Appendix to "Trajectories of Early Childhood Skill Development and Maternal Mental Health"

A   Measures of Child Development, Parental Background and Investment

The following table provides the full list of measurements for child development, parental skills investment and baseline household characteristics that we were initially interested in.

Latent Factor	Measurements	Baseline	3 months	6 months	12 months	24 months	36 months
Child's Socioemotional Skills (θ_t^S) and (θ_{t+1}^S)	Ages and Stages Questionnaire (ASQ-SE) : all items	NA	NA	✓	✓	✓	✓
	Strengths and Difficulties Questionnaire (SDQ) : all items	NA	NA	NA	NA	NA	✓
Child's Physical Health (θ_t^H) and (θ_{t+1}^H)	Child's weight for age Z-score	NA	✓	✓	✓	✓	✓
	Child's height for age Z-score	NA	✓	✓	✓	✓	✓
	Child's Head Circumference for age Z-score	NA	✓	✓	✓	✓	NA
Child's Cognition (θ_t^C) and (θ_{t+1}^C)	Bayley Scales of Infant Development: Fine Motor	NA	NA	NA	✓	NA	✓
	Bayley Scales of Infant Development: Gross Motor	NA	NA	NA	✓	NA	NA
	Bayley Scales of Infant Development: Cognitive	NA	NA	NA	✓	NA	NA
	Bayley Scales of Infant Development: Expressive	NA	NA	NA	✓	NA	NA
	Bayley Scales of Infant Development: Receptive	NA	NA	NA	✓	NA	✓
Parents' Education at Baseline (P_t^C)	Number of years the mother spent in education	✓	NA	NA	NA	NA	NA
	Number of years the father spent in education	✓	NA	NA	NA	NA	NA
Mothers' Mental Health (P_t^{MH})	Patient Health Questionnaire (PHQ - 9): all items	✓	✓	✓	NA	✓	✓
	Structured Clinical Interview for the DSM (SCID) : all items	✓	✓	✓	✓	✓	✓
	Cohen Perceived Stress Scale (PSS): all items	✓	✓	✓	✓	✓	✓
Mothers' Functioning (P_t^{PH})	WHO Disability Assessment Schedule (WHO-DAS): all items	✓	✓	✓	✓	✓	✓
Parental Investment (I_t) and (I_{t+1})	HOME:Learning Material Subscale	NA	✓	NA	✓	NA	✓
	HOME:Responsivity Subscale	NA	✓	NA	✓	NA	✓
	HOME:Acceptance Subscale	NA	✓	NA	✓	NA	✓
	HOME:Organization Subscale	NA	✓	NA	✓	NA	✓
	HOME:Involvement Subscale	NA	✓	NA	✓	NA	✓
	HOME:Variety Subscale	NA	✓	NA	✓	NA	✓
	Observation of Mother-Child Interaction	NA	NA	NA	NA	✓	✓

Table A1: Possible Measures for Child Development, Parental Background and Investment

B Balance and Attrition

Table A2: Characteristics of Attritors at 6 months

	Attritor characteristics				Attritor characteristics by treatment arm			
	Sample mean (1)	Attritor mean (2)	Diff. (2)-(1) (3)	p-val (4)	Attritor T mean (5)	Attritor C mean (6)	Diff. T-C (7)	p-val (8)
Mother's age	26.617	27.076	0.459	0.208	26.906	26.966	-0.060	0.949
Mother's height (cm)	157.012	156.909	-0.103	0.832	157.323	155.834	1.489	0.214
Mother's weight (kg)	60.378	59.945	-0.434	0.513	58.711	59.417	-0.706	0.737
Mother's waist circ. (in)	37.217	36.976	-0.240	0.393	36.225	36.651	-0.426	0.593
Mother's blood pressure	71.242	73.312	2.071	0.041	69.604	75.220	-5.617	0.036
PHQ total	8.671	8.667	-0.004	0.995	15.094	14.627	0.467	0.483
WHODAS total	10.861	11.298	0.437	0.613	17.302	16.627	0.675	0.709
PSS total	17.670	17.938	0.268	0.705	23.075	23.644	-0.569	0.707
Joint/extended family	0.665	0.627	-0.039	0.340	0.491	0.542	-0.052	0.566
Grandmother present	0.700	0.613	-0.086	0.058	0.472	0.559	-0.088	0.447
Total adults in the hh	5.742	5.804	0.063	0.769	4.792	5.407	-0.614	0.337
People per room	2.348	2.721	0.373	0.012	3.077	2.749	0.328	0.481
Number of girls	0.776	0.809	0.033	0.699	1.075	0.831	0.245	0.227
Number of boys	0.688	0.693	0.005	0.923	1.057	0.712	0.345	0.033
First child	0.292	0.347	0.055	0.074	0.226	0.322	-0.096	0.196
SES asset index	0.041	-0.186	-0.227	0.097	-1.155	-0.440	-0.715	0.011
Mother's education	7.792	7.324	-0.468	0.145	5.547	7.017	-1.470	0.105
Father's education	8.643	8.564	-0.078	0.740	7.679	7.881	-0.202	0.758
Life Events Checklist	3.632	3.653	0.021	0.899	4.377	4.102	0.276	0.623
Observations	929	225	1154		53	59	112	
Joint test (p-value)								0.138

Note: Table shows baseline characteristics and their differences for women who were lost to 6 months follow-up. Columns 1-4 compare the 6 months follow-up sample to attritors at 6 months. Columns 5-8 compares the baseline characteristics of attritors at 6 months by treatment arm. p-value at the bottom of the table comes from the F-test that jointly tests all coefficients with the null hypothesis of attritors in the treatment and control groups being balanced.

Table A3: Characteristics of Attritors at 12 months

	Attritor characteristics				Attritor characteristics by treatment arm			
	Sample mean (1)	Attritor mean (2)	Diff. (2)-(1) (3)	p-val (4)	Attritor T mean (5)	Attritor C mean (6)	Diff. T-C (7)	p-val (8)
Mother's age	26.719	26.650	-0.070	0.850	26.267	27.220	-0.954	0.298
Mother's height (cm)	157.035	156.804	-0.231	0.618	156.948	155.608	1.340	0.214
Mother's weight (kg)	60.442	59.642	-0.800	0.238	57.970	59.758	-1.788	0.422
Mother's waist circ. (in)	37.224	36.931	-0.293	0.315	36.083	37.051	-0.968	0.285
Mother's blood pressure	71.449	72.512	1.063	0.324	70.817	73.153	-2.336	0.386
PHQ total	8.478	9.514	1.036	0.034	14.983	14.864	0.119	0.857
WHODAS total	10.714	11.967	1.253	0.214	16.750	16.966	-0.216	0.905
PSS total	17.589	18.304	0.714	0.305	23.367	23.068	0.299	0.831
Joint/extended family	0.653	0.678	0.024	0.445	0.550	0.627	-0.077	0.317
Grandmother present	0.694	0.636	-0.058	0.166	0.517	0.576	-0.060	0.560
Total adults in the hh	5.747	5.785	0.038	0.866	5.167	5.695	-0.528	0.376
People per room	2.360	2.686	0.326	0.046	3.025	2.824	0.201	0.672
Number of girls	0.762	0.874	0.112	0.178	1.100	0.949	0.151	0.424
Number of boys	0.699	0.645	-0.054	0.414	0.933	0.695	0.238	0.178
First child	0.293	0.346	0.053	0.188	0.217	0.339	-0.122	0.154
SES asset index	0.025	-0.131	-0.156	0.240	-0.917	-0.267	-0.650	0.024
Mother's education	7.737	7.542	-0.195	0.578	6.183	7.237	-1.054	0.209
Father's education	8.643	8.561	-0.082	0.734	7.967	7.966	0.001	0.999
Life Events Checklist	3.629	3.668	0.040	0.833	4.567	3.966	0.601	0.275
Observations	940	214	1154		60	59	119	
Joint test (p-value)								0.498

Note: Table shows baseline characteristics and their differences for women who were lost to 12 months follow-up. Columns 1-4 compare the 12 months follow-up sample to attritors at 12 months. Columns 5-8 compares the baseline characteristics of attritors at 12 months by treatment arm. p-value at the bottom of the table comes from the F-test that jointly tests all coefficients with the null hypothesis of attritors in the treatment and control groups being balanced.

Table A4: Characteristics of Attritors at 24 months

	Attritor characteristics				Attritor characteristics by treatment arm			
	Sample mean (1)	Attritor mean (2)	Diff. (2)-(1) (3)	p-val (4)	Attritor T mean (5)	Attritor C mean (6)	Diff. T-C (7)	p-val (8)
Mother's age	26.638	26.952	0.314	0.411	26.562	27.597	-1.035	0.308
Mother's height (cm)	157.120	156.530	-0.591	0.196	156.705	156.331	0.374	0.744
Mother's weight (kg)	60.489	59.592	-0.897	0.246	58.074	58.863	-0.789	0.684
Mother's waist circ. (in)	37.262	36.838	-0.424	0.180	36.332	36.504	-0.173	0.828
Mother's blood pressure	71.411	72.488	1.077	0.360	69.699	74.433	-4.734	0.085
PHQ total	8.373	9.737	1.364	0.007	15.425	14.940	0.484	0.439
WHODAS total	10.647	12.024	1.377	0.082	16.219	16.851	-0.632	0.704
PSS total	17.435	18.753	1.318	0.058	23.534	23.448	0.086	0.947
Joint/extended family	0.661	0.645	-0.016	0.603	0.548	0.582	-0.034	0.676
Grandmother present	0.695	0.637	-0.058	0.111	0.562	0.567	-0.006	0.954
Total adults in the hh	5.728	5.849	0.121	0.565	5.014	5.851	-0.837	0.139
People per room	2.311	2.815	0.504	0.002	3.054	2.811	0.242	0.603
Number of girls	0.753	0.888	0.135	0.057	1.014	0.985	0.029	0.884
Number of boys	0.687	0.697	0.011	0.866	0.945	0.791	0.154	0.335
First child	0.297	0.323	0.026	0.483	0.233	0.284	-0.051	0.555
SES asset index	0.033	-0.135	-0.168	0.187	-0.788	-0.321	-0.466	0.086
Mother's education	7.746	7.538	-0.209	0.507	6.863	7.045	-0.182	0.833
Father's education	8.731	8.255	-0.476	0.056	7.890	7.194	0.696	0.290
Life Events Checklist	3.579	3.841	0.261	0.132	4.548	4.090	0.458	0.364
Observations	903	251	1154		73	67	140	
Joint test (p-value)								0.046

Note: Table shows baseline characteristics and their differences for women who were lost to 24 months follow-up. Columns 1-4 compare the 24 months follow-up sample (including nondepressed arm) to attritors at 24 months. Columns 5-8 compares the baseline characteristics of attritors at 24 months by treatment arm. p-value at the bottom of the table comes from the F-test that jointly tests all coefficients with the null hypothesis of attritors in the treatment and control groups being balanced.

Table A5: Characteristics of Attritors at 36 months

	Attritor characteristics				Attritor characteristics by treatment arm			
	Sample mean (1)	Attritor mean (2)	Diff. (2)-(1) (3)	p-val (4)	Attritor T mean (5)	Attritor C mean (6)	Diff. T-C (7)	p-val (8)
Mother's age	26.669	26.830	0.161	0.640	26.468	27.437	-0.969	0.317
Mother's height (cm)	157.047	156.806	-0.242	0.658	157.260	155.903	1.357	0.229
Mother's weight (kg)	60.582	59.325	-1.257	0.064	58.739	58.955	-0.216	0.911
Mother's waist circ. (in)	37.262	36.862	-0.400	0.155	36.304	36.980	-0.676	0.350
Mother's blood pressure	71.504	72.121	0.617	0.573	70.532	72.986	-2.453	0.344
PHQ total	8.379	9.645	1.266	0.007	15.130	14.662	0.468	0.446
WHODAS total	10.714	11.725	1.010	0.160	16.299	16.268	0.031	0.982
PSS total	17.553	18.287	0.733	0.310	23.325	22.549	0.775	0.548
Joint/extended family	0.666	0.630	-0.036	0.278	0.571	0.563	0.008	0.919
Grandmother present	0.697	0.634	-0.063	0.094	0.558	0.592	-0.033	0.691
Total adults in the hh	5.763	5.725	-0.038	0.865	5.078	5.676	-0.598	0.304
People per room	2.353	2.647	0.294	0.041	3.013	2.715	0.298	0.443
Number of girls	0.759	0.860	0.101	0.133	1.104	0.859	0.245	0.181
Number of boys	0.701	0.649	-0.052	0.428	0.883	0.732	0.151	0.331
First child	0.290	0.343	0.053	0.115	0.273	0.296	-0.023	0.784
SES asset index	0.038	-0.144	-0.182	0.164	-0.862	-0.449	-0.413	0.159
Mother's education	7.738	7.577	-0.161	0.536	6.714	6.887	-0.173	0.808
Father's education	8.682	8.445	-0.236	0.266	7.948	7.634	0.314	0.600
Life Events Checklist	3.620	3.691	0.071	0.659	4.558	3.915	0.643	0.163
Observations	889	265	1154		77	71	148	
Joint test (p-value)								0.652

Note: Table shows baseline characteristics and their differences for women who were lost to 36 months follow-up. Columns 1-4 compare the 36 months follow-up sample (including nondepressed arm) to attritors at 36 months. Columns 5-8 compares the baseline characteristics of attritors at 36 months by treatment arm. p-value at the bottom of the table comes from the F-test that jointly tests all coefficients with the null hypothesis of attritors in the treatment and control groups being balanced.

Table A6: Attrition Corrected Treatment Effects on Factor Scores

| | Adjusted Beta | | Attrition bounds |
	Unweighted	IPW	95% CI
	(1)	(2)	(3)
Maternal Factor Scores			
Mental Health (6m)	0.205***	0.205***	[-0.021 0.394]
	(0.052)	(0.052)	
Mental Health (12m)	0.170***	0.169***	[-0.105 0.385]
	(0.054)	(0.054)	
Mental Health (24m)	−0.002	0.001	[-0.294 0.231]
	(0.057)	(0.058)	
Mental Health (36m)	0.268***	0.265***	[-0.159 0.372]
	(0.078)	(0.077)	
Functioning (6m)	0.182**	0.182**	[-0.052 0.364]
	(0.075)	(0.075)	
Functioning (12m)	0.195***	0.196***	[-0.027 0.406]
	(0.069)	(0.069)	
Functioning (24m)	−0.036	−0.034	[-0.341 0.204]
	(0.072)	(0.074)	
Functioning (36m)	0.287***	0.280***	[-0.200 0.349]
	(0.081)	(0.079)	
Child Factor Scores			
Physical Health (6m)	−0.021	−0.021	[-0.217 0.204]
	(0.079)	(0.079)	
Physical Health (12m)	0.019	0.021	[-0.187 0.287]
	(0.070)	(0.069)	
Physical Health (24m)	−0.100	−0.091	[-0.404 0.171]
	(0.083)	(0.083)	
Physical Health (36m)	−0.166*	−0.160*	[-0.434 0.154]
	(0.088)	(0.089)	
Socioemotional Skills (6m)	0.187***	0.187***	[-0.006 0.375]
	(0.056)	(0.056)	
Socioemotional Skills (12m)	0.389***	0.389***	[0.149 0.601]
	(0.070)	(0.070)	
Socioemotional Skills (24m)	−0.065	−0.060	[-0.347 0.162]
	(0.067)	(0.071)	
Socioemotional Skills (36m)	0.063	0.073	[-0.308 0.291]
	(0.075)	(0.076)	
Cognition (12m)	−0.080	−0.080	[-0.357 0.227]
	(0.083)	(0.084)	
Cognition (36m)	0.065	0.065	[-0.234 0.364]
	(0.075)	(0.073)	
Investment Factor Scores			
Parental Investment (12m)	0.075	0.075	[-0.204 0.309]
	(0.086)	(0.087)	
Parental Investment (36m)	0.111	0.111	[-0.274 0.321]
	(0.076)	(0.078)	

 Column 1 reproduces the adjusted treatment effect coefficient on factor scores without attrition correction. Column 2 reports attrition-corrected treatment effect estimates using Inverse Probability of Attrition Weighting (IPAW), where the weights are the inverse of the predicted probability to participate in the respective follow-up based on the baseline covariates. Column 3 shows 95 percent confidence intervals for the treatment effect using attrition bounds that are tightened by child gender and the indicator of whether the baseline PHQ-9 score is above the median (Lee, 2009).
Note: *p<0.1; **p<0.05; ***p<0.01

Table A7: Attrition Corrected Treatment Effects on Factor Scores by Child Gender

	Boys		Girls	
	Adjusted Beta	Attrition bounds 95% CI	Adjusted Beta	Attrition bounds 95% CI
	(1)	(2)	(3)	(4)
Maternal Factor Scores				
Mental Health (6m)	0.417*** (0.117)	[0.080 0.634]	0.113 (0.114)	[-0.278 0.312]
Mental Health (12m)	0.393*** (0.111)	[0.034 0.597]	0.178* (0.096)	[-0.344 0.315]
Mental Health (24m)	0.046 (0.113)	[-0.396 0.311]	0.016 (0.129)	[-0.704 0.112]
Mental Health (36m)	0.425*** (0.116)	[-0.093 0.576]	0.273** (0.124)	[-0.388 0.320]
Functioning (6m)	0.324*** (0.106)	[-0.017 0.510]	0.182** (0.075)	[-0.257 0.333]
Functioning (12m)	0.356*** (0.099)	[0.077 0.622]	0.195*** (0.069)	[-0.233 0.399]
Functioning (24m)	−0.066 (0.098)	[-0.580 0.130]	−0.026 (0.139)	[-0.465 0.324]
Functioning (36m)	0.337*** (0.108)	[-0.206 0.489]	0.287*** (0.081)	[-0.380 0.357]
Child Factor Scores				
Physical Health (6m)	−0.052 (0.124)	[-0.200 0.441]	−0.018 (0.102)	[-0.407 0.131]
Physical Health (12m)	−0.059 (0.099)	[-0.239 0.337]	−0.004 (0.108)	[-0.298 0.296]
Physical Health (24m)	−0.116 (0.117)	[-0.451 0.253]	−0.036 (0.124)	[-0.505 0.299]
Physical Health (36m)	−0.137 (0.119)	[-0.440 0.288]	−0.075 (0.089)	[-0.592 0.182]
Socioemotional Skills (6m)	0.250*** (0.079)	[0.037 0.618]	0.120 (0.102)	[-0.251 0.269]
Socioemotional Skills (12m)	0.630*** (0.086)	[0.289 0.873]	0.354*** (0.104)	[-0.103 0.530]
Socioemotional Skills (24m)	−0.163 (0.116)	[-0.509 0.205]	−0.257 (0.219)	[-0.422 0.335]
Socioemotional Skills (36m)	−0.058 (0.117)	[-0.403 0.346]	0.094 (0.096)	[-0.404 0.395]
Cognition (12m)	−0.073 (0.129)	[-0.315 0.308]	−0.133 (0.136)	[-0.520 0.320]
Cognition (36m)	0.206** (0.099)	[-0.220 0.514]	0.072 (0.149)	[-0.419 0.402]
Investment Factor Scores				
Parental Investment (12m)	0.114 (0.098)	[-0.130 0.479]	0.058 (0.135)	[-0.411 0.261]
Parental Investment (36m)	0.197** (0.097)	[-0.243 0.517]	0.210 (0.131)	[-0.486 0.290]

Column 1 and 3 reproduce the adjusted treatment effect coefficient on factor scores separately by child gender without attrition correction. Column 2 and 4 report 95 percent confidence intervals for the treatment effect by child gender using attrition bounds tightened by the indicator of whether the baseline PHQ-9 score is above the median (Lee, 2009).
Note: *p<0.1; **p<0.05; ***p<0.01

Table A8: Baseline Balance By Gender

| | Boys (N=511) | | | | | | Girls (N=503) | | | | | |
| | Control | | T | ND | Diff T-C | p-val | Control | | T | ND | Diff T-C | p-val |
	Mean (1)	SD (2)	Mean (3)	Mean (4)	(5)	(6)	Mean (7)	SD (8)	Mean (9)	Mean (10)	(11)	(12)
Mother's age	27.339	5.240	27.118	26.126	-0.221	0.762	27.279	4.495	26.460	26.424	-0.819	0.100
Mother's height (cm)	156.407	6.714	157.678	157.018	1.271	0.138	156.633	5.662	157.527	157.070	0.894	0.281
Mother's weight (kg)	61.214	13.604	61.152	59.524	-0.062	0.973	62.139	12.189	59.698	59.972	-2.441	0.139
Mother's waist circ. (in)	37.601	3.975	36.949	37.067	-0.652	0.321	37.821	4.039	36.837	37.151	-0.992	0.044
Mother's blood pressure	72.115	9.857	70.780	71.200	-1.335	0.333	71.760	14.023	71.306	71.759	-0.453	0.732
PHQ total	14.539	3.885	14.437	2.783	-0.102	0.846	14.333	3.346	15.121	2.796	0.788	0.133
WHODAS total	15.538	9.023	16.487	5.379	0.905	0.443	16.450	8.845	16.750	5.528	0.300	0.786
PSS total	23.043	8.276	23.765	12.282	0.721	0.428	22.659	7.221	24.218	12.076	1.559	0.078
Current Major Dep. Episode	0.713	0.454	0.748	0.018	0.035	0.566	0.721	0.450	0.782	0.024	0.061	0.431
Joint/extended family	0.661	0.475	0.563	0.700	-0.098	0.046	0.628	0.485	0.637	0.704	0.009	0.883
Grandmother present	0.643	0.481	0.639	0.682	-0.005	0.948	0.705	0.458	0.677	0.752	-0.028	0.613
Total adults in the hh	5.635	3.044	5.454	5.722	-0.181	0.692	5.721	2.823	5.379	6.260	-0.342	0.391
People per room	2.365	1.218	2.565	2.211	0.199	0.342	2.409	1.359	2.934	2.241	0.525	0.045
Number of girls	0.904	1.116	0.874	0.697	-0.030	0.839	0.783	1.007	0.984	0.600	0.201	0.186
Number of boys	0.817	0.894	0.790	0.574	-0.027	0.822	0.791	0.982	0.855	0.600	0.064	0.621
First child	0.209	0.408	0.261	0.354	0.052	0.311	0.264	0.442	0.210	0.352	-0.054	0.252
SES asset index	-0.323	1.598	-0.136	0.216	0.187	0.359	-0.268	1.756	-0.802	0.611	-0.535	0.049
Mother's education	6.652	4.621	7.529	8.177	0.877	0.187	6.829	4.316	6.403	8.948	-0.426	0.499
Father's education	8.313	3.147	7.958	8.906	-0.355	0.395	8.550	3.264	7.734	9.328	-0.817	0.093
Life Events Checklist	4.061	2.137	4.588	2.989	0.527	0.067	4.163	2.361	4.976	2.712	0.813	0.001
Observations	115		119	277			129		124	250		
Joint test (p-value)						0.412						0.123

T = treatment, ND = non-depressed. Table tests for balance for the baseline characteristics by child gender. Columns 1,3 and 4 show the mean of the mothers of boys in the control, treatment and nondepressed group in the baseline sample, respectively. Columns 7,9 and 10 show the mean of the mothers of girls in the control, treatment and nondepressed group in the baseline sample, respectively. Columns 5 and 11 show the difference in means between nondepressed and depressed group, for mothers of boys and girls, respectively. p-values at the bottom of the table comes from the F-test of overall significance from a regression of the treatment dummy on all the baseline controls.

Table A9: Balance in the Non-depressed Sample

	Control ND Mean (1)	SD (2)	Treat ND Mean (3)	Diff. (TND-CND) (4)	s.e. (5)	p-val (6)
Mother's Age	26.170	4.185	26.573	0.403	0.390	0.301
Mother's height (cm)	157.422	6.426	156.794	-0.628	0.516	0.224
Mother's weight (kg)	60.127	10.796	59.652	-0.475	1.103	0.667
Mother's waist circ. (in)	37.092	4.223	37.176	0.084	0.420	0.841
Mother's blood pressure	71.576	9.687	71.757	0.180	0.804	0.822
PHQ Total	2.792	2.438	2.800	0.008	0.293	0.979
WHODAS Total	5.381	6.235	5.841	0.460	0.596	0.440
PSS Total	12.467	6.619	11.963	-0.504	0.722	0.485
Current Major Dep. Episode	0.014	0.117	0.027	0.013	0.012	0.258
Joint/extended family	0.716	0.452	0.698	-0.018	0.044	0.686
Grandmother present	0.727	0.446	0.708	-0.018	0.035	0.600
Total adults in the hh	6.042	3.216	5.929	-0.113	0.256	0.659
People per room	2.260	1.825	2.171	-0.089	0.158	0.572
Number of girls	0.661	0.914	0.664	0.004	0.081	0.965
Number of boys	0.599	0.836	0.522	-0.077	0.069	0.270
First child	0.374	0.485	0.353	-0.021	0.037	0.566
SES asset index	0.365	1.429	0.477	0.112	0.156	0.474
Mother's education	8.176	4.310	8.949	0.773	0.476	0.104
Father's education	9.142	3.223	9.159	0.017	0.332	0.958
Life Events Checklist	2.799	2.197	2.990	0.191	0.267	0.476
Observations	289		295	584		
Joint test (p-value)						0.456

 Note: Table tests for baseline balance in the sample of mothers who were not depressed at baseline. Columns 1 and 3 show the mean of the non-depressed mothers in the control and treatment clusters in the baseline sample, respectively. Column 4 shows the difference in means of the non-depressed mothers between treatment and control clusters. p-value at the bottom of the table comes from the F-test that jointly tests all coefficients with the null hypothesis of non-depressed women in the treatment and control clusters being balanced.

C   24 Month Wave

The measurement system at 24 month was different than the adjoining waves: there is no measure of cognitive ability and parental investment was measured using the Observation of Mother-Child Interaction (OMCI), a tool used to capture parental sensitivity and responsiveness, instead of the HOME. As a longitudinal comparison of latent variables requires normalization of the factors on the same measure over time, we decided to exclude the 24 month wave from the main analysis. For completeness,

we report estimates of the treatment effects at 24 months throughout the Appendix Tables. In this section we briefly discuss some of the anomalies that were found at the 24 month wave, where we find null, slightly negative, effects across most outcomes.

As noted in Appendix B, there is evidence of differential attrition in the 24-month follow-up. At the 24-month follow-up, attritors had higher WHODAS and PSS scores, a higher number of girls, and less educated husbands. Although this is unlikely to explain a null treatment effect, to investigate we estimated treatment effects using the fixed sample of 771 mothers who were present at all follow-up points (A23-A26). The treatment effects in this sample are similar to the treatment effects in the full sample, suggesting that the dip in treatment effects at 24 months is not an artifact of differential attrition.

We also investigate whether the dip in the treatment effect at 24 months can be explained by differential fertility, differential shocks to treatment or control clusters, or measurement error, and find that it cannot. The median birth spacing in our sample is 24 months, and the treatment has a marginal effect in reducing fertility (adjusted beta coefficient of -0.08, p-value<0.10) but flexibly controlling for post-treatment fertility choices does not change the treatment effect on maternal mental health. It does not seem that different shocks in the treated vs control clusters occur at 24 months as we do not find any differences at this point in the mothers who were not depressed at baseline (who are not treated but live in the same villages as mothers in the intervention). Measurement error is an unlikely explanation because, looking at the estimated factor scores, the variance of the error term and the signal-to-noise ratios in the measurement system are similar across waves. We do find that the gap between the depressed controls and baseline non-depressed disappears for some outcomes at 24 months, suggesting the control group differentially experienced a positive shock in that wave.

D   Measurement System and Latent Factor Distributions

D.1   Latent Factor Scores

Following a long history in psychometrics (Spearman, 1904) and a more recent one in economics (Cunha and Heckman, 2008; Cunha et al., 2010; Attanasio et al., 2020a,c), we construct latent factor scores leveraging the correlation structure of the outcomes. Latent factor analysis is a model-based approach that reduces the measurement error and the dimensionality of the outcomes under the assumption that a latent variable exists and explains all of the correlations between related outcomes.

Specifically, assuming dedicated measurements for each latent factor θ, we denote the j-th measure of the child's skill of type k at time t with m_{kjdt}^{θ}, j-th measure of parental skills at t with m_{jdt}^{P} and j-th measure of parental investment at t with m_{jdt}^{I}, where $d = 0$ indicates the control group and $d = 1$ indicates the treatment group. We assume a semi-log relationship linking the observed measures to the unobserved latent trait as follows:

$$m_{kjdt}^{\theta} = \mu_{kjt}^{\theta} + \alpha_{kjt}^{\theta} \ln \theta_{dt}^{k} + \epsilon_{kjt}^{\theta} \tag{A1}$$

$$m_{jdt}^{P} = \mu_{jt}^{P} + \alpha_{jt}^{P} \ln P_{dt} + \epsilon_{jt}^{P} \tag{A2}$$

$$m_{jdt}^{I} = \mu_{jt}^{I} + \alpha_{jt}^{I} \ln I_{dt} + \epsilon_{jt}^{I} \tag{A3}$$

where $(\theta_{dt}^{k}, P_{dt}, I_{dt})$ are the latent factors for child skills, parental outcomes, and parental investment, $(\mu_{kjt}^{\theta}, \mu_{jt}^{P}, \mu_{jt}^{I})$ represent the intercepts, $(\alpha_{kjt}^{\theta}, \alpha_{jt}^{P}, \alpha_{jt}^{I})$ are factor loadings, and $(\epsilon_{kjt}^{\theta}, \epsilon_{jt}^{P}, \epsilon_{jt}^{I})$ are the error terms capturing measurement error, assumed to be normally distributed, with mean zero, independent of the latent factors and of each other.[23] We further assume a dedicated measurement system which means each measure is associ-

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[23]We allow the cross-time correlation of the residuals to be non-zero for the measures that are asked at multiple time points.

ated only with one factor. These assumptions make sure that any correlation between observed variables in the data set results from the correlation of the latent variables. Finally, we assume that the same measurement system governs both groups (control, treatment, and nondepressed) and is consistent throughout the study period.

For identification purposes, the scale and the location of the latent log-factors are set by normalizing the measure that has the highest factor loading of each latent factor to one, i.e. $\alpha^{\theta}_{k1t} = \alpha^{P}_{1t} = \alpha^{I}_{1t} = 1$. For longitudinal comparison purposes, we normalize each factor on the same measure at all time points.[24] Regarding the location, since we are interested in the mean comparison between groups and over time, we fix the means of the latent factors in logs to 0 for the control group only at the initial time point (6 months) following Agostinelli and Wiswall (2016). This allows us to capture the growth of the latent factors over time.

Using exploratory factor analysis (EFA), we reduce the number of items contributing to each latent factor by discarding the ones that do not strongly correlate with the underlying latent trait of interest. The details of the EFA are reported in Section D.2 in the appendix. Next, we jointly estimate the measurement system using a maximum likelihood estimator, and predict factor scores for each individual in the sample.

The results of the estimation of the measurement system are reported in Tables A11-A17. To provide summary statistics for the importance of each measure in the system, we report the signal-to-noise ratio.[26] The results indicate that the information contained in each measure of the same factor varies a lot, and that most measures are quite far from a 100% signal-to-noise ratio. This provides a justification for the latent variable approach to modelling child skill formation. Without such an approach, one

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[24]For child physical health, we normalize to one the weight-for-age z score; child cognition is normalized on Bayley-III fine motor scale score; socioemotional skills are normalized on the ASQ-SE item 'when upset, whether the baby can calm down within a half hour';[25] maternal mental health is normalized on the SCID item 'current major depressive episode'; maternal functioning is normalized on the WHODAS item 'difficulty affecting day-to-day work'; parental investment is normalized on the HOME subscale of learning materials.

[26]The signal-to-noise ratio, also known as communality, gives the amount of variance of each measure that can be explained by the underlying latent factor.

would fail to capture the variety of aspects of child development in the early years of life.

Latent factor scores are more appropriate as aggregate indices if there are multiple domains, as they result from a multi-dimensional allocation of observed variables influenced by different factors. Indeed, latent factor analysis has been widely used to deal with measurement error problem in modelling child development (See, for example Cunha and Heckman, 2008; Cunha et al., 2010; Attanasio et al., 2020a,c).

D.2   Exploratory Factor Analysis

This section provides the details of exploratory factor analysis (EFA) performed to specify the measurement system described in Tables A11-A17. EFA consists of two parts: determination of the number of latent factors to be extracted from the set of measures in the data set and specifying the measurement system by allocating each measure to a factor and estimating factor loadings.

D.2.1   Determining the number of latent factors

To select the appropriate number of latent factors for child development, parental investment, and maternal mental health, the following methods are compared: Kaiser's eigenvalue rule, Cattel's scree plot, and Velicer's minimum average partial correlation rule. The resulting number of factors is reported in Table A10. The results support our assumptions of two-three dimensions for child development, two dimensions for maternal skills, and one dimension for parental investment.

Table A10: Results of different methods to determine the number of factors

	Number of Factors according to the following methods:		
	Kaiser's Eigenvalue Rule	Cattell's Scree Plot	Velicer's MAP Rule
Child's Skills at 6 Months	2	2	1
Child's Skills at 12 Months	3	2	1
Child's Skills at 24 Months	2	2	3
Child's Skills at 36 Months	3	2	4
Maternal Skills at 6 Months	3	2	1
Maternal Skills at 12 Months	2	2	1
Maternal Skills at 24 Months	4	2	5
Maternal Skills at 36 Months	3	2	1
Parental Investment at 6 Months	1	2	1
Parental Investment at 12 Months	1	2	1
Parental Investment at 24 Months	3	2	2
Parental Investment at 36 Months	1	2	1

D.2.2 Specifying the Measurement System

Once we have evidence about how many latent factors should be extracted, we need to allocate each measure to a factor in accordance with the dedicated measurement system. To do this, we implement the quartimin rotation method and identify the measures that primarily load on one factor. The reason why we choose this method among others is that since our factors are likely to be correlated, an oblique rotation is more suitable. At this stage, we also discard measures that load on more than one factor or are not strongly related to one factor as such measures would conflict with our assumption of a dedicated measurement system.

Table A11: Maternal Mental Health Measures I: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
6 months				
scid13: Current major depressive episode(-)	1.000	61.4%	90.5%	63.4%
scid1: Depressed Mode (-)	1.059	57.5%	56.2%	49.5%
scid2: Loss of interest (-)	1.035	57.3%	56.1%	59.3%
scid3: Weight/appetite loss or gain (-)	0.832	37.9%	34.3%	37.3%
scid4: Sleep disturbance (-)	0.858	38.6%	38.9%	37.9%
scid5: Psychomotor agitation or retardation(-)	1.055	61.2%	58.2%	55.2%
scid6: Fatigue or loss of energy (-)	1.025	50.0%	45.5%	33.4%
scid7: Feeling of worthlessness or inapropriate guilt (-)	0.696	30.0%	27.8%	36.3%
scid8: Diminished ability to concentrate or indecisiveness (-)	0.886	44.6%	43.5%	40.5%
scid9: Recurrent thoughts of death or suicidal ideation (-)	0.304	5.3%	7.4%	12.8%
scid10: Symptoms cause significant distress or impairment (-)	1.034	55.2%	55.9%	47.8%
pss3: How often have you felt nervous or stressed? (-)	1.047	53.2%	43.3%	36.3%
phq1: Feeling tired or having little energy. (-)	0.935	42.5%	39.5%	29.2%
phq2: Poor appetite or overeating. (-)	0.766	32.0%	31.2%	25.7%
phq3: Trouble falling or staying asleep (-)	0.705	26.3%	28.3%	26.7%
phq4: Moving/speaking so slowly (-)	0.871	44.0%	38.2%	43.3%
phq5: Trouble concentrating on things(-)	0.831	35.2%	36.8%	32.7%
phq6: Little interest or pleasure in doing things (-)	0.986	48.5%	50.3%	45.9%
phq7: Feeling down, depressed, hopeless (-)	1.077	59.1%	54.8%	47.6%
phq8: Feeling bad about yourself (-)	0.808	38.2%	40.9%	39.7%
12 months				
scid13: Current major depressive episode(-)	1.000	65.0%	57.5%	62.1%
scid1: Depressed Mode (-)	1.059	59.3%	53.7%	42.9%
scid2: Loss of interest (-)	1.035	60.2%	54.7%	47.6%
scid3: Weight/appetite loss or gain (-)	0.832	35.3%	28.3%	29.0%
scid4: Sleep disturbance (-)	0.858	38.9%	32.1%	32.0%
scid5: Psychomotor agitation or retardation(-)	1.055	56.5%	51.9%	46.3%
scid6: Fatigue or loss of energy (-)	1.025	50.5%	42.8%	31.4%
scid7: Feeling of worthlessness or inapropriate guilt (-)	0.696	32.0%	30.0%	34.4%
scid8: Diminished ability to concentrate or indecisiveness (-)	0.886	49.0%	41.4%	45.0%
scid10: Symptoms cause significant distress or impairment (-)	1.034	57.2%	49.6%	50.2%
pss1: In the last month, how often have you been upset? (-)	0.971	49.6%	47.3%	33.6%
pss2: How often have you felt you were unable to control things? (-)	0.968	53.8%	47.2%	34.8%
pss3: How often have you felt nervous or stressed? (-)	1.047	59.1%	56.5%	42.4%
pss4: How often have you felt confident?	0.890	39.4%	61.4%	21.6%
pss5: How often have you felt that things were going your way?	0.903	37.2%	39.9%	26.5%
pss8: How often have you felt that you were on top of things?	0.874	39.4%	35.1%	24.0%
pss10: How often have you felt difficulties piling up?(-)	0.926	44.7%	40.7%	31.2%

Note: This table reports the factor loadings of the measures allowed to load on the maternal mental health factor along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control, treatment and nondepressed group separately. All measures that were negatively worded in the follow-up surveys are reverse coded so that higher score means higher level of underlying skill.

Table A12: Maternal Mental Health Measures II: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
24 months				
scid13: Current major depressive episode(-)	1.000	25.2%	25.2%	15.9%
scid1: Depressed Mode (-)	1.059	46.5%	44.9%	32.0%
scid2: Loss of interest (-)	1.035	21.9%	34.0%	18.5%
scid3: Weight/appetite loss or gain (-)	0.832	51.7%	63.8%	37.9%
scid4: Sleep disturbance (-)	0.858	80.5%	65.6%	34.3%
scid5: Psychomotor agitation or retardation(-)	1.055	41.3%	58.2%	26.2%
scid6: Fatigue or loss of energy (-)	1.025	62.5%	65.0%	61.1%
scid7: Feeling of worthlessness or inapropriate guilt (-)	0.696	66.6%	54.2%	29.3%
scid8: Diminished ability to concentrate or indecisiveness (-)	0.886	49.3%	46.4%	33.3%
scid10: Symptoms cause significant distress or impairment (-)	1.034	32.5%	25.5%	27.9%
phq2: Poor appetite or overeating. (-)	0.766	58.4%	82.8%	43.3%
phq3: Trouble falling or staying asleep (-)	0.705	77.3%	78.8%	44.4%
phq4: Moving/speaking so slowly (-)	0.871	59.7%	58.1%	32.4%
phq6: Little interest or pleasure in doing things (-)	0.986	60.6%	26.2%	45.9%
phq7: Feeling down, depressed, hopeless (-)	1.077	55.8%	46.1%	39.7%
phq8: Feeling bad about yourself (-)	0.808	60.8%	40.9%	26.2%
36 months				
scid13: Current major depressive episode (-)	1.000	66.6%	56.0%	58.8%
scid1: Depressed Mode (-)	1.059	62.8%	54.0%	56.9%
scid5: Psychomotor agitation or retardation(-)	1.055	69.4%	57.3%	64.5%
scid6: Fatigue or loss of energy (-)	1.025	59.1%	50.9%	49.9%
scid10: Symptoms cause significant distress or impairment (-)	1.034	68.8%	54.4%	59.0%
pss1: In the last month, how often have you been upset? (-)	0.971	62.9%	52.3%	53.5%
pss2: How often have you felt you were unable to control things? (-)	0.968	62.8%	54.5%	52.4%
pss3: How often have you felt nervous or stressed? (-)	1.047	71.7%	59.8%	56.8%
pss4: How often have you felt confident?	0.890	51.9%	45.6%	39.6%
pss5: How often have you felt that things were going your way?	0.903	52.2%	46.9%	35.6%
pss6: How often have you felt that you cannot cope with things?(-)	0.939	51.3%	41.8%	35.9%
pss8: How often have you felt that you were on top of things?	0.874	39.4%	48.3%	38.9%
pss10: How often have you felt difficulties piling up? (-)	0.926	53.0%	50.4%	38.8%
phq1: Feeling tired or having little energy. (-)	0.935	47.5%	39.1%	38.7%
phq3: Trouble falling or staying asleep (-)	0.705	33.1%	25.2%	30.1%
phq4: Moving/speaking so slowly (-)	0.871	51.2%	38.2%	50.1%
phq5: Trouble concentrating on things (-)	0.831	42.1%	32.1%	32.9%
phq6: Little interest or pleasure in doing things (-)	0.986	61.7%	51.3%	59.7%
phq7: Feeling down, depressed, hopeless (-)	1.077	77.2%	60.8%	58.5%
phq8: Feeling bad about yourself (-)	0.808	47.6%	40.9%	46.5%
gad1: Feeling nervous, anxious or on edge. (-)	0.988	65.2%	54.6%	56.0%
gad2: Not being able to stop or control worrying. (-)	0.965	68.7%	54.5%	57.9%
gad3: Worrying too much about different things. (-)	0.906	59.8%	59.9%	51.5%
gad4: Trouble relaxing (-)	0.919	38.2%	60.9%	57.9%
gad5: Being so restless it's hard to sit still. (-)	0.916	59.8%	58.7%	57.9%
gad6: Becoming easily annoyed or irritable. (-)	0.967	56.7%	54.4%	51.4%
gad7: Feeling afraid as if something awful might happen. (-)	0.972	60.8%	45.2%	55.1%

Note: This table reports the factor loadings of the measures allowed to load on the maternal mental health factor along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control, treatment and nondepressed group separately. All measures that were negatively worded in the follow-up surveys are reverse coded so that higher score means higher level of underlying skill.

Table A13: Maternal Functioning Measures: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
6 months				
whodas12: Difficulty affecting day-to-day work.(-)	1.000	69.5%	61.1%	62.4%
whodas2: Difficulty standing for long periods (-)	0.949	55.1%	55.7%	36.8%
whodas3: Difficulty taking care of household responsibilities (-)	1.032	68.7%	64.2%	50.9%
whodas4: Difficulty learning a new task (-)	0.820	55.1%	46.5%	35.5%
whodas5: Difficulty joining in community activities (-)	0.894	54.5%	45.4%	46.7%
whodas6: Difficulty concentrating (-)	0.881	58.2%	53.4%	41.5%
whodas7: Difficulty walking a long distance (-)	0.917	52.5%	49.9%	27.0%
whodas8: Difficulty washing your whole body (-)	0.612	31.0%	26.4%	31.2%
whodas9: Difficulty getting dressed (-)	0.588	27.9%	20.5%	39.1%
whodas10: Difficulty dealing with people you do not know (-)	0.797	39.1%	44.9%	31.7%
whodas11: Dealing with maintaining a friendship (-)	0.741	37.7%	37.7%	32.1%
whodas13: How much have you been affected by your health problems? (-)	0.986	63.7%	58.3%	45.6%
12 months				
whodas12: Difficulty affecting day-to-day work.(-)	1.000	67.4%	63.3%	66.6%
whodas2: Difficulty standing for long periods (-)	0.949	56.6%	49.9%	43.8%
whodas3: Difficulty taking care of household responsibilities (-)	1.032	70.1%	64.5%	61.6%
whodas4: Difficulty learning a new task (-)	0.820	50.3%	43.5%	42.0%
whodas5: Difficulty joining in community activities (-)	0.894	52.7%	48.4%	46.2%
whodas6: Difficulty concentrating (-)	0.881	55.3%	52.7%	55.1%
whodas7: Difficulty walking a long distance (-)	0.917	55.8%	43.5%	41.8%
whodas8: Difficulty washing your whole body (-)	0.612	29.5%	33.6%	41.6%
whodas9: Difficulty getting dressed (-)	0.588	27.5%	30.9%	32.4%
whodas10: Difficulty dealing with people you do not know (-)	0.797	41.8%	36.9%	34.9%
whodas13: How much have you been affected by your health problems? (-)	0.986	62.6%	52.9%	55.5%
24 months				
whodas12: Difficulty affecting day-to-day work.(-)	1.000	67.4%	68.4%	71.6%
whodas2: Difficulty standing for long periods (-)	0.949	59.5%	57.0%	57.2%
whodas3: Difficulty taking care of household responsibilities (-)	1.032	69.8%	70.2%	74.2%
whodas4: Difficulty learning a new task (-)	0.820	47.7%	34.3%	62.6%
whodas5: Difficulty joining in community activities (-)	0.894	55.8%	54.9%	57.4%
whodas6: Difficulty concentrating (-)	0.881	53.0%	44.2%	61.8%
whodas7: Difficulty walking a long distance (-)	0.917	55.5%	51.4%	48.6%
whodas8: Difficulty washing your whole body (-)	0.612	27.2%	21.9%	32.2%
whodas9: Difficulty getting dressed (-)	0.588	25.1%	14.4%	13.6%
whodas10: Difficulty dealing with people you do not know (-)	0.797	48.9%	43.0%	47.5%
whodas11: Dealing with maintaining a friendship (-)	0.741	36.1%	32.8%	37.3%
whodas13: How much have you been affected by your health problems? (-)	0.986	66.8%	59.5%	62.1%
36 months				
whodas12: Difficulty affecting day-to-day work.(-)	1.000	82.2%	75.7%	77.7%
whodas2: Difficulty standing for long periods (-)	0.949	66.0%	54.1%	50.7%
whodas3: Difficulty taking care of household responsibilities (-)	1.032	78.7%	70.5%	69.9%
whodas4: Difficulty learning a new task (-)	0.820	58.2%	51.9%	54.0%
whodas5: Difficulty joining in community activities (-)	0.894	66.4%	61.2%	65.6%
whodas6: Difficulty concentrating (-)	0.881	71.8%	65.5%	64.6%
whodas7: Difficulty walking a long distance (-)	0.917	64.1%	56.7%	52.1%
whodas8: Difficulty washing your whole body (-)	0.612	32.1%	31.1%	33.5%
whodas9: Difficulty getting dressed (-)	0.588	30.3%	29.9%	43.6%
whodas10: Difficulty dealing with people you do not know (-)	0.797	53.2%	44.5%	48.2%
whodas11: Dealing with maintaining a friendship (-)	0.741	46.2%	44.5%	38.1%
whodas13: How much have you been affected by your health problems? (-)	0.986	76.5%	69.8%	70.5%

Note: This table reports the factor loadings of the measures allowed to load on the maternal functioning factor along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control, treatment and nondepressed group separately. All measures that were negatively worded in the follow-up surveys are reverse coded so that higher score means higher level of underlying skill.

Table A14: Socioemotional Measures of Child: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
6 months				
asq1:Baby calms down within a half hour.	1.000	31.2%	22.0%	16.5%
asq6:Baby lets you know when she is hungry/sick.	0.391	4.8%	2.0%	2.0%
asq8:Baby is able to calm herself down.(-)	0.949	27.5%	17.2%	13.8%
asq9:Baby cries for a long period of time. (-)	1.130	34.8%	31.4%	26.7%
asq10:Baby's body is relaxed.	0.878	21.8%	5.2%	17.5%
asq11:Baby has trouble sucking.(-)	0.508	7.5%	2.5%	3.4%
asq14:Baby has an eating problem. (-)	0.575	11.6%	7.6%	5.1%
asq16:Baby has trouble falling asleep. (-)	0.700	17.1%	5.5%	8.80%
asq17:Baby sleeps at least 10 hours a day.	0.720	18.7%	6.5%	11.9%
asq18:Baby gets constipated or have diarrhea. (-)	0.654	14.2%	4.8%	5.5%
asq19:Someone expressed concerns about baby's behaviour. (-)	0.601	12.7%	3.6%	4.0%
12 months				
asq1:Baby calms down within a half hour.	1.000	37.2%	34.5%	22.3%
asq3:Baby likes to be picked up.	0.396	5.7%	9.0%	1.1%
asq4:Baby stiffens when picked up. (-)	0.482	8.3%	5.8%	4.3%
asq8:Baby is able to calm herself down.	0.949	32.6%	23.9%	15.4%
asq9:Baby cries for a long time.(-)	1.130	46.0%	51.1%	38.1%
asq10:Baby's body is relaxed.	0.878	24.7%	30.6%	22.9%
asq14:Baby has an eating problem. (-)	0.575	10.8%	8.6%	8.3%
asq16:Baby has a problem falling asleep. (-)	0.700	16.3%	30.1%	13.1%
asq17:Baby sleeps at least 10 hours a day.	0.720	16.5%	14.5%	12.5%
asq18:Baby gets constipated or have diarrhea.(-)	0.654	13.2%	10.5%	7.9%
asq19:Someone expressed concerns about baby's behaviour. (-)	0.601	12.4%	11.4%	4.6%
asq20:Concerns about baby's eating/sleeping behaviour. (-)	0.495	8.5%	6.6%	4.1%
24 months				
asq8:Child calms down within 15 minutes.	1.000	44.0%	46.4%	78.5%
asq3:Child laughs or smile when you play with her.	1.539	98.6%	76.2%	95.2%
asq4:Child's body is relaxed.	0.878	65.8%	66.1%	79.6%
asq6:Child greets familiar adults.	1.581	70.2%	87.0%	92.7%
asq10:Child is interested in surroundings.	1.131	56.9%	87.4%	89.4%
asq12:You and your child enjoy mealtimes together.	1.359	69.3%	96.2%	78.4%
asq19:Child lets you know how she feels.	0.964	35.5%	35.6%	52.1%
asq20:Child checks to make sure you are near.	1.024	32.7%	40.0%	50.0%
asq22:Child likes to hear stories/songs.	0.891	32.7%	46.0%	49.4%
36 months				
asq5:Child calms down within 15 minutes.	1.000	28.1%	37.2%	12.1%
asq3:Child plays/talks with adults she knows well.	0.810	20.1%	25.4%	17.2%
asq7:Child can settle herself down.	1.565	65.2%	63.0%	35.0%
asq8:Child easily moves from one activity to next.	1.036	28.7%	36.3%	9.3%
asq9:Child seems happy.	1.710	72.0%	58.0%	49.2%
asq10:Child is interested in surroundings.	1.131	33.3%	29.6%	13.5%
asq11:Child does what you ask her to do.	1.351	39.1%	35.4%	22.0%
asq13:Child can stay with an activity for 5 min.	0.993	25.3%	36.6%	21.4%
asq14:You and your child enjoy mealtimes together.	1.359	43.9%	35.2%	24.7%
sdq14:Generally liked by other children	0.561	7.5%	7.5%	4.8%
sdq25:Good attention span.	0.666	10.4%	9.1%	4.0%

Note: This table reports the factor loadings of the measures allowed to load on the socioemotional factor of the child along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control, treatment and nondepressed group separately. All measures that were negatively worded in the follow-up surveys are reverse coded so that higher score means higher level of underlying skill.

Table A15: Physical Health Measures of Child: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
6 months				
Weight for age z-score	1.000	75.0%	62.8%	60.9%
Height for age z-score	0.819	43.9%	43.4%	42.8%
Head circumference for age z-score	0.709	34.6%	31.9%	32.4%
12 months				
Weight for age z-score	1.000	68.9%	58.9%	60.8%
Height for age z-score	0.819	53.6%	46.8%	25.7%
Head circumference for age z-score	0.709	27.0%	24.1%	29.8%
24 months				
Weight for age z-score	1.000	66.5%	75.1%	67.7%
Height for age z-score	0.818	44.1%	47.5%	45.3%
Head circumference for age z-score	0.709	31.0%	26.4%	28.3%
36 months				
Weight for age z-score	1.000	78.0%	87.9%	82.8%
Height for age z-score	0.819	53.6%	45.9%	45.8%

Note: This table reports the factor loadings of the measures allowed to load on the physical health factor of the child along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control, treatment and nondepressed group separately. Z-scores are calculated based on the WHO Child Growth Standards.

Table A16: Cognitive Measures of Child: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
12 months				
Bayley: Fine motor scaled score	1.000	57.5%	67.3%	55.4%
Bayley: Receptive scaled score	0.679	28.2%	35.0%	22.0%
Bayley: Cognitive scaled score	0.949	48.2%	69.7%	60.1%
Bayley: Expressive scaled score	0.648	23.7%	38.0%	27.8%
Bayley: Gross motor scaled score	0.639	23.6%	31.0%	20.0%
36 months				
Bayley: Fine motor scaled score	1.000	44.3%	49.4%	49.8%
Bayley: Receptive scaled score	0.679	20.2%	19.0%	18.5%

Note: This table reports the factor loadings of the measures allowed to load on the cognition factor of the child along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control,treatment and nondepressed group separately. Bayley scaled scores are calculated from the raw scores such that they have mean=10 and SD=3.

Table A17: Parental Investment Measures: Loadings and Signal-to-noise Ratio

Measurement	Loading	% Signal		
		Control	Treated	Nondep.
6 months				
Maternal Postnatal Attachment Score	1.000	41.4%	37.5%	45.9%
Maternal Self-Efficacy Score	0.869	35.5%	29.2%	38.2%
12 months				
HOME: Learning Material	1.000	63.0%	59.1%	55.4%
HOME: Responsivity	0.284	5.1%	6.4%	5.1%
HOME: Organization	0.602	23.6%	25.8%	20.4%
HOME: Involvement	0.872	46.7%	49.2%	44.5%
HOME: Variety	0.535	17.4%	11.9%	14.4%
24 months				
Omci2: Mom shows negative affect for child (-)	1.000	85.3%	69.2%	61.9%
Omci1: Mom shows positive affect for child.	0.291	9.7%	3.5%	7.9%
Omci3: Mom loses attention towards the child. (-)	0.436	13.5%	9.1%	10.1%
Omci5: Mom shows negative touch. (-)	0.836	47.1%	25.4%	34.6%
Omci7: Mom expresses negative verbal statement.(-)	0.708	32.4%	26.1%	38.7%
Omci8: Mom shows intrusiveness. (-)	0.534	13.5%	28.8%	13.4%
36 months				
HOME: Learning Material	1.000	57.7%	55.5%	58.6%
HOME: Acceptance	0.158	1.5%	1.9%	1.5%
HOME: Organization	0.602	21.3%	20.8%	20.9%
HOME: Involvement	0.872	48.3%	49.3%	41.2%
HOME: Variety	0.535	17.1%	18.9%	14.4%

Note: This table reports the factor loadings of the measures allowed to load on the parental investment factor along with the fraction of variance in each measure that is explained by the variance of the underlying latent factor for the control, treatment and nondepressed group separately. Maternal postnatal attachment score is a sum score from a 19 item questionnaire assessing mother-infant attachment. Maternal self-efficacy score is a sum score from a 10 item questionnaire measuring mother's ability to care for her child. Items reported under 12 and 36 months are used to estimate the longitudinal investment factor model. Items at 6 and 24 months are used to estimate investment factors at these follow-up points for descriptive purposes.

D.3   Estimated Latent Factor Correlations

The following figures provide the correlations between the estimated latent factors at 6, 12 and 36 months in control and the treatment groups separately.
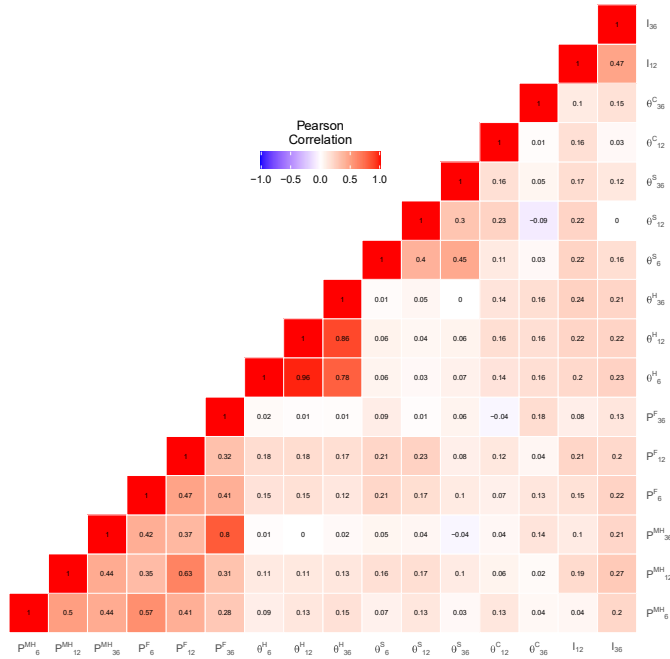
Figure A1: Estimated Latent Factor Correlations: Control Group
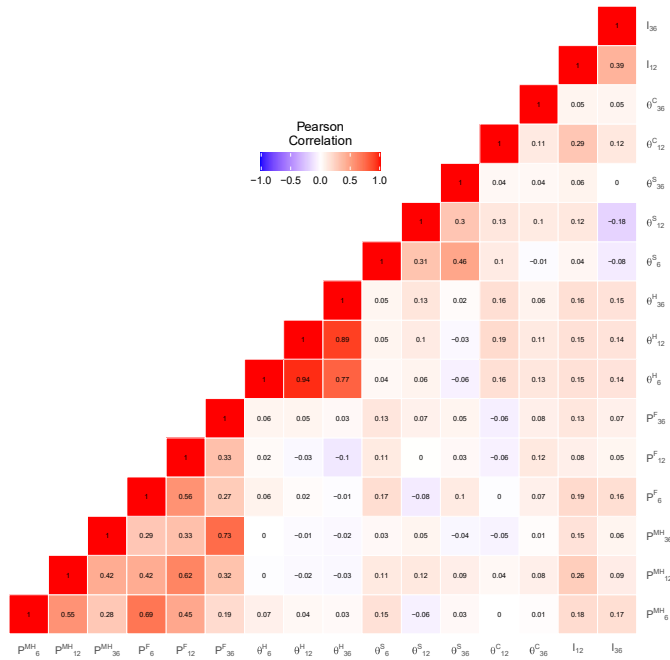

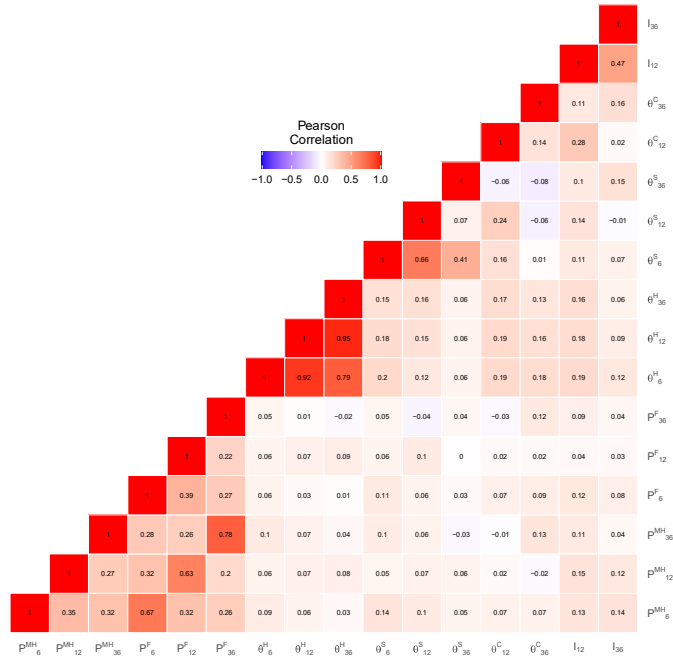Figure A2: Estimated Latent Factor Correlations: Treatment Group

Figure A3: Estimated Latent Factor Correlations: Non-depressed Group

E   Reduced Form Outputs

Table A18: Trajectory of Maternal Measures

Measurement	Control Mean	SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val	N
6 Months									
PHQ Total	6.842	6.263	6.074	3.159	-0.768	-1.116	0.452	0.014	929
PHQ Categorized									929
Minimal (0-4)	0.447	0.498	0.491	0.732	0.044	0.060	0.037	0.106	929
Mild (5-9)	0.241	0.429	0.265	0.180	0.024	0.035	0.034	0.301	929
Moderate (10-14)	0.149	0.357	0.122	0.049	-0.027	-0.042	0.035	0.228	929
Moderately Severe (15-19)	0.127	0.334	0.087	0.032	-0.054	-0.050	0.024	0.041	929
Severe (20+)	0.035	0.184	0.035	0.006	0.000	-0.003	0.011	0.752	929
PSS Total	17.219	9.369	15.887	11.270	-1.332	-1.520	0.648	0.019	929
Current Major Dep. Episode	0.225	0.418	0.179	0.060	-0.046	-0.071	0.028	0.011	926
Remission	0.447	0.498	0.491		0.044	0.060	0.037	0.106	458
Recovery	0.452	0.499	0.583		0.131	0.128	0.036	0.000	458
Mental Health Index	**0**	**1**	**0.142**	**0.516**	**0.142**	**0.205**	**0.056**	**0.000**	**929**
Mental Health Factor	**0**	**1**	**0.160**	**0.648**	**0.160**	**0.205**	**0.052**	**0.000**	**929**
WHODAS Total	7.623	9.420	6.683	2.943	-0.940	-1.652	0.807	0.041	926
Functioning Index	**0**	**1**	**0.136**	**0.459**	**0.136**	**0.184**	**0.079**	**0.019**	**929**
Functioning Factor	**0**	**1**	**0.108**	**0.547**	**0.108**	**0.182**	**0.075**	**0.015**	**929**
Mother Index	**0**	**1**	**0.168**	**0.531**	**0.168**	**0.211**	**0.061**	**0.001**	**929**
12 Months									
PSS Total	17.724	9.534	17.309	12.031	-0.414	-1.169	0.743	0.116	940
Current Major Dep. Episode	0.303	0.460	0.256	0.101	-0.047	-0.091	0.036	0.011	938
Mental Health Index	**0**	**1**	**0.103**	**0.478**	**0.103**	**0.135**	**0.067**	**0.044**	**940**
Mental Health Factor	**0**	**1**	**0.098**	**0.650**	**0.098**	**0.170**	**0.054**	**0.002**	**940**
WHODAS Total	7.175	9.008	5.843	3.333	-1.332	-1.878	0.731	0.010	940
Functioning Index	**0**	**1**	**0.192**	**0.378**	**0.192**	**0.248**	**0.059**	**0.000**	**940**
Functioning Factor	**0**	**1**	**0.159**	**0.471**	**0.159**	**0.195**	**0.069**	**0.005**	**940**
Mother Index	**0**	**1**	**0.165**	**0.457**	**0.164**	**0.214**	**0.071**	**0.002**	**940**
24 Months									
PHQ Total	6.782	6.152	6.829	3.951	0.047	0.052	0.478	0.913	903
PHQ Categorized									903
Minimal (0-4)	0.445	0.498	0.424	0.666	-0.022	-0.025	0.034	0.458	903
Mild (5-9)	0.291	0.455	0.333	0.218	0.042	0.028	0.034	0.414	903
Moderate (10-14)	0.141	0.349	0.129	0.072	-0.012	-0.001	0.029	0.966	903
Moderately Severe (15-19)	0.064	0.245	0.057	0.027	-0.006	0.005	0.020	0.792	903
Severe (20+)	0.059	0.236	0.057	0.017	-0.002	-0.007	0.017	0.692	903
PSS Total	14.027	8.257	15.724	10.645	1.697	1.129	0.633	0.075	903
Current Major Dep. Episode	0.251	0.435	0.254	0.106	0.002	0.012	0.033	0.713	900
Mental Health Index	**0**	**1**	**-0.139**	**0.328**	**-0.139**	**-0.033**	**0.051**	**0.515**	**903**
Mental Health Factor	**0**	**1**	**0.028**	**0.532**	**0.028**	**-0.002**	**0.057**	**0.970**	**903**
WHODAS Total	7.532	8.476	7.757	4.230	0.225	0.503	0.648	0.437	903
Functioning Index	**0**	**1**	**-0.087**	**0.303**	**-0.087**	**-0.095**	**0.077**	**0.219**	**903**
Functioning Factor	**0**	**1**	**-0.013**	**0.406**	**-0.013**	**-0.036**	**0.072**	**0.616**	**903**
Mother Index	**0**	**1**	**-0.170**	**0.302**	**-0.170**	**-0.071**	**0.061**	**0.240**	**903**
36 Months									
PHQ Total	6.481	6.254	5.845	3.441	-0.637	-1.737	0.505	0.001	889
PHQ Categorized									889
Minimal (0-4)	0.509	0.501	0.534	0.730	0.025	0.071	0.039	0.067	889
Mild (5-9)	0.241	0.429	0.218	0.139	-0.024	-0.022	0.030	0.458	889
Moderate (10-14)	0.097	0.297	0.150	0.090	0.053	0.061	0.021	0.004	889
Moderately Severe (15-19)	0.106	0.309	0.068	0.034	-0.039	-0.056	0.021	0.009	889
Severe (20+)	0.046	0.211	0.029	0.006	-0.017	-0.055	0.019	0.004	889
PSS Total	14.931	9.731	13.971	9.857	-0.960	-2.855	0.885	0.001	889
GAD Total	5.542	6.437	4.644	3.028	-0.899	-2.571	0.632	0.000	623
GAD Total > 10	0.165	0.372	0.113	0.070	-0.052	-0.089	0.038	0.019	623
Current Major Dep. Episode	0.213	0.410	0.160	-0.102	0.043	-0.119	0.035	0.001	889
Mental Health Index	**0**	**1**	**0.168**	**0.425**	**0.168**	**0.325**	**0.090**	**0.000**	**889**
Mental Health Factor	**0**	**1**	**0.133**	**0.556**	**0.133**	**0.268**	**0.078**	**0.001**	**889**
WHODAS Total	6.778	9.444	5.874	3.338	-0.904	-2.790	0.867	0.001	889
Functioning Index	**0**	**1**	**0.066**	**0.317**	**0.066**	**0.220**	**0.074**	**0.003**	**889**
Functioning Factor	**0**	**1**	**0.112**	**0.376**	**0.112**	**0.287**	**0.081**	**0.000**	**889**
Mother Index	**0**	**1**	**0.128**	**0.372**	**0.128**	**0.291**	**0.092**	**0.001**	**889**

Note: Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with the (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (splitted by gender), whether the index child is the first child, parental education (in years), asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Mental Health Index : all PHQ items + all PSS items + all SCID items + all GAD items whenever available. Functioning Index : all WHODAS items. Mother Index : all PHQ items + all PSS items + all SCID items + all GAD items + all WHODAS items whenever available. Remission: Proportion of depressed at baseline having PHQ Total<5 at 3 or 6 months. Recovery: Proportion of depressed at baseline having PHQ Total<5 at 3 and 6 months.

Table A19: Trajectory of Child Measures I

Measurement	Control Mean	SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val	N
6 Months									
Weight for age z-score	-0.857	1.140	-0.903	-0.892	-0.046	-0.140	0.123	0.254	923
Height for age z-score	0.086	1.688	0.278	0.053	0.192	0.063	0.177	0.720	920
Head Circ. for age z-score	-0.809	1.044	-0.882	-0.813	-0.073	-0.133	0.099	0.178	923
Child Health Index	**0**	**1**	**0.001**	**-0.020**	**0.001**	**-0.055**	**0.067**	**0.419**	**929**
Child Health Factor	**0**	**1**	**-0.016**	**-0.034**	**-0.016**	**-0.021**	**0.079**	**0.792**	**929**
ASQ-SE Total	9.512	13.247	9.677	9.302	0.165	0.045	1.217	0.971	852
ASQ-SE Self-regulation	3.902	6.906	3.848	4.000	-0.055	-0.507	0.600	0.398	852
ASQ-SE Communication	0.366	1.711	0.461	0.547	0.095	0.061	0.196	0.757	852
ASQ-SE Adaptive Func.	3.805	6.275	4.078	3.651	0.273	-0.579	0.521	0.266	852
ASQ-SE Affect	0.415	1.839	0.691	0.442	0.277	0.407	0.169	0.016	852
ASQ-SE Interaction	0.829	2.581	0.599	0.477	-0.230	-0.636	0.237	0.007	852
Child SE Index	**0**	**1**	**-0.034**	**0.041**	**-0.034**	**-0.049**	**0.073**	**0.495**	**852**
Child SE Factor	**0**	**1**	**0.167**	**0.100**	**0.167**	**0.187**	**0.056**	**0.001**	**852**
Child Index	**0**	**1**	**-0.028**	**0.033**	**-0.028**	**-0.067**	**0.073**	**0.357**	**929**
12 Months									
Weight for age z-score	-0.795	1.128	-0.751	-0.769	0.044	0.208	0.122	0.088	934
Height for age z-score	-0.782	1.312	-0.713	-0.784	0.069	0.119	0.108	0.273	934
Head Circ. for age z-score	-0.849	1.000	-0.951	-0.911	-0.102	-0.110	0.095	0.247	938
Child Health Index	**0**	**1**	**0.012**	**-0.016**	**0.012**	**-0.031**	**0.063**	**0.623**	**940**
Child Health Factor	**0**	**1**	**0.044**	**0.035**	**0.044**	**0.019**	**0.070**	**0.784**	**940**
ASQ-SE Total	11.689	13.958	9.731	10.112	-1.958	-1.795	1.002	0.073	940
ASQ-SE Self-regulation	5.022	8.799	3.655	4.427	-1.367	-1.633	0.604	0.007	940
ASQ-SE Communication	0.504	2.117	0.717	0.450	0.213	0.474	0.205	0.021	940
ASQ-SE Adaptive Func.	5.219	6.240	4.596	4.233	-0.623	-0.450	0.415	0.278	940
ASQ-SE Affect	0.307	1.452	0.224	0.368	-0.083	0.026	0.120	0.827	940
ASQ-SE Interaction	0.439	1.825	0.359	0.317	-0.080	-0.143	0.117	0.219	940
Child SE Index	**0**	**1**	**0.106**	**0.050**	**0.106**	**0.105**	**0.057**	**0.064**	**940**
Child SE Factor	**0**	**1**	**0.417**	**0.315**	**0.417**	**0.389**	**0.070**	**0.000**	**940**
Bayley Cognitive (scaled)	9.196	2.249	9.276	9.430	0.081	0.022	0.182	0.904	923
Bayley Receptive (scaled)	7.942	1.373	7.949	7.969	0.007	-0.141	0.111	0.205	923
Bayley Expressive (scaled)	9.076	1.634	8.954	9.212	-0.122	-0.145	0.154	0.346	923
Bayley Fine motor (scaled)	9.036	1.724	8.908	9.012	-0.128	-0.265	0.170	0.118	923
Bayley Gross motor (scaled)	8.209	2.217	8.120	8.096	-0.089	0.065	0.221	0.768	923
Child Cog Index	**0**	**1**	**-0.038**	**0.038**	**-0.038**	**-0.050**	**0.070**	**0.471**	**940**
Child Cog Factor	**0**	**1**	**-0.059**	**0.069**	**-0.059**	**-0.080**	**0.083**	**0.334**	**940**
Child Index	**0**	**1**	**0.096**	**0.051**	**0.096**	**0.069**	**0.050**	**0.169**	**940**

Note: SE=socioemotional skills. Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Health Index : weight for age + height for age + head circumference for age z-scores. SE index : all ASQ-SE items. Cog Index : all Bayley-III subscales. Child Index : all anthropometrics + all ASQ-SE items + all Bayley-III items whenever available.

Table A20: Trajectory of Child Measures II

Measurement	Control		Treatment	Nondep.	Diff.	Adjusted	s.e.	p-val	N
	Mean	SD	Mean	Mean	(T-C)	Beta			
24 Months									
Weight for age z-score	-0.911	1.045	-1.003	-0.847	-0.092	-0.058	0.077	0.453	895
Height for age z-score	-1.149	1.183	-1.133	-1.045	0.017	-0.007	0.099	0.941	900
Head Circ. for age z-score	-0.852	0.875	-0.975	-0.964	-0.123	-0.166	0.083	0.044	901
Child Health Index	**0**	**1**	**-0.097**	**0.004**	**-0.097**	**-0.082**	**0.077**	**0.290**	903
Child Health Factor	**0**	**1**	**-0.130**	**0.053**	**-0.130**	**-0.100**	**0.083**	**0.227**	903
ASQ-SE Total	12.237	23.633	13.900	15.764	1.662	1.232	1.346	0.360	899
ASQ-SE Self-regulation	2.591	5.623	2.738	2.717	0.147	0.144	0.334	0.667	903
ASQ-SE Compliance	0.182	1.339	0.286	0.486	0.104	0.112	0.104	0.284	903
ASQ-SE Communication	0.841	4.065	0.833	1.438	-0.008	0.028	0.245	0.910	903
ASQ-SE Adaptive Func.	1.250	3.046	1.286	1.522	0.036	-0.166	0.201	0.408	903
ASQ-SE Autonomy	0.250	1.528	0.381	0.581	0.131	0.122	0.097	0.211	903
ASQ-SE Affect	0.932	3.533	0.952	1.353	0.021	-0.026	0.283	0.925	903
ASQ-SE Interaction	5.982	9.841	7.225	7.516	1.243	1.150	0.615	0.061	899
Child SE Index	**0**	**1**	**-0.043**	**-0.162**	**-0.043**	**0.054**	**0.071**	**0.453**	903
Child SE Factor	**0**	**1**	**-0.050**	**-0.217**	**-0.050**	**-0.065**	**0.067**	**0.334**	903
Child Index	**0**	**1**	**-0.071**	**-0.128**	**-0.071**	**0.030**	**0.074**	**0.681**	903
36 Months									
Weight for age z-score	-0.951	1.030	-1.056	-0.939	-0.105	-0.160	0.098	0.101	881
Height for age z-score	-0.846	1.012	-0.925	-0.778	-0.079	-0.176	0.123	0.152	885
Child Health Index	**0**	**1**	**-0.099**	**0.045**	**-0.099**	**-0.120**	**0.090**	**0.182**	889
Child Health Factor	**0**	**1**	**-0.137**	**0.041**	**-0.137**	**-0.166**	**0.088**	**0.060**	889
ASQ-SE Total	41.181	19.526	41.189	38.576	0.009	-1.450	1.637	0.376	889
ASQ-SE Self-regulation	19.630	10.120	18.689	17.944	-0.940	-1.321	0.732	0.071	889
ASQ-SE Compliance	0.602	2.071	0.728	0.685	0.126	0.136	0.196	0.486	889
ASQ-SE Communication	0.741	2.294	0.947	0.642	0.206	-0.117	0.260	0.653	889
ASQ-SE Adaptive Func.	2.940	4.874	3.617	3.062	0.677	0.312	0.623	0.616	889
ASQ-SE Autonomy	10.069	2.872	9.515	9.839	-0.555	-0.382	0.207	0.065	889
ASQ-SE Affect	0.810	3.150	0.801	0.450	-0.009	-0.223	0.380	0.557	889
ASQ-SE Interaction	6.389	5.491	6.893	5.953	0.504	0.143	0.275	0.603	889
SDQ Total	14.718	6.127	14.733	13.687	0.015	0.262	0.331	0.428	889
Boi Total	18.617	11.174	18.124	20.021	-0.493	0.291	0.357	0.415	889
Child SE Index	**0**	**1**	**-0.022**	**0.240**	**-0.022**	**0.012**	**0.076**	**0.875**	889
Child SE Factor	**0**	**1**	**0.058**	**0.108**	**0.058**	**0.063**	**0.075**	**0.400**	889
Bayley Receptive (scaled)	9.977	2.600	10.417	10.413	0.440	0.390	0.206	0.058	886
Bayley Fine motor (scaled)	11.377	4.117	11.422	11.308	0.045	0.041	0.286	0.885	886
Child Cog Index	**0**	**1**	**0.092**	**0.074**	**0.092**	**0.090**	**0.074**	**0.225**	889
Child Cog Factor	**0**	**1**	**0.047**	**-0.020**	**0.047**	**0.065**	**0.075**	**0.386**	889
Child Index	**0**	**1**	**-0.034**	**0.242**	**-0.034**	**-0.005**	**0.079**	**0.953**	889

Note: SE=socioemotional skills. Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Health Index : weight for age + height for age + head circumference for age z-scores. SE index : all ASQ-SE items + all SDQ items + all Boi items. Cog Index : all Bayley-III subscales. Child Index : all anthropometrics + all ASQ-SE items + all SDQ items + all Bayley-III items whenever available.

Table A21: Trajectory of Parental Investment

Measurement	Control Mean	SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val	N
6 Months									
MPAS Total	86.354	6.146	86.166	87.397	-0.188	0.302	0.624	0.629	929
MSES Total	36.886	3.710	37.265	37.726	0.379	0.229	0.264	0.387	929
Investment Index	0	1	0.083	0.180	0.083	0.095	0.065	0.145	929
Investment Factor	0	1	0.060	0.417	0.060	0.076	0.057	0.187	929
12 Months									
HOME Total	30.680	5.683	31.099	32.419	0.419	0.639	0.499	0.200	940
HOME Responsivity	9.732	1.434	9.865	9.787	0.133	0.226	0.114	0.047	940
HOME Acceptance	6.088	1.389	6.224	6.192	0.136	0.152	0.126	0.226	940
HOME Organization	3.434	1.417	3.556	3.775	0.122	0.153	0.142	0.281	940
HOME Learning Mat.	4.728	2.643	4.798	5.487	0.070	0.176	0.256	0.493	940
HOME Involvement	3.886	1.453	3.892	4.264	0.006	0.001	0.128	0.995	940
HOME Variety	2.811	0.582	2.762	2.914	-0.049	-0.069	0.066	0.298	940
Investment Index	0	1	0.131	0.262	0.131	0.142	0.075	0.059	940
Investment Factor	0	1	0.062	0.448	0.062	0.075	0.086	0.382	940
24 Months									
OMCI Total	37.374	4.641	37.074	38.161	-0.267	-0.146	0.409	0.721	885
Investment Index	0	1	-0.076	0.166	-0.076	-0.045	0.084	0.592	889
Investment Factor	0	1	0.012	0.035	0.012	-0.031	0.083	0.710	889
36 Months									
HOME Total	37.347	4.494	37.607	38.582	0.260	0.279	0.366	0.446	889
HOME Responsivity	10.472	0.899	10.437	10.497	-0.035	-0.040	0.065	0.535	889
HOME Acceptance	6.759	1.204	6.898	6.919	0.139	0.173	0.095	0.068	889
HOME Organization	5.028	0.935	5.049	5.148	0.021	-0.002	0.075	0.982	889
HOME Learning Mat.	6.435	2.451	6.505	7.004	0.070	0.134	0.222	0.546	889
HOME Involvement	5.065	1.303	5.121	5.313	0.057	0.039	0.090	0.665	889
HOME Variety	3.588	0.847	3.597	3.702	0.009	-0.025	0.052	0.625	889
OMCI Total	40.958	3.992	41.362	41.353	0.403	0.261	0.390	0.503	886
Investment Index	0	1	0.060	0.179	0.060	0.079	0.071	0.264	889
Investment Factor	0	1	0.067	0.361	0.067	0.111	0.076	0.143	889

Note: MPAS : Maternal Postnatal Attachment Scale, MSES : Maternal Self-Efficacy Scale, OMCI: Observation for Mother Child Interaction. Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with the (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Investment Index : all MPAS items +all MSES items at 6 months, all HOME items at 12 and 36 months, all OMCI items at 24 months.

Table A22: Trajectory of Standardized Summary Indices

Measurement	Control Mean	SD	Treatment Mean	Nondep. Mean	Adjusted Beta	s.e.	p-val	N
Maternal Factor Scores								
Mental Health (6 months)	0	1	0.160	0.648	0.205	0.052	0.000	929
Mental Health (12 months)	0	1	0.098	0.650	0.170	0.054	0.002	940
Mental Health (36 months)	0	1	0.133	0.556	0.268	0.078	0.001	889
Functioning (6 months)	0	1	0.108	0.547	0.182	0.075	0.015	929
Functioning (12 months)	0	1	0.159	0.471	0.195	0.069	0.005	940
Functioning (36 months)	0	1	0.112	0.376	0.287	0.081	0.000	889
Child Factor Scores								
Physical Health (6 months)	0	1	-0.016	-0.034	-0.021	0.079	0.792	929
Physical Health (12 months)	0	1	0.044	0.035	0.019	0.070	0.784	940
Physical Health (36 months)	0	1	-0.137	0.041	-0.166	0.088	0.060	889
SE Skills (6 months)	0	1	0.167	0.100	0.187	0.056	0.001	940
SE Skills (12 months)	0	1	0.417	0.315	0.389	0.070	0.000	940
SE Skills (36 months)	0	1	0.058	0.108	0.063	0.075	0.400	889
Cognition (12 months)	0	1	-0.059	0.069	-0.080	0.083	0.334	940
Cognition (36 months)	0	1	0.047	-0.020	0.065	0.075	0.386	889
Investment Factor Scores								
Investment (12 months)	0	1	0.062	0.448	0.075	0.086	0.382	940
Investment (36 months)	0	1	0.067	0.361	0.111	0.076	0.143	889

SE skills = socioemotional skills. Factor scores are standardized at each time point to have mean 0 and SD 1 in the control group. The first two columns report the mean and standard deviation of the outcome variables in the control group. The following columns report the means for the treatment group and the group of mothers who were non-depressed at baseline (Nondep.). Adjusted Beta coefficients are obtained from the regressions of items on the treatment indicator and its interactions with the (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset-based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Standard errors clustered at the village-cluster level are reported in the s.e. column. Reported p-values and standard errors refer to the adjusted beta coefficient. N reports the number of observations of each analysis. Factor scores are coded so that a higher score always indicates a better outcome.

F   Treatment Effects on the Fixed Subset

The following tables present the estimated treatment effects for the fixed subset of mothers who were present at 6, 12, 24, and 36 months follow-up waves. (N=771).

Table A23: Trajectory of Maternal Measures for the Fixed Subset (N=771)

Measurement	Control Mean	Control SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val
6 Months								
PHQ Total	6.590	6.141	5.995	3.261	-0.596	-0.897	0.404	0.026
PHQ Categorized								
Minimal (0-4)	0.463	0.500	0.516	0.722	0.054	0.072	0.031	0.020
Mild (5-9)	0.234	0.425	0.255	0.188	0.021	0.017	0.034	0.610
Moderate (10-14)	0.144	0.352	0.109	0.045	-0.035	-0.039	0.029	0.177
Moderately Severe (15-19)	0.133	0.340	0.082	0.038	-0.051	-0.048	0.022	0.030
Severe (20+)	0.027	0.161	0.038	0.008	0.011	-0.003	0.012	0.825
PSS Total	16.761	9.334	15.701	11.318	-1.060	-1.647	0.537	0.002
Current Major Dep. Episode	0.209	0.407	0.168	0.065	-0.040	-0.071	0.025	0.005
Remission	0.463	0.500	0.516		0.054	0.072	0.031	0.020
Recovery	0.457	0.500	0.592		0.135	0.147	0.032	0.000
Mental Health Index	0	1	0.098	0.420	0.098	0.156	0.078	0.045
Mental Health Factor	0	1	0.142	0.580	0.142	0.196	0.059	0.001
WHODAS Total	7.574	9.551	6.337	2.940	-1.238	-1.820	0.711	0.010
Functioning Index	0	1	0.182	0.433	0.182	0.225	0.080	0.005
Functioning Factor	0	1	0.127	0.514	0.127	0.190	0.073	0.010
Mother Index	0	1	0.159	0.449	0.159	0.210	0.079	0.008
12 Months								
PSS Total	16.851	9.384	16.897	11.935	0.046	-0.282	0.647	0.663
Current Major Dep. Episode	0.266	0.443	0.266	0.093	0.000	-0.008	0.026	0.746
Mental Health Index	0	1	0.053	0.392	0.053	0.045	0.058	0.444
Mental Health Factor	0	1	0.033	0.572	0.033	0.026	0.053	0.624
WHODAS Total	6.590	8.605	5.630	3.135	-0.960	-1.713	0.562	0.002
Functioning Index	0	1	0.194	0.379	0.194	0.280	0.064	0.000
Functioning Factor	0	1	0.116	0.428	0.116	0.186	0.057	0.001
Mother Index	0	1	0.174	0.397	0.174	0.208	0.064	0.001
24 Months								
PHQ Total	6.697	5.823	6.848	3.810	0.151	-0.117	0.418	0.779
PHQ Categorized								
Minimal (0-4)	0.431	0.497	0.435	0.682	0.004	0.028	0.033	0.396
Mild (5-9)	0.303	0.461	0.315	0.203	0.012	-0.020	0.034	0.548
Moderate (10-14)	0.154	0.362	0.136	0.078	-0.018	-0.007	0.028	0.813
Moderately Severe (15-19)	0.064	0.245	0.054	0.025	-0.009	-0.005	0.022	0.836
Severe (20+)	0.048	0.214	0.060	0.013	-0.012	0.004	0.011	0.735
PSS Total	13.489	7.946	15.870	10.426	2.380	1.712	0.658	0.009
Current Major Dep. Episode	0.246	0.432	0.246	0.101	0.000	0.004	0.033	0.396
Mental Health Index	0	1	-0.178	0.334	-0.178	-0.081	0.062	0.195
Mental Health Factor	0	1	0.005	0.515	0.005	-0.009	0.062	0.889
WHODAS Total	7.339	8.350	7.913	3.892	0.514	0.561	0.581	0.335
Functioning Index	0	1	-0.039	0.390	-0.039	-0.059	0.073	0.422
Functioning Factor	0	1	-0.050	0.449	-0.050	-0.057	0.067	0.395
Mother Index	0	1	-0.169	0.360	-0.169	-0.096	0.067	0.152
36 Months								
PHQ Total	5.995	5.889	5.918	3.461	-0.076	-0.970	0.411	0.018
PHQ Categorized								
Minimal (0-4)	0.537	0.500	0.527	0.734	-0.010	0.036	0.034	0.290
Mild (5-9)	0.239	0.428	0.217	0.128	-0.022	-0.014	0.031	0.643
Moderate (10-14)	0.090	0.288	0.152	0.095	0.062	0.051	0.018	0.005
Moderately Severe (15-19)	0.101	0.302	0.071	0.035	-0.030	-0.062	0.016	0.000
Severe (20+)	0.032	0.176	0.033	0.008	0.001	-0.011	0.014	0.459
PSS Total	14.399	9.681	13.832	9.817	-0.567	-1.967	0.770	0.011
GAD Total	5.188	6.162	4.607	3.068	-0.581	-1.917	0.503	0.000
GAD Total > 10	0.176	0.381	0.130	0.085	-0.045	-0.072	0.033	0.027
Current Major Dep. Episode	0.191	0.395	0.158	0.093	-0.034	-0.096	0.029	0.001
Mental Health Index	0	1	0.163	0.401	0.163	0.306	0.096	0.001
Mental Health Factor	0	1	0.051	0.451	0.051	0.190	0.071	0.008
WHODAS Total	5.915	8.576	5.815	3.391	-0.100	-1.551	0.626	0.013
Functioning Index	0	1	0.009	0.281	0.009	0.161	0.076	0.033
Functioning Factor	0	1	0.017	0.310	0.017	0.186	0.073	0.011
Mother Index	0	1	0.159	0.384	0.159	0.325	0.096	0.001

Note: Table shows treatment effects on the reported items and Anderson indices for the subset of mothers who were present at all four waves (N=771). Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Mental Health Index : all PHQ items + all PSS items + all SCID items + all GAD items whenever available. Functioning Index : all WHODAS items. Mother Index : all PHQ items + all PSS items + all SCID items + all GAD items + all WHODAS items whenever available. Remission: Proportion of depressed at baseline having PHQ Total<5 at 3 or 6 months. Recovery: Proportion of depressed at baseline having PHQ Total<5 at 3 and 6 months.

Measurement	Control Mean	SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val
6 Months								
Weight for age z-score	-0.806	1.099	-0.885	-0.882	-0.080	-0.132	0.086	0.125
Height for age z-score	0.098	1.625	0.323	0.080	0.224	0.020	0.124	0.873
Head Circ. for age z-score	-0.801	1.035	-0.840	-0.826	-0.039	-0.139	0.087	0.110
Child Health Index	**0**	**1**	**0.027**	**-0.040**	**0.027**	**-0.090**	**0.075**	**0.229**
Child Health Factor	**0**	**1**	**-0.012**	**-0.068**	**-0.012**	**-0.090**	**0.076**	**0.234**
ASQ-SE Total	9.940	13.777	9.600	9.288	-0.340	0.533	1.270	0.674
ASQ-SE Self-regulation	4.077	7.085	3.857	4.000	-0.220	-0.092	0.647	0.888
ASQ-SE Communication	0.268	1.369	0.457	0.548	0.189	0.366	0.155	0.018
ASQ-SE Adaptive Func.	4.137	6.589	3.857	3.658	-0.280	-0.265	0.525	0.614
ASQ-SE Affect	0.387	1.730	0.714	0.411	0.327	0.542	0.164	0.001
ASQ-SE Interaction	0.893	2.698	0.543	0.397	-0.350	-0.538	0.251	0.032
Child SE Index	**0**	**1**	**0.073**	**0.160**	**0.073**	**0.021**	**0.068**	**0.759**
Child SE Factor	**0**	**1**	**0.174**	**0.037**	**0.174**	**0.208**	**0.069**	**0.003**
Child Index	**0**	**1**	**0.080**	**0.152**	**0.080**	**-0.001**	**0.066**	**0.987**
12 Months								
Weight for age z-score	-0.797	1.154	-0.736	-0.778	0.061	0.079	0.096	0.409
Height for age z-score	-0.817	1.308	-0.726	-0.765	0.092	0.051	0.084	0.544
Head Circ. for age z-score	-0.819	1.000	-0.951	-0.936	-0.132	-0.224	0.085	0.009
Child Health Index	**0**	**1**	**-0.015**	**-0.035**	**-0.015**	**-0.058**	**0.082**	**0.478**
Child Health Factor	**0**	**1**	**0.033**	**-0.013**	**0.033**	**0.007**	**0.074**	**0.929**
ASQ Total	11.489	14.373	9.538	9.737	-1.951	-1.949	0.949	0.040
ASQ-SE Self-regulation	5.226	8.967	3.451	4.060	-1.815	-2.126	0.579	0.000
ASQ-SE Communication	0.452	2.051	0.734	0.489	0.282	0.185	0.116	0.111
ASQ-SE Adaptive Func.	4.920	6.364	4.538	4.286	-0.382	0.107	0.432	0.804
ASQ-SE Affect	0.293	1.385	0.190	0.326	-0.102	-0.160	0.119	0.177
ASQ-SE Interaction	0.372	1.674	0.408	0.276	0.035	0.079	0.121	0.515
Child SE Index	**0**	**1**	**0.115**	**0.099**	**0.115**	**0.137**	**0.059**	**0.020**
Child SE Factor	**0**	**1**	**0.424**	**0.374**	**0.424**	**0.417**	**0.078**	**0.000**
Bayley Cognitive (scaled)	9.414	2.150	9.339	9.466	-0.075	-0.058	0.215	0.786
Bayley Receptive (scaled)	8.032	1.347	7.983	7.959	-0.049	-0.109	0.095	0.252
Bayley Expressive (scaled)	9.215	1.513	9.006	9.244	-0.209	-0.242	0.131	0.065
Bayley Fine motor (scaled)	9.199	1.597	8.878	9.079	-0.321	-0.390	0.140	0.005
Bayley Gross motor (scaled)	8.333	2.107	8.206	8.206	-0.128	-0.159	0.203	0.433
Child Cog Index	**0**	**1**	**-0.121**	**-0.038**	**-0.121**	**-0.165**	**0.095**	**0.082**
Child Cog Factor	**0**	**1**	**-0.161**	**-0.015**	**-0.161**	**-0.205**	**0.104**	**0.048**
Child Index	**0**	**1**	**0.082**	**0.079**	**0.082**	**0.074**	**0.057**	**0.196**

Note: SE=socioemotional skills. Table shows treatment effects on the reported items and Anderson indices for the subset of mothers who were present at all four waves (N=771). Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Mental Health Index : all PHQ items + all PSS items + all SCID items + all GAD items whenever available. Physical Health Index : all WHODAS items. Mother Index : all PHQ items + all PSS items + all SCID items + all GAD items + all WHODAS items whenever available.

Table A25: Trajectory of Child Measures for the Fixed Subset II (N=771)

Measurement	Control Mean	Control SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val
24 Months								
Weight for age z-score	-0.861	1.010	-1.007	-0.844	-0.146	-0.146	0.073	0.045
Height for age z-score	-1.097	1.223	-1.146	-0.994	-0.050	-0.066	0.095	0.485
Head Circ. for age z-score	-0.782	0.874	-0.938	-0.956	-0.156	-0.230	0.085	0.007
Child Health Index	0	1	**-0.149**	**-0.039**	**-0.149**	**-0.183**	**0.080**	**0.023**
Child Health Factor	0	1	**-0.179**	**-0.017**	**-0.179**	**-0.198**	**0.085**	**0.020**
ASQ-SE Total	10.856	20.434	12.596	12.103	1.740	1.807	1.184	0.127
ASQ-SE Self-regulation	2.473	5.509	2.554	2.318	0.081	0.220	0.367	0.549
ASQ-SE Compliance	0.106	1.029	0.217	0.301	0.111	0.176	0.069	0.011
ASQ-SE Communication	0.665	3.539	0.571	0.777	-0.094	0.047	0.187	0.801
ASQ-SE Adaptive Func.	1.170	2.918	1.277	1.103	0.107	-0.045	0.250	0.856
ASQ-SE Autonomy	0.213	1.447	0.326	0.426	0.113	0.147	0.077	0.058
ASQ-SE Affect	0.771	3.114	0.761	0.802	-0.010	0.008	0.248	0.973
ASQ-SE Interaction	5.321	8.561	6.694	6.247	1.373	1.347	0.526	0.011
Child SE Index	0	1	**0.125**	**0.117**	**0.125**	**0.157**	**0.069**	**0.023**
Child SE Factor	0	1	**-0.047**	**-0.111**	**-0.047**	**-0.122**	**0.057**	**0.032**
Child Index	0	1	**0.085**	**0.111**	**0.085**	**0.109**	**0.072**	**0.133**
36 Months								
Weight for age z-score	-0.916	1.016	-1.058	-0.967	-0.141	-0.167	0.100	0.095
Height for age z-score	-0.859	1.020	-0.919	-0.788	-0.061	-0.091	0.103	0.375
Child Health Index	0	1	**-0.121**	**-0.006**	**-0.121**	**-0.157**	**0.099**	**0.113**
Child Health Factor	0	1	**-0.158**	**-0.019**	**-0.158**	**-0.196**	**0.100**	**0.049**
ASQ-SE Total	40.718	17.570	40.625	38.784	-0.093	-0.490	1.438	0.733
ASQ-SE Self-regulation	19.255	9.728	18.397	18.083	-0.859	-0.988	0.616	0.108
ASQ-SE Compliance	0.612	2.074	0.788	0.639	0.176	0.272	0.177	0.123
ASQ-SE Communication	0.691	2.206	0.761	0.614	0.069	-0.009	0.265	0.974
ASQ-SE Adaptive Func.	2.952	4.646	3.451	2.982	0.499	0.204	0.506	0.688
ASQ-SE Autonomy	10.160	2.780	9.511	9.850	-0.649	-0.616	0.157	0.000
ASQ-SE Affect	0.612	2.375	0.842	0.414	0.231	0.415	0.249	0.095
ASQ-SE Interaction	6.436	5.429	6.875	6.203	0.439	0.232	0.383	0.545
SDQ Total	14.649	6.279	14.467	13.424	-0.182	0.054	0.307	0.859
Boi Total	24.883	3.754	24.875	25.000	-0.008	-0.065	0.341	0.848
Child SE Index	0	1	**0.102**	**0.254**	**0.102**	**0.087**	**0.089**	**0.324**
Child SE Factor	0	1	**0.038**	**0.133**	**0.038**	**-0.012**	**0.073**	**0.869**
Bayley Receptive (scaled)	10.016	2.593	10.412	10.303	0.396	0.332	0.229	0.148
Bayley Fine motor (scaled)	11.610	4.109	11.500	11.246	-0.110	-0.021	0.290	0.943
Child Cog Index	0	1	**0.055**	**-0.005**	**0.055**	**0.055**	**0.080**	**0.496**
Child Cog Factor	0	1	**0.016**	**-0.085**	**0.016**	**0.039**	**0.079**	**0.624**
Child Index	0	1	**0.079**	**0.240**	**0.079**	**0.061**	**0.088**	**0.493**

Note: SE=socioemotional skills. Table shows treatment effects on the reported items and Anderson indices for the subset of mothers who were present at all four waves (N=771). Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Mental Health Index : all PHQ items + all PSS items + all SCID items + all GAD items whenever available. Physical Health Index : all WHODAS items. Mother Index : all PHQ items + all PSS items + all SCID items + all GAD items + all WHODAS items whenever available.

Table A26: Trajectory of Parental Investment for the Fixed Subset (N=771)

Measurement	Control Mean	SD	Treatment Mean	Nondep. Mean	Diff. (T-C)	Adjusted Beta	s.e.	p-val
6 Months								
MPAS Total	86.296	6.345	86.221	87.543	-0.075	0.007	0.362	0.984
MSES Total	36.963	3.650	37.201	37.840	0.238	0.083	0.228	0.718
Investment Index	**0**	**1**	**0.135**	**0.226**	**0.135**	**0.111**	**0.056**	**0.047**
Investment Factor	**0**	**1**	**0.039**	**0.417**	**0.039**	**0.034**	**0.049**	**0.485**
12 Months								
HOME Total	30.803	5.761	31.212	32.534	0.409	0.748	0.451	0.098
HOME Responsivity	9.644	1.504	9.853	9.810	0.210	0.244	0.128	0.056
HOME Acceptance	6.112	1.427	6.277	6.216	0.165	0.270	0.105	0.010
HOME Organization	3.505	1.358	3.489	3.772	-0.016	0.000	0.105	0.998
HOME Learning Mat.	4.793	2.555	4.913	5.589	0.120	0.269	0.192	0.161
HOME Involvement	3.894	1.477	3.929	4.238	0.036	0.056	0.114	0.625
HOME Variety	2.856	0.523	2.750	2.910	-0.106	-0.091	0.068	0.179
Investment Index	**0**	**1**	**0.153**	**0.281**	**0.153**	**0.158**	**0.099**	**0.112**
Investment Factor	**0**	**1**	**0.039**	**0.419**	**0.039**	**0.091**	**0.082**	**0.271**
24 Months								
OMCI Total	37.396	4.699	36.921	38.213	-0.475	-0.360	0.428	0.401
Investment Index	**0**	**1**	**-0.095**	**0.189**	**-0.095**	**-0.078**	**0.086**	**0.360**
Investment Factor	**0**	**1**	**0.006**	**0.100**	**0.006**	**-0.028**	**0.082**	**0.736**
36 Months								
HOME Total	37.601	4.261	37.647	38.496	0.046	0.406	0.371	0.274
HOME Responsivity	10.473	0.933	10.418	10.486	-0.055	-0.055	0.089	0.536
HOME Acceptance	5.016	0.956	5.043	5.143	0.028	0.186	0.099	0.060
HOME Organization	5.016	0.956	5.043	5.143	0.028	0.082	0.063	0.197
HOME Learning Mat.	6.553	2.315	6.473	6.952	-0.080	0.108	0.213	0.612
HOME Involvement	5.096	1.280	5.158	5.288	0.062	0.115	0.094	0.222
HOME Variety	3.638	0.851	3.625	3.719	-0.013	-0.029	0.049	0.548
OMCI Total	41.027	4.034	41.344	41.539	0.318	0.234	0.356	0.510
Investment Index	**0**	**1**	**0.191**	**0.313**	**0.191**	**0.236**	**0.071**	**0.001**
Investment Factor	**0**	**1**	**0.0126**	**0.296**	**0.026**	**0.111**	**0.075**	**0.137**

Note: MPAS : Maternal Postnatal Attachment Scale, MSES : Maternal Self-Efficacy Scale, OMCI: Observation for Mother Child Interaction. Adjusted coefficients are obtained from the regressions of items on the treatment indicator and its interactions with (demeaned) baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. All estimations control for child gender and age (in days). Robust and clustered standard errors at the cluster level are reported in the SE column. Reported p-values and standard errors refer to the adjusted beta coefficient. Anderson indices and factor scores are coded so that higher score always indicates better outcome. Investment Index : all MPAS items +all MSES items at 6 months, all HOME items at 12 and 36 months, all OMCI items at 24 months.

G Randomization Inference

Table A27: Randomization Inference on Aggregate Maternal Outcomes

	Adjusted Beta	s.e.	p-val	RI p-val
Mental Health Factor (6m)	0.205	0.052	0.000	0.003
Functioning Factor (6m)	0.182	0.075	0.015	0.038
Mental Health Factor (12m)	0.170	0.054	0.002	0.007
Functioning Factor (12m)	0.195	0.069	0.005	0.022
Mental Health Factor (24m)	-0.002	0.057	0.970	0.967
Functioning Factor (24m)	-0.036	0.072	0.616	0.665
Mental Health Factor (36m)	0.268	0.078	0.001	0.006
Functioning Factor (36m)	0.287	0.081	0.000	0.006

Note: p-values reported in the last column are computed using randomization inference based on Young (2019) with the randomization permuted at the cluster level.

Table A28: Randomization Inference on Aggregate Child and Investment Outcomes

	Adjusted Beta	s.e.	p-val	RI p-val
Child Health Factor (6m)	-0.021	0.079	0.792	0.811
Child SE Factor (6m)	0.187	0.056	0.001	0.007
Investment Factor (6m)	0.076	0.057	0.187	0.264
Child Health Factor (12m)	0.019	0.070	0.784	0.795
Child SE Factor (12m)	0.389	0.070	0.000	0.001
Child Cog Factor (12m)	-0.080	0.083	0.334	0.411
Investment Factor (12m)	0.075	0.086	0.382	0.443
Child Health Factor (24m)	-0.100	0.083	0.227	0.287
Child SE Factor (24m)	-0.065	0.067	0.334	0.438
Investment Factor (24m)	-0.031	0.083	0.710	0.744
Child Health Factor (36m)	-0.166	0.088	0.060	0.104
Child SE Factor (36m)	0.063	0.075	0.400	0.464
Child Cog Factor (36m)	0.065	0.075	0.386	0.422
Investment Factor (36m)	0.111	0.076	0.143	0.222

Note: p-values reported in the last column are computed using randomization inference based on Young (2019) with the randomization permuted at the cluster level.

H   Heterogeneity in Treatment Effects
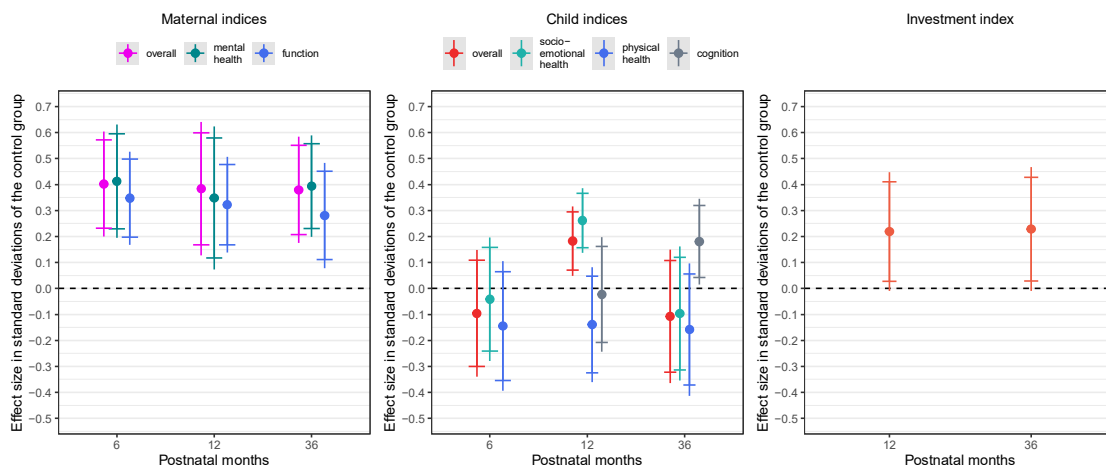
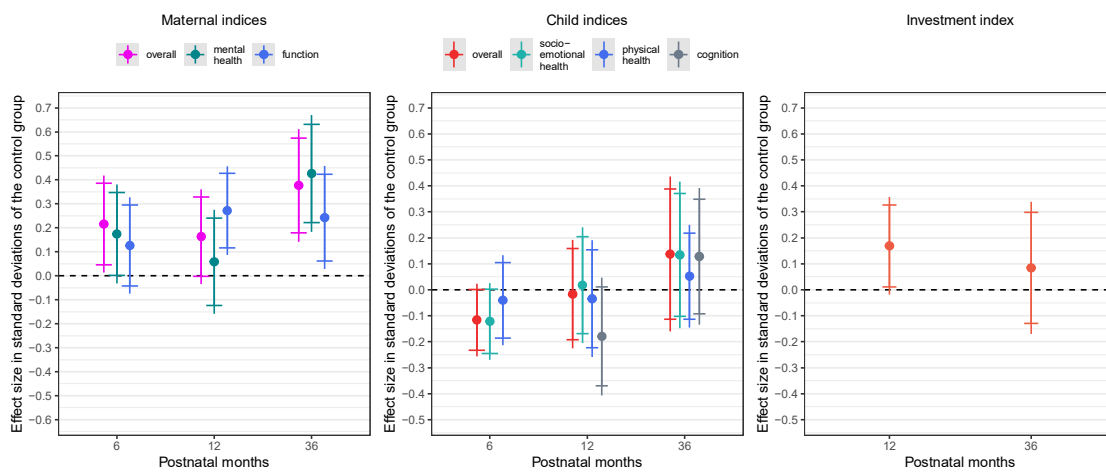Figure A4: Coefficient Plots of Indices (Boys)
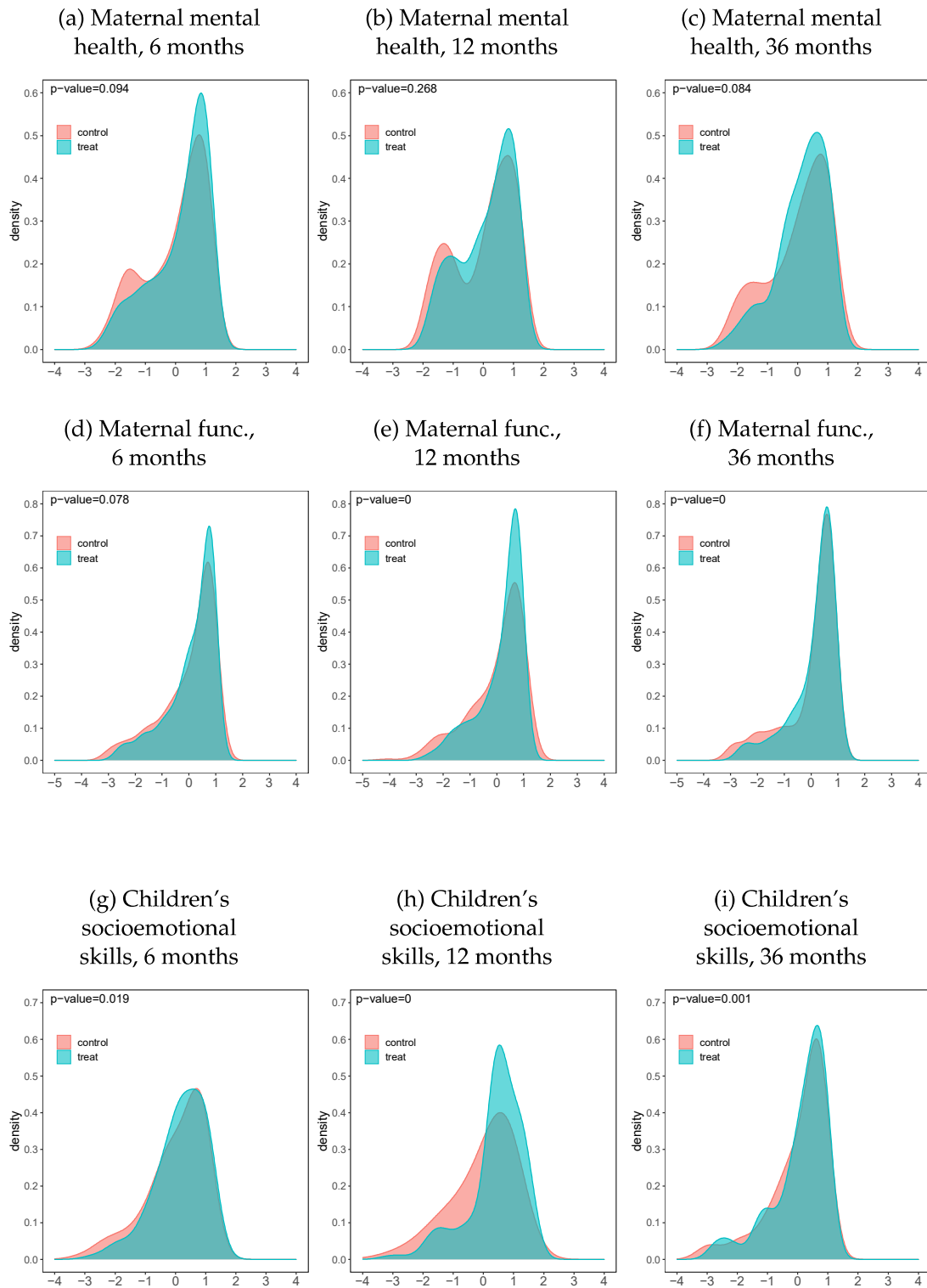

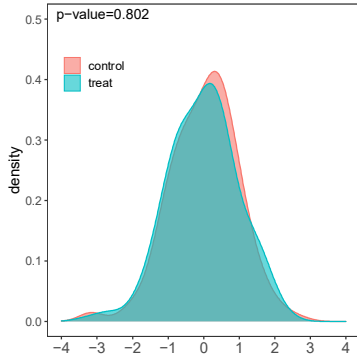Figure A5: Coefficient Plots of Indices (Girls)

Figure A6: Kernel Densities of Latent Factors

(a) Maternal mental health, 6 months

(b) Maternal mental health, 12 months

(c) Maternal mental health, 36 months

(d) Maternal func., 6 months

(e) Maternal func., 12 months

(f) Maternal func., 36 months

(g) Children's socioemotional skills, 6 months

(h) Children's socioemotional skills, 12 months

(i) Children's socioemotional skills, 36 months
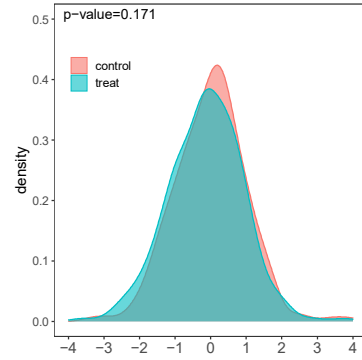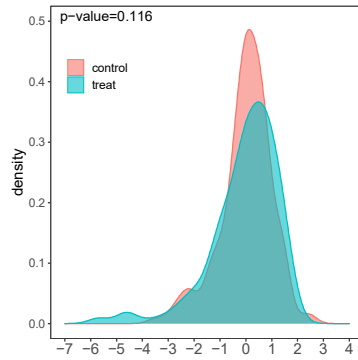
(j) Children's physical health, 6 months

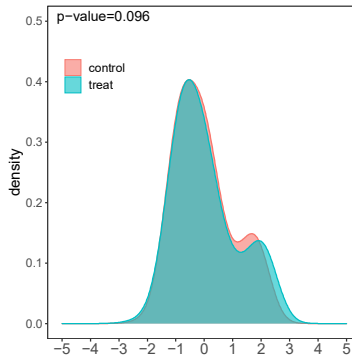(k) Children's physical health, 12 months
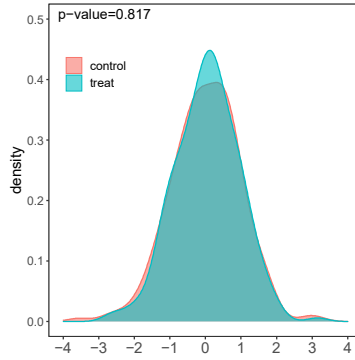
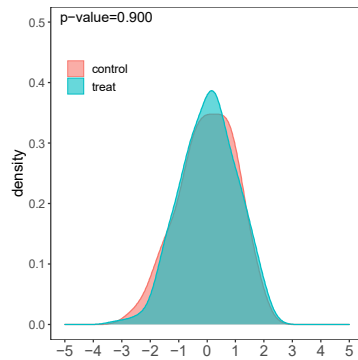(l) Children's physical health, 36 months

(m) Children's cognition, 12 months

(n) Children's cognition, 36 months

(o) Parental investment, 12 months

(p) Parental investment, 36 months

Figure A7: Quantile Treatment Effects on Latent Factors

(a) Maternal mental health, 6 months	(b) Maternal mental health, 12 months	(c) Maternal mental health, 24 months	(d) Maternal mental health, 36 months

(e) Maternal func., 6 months	(f) Maternal func. 12 months	(g) Maternal func. 24 months	(h) Maternal func. 36 months

(i) Children's socioemotional skills, 6 months	(j) Children's socioemotional skills, 12 months	(k) Children's socioemotional skills, 24 months	(l) Children's socioemotional skills, 36 months

(m) Children's physical health, 6 months	(n) Children's physical health, 12 months	(o) Children's physical health, 24 months	(p) Children's physical health, 36 months

(q) Children's cognition, 12 months

(r) Children's cognition, 36 months

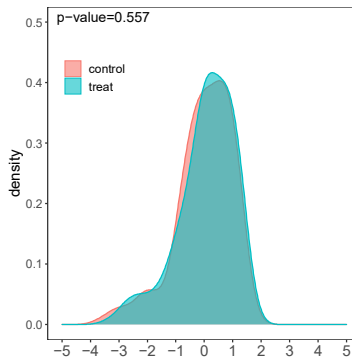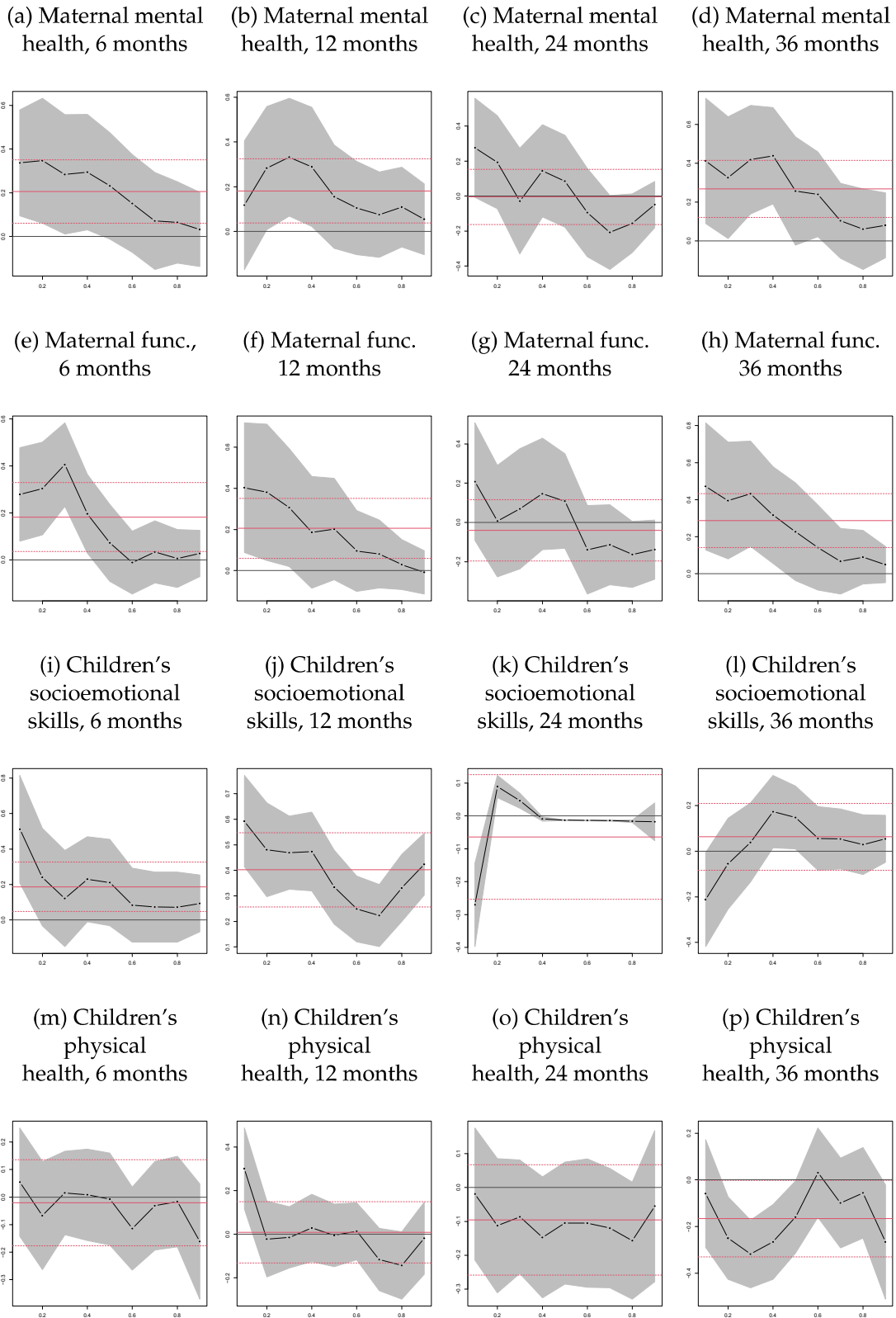(s) Parental investment, 6 months

(t) Parental investment, 12 months

(u) Parental investment, 24 months
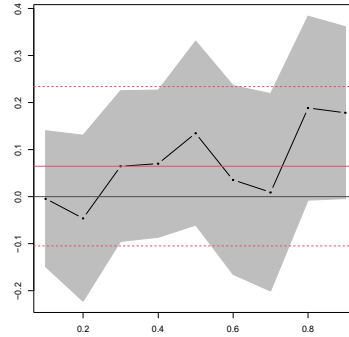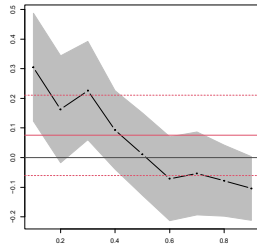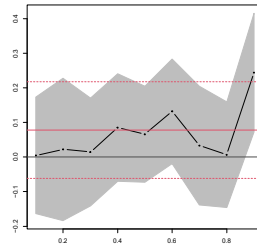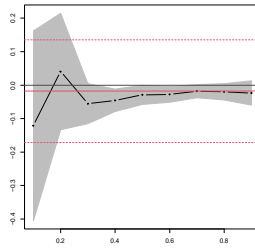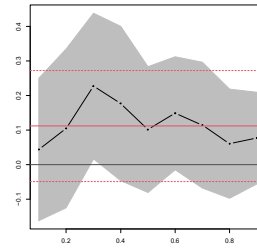
(v) Parental investment, 36 months

Note: Quantile treatment effects of THPP+ intervention on latent factors. 95 % confidence intervals are calculated by bootstrapping using 1000 replications and clustering at the level of randomization.

Table A29: Heterogeneity in treatment effects for maternal mental health

| | *Coefficient on* | | |
| | treatment | baseline characteristic | treat x baseline characteristic |
	(1)	(2)	(3)
Baseline characteristic: index child is female			
mental health (6m)	0.422***	0.065	−0.413***
	(0.095)	(0.114)	(0.154)
mental health (12m)	0.338***	0.108	−0.254
	(0.099)	(0.109)	(0.160)
mental health (24m)	−0.056	−0.095	0.096
	(0.118)	(0.184)	(0.205)
mental health (36m)	0.364**	0.100	−0.222
	(0.145)	(0.111)	(0.173)
Baseline characteristic: first child			
mental health (6m)	0.172**	0.051	0.148
	(0.086)	(0.165)	(0.186)
mental health (12m)	0.175**	−0.075	0.132
	(0.088)	(0.169)	(0.212)
mental health (24m)	−0.081	−0.230	0.293
	(0.092)	(0.171)	(0.219)
mental health (36m)	0.261**	0.013	−0.045
	(0.113)	(0.205)	(0.226)
Baseline characteristic: SES index			
mental health (6m)	0.222***	−0.020	0.043
	(0.067)	(0.054)	(0.065)
mental health (12m)	0.170***	0.024	−0.089*
	(0.066)	(0.045)	(0.047)
mental health (24m)	0.021	−0.031	0.066
	(0.073)	(0.046)	(0.053)
mental health (36m)	0.212**	0.017	−0.105*
	(0.100)	(0.055)	(0.054)
Baseline characteristic: mother's education			
mental health (6m)	−0.089	0.001	0.042**
	(0.156)	(0.012)	(0.019)
mental health (12m)	0.206	0.045***	0.000
	(0.150)	(0.014)	(0.018)
mental health (24m)	−0.243*	0.013	0.034*
	(0.143)	(0.013)	(0.018)
mental health (36m)	0.487**	0.041**	−0.034
	(0.218)	(0.018)	(0.025)
Baseline characteristic: PHQ Total			
mental health (6m)	0.377	0.049*	−0.014
	(0.328)	(0.026)	(0.027)
mental health (12m)	0.579*	0.082***	−0.030
	(0.297)	(0.019)	(0.023)
mental health (24m)	−0.115	0.052*	0.009
	(0.340)	(0.027)	(0.026)
mental health (36m)	0.101	0.027	0.012
	(0.333)	(0.021)	(0.026)

treatment=1 if the observation is in treatment clusters, =0 otherwise. Dependent variables (listed on the first column) are latent factor scores of maternal mental health, coded in a way that higher score means better outcome and standardized to be mean 0 and SD 1 in the control group. Coefficients are obtained from the regressions of factor scores on the treatment indicator, its interactions with the respective dimension and the baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education (in years), asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE column.

Note: *p<0.1; **p<0.05; ***p<0.01

Table A30: Heterogeneity in treatment effects for selected child outcomes

	Coefficient on		
	treatment	baseline characteristic	treat x baseline characteristic
	(1)	(2)	(3)
Baseline characteristic: index child is female			
socioemotional skills (6m)	0.294**	0.247*	−0.230
	(0.132)	(0.128)	(0.175)
socioemotional skills (12m)	0.640***	0.189	−0.430**
	(0.136)	(0.132)	(0.171)
socioemotional skills (24m)	0.003	0.117	−0.140
	(0.148)	(0.146)	(0.235)
socioemotional skills (36m)	0.027	−0.014	0.034
	(0.130)	(0.113)	(0.171)
cognition (12m)	−0.033	−0.135	−0.021
	(0.118)	(0.150)	(0.209)
cognition (36m)	0.070	−0.017	−0.008
	(0.131)	(0.091)	(0.188)
Baseline characteristic: first child			
socioemotional skills (6m)	0.067	−0.239	0.458**
	(0.081)	(0.178)	(0.183)
socioemotional skills (12m)	0.467***	0.099	−0.212
	(0.106)	(0.132)	(0.185)
socioemotional skills (24m)	−0.092	0.126	0.092
	(0.108)	(0.196)	(0.162)
socioemotional skills (36m)	−0.003	−0.015	0.206
	(0.088)	(0.171)	(0.183)
cognition (12m)	−0.128	−0.143	0.357
	(0.107)	(0.183)	(0.227)
cognition (36m)	0.073	−0.174	−0.031
	(0.106)	(0.182)	(0.247)
Baseline characteristic: SES index			
socioemotional skills (6m)	0.161**	0.067	−0.040
	(0.078)	(0.044)	(0.043)
socioemotional skills (12m)	0.413***	−0.040	−0.011
	(0.083)	(0.049)	(0.051)
socioemotional skills (24m)	−0.034	0.046	0.080
	(0.081)	(0.055)	(0.106)
socioemotional skills (36m)	0.029	0.004	−0.043
	(0.080)	(0.043)	(0.044)
cognition (12m)	0.009	−0.034	0.130*
	(0.088)	(0.067)	(0.079)
cognition (36m)	0.069	−0.034	0.008
	(0.089)	(0.041)	(0.054)
Baseline characteristic: mother's education			
socioemotional skills (6m)	0.042	−0.026*	0.019
	(0.120)	(0.016)	(0.020)
socioemotional skills (12m)	0.463**	−0.004	−0.007
	(0.190)	(0.020)	(0.022)
socioemotional skills (24m)	−0.503**	−0.045***	0.063**
	(0.210)	(0.017)	(0.027)
socioemotional skills (36m)	0.195	−0.002	−0.022
	(0.174)	(0.014)	(0.020)
cognition (12m)	−0.491**	−0.016	0.063***
	(0.210)	(0.023)	(0.024)
cognition (36m)	0.224	0.043***	−0.023
	(0.162)	(0.015)	(0.022)
Baseline characteristic: PHQ Total			
socioemotional skills (6m)	0.140	0.021	0.003
	(0.327)	(0.019)	(0.026)
socioemotional skills (12m)	0.766**	0.037	−0.028
	(0.326)	(0.025)	(0.024)
socioemotional skills (24m)	−0.564	−0.007	0.040
	(0.456)	(0.024)	(0.034)
socioemotional skills (36m)	0.649**	0.025	−0.049*
	(0.300)	(0.020)	(0.025)
cognition (12m)	−0.182	−0.004	0.011
	(0.365)	(0.020)	(0.028)
cognition (36m)	0.301	0.012	−0.019
	(0.376)	(0.018)	(0.028)

treatment=1 if the observation is in treatment clusters, =0 otherwise. Dependent variables (listed on the first column) are latent factor scores of child socio-emotional health and cognition, coded in a way that higher score means better outcome and standardized to be mean 0 and SD 1 in the control group. Coefficients are obtained from the regressions of factor scores on the treatment indicator, its interactions with the respective dimension and the baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education (in years), asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE column.

Note: *p<0.1; **p<0.05; ***p<0.01

Table A31: Heterogeneity in treatment effects for parental investment

	Coefficient on		
	treatment	baseline characteristic	treat x baseline characteristic
	(1)	(2)	(3)
Baseline characteristic: index child is female			
parental investment (12m)	0.131	−0.003	−0.097
	(0.115)	(0.119)	(0.173)
parental investment (36m)	0.121	0.024	−0.012
	(0.114)	(0.093)	(0.153)
Baseline characteristic: first child			
parental investment (12m)	0.020	−0.060	0.255
	(0.118)	(0.150)	(0.210)
parental investment (36m)	0.127	−0.081	−0.054
	(0.102)	(0.151)	(0.186)
Baseline characteristic: SES index			
parental investment (12m)	0.077	0.116***	−0.009
	(0.099)	(0.040)	(0.050)
parental investment (36m)	0.085	0.092*	−0.081
	(0.082)	(0.048)	(0.067)
Baseline characteristic: mother's education			
parental investment (12m)	0.007	0.046***	0.010
	(0.186)	(0.013)	(0.020)
parental investment (36m)	0.338*	0.056***	−0.033
	(0.187)	(0.013)	(0.024)
Baseline characteristic: PHQ Total			
parental investment (12m)	0.063	0.007	0.001
	(0.379)	(0.020)	(0.027)
parental investment (36m)	0.452	0.019	−0.027
	(0.365)	(0.018)	(0.028)

treatment=1 if the observation is in treatment clusters, =0 otherwise. Dependent variables (listed on the first column) are latent factor scores of parental investment, coded in a way that higher score means better outcome and standardized to be mean 0 and SD 1 in the control group. Coefficients are obtained from the regressions of factor scores on the treatment indicator, its interactions with the respective dimension and the baseline covariates including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education (in years), asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE column.
Note: *p<0.1; **p<0.05; ***p<0.01

I Depression Gap

Table A32: Difference in ICW Indices between Non-depressed and Control Groups

| | treated depressed-control depressed | | | | nondepressed-control depressed | | |
| | Diff. (T-C) | Adjusted Beta | s.e. | p-val | Diff. (ND-C) | s.e. | p-val |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Maternal Indices							
Mental Health (6m)	0.142	0.163	0.084	0.053	0.516	0.062	0.000
Mental Health (12m)	0.103	0.142	0.085	0.096	0.478	0.069	0.000
Mental Health (24m)	-0.139	-0.048	0.079	0.541	0.328	0.086	0.000
Mental Health (36m)	0.168	0.292	0.098	0.003	0.425	0.071	0.000
Functioning (6m)	0.136	0.175	0.088	0.047	0.459	0.092	0.000
Functioning (12m)	0.192	0.241	0.077	0.002	0.378	0.067	0.000
Functioning (24m)	-0.087	-0.095	0.097	0.332	0.303	0.085	0.000
Functioning (36m)	0.066	0.211	0.079	0.008	0.317	0.073	0.000
Child Indices							
Physical Health (6m)	0.001	-0.021	0.096	0.826	-0.020	0.080	0.806
Physical Health (12m)	0.012	0.002	0.080	0.981	-0.016	0.081	0.845
Physical Health (24m)	-0.097	-0.035	0.095	0.710	0.004	0.092	0.965
Physical Health (36m)	-0.099	-0.099	0.099	0.315	0.045	0.081	0.579
Socioemotional Skills (6m)	-0.034	-0.046	0.085	0.589	0.041	0.080	0.610
Socioemotional Skills (12m)	0.106	0.100	0.081	0.215	0.050	0.069	0.469
Socioemotional Skills (24m)	-0.043	0.046	0.089	0.604	-0.162	0.073	0.027
Socioemotional Skills (36m)	0.022	-0.024	0.118	0.842	0.240	0.091	0.008
Cognition (12m)	-0.038	-0.040	0.105	0.704	0.038	0.077	0.623
Cognition (36m)	0.092	0.104	0.088	0.235	0.074	0.079	0.348
Investment Indices							
Parental Investment (6m)	0.083	0.085	0.071	0.228	0.180	0.098	0.065
Parental Investment (12m)	0.131	0.160	0.086	0.064	0.262	0.087	0.003
Parental Investment (24m)	-0.076	-0.045	0.093	0.626	0.166	0.067	0.013
Parental Investment (36m)	0.060	0.082	0.080	0.301	0.179	0.065	0.006

Column 2 reports the adjusted treatment coefficient from the regression of ICW indices on treatment indicator and its interaction with the (demeaned) baseline covariates using the experimental sample. Column 5 reports the raw differences of outcomes between nondepressed group and the control group. Baseline covariates include baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE columns. ICW indices are coded so that higher score indicates better outcome and standardized to have mean 0 and SD 1 in the control group.

Table A33: Difference in Factor Scores between Non-depressed and Control Groups

	treated depressed-control depressed				nondepressed-control depressed		
	Diff. (T-C)	Adjusted Beta	s.e.	p-val	Diff. (ND-C)	s.e.	p-val
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Maternal Factors							
Mental Health (6m)	0.160	0.205	0.052	0.000	0.648	0.079	0.000
Mental Health (12m)	0.098	0.170	0.054	0.002	0.650	0.069	0.000
Mental Health (36m)	0.133	0.268	0.078	0.001	0.556	0.063	0.000
Functioning (6m)	0.108	0.182	0.075	0.015	0.547	0.083	0.000
Functioning (12m)	0.159	0.195	0.069	0.005	0.471	0.070	0.000
Functioning (36m)	0.112	0.287	0.081	0.000	0.376	0.069	0.000
Child Factors							
Physical Health (6m)	-0.016	0.021	0.079	0.792	-0.034	0.077	0.662
Physical Health (12m)	0.044	0.019	0.070	0.784	0.035	0.076	0.650
Physical Health (36m)	-0.137	-0.166	0.088	0.060	0.041	0.080	0.803
Socioemotional Skills (6m)	0.167	0.187	0.056	0.001	0.100	0.087	0.250
Socioemotional Skills (12m)	0.417	0.389	0.070	0.000	0.315	0.069	0.000
Socioemotional Skills (36m)	0.058	0.063	0.075	0.400	0.108	0.073	0.138
Cognition (12m)	-0.059	-0.080	0.083	0.334	0.069	0.078	0.373
Cognition (36m)	0.047	0.065	0.075	0.386	-0.020	0.080	0.803
Investment Factors							
Parental Investment (12m)	0.062	0.075	0.086	0.382	0.448	0.104	0.000
Parental Investment (36m)	0.067	0.111	0.076	0.143	0.361	0.091	0.000

Column 2 reports the adjusted treatment coefficient from the regression of factors on treatment indicator and its interaction with the (demeaned) baseline covariates using the experimental sample. Column 5 reports the raw differences of outcomes between nondepressed group and the control group. Baseline covariates include baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect and days from baseline. Robust and clustered standard errors at the cluster level are reported in the SE columns. Latent factor scores are coded so that higher score indicates better outcome and standardized to have mean 0 and SD 1 in the control group.

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Table A34: Estimates of the Production Function Controlling for Baseline Mental Health (12 months)

	Socioemotional skills (12m)	Physical health (12m)	Cognition (12m)	Parental investment (12m)
	(1)	(2)	(3)	(4)
SE skills (6m)	0.542***	0.003	0.057*	0.040
	(0.049)	(0.013)	(0.034)	(0.029)
physical health (6m)	0.042	0.928***	0.111***	0.077***
	(0.037)	(0.014)	(0.042)	(0.024)
mother mental health (6m)	0.119*	0.083***	0.130*	−0.114*
	(0.063)	(0.030)	(0.076)	(0.069)
mother functioning (6m)	−0.040	−0.044**	−0.024	0.080**
	(0.053)	(0.020)	(0.045)	(0.040)
investment (12m)	0.050	0.030	−0.014	
	(0.083)	(0.022)	(0.060)	
Interactions				
mother MH (6m) x treat	−0.216***	−0.061	−0.198**	0.100
	(0.078)	(0.038)	(0.096)	(0.085)
mother MH (6m) x nondep.	−0.060	−0.133***	−0.065	0.106
	(0.097)	(0.034)	(0.094)	(0.080)
investment (12m) x treat	0.104	−0.030	0.343***	
	(0.106)	(0.035)	(0.090)	
investment (12m) x nondep.	−0.011	−0.026	0.205***	
	(0.084)	(0.030)	(0.073)	
Total factor productivity (TFP)				
TFP	−0.639	−0.466	4.199***	0.105
	(0.912)	(0.346)	(0.918)	(0.798)
TFP x treat	0.480***	0.034*	−0.025	0.062
	(0.060)	(0.020)	(0.058)	(0.060)
TFP x nondep.	0.267***	0.118***	−0.072	0.023
	(0.098)	(0.038)	(0.088)	(0.094)
Baseline controls				
SES assets	−0.017	0.004	0.009	0.087***
	(0.019)	(0.007)	(0.024)	(0.016)
mother's education (years)	−0.001	0.005	−0.004	0.018***
	(0.064)	(0.003)	(0.007)	(0.004)
husband's education (years)	0.001	−0.006**	−0.001	0.017**
	(0.007)	(0.003)	(0.006)	(0.008)
Observations	932	932	927	932
R2	0.505	0.882	0.257	0.385
Adjusted R2	0.467	0.873	0.201	0.341

SE= socioemotional skills, MH=mental health. Dependent variables are child outcomes and parental investment factors at 12 months postpartum. Independent variables include an indicator of treatment status (control, treatment, non-depressed), child and maternal factors at 6 months, parental investment factor at 12 months. Maternal mental health and parental investment are interacted with the treatment status. All estimations control for baseline characteristics including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect, days from baseline and child age in days. Robust and clustered standard errors at the cluster level are reported in paranthesis. Note: *p<0.1; **p<0.05; ***p<0.01

Table A35: Estimates of the Production Function Controlling for Baseline Mental Health (36 months)

	Socioemotional skills (36m)	Physical health (36m)	Cognition (36m)	Parental investment (36m)
	(1)	(2)	(3)	(4)
SE skills (12m)	0.241***	0.035*	0.012	−0.083**
	(0.036)	(0.019)	(0.023)	(0.032)
physical health (12m)	0.027	1.049***	0.046**	0.066**
	(0.041)	(0.026)	(0.023)	(0.029)
cognition (12m)	0.001	−0.018	0.059***	0.031
	(0.038)	(0.022)	(0.022)	(0.033)
mother mental health (12m)	0.078	0.045	−0.074	0.202***
	(0.096)	(0.050)	(0.059)	(0.076)
mother functioning (12m)	−0.070	−0.049*	0.065*	−0.009
	(0.048)	(0.027)	(0.033)	(0.049)
investment (36m)	0.164**	0.001	0.092**	
	(0.069)	(0.039)	(0.039)	
Interactions				
mother MH (12m) x treat	0.049	−0.057	0.059	−0.150*
	(0.114)	(0.056)	(0.066)	(0.085)
mother MH (12m) x nondep.	0.003	−0.004	−0.005	−0.074
	(0.112)	(0.047)	(0.068)	(0.087)
investment (36m) x treat	−0.188*	0.036	−0.085	
	(0.109)	(0.054)	(0.060)	
investment (36m) x nondep.	0.013	−0.048	−0.008	
	(0.100)	(0.045)	(0.051)	
Total factor productivity (TFP)				
TFP	0.570	−1.537**	1.966**	1.895
	(2.474)	(0.698)	(0.949)	(1.376)
TFP x treat	−0.115	−0.170***	0.019	0.131**
	(0.084)	(0.045)	(0.039)	(0.059)
TFP x nondep.	−0.178	0.038	−0.046	0.122
	(0.122)	(0.060)	(0.072)	(0.092)
Baseline controls				
SES assets	−0.016	−0.004	−0.002	0.055***
	(0.016)	(0.012)	(0.011)	(0.019)
mother's education (years)	−0.006	0.006	0.014***	0.016***
	(0.006)	(0.004)	(0.004)	(0.006)
husband's education (years)	0.009	−0.003	0.008	0.031***
	(0.007)	(0.004)	(0.006)	(0.008)
Observations	881	881	881	881
R2	0.422	0.839	0.302	0.313
Adjusted R2	0.382	0.828	0.253	0.268

SE= socioemotional skills, MH=mental health. Dependent variables are child outcomes and parental investment factors at 36 months postpartum. Independent variables include an indicator of treatment status (control, treatment, nondepressed), child and maternal factors at 12 months, parental investment factor at 36 months. Maternal mental health and parental investment are interacted with the treatment status. All estimations control for baseline characteristics including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (split by gender), whether the index child is the first child, parental education levels, asset based SES index, life events cheklist score, interviewer fixed effect, union council fixed effect, days from baseline and child age in days. Robust and clustered standard errors at the cluster level are reported in paranthesis.
Note: *p<0.1; **p<0.05; ***p<0.01

Table A36: Estimates of the Production Function and Investment Equation by Gender (12 months)

	Boys				Girls			
	Socioemotional skills (12m)	Physical health (12m)	Cognition (12m)	Parental investment (12m)	Socioemotional skills (12m)	Physical health (12m)	Cognition (12m)	Parental investment (12m)
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
SE skills (6m)	0.536***	−0.022	0.051	0.035	0.560***	0.032	0.070	0.040
	(0.067)	(0.020)	(0.053)	(0.048)	(0.047)	(0.020)	(0.050)	(0.040)
physical health (6m)	0.058	0.917***	0.134**	0.100***	0.046	0.935***	0.103*	0.043
	(0.057)	(0.019)	(0.063)	(0.029)	(0.041)	(0.022)	(0.054)	(0.044)
mother mental health (6m)	0.060	0.066	0.170	−0.034	0.112	0.093**	0.063	−0.219**
	(0.129)	(0.046)	(0.133)	(0.100)	(0.111)	(0.039)	(0.083)	(0.096)
mother functioning (6m)	−0.023	−0.013	−0.038	0.102*	−0.057	−0.048**	0.003	0.051
	(0.119)	(0.032)	(0.068)	(0.050)	(0.062)	(0.023)	(0.060)	(0.066)
investment (12m)	0.085	0.017	−0.189*		−0.011	0.046*	0.036	
	(0.119)	(0.045)	(0.102)		(0.122)	(0.028)	(0.085)	
Interactions								
mother MH (6m) x treat	−0.125	−0.025	−0.068	−0.020	−0.241**	−0.077	−0.264**	0.227*
	(0.148)	(0.055)	(0.179)	(0.122)	(0.119)	(0.052)	(0.126)	(0.134)
mother MH (6m) x nondep.	0.005	−0.155***	−0.098	−0.035	−0.109	−0.118**	−0.050	0.299***
	(0.166)	(0.055)	(0.140)	(0.124)	(0.116)	(0.052)	(0.088)	(0.106)
investment (12m) x treat	0.056	−0.020	0.260*		0.114	−0.045	0.451***	
	(0.165)	(0.058)	(0.144)		(0.148)	(0.046)	(0.155)	
investment (12m) x nondep.	−0.016	−0.007	0.289**		0.042	−0.047	0.233**	
	(0.117)	(0.060)	(0.114)		(0.118)	(0.041)	(0.116)	
Total factor productivity (TFP)								
TFP	−0.114	−0.607	4.065***	0.303	−1.102	−0.628	3.495**	−0.016
	(1.403)	(0.536)	(1.265)	(0.855)	(1.123)	(0.486)	(1.459)	(1.285)
TFP x treat	0.571***	0.031	−0.030	0.080	0.411***	0.038	−0.030	0.059
	(0.105)	(0.027)	(0.084)	(0.070)	(0.083)	(0.026)	(0.092)	(0.092)
TFP x nondep.	0.286*	0.136**	−0.252*	−0.027	0.169	0.134**	−0.047	0.084
	(0.162)	(0.054)	(0.150)	(0.122)	(0.123)	(0.056)	(0.123)	(0.143)
Baseline controls								
SES assets	−0.059*	0.017	−0.014	0.074***	0.017	−0.009	0.046	0.106***
	(0.031)	(0.013)	(0.032)	(0.021)	(0.020)	(0.011)	(0.033)	(0.024)
mother's education (years)	0.009	0.005	−0.005	0.019***	−0.002	0.004	−0.003	0.016*
	(0.010)	(0.005)	(0.011)	(0.006)	(0.007)	(0.003)	(0.009)	(0.008)
husband's education (years)	−0.006	−0.012**	−0.001	0.015*	0.006	−0.001	−0.001	0.015
	(0.012)	(0.005)	(0.010)	(0.009)	(0.009)	(0.004)	(0.009)	(0.011)
Observations	466	466	464	466	466	466	463	466
R2	0.507	0.898	0.278	0.482	0.589	0.882	0.343	0.358
Adjusted R2	0.431	0.882	0.166	0.407	0.527	0.864	0.243	0.266

SE= socioemotional skills, MH=mental health. Table shows estimates of the production function at 12 months by the gender of the index child. Dependent variables are child outcomes and parental investment factors at 12 months postpartum. Independent variables include an indicator of treatment status (control, treatment, nondepressed), child and maternal factors at 6 months, parental investment factor at 12 months. Maternal mental health and parental investment are interacted with the treatment status. All estimations control for baseline characteristics including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (splitted by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect, days from baseline and child age in days. Robust and clustered standard errors at the cluster level are reported in paranthesis.
Note: *p<0.1; **p<0.05; ***p<0.01

Table A37: Estimates of the Production Function and Investment Equation by Gender (36 months)

	Boys				Girls			
	Socioemotional skills (36m)	Physical health (36m)	Cognition (36m)	Parental investment (36m)	Socioemotional skills (36m)	Physical health (36m)	Cognition (36m)	Parental investment (36m)
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
SE skills (12m)	0.250***	0.046*	−0.011	−0.045	0.272***	0.027	0.036	−0.129***
	(0.060)	(0.028)	(0.027)	(0.042)	(0.053)	(0.026)	(0.033)	(0.038)
physical health (12m)	0.037	1.017***	0.043	0.101***	−0.008	1.076***	0.041	0.022
	(0.061)	(0.034)	(0.038)	(0.035)	(0.046)	(0.029)	(0.033)	(0.048)
cognition (12m)	−0.011	−0.009	0.109***	0.055	−0.006	−0.028	0.018	0.015
	(0.074)	(0.034)	(0.031)	(0.038)	(0.042)	(0.033)	(0.032)	(0.049)
mother mental health (12m)	0.313**	−0.004	−0.050	0.391***	−0.062	0.080	−0.124*	0.054
	(0.135)	(0.093)	(0.074)	(0.125)	(0.113)	(0.061)	(0.077)	(0.082)
mother functioning (12m)	−0.095	−0.069*	0.082*	−0.020	−0.025	−0.035	0.054	−0.015
	(0.083)	(0.040)	(0.049)	(0.072)	(0.060)	(0.045)	(0.039)	(0.066)
investment (36m)	0.024	−0.044	0.135**		0.283**	0.069	0.068	
	(0.107)	(0.076)	(0.062)		(0.115)	(0.051)	(0.067)	
Interactions								
mother MH (12m) x treat	−0.072	0.076	0.101	−0.375***	0.161	−0.161**	0.084	0.010
	(0.197)	(0.102)	(0.097)	(0.137)	(0.156)	(0.072)	(0.075)	(0.128)
mother MH (12m) x nondep.	−0.248	0.076	−0.009	−0.380***	0.113	−0.060	0.032	0.206*
	(0.153)	(0.078)	(0.087)	(0.128)	(0.138)	(0.063)	(0.097)	(0.110)
investment (36m) x treat	−0.032	0.086	−0.073		−0.302*	0.003	−0.114	
	(0.160)	(0.096)	(0.075)		(0.172)	(0.063)	(0.096)	
investment (36m) x nondep.	0.088	−0.021	−0.070		−0.075	−0.113*	0.041	
	(0.149)	(0.084)	(0.076)		(0.134)	(0.058)	(0.089)	
Total factor productivity (TFP)								
TFP	−1.226	−2.654**	−0.702	1.761	3.063	−1.168	4.897***	1.299
	(3.612)	(1.288)	(1.540)	(1.727)	(2.538)	(1.203)	(1.150)	(2.177)
TFP x treat	−0.194	−0.182***	0.024	0.119	−0.078	−0.154***	0.031	0.165**
	(0.129)	(0.062)	(0.064)	(0.083)	(0.112)	(0.056)	(0.053)	(0.070)
TFP x nondep.	−0.310*	−0.011	−0.009	0.161	−0.102	0.114	−0.084	0.063
	(0.167)	(0.075)	(0.092)	(0.145)	(0.131)	(0.088)	(0.122)	(0.129)
Baseline controls								
SES assets	−0.034	−0.012	−0.003	0.031	0.008	−0.002	0.009	0..074***
	(0.028)	(0.016)	(0.017)	(0.027)	(0.022)	(0.017)	(0.014)	(0.026)
mother's education (years)	−0.008	0.008	0.014**	0.022***	−0.005	0.005	0.011**	0.011
	(0.009)	(0.005)	(0.006)	(0.007)	(0.010)	(0.006)	(0.005)	(0.008)
husband's education (years)	0.017	−0.006	0.004	0.047***	0.008	0.004	0.013	0.020*
	(0.014)	(0.006)	(0.007)	(0.011)	(0.010)	(0.006)	(0.009)	(0.011)
Observations	442	442	442	442	439	439	439	439
R2	0.421	0.851	0.374	0.360	0.505	0.850	0.332	0.346
Adjusted R2	0.339	0.830	0.284	0.275	0.433	0.828	0.234	0.256

SE= socioemotional skills, MH=mental health. Table shows estimates of the production function at 36 months by the gender of the index child. Dependent variables are child outcomes and parental investment factors at 36 months postpartum. Independent variables include an indicator of treatment status (control, treatment, nondepressed), child and maternal factors at 12 months, parental investment factor at 36 months. Maternal mental health and parental investment are interacted with the treatment status. All estimations control for baseline characteristics including baseline PHQ Total, baseline WHODAS Total, baseline PSS Total, mother's baseline age, weight, height, waist circumference and blood pressure, family structure, grandmother being resident, total adults in the household, people per room, number of living children (splitted by gender), whether the index child is the first child, parental education levels, asset based SES index, life events checklist score, interviewer fixed effect, union council fixed effect, days from baseline and child age in days. Robust and clustered standard errors at the cluster level are reported in paranthesis.
Note: *p<0.1; **p<0.05; ***p<0.01