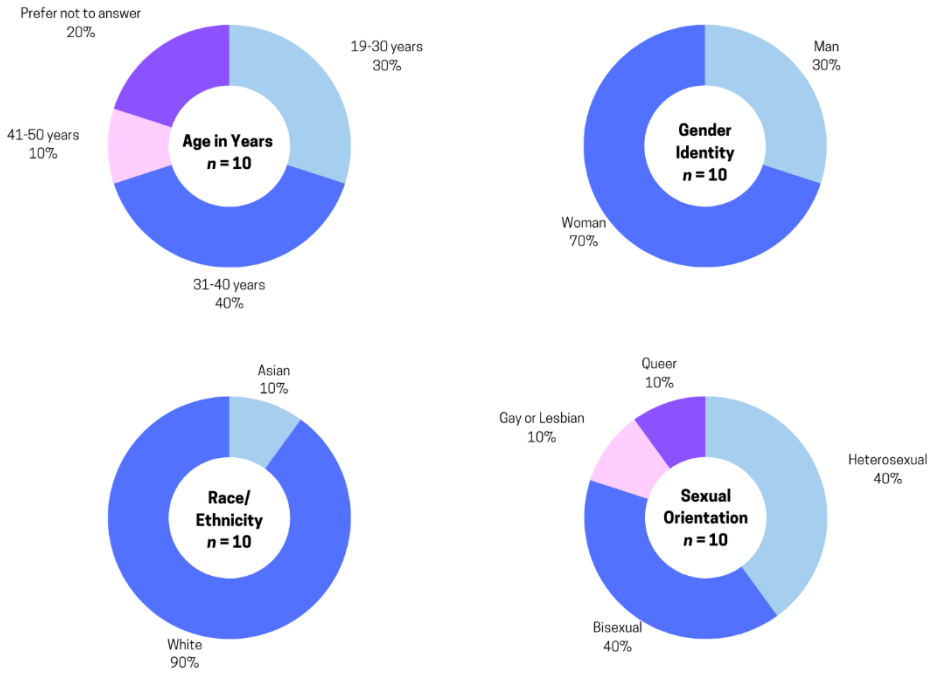
BPD Society of British Columbia: DBT Skills Group Outcome Assessment

We evaluated the efficacy of a 24-week, accessible, virtual *Dialectical Behavior Therapy* (DBT) skills training group for adults with borderline personality disorder (BPD) living in British Columbia, Canada. The program took place from January to June 2023. A total of 10 adults who either: 1) self-identified as having BPD; or 2) were diagnosed with BPD by a mental health professional, enrolled in the program. All participants met the clinical cut-off for BPD on the *McLean Screening Instrument for BPD* (MSI-BPD). Participants completed self-report surveys shortly before, midway through, and shortly after the program. A complete description of the self-report surveys is in APPENDIX A.

Participant Characteristics



Outcome Results[1]

- Participants experienced gains in <u>all</u> outcomes assessed.
- <u>Large effects</u> (Hedges' $g \geq |0.80|$) were found from pre- and post-intervention for BPD symptoms, emotion regulation difficulties, depression, impact of depression, anxiety, impact of anxiety, suicidality, quality of life, perceived personal state, and number of visits to medical doctor(s).
- <u>A medium effect</u> (Hedges' $g \geq |0.50|$) was found for perceived health, and <u>small effects</u> (Hedges' $g \geq |0.20|$) were found for reasons for living and number of medications.
- There was a reduction in emergency service use over the course of the program, with eight instances of emergency service use pre-intervention and zero instances at post-intervention.
- <u>All</u> participants decreased at least one risk category for anxiety (100%), and <u>almost all</u> participants decreased at least one risk category for depression (88%) and BPD symptoms (88%). Of the nine participants who were "at-risk" for suicide pre-intervention, four (44%) scored in the "no risk" range post-intervention.
- <u>All</u> participants reported fewer emotion regulation difficulties (100%), and <u>most</u> participants reported more reasons for living (75%), increased quality of life (75%), increases in perceived health (63%), and increases in their perceived personal state (86%) from pre- to post-intervention.
- The program had a high retention rate of 90% (n = 9/10 participants).

[1]Given the small sample size (N = 10), traditional statistical tests (e.g., analysis of variance [ANOVA], multilevel modeling) would yield unreliable p-values and standard errors. Thus, we calculated Hedges g' effect sizes to highlight how the group mean of each outcome changed during the program.

Figure 1. Group Mean Scores of Each Outcome Pre-, Mid-, and Post-Intervention

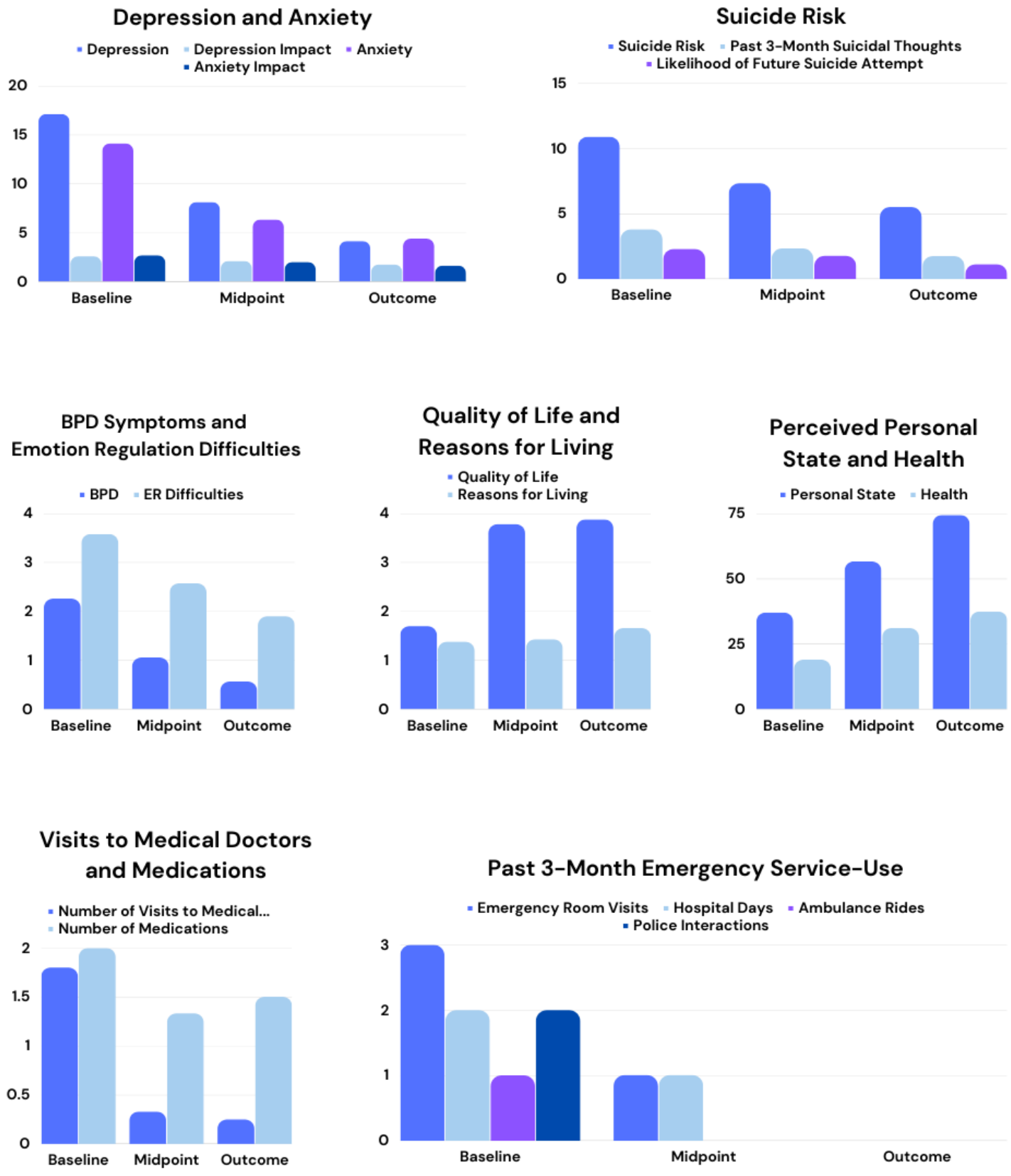
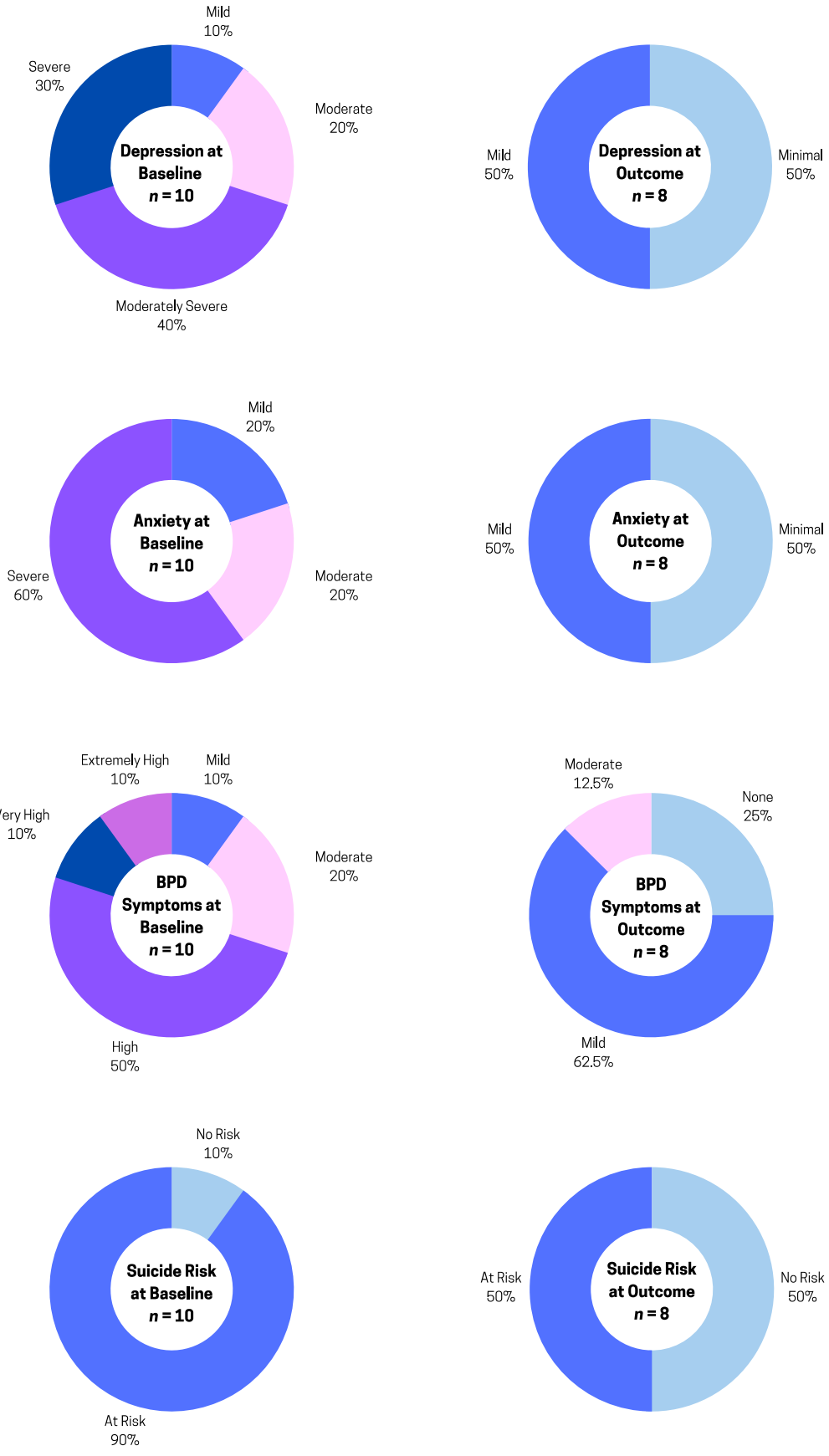


Figure 2. Percentage of Participants Per Risk Category Pre- and Post-Intervention[2]



[2]Risk categories were defined according to the instructions provided with each self-report measure.

Table 1. Descriptive Statistics of Each Outcome Pre-, Mid-, and Post-Intervention

		Pre-Intervention (n = 10)		Mid-Intervention (n = 9)		Post-Intervention (n = 8)	
	Min/Max of Scale	*M*	*SD*	*M*	*SD*	*M*	*SD*
BPD Symptoms	0, 4	2.26	0.78	1.06	0.73	0.57	0.33
Emotion Regulation Difficulties	0, 90	63.90	11.83	46.11	11.53	34.13	9.14
Depression	0, 27	17.10	5.61	8.11	2.71	4.13	2.03
Impact of Depression	1, 4	2.60	0.70	2.11	0.60	1.75	0.71
Anxiety	0, 21	14.10	3.76	6.33	4.03	4.38	1.92
Impact of Anxiety	1, 4	2.70	0.82	2.00	1.00	1.63	0.74
Suicidality	3, 18	10.90	3.21	7.33	2.87	5.50	2.14
Reasons for Living	0, 36	16.60	5.15	16.78	5.52	18.88	4.79
Quality of Life	0, 4	1.70	0.95	3.78	0.83	3.88	0.99
Perceived Personal State	0, 100	38.0	19.45	56.67	21.61	74.43	14.80
Perceived Health	0, 4	1.90	1.29	3.11	1.05	3.75	0.71
Number of Visits to Medical Doctor(s) in 3 months	0, NA	1.80	1.47	0.33	0.47	0.25	0.43
Current Number of Medications	0, NA	2.00	1.41	1.44	1.42	1.50	1.58

Note. M = mean; *SD* = standard deviation.

Table 2. Percentage of Participants Who Accessed Emergency Services Pre-, Mid-, and Post-Intervention

	Pre-Intervention (n = 10)	Mid-Intervention (n = 9)	Post-Intervention (n = 8)
Emergency Room Visits(s) in the Past 3 Months (*n, %*	3(30)	1(11)	0(0)
Hospital Day(s) in the Past 3 Months (*n*, %)	2(20)	1(11)	0(0)
Ambulance Ride(s) in the Past 3 Months (*n*, %)	1(10)	0(0)	0(0)
Police Interaction(s) in the past 3 months (n, %)	2(20)	0(0)	0(0)

Table 3. Hedges' g Effect Sizes for Each Outcome

	Pre- to Mid-Intervention	Mid- to Post-Intervention	Pre- to Post-Intervention
BPD Symptoms	-1.59	-0.85	-2.71
Emotion Regulation Difficulties	-1.52	-1.14	-2.77
Depression	-2.00	-1.65	-2.94
Impact of Depression	-0.75	-0.55	-1.21
Anxiety	-2.00	-0.61	-3.14
Impact of Anxiety	-0.77	-0.75	-1.37
Suicidality	-1.17	-0.72	-1.93
Reasons for Living	0.03	0.40	0.46
Quality of Life	2.32	0.11	2.25
Perceived Personal State	0.91	0.95	2.07
Perceived Health	0.18	0.71	0.79
Number of Visits to Medical Doctor(s)	-1.32	-0.18	-1.36
Number of Medications	-0.40	0.04	-0.34

Note. Small effect size = 0.2; medium effect size = 0.5; large effect size = 0.8.

Conclusions and Future Directions

These results show promising evidence that a virtual, 24-week DBT skills training program can lead to significant gains in clinically relevant outcomes for adults with BPD. Given that this program was virtual and low-cost, it has the potential to significantly increase access to DBT in British Columbia, particularly among rural/remote communities and individuals of varying socioeconomic backgrounds. Moreover, these results suggest that the DBT skills training program can be effectively delivered over 24 weeks, which has important implications for treatment efficiency. Accordingly, it is important for future research to compare the efficacy of a 24-week versus 48-week DBT skills training program. At the same time, there are important limitations of the analyses that warrant consideration. Notably, the effect size estimates were calculated at the group-level, and as such, may not generalize to individual participants. For example, large effect sizes may result from large changes in a select few individuals, despite other individuals showing no changes. Future evaluations could address this limitation by having a larger number of participants (e.g., 50) complete the DBT skills training program and then performing multilevel modeling to disaggregate between- and within-person effects.

APPENDIX A: Self-Report Measures

Depression and **Depression Impact** were measured using the *Patient Health Questionnaire* (PHQ-9). This self-report measure includes nine items that measure the severity of depressive symptoms experienced in the last two weeks, with one additional item measuring the subjective impairment associated with these symptoms in daily life (Kroenke et al., 2001).

Anxiety and **Anxiety Impact** were measured using the *General Anxiety Disorder* (GAD-7) scale. This self-report measure includes seven items that measure the severity of anxious symptoms experienced in the last two weeks, with one additional item measuring the subjective impairment associated with these symptoms in daily life (Spitzer et al., 2006).

Suicidality was scored using the *Suicide Behaviors Questionnaire-Revised* (SBQ-R), a four-item self-report measure. This questionnaire assesses four dimensions of suicide risk: History of suicide attempts, history of suicidal thoughts, disclosing suicidal intent, and likelihood of future suicide attempts (Osman et al., 2001).

BPD Symptoms were measured using the *Short Version of the Borderline Symptom List* (BSL-23), a 23-item self-report measure that assesses the number and intensity of BPD symptoms in the last week (Bohus et al., 2009).

Emotion Regulation Difficulties were measured using the *Brief Version of the Difficulties in Emotion Regulation Scale* (DERS-18), an 18-item self-report measure that assesses abilities related to understanding and managing unpleasant emotions (Victor & Klonsky, 2016).

Reasons for Living were measured using the *Brief Reasons for Living Inventory* (BRFL), a self-report measure that assesses the importance of 12 different reasons to not attempt suicide (Ivanoff et al., 1994).

Quality of Life was measured by a single item, where participants scored their overall quality of life from 1 (“Very Poor”) to 5 (“Very Good”).

Perceived Personal State was measured by a single item, where participants rated their overall state in the last week from 0 (“Absolutely down”) to 100 (“Excellent”).

Perceived Health was measured by asking participants how satisfied they are with their health, ranging from 1 (“Very Dissatisfied”) to 5 (“Very Satisfied”).

References

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