

Supplemental Table I. Predictors of Intervention Response

Model	Parameter	Estimate	Standard Error	t Value	Pr > t
Each model has a single covariate	Intercept	3.47	0.78	4.44	0.000
	Gender Female	-0.78	1.19	-0.66	0.518
	Intercept	3.90	1.01	3.85	0.001
	Diagnosis ALL	-1.15	1.24	-0.93	0.361
	Intercept	4.23	1.16	3.63	0.001
	Treatment Intensity	-0.63	0.58	-1.09	0.286
	Intercept	1.29	1.64	0.79	0.438
	SES	0.05	0.04	1.21	0.237
	Intercept	2.85	1.17	2.43	0.022
	Age at Diagnosis	0.06	0.20	0.28	0.779
	Intercept	3.44	1.19	2.89	0.007
	Time since treatment	-0.06	0.20	-0.30	0.767
	Intercept	-3.67	3.90	-0.94	0.354
	Abbreviated IQ	0.06	0.04	1.76	0.089
Best fit model according to AIC	Intercept	-8.79	6.17	-1.43	0.165
	Cogmed training sessions	0.46	0.24	1.94	0.062
	Intercept	-17.40	6.99	-2.49	0.019
	Diagnosis ALL	-1.60	1.11	-1.45	0.160
Best fit model according to AIC	Abbreviated IQ	0.07	0.03	2.20	0.037
	Cogmed training session	0.53	0.22	2.39	0.025

ALL= acute lymphoblastic leukemia. AIC= Akaike Information Criterion, a model goodness-of-fit criterion. No covariates significantly predicted intervention response when considered independently. In the best fitting model, higher abbreviated IQ and more Cogmed training sessions were predictive of better intervention response.

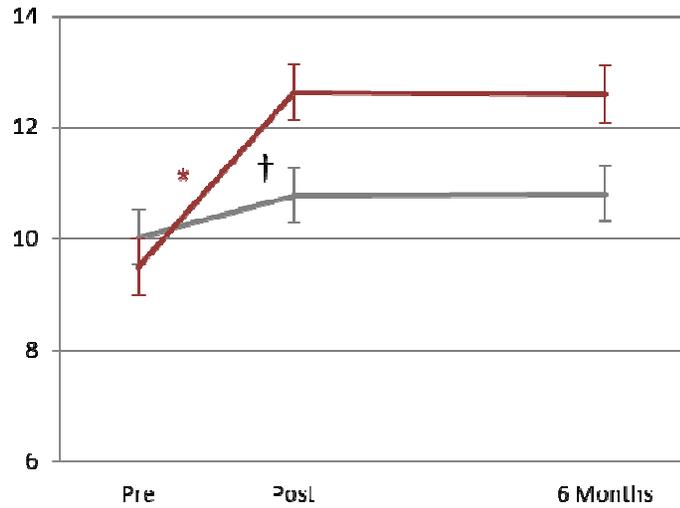
Supplemental Table II. Linear Mixed Effects Modeling without Immediate Post Time Point

	Intervention vs Control at 6 Months	Standard Error	t Value	Pr > t
WISC-IV – Digit Span Forward [‡]	1.34	0.76	1.76	0.084
WISC-IV – Digit Span Backward [‡]	1.14	0.80	1.43	0.159
WISC-IV – Letter Number Sequencing [‡]	1.38	0.66	2.10	0.040
WISC-IV – Working Memory Index [§]	7.96	3.38	2.35	0.022
WISC-IV – Spatial Span Forward [‡]	1.60	0.80	2.01	0.049
WISC-IV – Spatial Span Backward [‡]	1.79	0.71	2.51	0.015
Conners 3 Parent – Inattention [¶]	-3.89	3.52	-1.10	0.274
Conners 3 Parent – Executive Function [¶]	-2.47	3.42	-0.72	0.474
BRIEF – Working Memory [¶]	0.45	3.22	0.14	0.889
BRIEF – Metacognitive Index [¶]	-0.47	2.91	-0.16	0.873
CPT-II – Omissions [¶]	-1.07	2.77	-0.39	0.702
CPT-II – Hit RT [¶]	-1.93	2.57	-0.75	0.455
WJ-III – Reading Fluency [§]	6.65	4.54	1.46	0.149
WJ-III – Math Fluency [§]	-0.85	3.63	-0.23	0.815

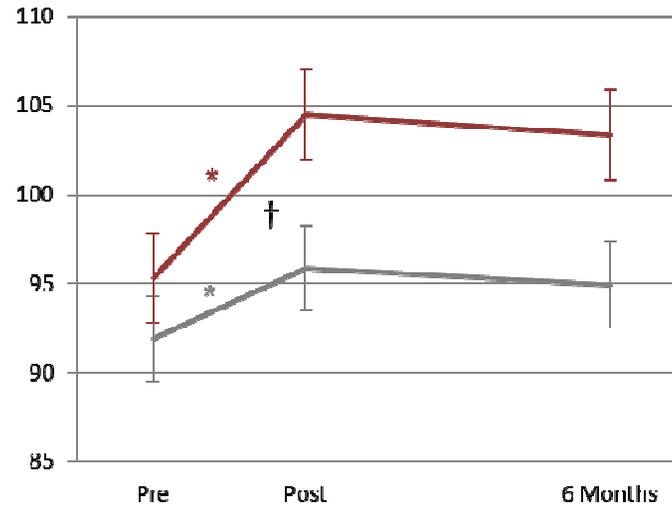
[‡]Scaled Score: mean = 10, standard deviation = 3; higher score is better. [§]Standard Score: mean = 100, standard deviation = 15; higher score is better. [¶]T Score: mean = 50, standard deviation = 10; higher score is worse. WISC-IV = Wechsler Intelligence Scale for Children – 4th Edition. BRIEF = Behavior Rating Inventory of Executive Function. CPT-II = Conners' Continuous Performance Test – 2nd Edition. Hit RT = Hit Reaction Time. WJ-III = Woodcock Johnson Tests of Achievement – 3rd Edition. Results of the linear mixed effect modeling directly comparing groups at six months indicates greater improvements in the intervention group on performance measures of attention and working memory.

Supplementary Figure 1.

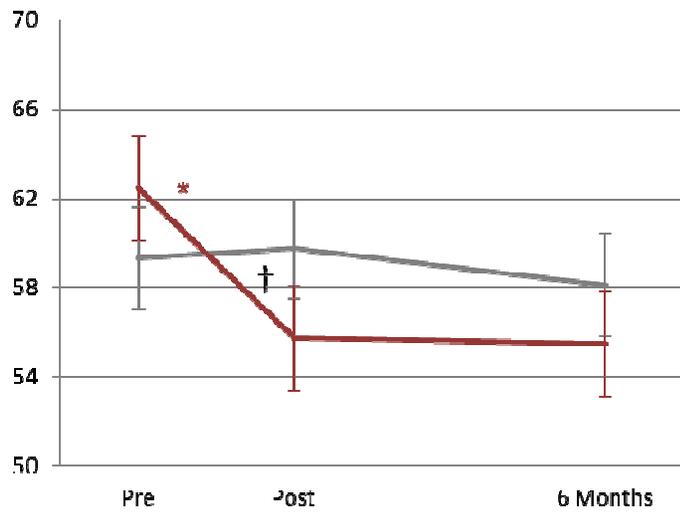
A. WISC-IV Spatial Span Backward



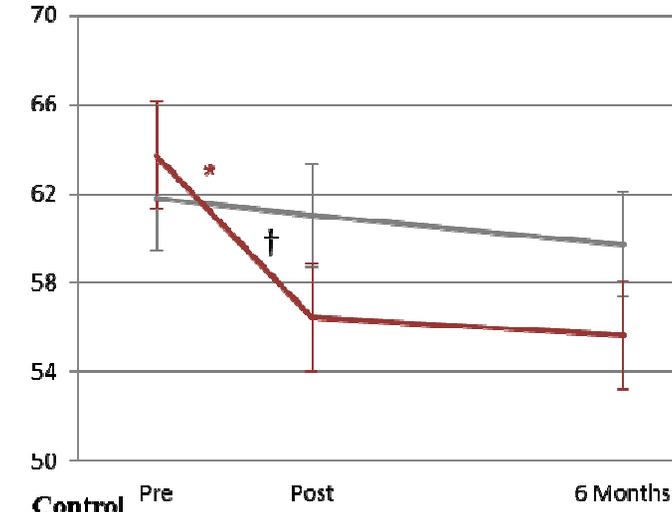
B. WISC-IV Working Memory Index



C. Conners 3 Parent Executive Function



D. Conners 3 Parent - Inattention



— Control
— Intervention