

Appendix A Pre-intervention scores of outcome measures (intention-to-treat)

Outcome measures	Intervention group ($n = 107$) mean (SD)	Control group ($n = 111$) mean (SD)	Baseline comparison p
ECBI-Intensity	132.14 (25.86)	131.59 (22.86)	$p = 0.869$
ECBI-Problem	12.00 (7.83)	11.82 (7.95)	$p = 0.869$
Task Motivation	7.92 (2.37)	7.95 (2.62)	$p = 0.929$
School Readiness	10.26 (2.82)	9.95 (3.07)	$p = 0.430$
Academic Competence	26.80 (6.69)	26.56 (7.32)	$p = 0.797$
Effort Motivation	13.11 (3.93)	12.34 (5.59)	$p = 0.185$
HKCAS-P Cognition raw scores	8.58 (5.31)	9.03 (5.75)	$p = 0.549$
HKCAS-P Cognition scaled scores	6.42 (3.02)	6.39 (2.80)	$p = 0.953$
Total number of words ^a	187.23 (159.73)	180.61 (168.14)	$p = 0.774$
Total number of different words ^a	67.53 (41.13)	64.83 (42.80)	$p = 0.649$
Total number of utterances ^a	97.50 (68.16)	97.13 (74.89)	$p = 0.971$
Mean length of utterances ^a	1.82 (0.58)	1.72 (0.62)	$p = 0.243$
HK-PFMDA Rasch score	67.60 (6.04)	68.20 (5.96)	$p = 0.461$
Movement ABC-2 total	56.03 (17.74)	54.74 (16.60)	$p = 0.580$

score

Parenting Stress Index	99.26 (20.13)	97.97 (17.30)	$p = 0.612$
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Parenting Sense of	57.35 (8.34)	57.86 (7.65)	$p = 0.632$
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Competence

^a Intervention ($n = 100$), control ($n = 102$)

Appendix B Post-intervention scores of outcome measures (intention-to-treat)

Outcome measures	Intervention group (<i>n</i> = 107) mean (<i>SD</i>)	Control group (<i>n</i> = 111) mean (<i>SD</i>)	Effect size (Cohen's <i>d</i>) and 95% CI
ECBI-Intensity	125.55 (26.92)	128.38 (26.49)	0.13 [-0.14, 0.39] ^a 0.11 [-0.16, 0.37] ^b
ECBI-Problem	8.60 (7.19)	9.81 (8.26)	0.22 [-0.05, 0.49] ^a 0.16 [-0.11, 0.42] ^b
Task Motivation	9.12 (2.24)	8.47 (2.48)	0.61[0.33, 0.87] ^a 0.27 [0.00, 0.54] ^b
School Readiness	11.94 (2.84)	11.70 (2.96)	0.14 [-0.13, 0.40] ^a 0.08 [-0.18, 0.35] ^b
Academic Competence	28.80 (6.74)	28.92 (6.86)	-0.02 [-0.29, 0.24] ^a -0.02 [-0.28, 0.25] ^b
Effort Motivation	14.26 (3.93)	13.92 (4.42)	0.15 [-0.12, 0.41] ^a 0.08 [-0.19, 0.35] ^b
HKCAS-P Cognition raw scores	15.17 (6.74)	14.96 (6.78)	0.05 [-0.22, 0.31] ^a 0.03 [-0.23, 0.30] ^b
HKCAS-P Cognition scaled scores	8.13 (3.16)	7.59 (3.32)	0.34 [0.00, 0.67] ^a 0.17 [-0.11, 0.43] ^b
Total number of words ^c	418.70 (354.26)	368.68 (353.61)	0.46 [0.17, 0.73] ^a 0.14 [-0.14, 0.42] ^b
Total number of different words ^c	116.67 (72.48)	114.24 (77.35)	0.08 [-0.20, 0.35] ^a 0.03 [-0.24, 0.31] ^b
Total number of	189.63 (181.84)	187.22 (183.40)	0.08 [-0.20, 0.35] ^a

utterances ^c			0.01 [-0.26, 0.29] ^b
Mean length of	2.51 (1.00)	2.37 (1.07)	0.26 [-0.02, 0.53] ^a
utterances ^c			0.14 [-0.14, 0.41] ^b
HK-PFMDA Rasch	73.43 (5.75)	74.27 (5.72)	-0.16 [-0.42, 0.11] ^a
score			-0.15 [-0.41, 0.12] ^b
Movement ABC-2 total	64.17 (15.54)	65.34 (16.5)	-0.12 [-0.38, 0.15] ^a
score			-0.07 [-0.34, 0.19] ^b
Parenting Stress Index	92.72 (20.59)	94.54 (19.48)	0.13 [-0.14, 0.40] ^a
			0.09 [-0.18, 0.36] ^b
Parenting Sense of	59.68 (8.99)	58.63 (8.17)	0.24 [-0.03, 0.50] ^a
Competence			0.12 [-0.15, 0.39] ^b

^a Adjusted; ^b Unadjusted; ^c Intervention ($n = 100$), control ($n = 102$)

Appendix C Changes in clinical status (Intention-to-treat analysis based on pooled multiple imputation results)

	Intervention group		Control group	
	ECBI-Intensity			
	Below clinical cut-off at pre-intervention	Above clinical cut-off at pre-intervention	Below clinical cut-off at pre-intervention	Above clinical cut-off at pre-intervention
Below clinical cut-off at post-intervention	43.4 (40.7%)	18.0 (16.9%)	55.8 (50.4%)	10.4 (9.4%)
Above clinical cut-off at post-intervention	4.6 (4.3%)	40.6 (38.1%)	8.0 (7.2%)	36.6 (33.0%)
McNemar test result	$p = 0.011 - .0004$		$p = 1.00 - 0.359$	
	ECBI-Problem			
	Below clinical cut-off at post-intervention	Above clinical cut-off at post-intervention	Below clinical cut-off at post-intervention	Above clinical cut-off at post-intervention
Below clinical cut-off at post-intervention	72 (67.9%)	13.4 (12.6%)	65.8 (59.5%)	17 (15.4%)
Above clinical cut-off at post-intervention	2.8 (2.6%)	17.8 (16.8%)	7 (6.3%)	20.8 (18.8%)
McNemar test result	$p = 0.035 - 0.008$		$p = 0.093 - 0.043$	
	HKCAS-P Cognition			
	Average or above at pre-intervention	Below average at pre-intervention	Average or above at pre-intervention	Below average at pre-intervention

Average or above at post-intervention	28 (41.8%)	17 (25.4%)	28 (38.9%)	12.2 (16.9%)
Below average at post-intervention	5 (7.5%)	17 (25.4%)	6 (8.3%)	25.8 (35.8%)
McNemar test result	$p = 0.041 - 0.004$		$p = 0.481 - .0064$	