"Quality or quantity? A multi-study analysis of emotion regulation skills deficits associated with Borderline Personality Disorder"

Table S1.
Means, standard deviations, and group comparison statistics of psychopathology, emotion regulation skill frequency, and emotion regulation quality measures.

Variable	HC M (SD)	MDD M (SD)	BPD M (SD)	BPD+MDD M (SD)	F	df	p
Study 1	(n = 149)	(n = 54)	(n = 30)	(n = 39)			
PAI-BOR	16.84 (10.03)a	29.50 (6.89)b	44.83 (5.48)c	47.62 (6.81)c	186.54	3, 268	< .01
PHQ-9	3.32 (3.60)a	16.11 (2.96)b	10.50 (3.89)c	18.15 (4.02)d	282.38	3, 268	< .01
DSS	1.66 (0.58)a	1.55 (0.52)a,b	1.43 (0.55)b	1.41 (0.60)b	2.93	3, 268	.03
DCS	1.07 (0.57)a	1.69 (0.40)b	1.75 (0.55)b,c	1.99 (0.41)c	48.40	3, 268	< .01
WOR	3.72 (0.81)a	3.26 (0.67)b	3.09 (0.89)b,c	2.87 (0.82)c	15.66	3, 268	< .01
Study 2	(n = 30)	(n = 30)	(n = 18)	(n = 12)			
PAI-BOR	14.10 (8.15)a	31.67 (7.94)b	43.39 (9.49)c	48.25 (5.33)c	76.22	3, 86	< .01
PHQ-9	2.43 (3.68)a	15.87 (5.40)b	11.11 (5.08)c	15.58 (2.71)b	51.09	3, 86	< .01
DSS	2.09 (0.43)a	1.67 (0.46)b	1.80 (.61)b	1.76 (.39)b	4.09	3, 86	< .01
DCS	1.06 (0.55)a	1.84 (0.32)b	1.89 (.61)b	1.97 (.33)b	20.42	3, 86	< .01
WOR	3.97 (0.82)a	3.16 (0.95)b	2.80 (1.07)b	3.13 (.81)b	7.34	3, 86	< .01

Note. HC = Healthy controls. MDD = Major Depressive Disorder. BPD = Borderline Personality Disorder. PAI-BOR = Personality Assessment Inventory – Borderline subscale. PHQ-9 = Patient Health Questionnaire – 9. DSS = DBT-WCCL DBT Skills Subscale. DCS = DBT-WCCL Dysfunctional Coping Subscale. WOR = Ways of Responding scale. Different subscripts (i.e., a, b, c, d) indicate statistically significant between-group differences in mean values of that measure, $ps < .05$.
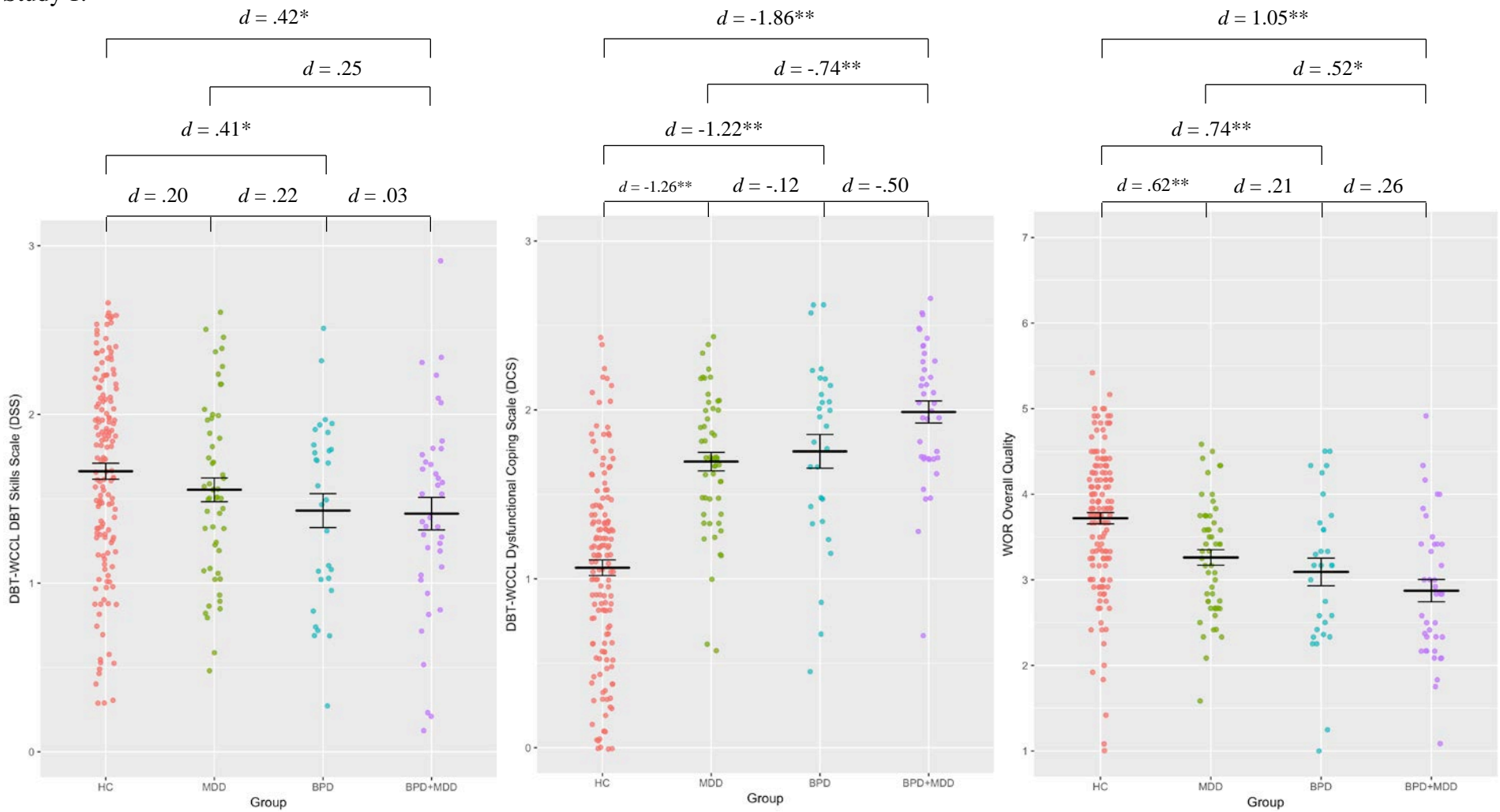
Study 1.

Figure S1. Study 1 emotion regulation skill frequency and quality measures by group. DBT-WCCL = DBT Ways of Coping Checklist. WOR = Ways of Responding scale. HC = healthy controls. MDD = Major Depressive Disorder. BPD = Borderline Personality Disorder. BPD+MDD = Borderline Personality Disorder and Major Depressive Disorder. *d* = Cohen's *d.* * *p* < .05, ** *p* < .01.
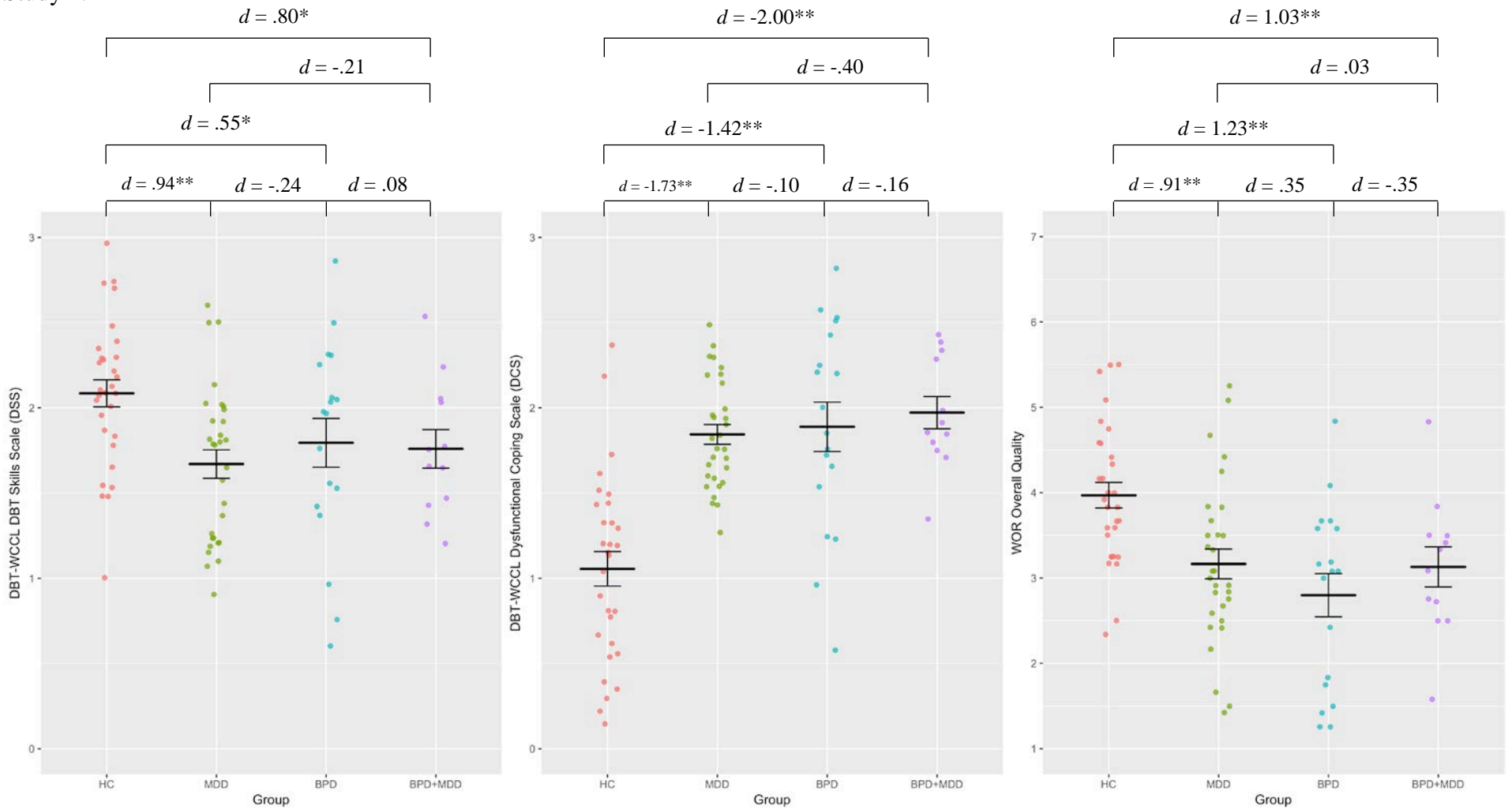
Study 2.

Figure S2. Study 2 emotion regulation skill frequency and quality measures by group. DBT-WCCL = DBT Ways of Coping Checklist. WOR = Ways of Responding scale. HC = healthy controls. MDD = Major Depressive Disorder. BPD = Borderline Personality Disorder. BPD+MDD = Borderline Personality Disorder and Major Depressive Disorder. *d* = Cohen's *d*. * *p* < .05, ** *p* < .01.

Table S2.

Meta-analytic effect sizes for emotion regulation measures.

DBT-WCCL DBT Skills Subscale

1	2	Cohen's d	SE	p	95% CI
HC	MDD	.39	.14	< .01	[.12, .66]
HC	BPD	.45	.17	< .01	[.12, .78]
HC	BPD+MDD	.50	.16	< .01	[.18, .82]
MDD	BPD	.05	.18	.78	[-.31, .41]
MDD	BPD+MDD	.12	.18	.49	[-.23, .48]
BPD	BPD+MDD	.05	.20	.83	[-.35, .44]

DBT-WCCL Dysfunctional Coping Subscale

1	2	Cohen's d	SE	p	95% CI
HC	MDD	-1.37	.15	< .01	[-1.08, -1.67]
HC	BPD	-1.28	.18	< .01	[-.93, -1.63]
HC	BPD+MDD	-1.89	.18	< .01	[-1.53, -2.25]
MDD	BPD	-.11	.18	.53	[-.47, .24]
MDD	BPD+MDD	-.64	.18	< .01	[-1.00, -.28]
BPD	BPD+MDD	-.40	.21	.05	[-.80, .01]

WOR Quality

1	2	Cohen's d	SE	p	95% CI
HC	MDD	.70	.14	< .01	[.42, .97]
HC	BPD	.88	.17	< .01	[.54, 1.22]
HC	BPD+MDD	1.05	.17	< .01	[.72, 1.37]
MDD	BPD	.26	.18	.15	[-.10, .62]
MDD	BPD+MDD	.38	.18	.03	[.03, .74]
BPD	BPD+MDD	.08	.20	.70	[-.32, .48]

Note. Cohen's d calculated by subtracting the mean of group 2 from group 1. HC = healthy controls. MDD = Major Depressive Disorder. BPD = Borderline Personality Disorder. BPD+MDD = Borderline Personality Disorder and Major Depressive Disorder.

Table S3.
Associations of adaptive skills, maladaptive strategies, and
strategy quality with Borderline Personality Disorder features.

Variable	β	SE	p	95% CI
Intercept	.02	.04	.55	[−.06, .10]
Study	.10	.08	.25	[−.07, .26]
Adaptive skills	−.19	.04	< .01	[−.27, −.12]
Maladaptive strategies	.63	.04	< .01	[.56, .71]
Strategy quality	−.20	.04	< .01	[−.28, −.12]

Note. Borderline Personality Disorder features measured with the
Personality Assessment Inventory – Borderline subscale.
Adaptive skills measured with the DBT-WCCL DBT Skills
subscale. Maladaptive strategies measured with the DBT-WCCL
Dysfunctional Coping subscale. Strategy quality measured with
the Ways of Responding scale. Study coded: -.50 = Study 1, .50 =
Study 2. All variables except Study are standardized (*M* = 0, *SD* =
1) based on the full sample to ease interpretation.

Table S4.
Associations of adaptive skills, maladaptive strategies, and
strategy quality with Major Depressive Disorder symptoms.

Variable	β	SE	p	95% CI
Intercept	.02	.04	.60	[−.06, .11]
Study	.09	.09	.31	[−.09, .26]
Adaptive skills	−.19	.04	< .01	[−.27, −.11]
Maladaptive strategies	.63	.04	< .01	[.55, .71]
Strategy quality	−.14	.04	< .01	[−.22, −.06]

Note. Major Depressive Disorder symptoms measured with the
Patient Health Questionnaire-9. Adaptive skills measured with the
DBT-WCCL DBT Skills subscale. Maladaptive strategies
measured with the DBT-WCCL Dysfunctional Coping subscale.
Strategy quality measured with the Ways of Responding scale.
Study coded: -.50 = Study 1, .50 = Study 2. All variables except
Study are standardized (*M* = 0, *SD* = 1) based on the full sample
to ease interpretation.