

Mental Health Impacts of Child Labour: Evidence from Vietnam and India

Supplementary Online Materials

A. Additional tables

Table A1. The Strength and Difficulties Questionnaire

Statements
<i>Emotional symptoms</i>
Considerate of other people's feelings
Restless, overactive, cannot stay still for long
Often complains of headaches, stomach aches or sickness
Shares readily with other children (treats, toys, pencils, etc.)
Often has temper tantrums or hot tempers
<i>Conduct problems</i>
Rather solitary, tends to play alone
Generally obedient, usually does what adult requests
Many worries, often seems worried
Helpful if someone is hurt, upset or feeling ill
Constantly fidgeting or squirming
<i>Hyperactivity/inattention</i>
Has at least one good friend
Often fights with other children or bullies them
Often unhappy, downhearted or tearful
Generally liked by other children
Easily distracted, concentration wanders
<i>Peer problems</i>
Nervous or clingy in new situations
Kind to younger children
Often lies or cheats
Picked on or bullied by other children
Often volunteers to help others
<i>Prosocial behavior</i>
Thinks things out before acting
Steals from home, school or elsewhere
Gets on better with adults than with other children
Many fears, easily scared
Sees tasks through to the end, good attention span
Notes: Codes used for resulting variables are: 1 = Not true, 2 = Somewhat true, 3 = Certainly true.

Table A2. Descriptive statistics of explanatory variables

	Vietnam				India			
	Full sample	Male	Female	Mean difference significant	Full sample	Male	Female	Mean difference significant
Child labour (dummy)	0.134	0.193	0.074	0.000	0.329	0.227	0.427	0.000
Household chores (dummy)	0.861	0.799	0.924	0.000	0.442	0.291	0.586	0.000
Child age (months)	95.661	95.813	95.508	0.139	95.747	95.606	95.882	0.269
BMI index	14.238	14.393	14.081	0.000	13.934	13.981	13.889	0.397
School attendance (dummy)	0.985	0.986	0.984	0.783	0.976	0.981	0.971	0.348
Mother's education (dummy)	0.686	0.667	0.705	0.194	0.296	0.296	0.296	0.989
Father's education (dummy)	0.753	0.751	0.755	0.868	0.395	0.388	0.402	0.667
Mother's age (years)	35.144	35.151	35.137	0.974	31.115	31.330	30.910	0.315
Divorce (dummy)	0.045	0.050	0.040	0.463	0.047	0.049	0.045	0.751
Wealth index	0.446	0.448	0.444	0.773	0.400	0.401	0.399	0.886
Boy ratio	0.509	0.722	0.295	0.000	0.503	0.687	0.327	0.000
Father involvement (dummy)	0.888	0.894	0.882	0.518	0.871	0.869	0.873	0.850
Rainfall deviation	5.975	6.521	5.424	0.309	5.378	5.397	5.361	0.632
Number of observations	1,000	502	498		957	508	449	

Notes: Parental education are dummy variables which take the value of one if primary school has been completed (the most basic education level); rainfall deviation represents the absolute value of rainfall anomalies in the last 12 months before the interview date in Young Lives.

Table A3a. Child labour and mental health: Ordinary Least Square (OLS) analysis (Vietnam)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Child labour	0.073 (0.095)	0.347*** (0.095)	0.349*** (0.095)	0.213** (0.095)	-0.526*** (0.092)	0.336*** (0.095)
Female	0.092 (0.065)	-0.166** (0.064)	-0.157** (0.064)	0.082 (0.064)	0.145** (0.062)	-0.034 (0.064)
School attendance	0.174 (0.269)	0.030 (0.268)	0.120 (0.267)	-0.083 (0.268)	0.909*** (0.259)	0.111 (0.268)
BMI index	-0.104*** (0.024)	-0.022 (0.024)	-0.005 (0.024)	-0.069*** (0.024)	-0.022 (0.023)	-0.082*** (0.024)
Mother education	0.018 (0.084)	0.014 (0.083)	-0.003 (0.083)	-0.210** (0.083)	0.180** (0.081)	-0.059 (0.083)
Father education	0.094 (0.091)	-0.100 (0.091)	-0.334*** (0.091)	0.174* (0.091)	0.140 (0.088)	-0.051 (0.091)
Mother age	0.001 (0.005)	-0.008* (0.005)	-0.000 (0.005)	0.002 (0.005)	0.004 (0.005)	-0.001 (0.005)
Divorce	0.180 (0.181)	-0.055 (0.180)	-0.158 (0.180)	-0.027 (0.181)	-0.067 (0.175)	0.003 (0.180)
Wealth index	-0.043 (0.185)	0.258 (0.184)	-0.032 (0.184)	0.290 (0.184)	0.302* (0.178)	0.135 (0.184)
Boy ratio	-0.035 (0.023)	-0.042* (0.023)	-0.080*** (0.023)	-0.086*** (0.023)	-0.028 (0.023)	-0.088*** (0.023)
Father involvement	-0.104 (0.114)	-0.258** (0.114)	-0.123 (0.114)	-0.191* (0.114)	0.261** (0.110)	-0.232** (0.114)
Constant	1.316** (0.519)	1.168** (0.517)	0.929* (0.516)	1.317** (0.518)	-1.310*** (0.501)	1.756*** (0.517)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	978	978	978	978	978	978

Notes: Standard errors in parentheses; estimated using OLS; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A3b. Child labour and mental health: Ordinary Least Square (OLS) analysis
(India)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel B: India						
Child labour	0.191*** (0.071)	0.007 (0.071)	0.276*** (0.070)	0.083 (0.071)	-0.318*** (0.070)	0.226*** (0.070)
Female	0.061 (0.065)	-0.185*** (0.066)	-0.071 (0.065)	-0.104 (0.066)	-0.002 (0.065)	-0.114* (0.065)
School attendance	0.291 (0.211)	0.044 (0.213)	-0.114 (0.209)	-0.054 (0.213)	0.480** (0.210)	0.090 (0.209)
BMI index	-0.026 (0.019)	-0.013 (0.019)	0.026 (0.019)	-0.022 (0.019)	-0.036* (0.019)	-0.014 (0.019)
Mother education	-0.175* (0.089)	-0.054 (0.090)	-0.237*** (0.089)	0.045 (0.090)	-0.111 (0.089)	-0.182** (0.089)
Father education	0.040 (0.081)	-0.022 (0.082)	-0.115 (0.081)	-0.031 (0.082)	0.011 (0.081)	-0.046 (0.081)
Mother age	-0.002 (0.005)	-0.000 (0.005)	-0.001 (0.005)	0.004 (0.005)	0.013** (0.005)	-0.000 (0.005)
Divorce	0.044 (0.190)	-0.084 (0.192)	0.076 (0.189)	0.499*** (0.192)	-0.174 (0.189)	0.178 (0.189)
Wealth index	-0.512*** (0.189)	-0.106 (0.191)	-0.243 (0.188)	-0.161 (0.191)	0.616*** (0.188)	-0.429** (0.188)
Boy ratio	0.019 (0.016)	0.037** (0.016)	0.013 (0.016)	0.028* (0.016)	-0.023 (0.016)	0.039** (0.016)
Father involvement	0.039 (0.118)	0.108 (0.119)	0.016 (0.117)	0.072 (0.119)	-0.112 (0.118)	0.094 (0.118)
Constant	0.070 (0.418)	0.193 (0.423)	-0.078 (0.415)	0.198 (0.422)	-0.465 (0.416)	0.150 (0.416)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	956	956	956	956	956	956

Notes: Standard errors in parentheses, estimated using OLS; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A4a. Rainfall deviation and child labour: First stage of conditional mixed-process model (Vietnam)

	Dependent variable: Child labour (=1)					
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Rainfall deviation	0.012*** (0.004)	0.011*** (0.004)	0.012*** (0.004)	0.013*** (0.004)	0.012*** (0.003)	0.012*** (0.004)
Female	-0.571*** (0.110)	-0.576*** (0.109)	-0.577*** (0.110)	-0.501*** (0.112)	-0.481*** (0.100)	-0.574*** (0.108)
School attendance	0.465 (0.528)	0.413 (0.525)	0.416 (0.502)	0.240 (0.439)	1.110*** (0.430)	0.277 (0.480)
BMI index	-0.021 (0.042)	-0.021 (0.042)	-0.020 (0.042)	-0.001 (0.041)	-0.047 (0.038)	-0.011 (0.043)
Mother education	-0.151 (0.132)	-0.154 (0.133)	-0.154 (0.133)	-0.145 (0.131)	-0.089 (0.119)	-0.144 (0.134)
Father education	-0.317** (0.148)	-0.334** (0.146)	-0.317** (0.149)	-0.375*** (0.140)	-0.280** (0.131)	-0.347** (0.143)
Mother age	-0.003 (0.007)	-0.003 (0.008)	-0.003 (0.008)	-0.005 (0.008)	0.003 (0.007)	-0.004 (0.008)
Divorce	-0.214 (0.292)	-0.230 (0.299)	-0.244 (0.290)	-0.092 (0.273)	-0.231 (0.244)	-0.161 (0.280)
Wealth index	0.537 (0.372)	0.566 (0.371)	0.511 (0.377)	0.451 (0.360)	0.340 (0.298)	0.449 (0.385)
Boy ratio	-0.004 (0.038)	-0.005 (0.038)	-0.004 (0.037)	0.001 (0.036)	-0.028 (0.030)	-0.003 (0.037)
Father involvement	-0.014 (0.177)	-0.023 (0.180)	-0.048 (0.180)	-0.005 (0.171)	0.038 (0.145)	-0.031 (0.178)
Constant	-0.334 (0.934)	-0.254 (0.930)	-0.222 (0.912)	-0.365 (0.854)	-0.738 (0.777)	-0.155 (0.883)
Rho value	0.221 (0.201)	0.011 (0.100)	-0.294 (0.329)	-0.727*** (0.203)	1.202*** (0.144)	-0.501** (0.349)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	978	978	978	978	978	978

Notes: Standard errors in parentheses; rainfall deviation represents the absolute value of rainfall anomalies in the last 12 months before the interview date in Young Lives; *** p<0.01, ** p<0.05, * p<0.1

Table A4b. Rainfall deviation and child labour: First stage of conditional mixed-process model (India)

	Dependent variable: Child labour (=1)					
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel B: India						
Rainfall deviation	0.146*** (0.037)	0.143*** (0.038)	0.121** (0.048)	0.142*** (0.034)	0.176*** (0.031)	0.134*** (0.038)
Female	0.570*** (0.088)	0.567*** (0.088)	0.549*** (0.089)	0.540*** (0.087)	0.541*** (0.087)	0.571*** (0.089)
School attendance	-1.034*** (0.288)	-1.059*** (0.297)	-1.017*** (0.281)	-1.014*** (0.306)	-0.992*** (0.258)	-1.044*** (0.293)
BMI index	-0.007 (0.020)	-0.006 (0.023)	-0.018 (0.036)	-0.005 (0.021)	-0.017 (0.028)	-0.006 (0.021)
Mother education	-0.361*** (0.126)	-0.361*** (0.125)	-0.306** (0.138)	-0.336*** (0.123)	-0.309** (0.126)	-0.369*** (0.126)
Father education	0.083 (0.112)	0.076 (0.110)	0.052 (0.113)	0.061 (0.109)	0.065 (0.111)	0.081 (0.111)
Mother age	0.003 (0.007)	0.003 (0.007)	0.004 (0.007)	0.003 (0.007)	0.004 (0.007)	0.004 (0.007)
Divorce	-0.049 (0.248)	-0.054 (0.249)	-0.080 (0.248)	-0.138 (0.245)	-0.099 (0.242)	-0.043 (0.247)
Wealth index	0.063 (0.269)	0.067 (0.267)	0.098 (0.262)	0.075 (0.268)	0.065 (0.265)	0.065 (0.269)
Boy ratio	-0.055** (0.022)	-0.057** (0.023)	-0.054** (0.022)	-0.057*** (0.022)	-0.067*** (0.024)	-0.056** (0.023)
Father involvement	0.037 (0.160)	0.048 (0.160)	0.038 (0.158)	0.030 (0.153)	0.016 (0.151)	0.045 (0.159)
Constant	0.784 (0.557)	0.772 (0.580)	0.780 (0.650)	0.773 (0.571)	1.142** (0.574)	0.702 (0.571)
Rho value	0.315 (0.536)	0.366 (0.449)	-0.582** (0.619)	-0.376** (0.460)	0.104** (0.441)	0.314 (0.530)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	956	956	956	956	956	956

Notes: Standard errors in parentheses; rainfall deviation represents the absolute value of rainfall anomalies in the last 12 months before the interview date in Young Lives; *** p<0.01, ** p<0.05, * p<0.1

Table A5a. Child labour and mental health: Second stage of conditional mixed-process model (Vietnam)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Child labour	-0.316 (0.357)	0.328 (0.222)	0.861 (0.575)	1.400*** (0.298)	-2.160*** (0.149)	1.187** (0.537)
Female	0.046 (0.076)	-0.168** (0.068)	-0.097 (0.097)	0.220*** (0.076)	-0.046 (0.074)	0.065 (0.095)
School attendance	0.194 (0.218)	0.031 (0.228)	0.094 (0.246)	-0.143 (0.224)	0.992** (0.401)	0.068 (0.239)
BMI index	-0.105*** (0.023)	-0.022 (0.024)	-0.004 (0.024)	-0.067** (0.026)	-0.026 (0.029)	-0.080*** (0.024)
Mother education	-0.001 (0.086)	0.013 (0.083)	0.021 (0.086)	-0.154* (0.088)	0.102 (0.096)	-0.018 (0.092)
Father education	0.065 (0.093)	-0.102 (0.090)	-0.295*** (0.100)	-0.263*** (0.097)	0.017 (0.100)	0.013 (0.102)
Mother age	0.001 (0.005)	-0.008* (0.004)	-0.000 (0.005)	0.003 (0.005)	0.003 (0.005)	-0.001 (0.005)
Divorce	0.164 (0.186)	-0.055 (0.197)	-0.137 (0.186)	0.022 (0.221)	-0.135 (0.208)	0.038 (0.193)
Wealth index	0.058 (0.208)	0.263 (0.188)	-0.166 (0.224)	-0.019 (0.211)	0.727*** (0.211)	-0.087 (0.227)
Boy ratio	-0.035 (0.022)	-0.042** (0.020)	-0.080*** (0.021)	-0.087*** (0.024)	-0.027 (0.028)	-0.089*** (0.022)
Father involvement	-0.109 (0.126)	-0.259** (0.110)	-0.116 (0.107)	-0.176 (0.123)	0.241* (0.126)	-0.221* (0.119)
Constant	1.428*** (0.517)	1.173** (0.496)	0.781 (0.521)	0.975* (0.535)	-0.840 (0.662)	1.511*** (0.527)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	978	978	978	978	978	978

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A5b. Child labour and mental health: Second stage of conditional mixed-process model (India)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel B: India						
Child labour	-0.313 (0.204)	-0.350 (0.213)	1.312** (0.603)	1.264*** (0.290)	-0.851*** (0.183)	-0.111 (0.259)
Female	0.160** (0.073)	-0.115 (0.074)	-0.273** (0.136)	-0.335*** (0.094)	0.226*** (0.077)	-0.048 (0.080)
School attendance	0.101 (0.199)	-0.091 (0.228)	0.278 (0.274)	0.393 (0.268)	0.039 (0.216)	-0.038 (0.192)
BMI index	-0.028 (0.032)	-0.014 (0.020)	0.030 (0.032)	-0.018 (0.017)	-0.040** (0.019)	-0.016 (0.031)
Mother education	-0.234** (0.096)	-0.096 (0.090)	-0.115 (0.125)	0.184* (0.106)	-0.248** (0.109)	-0.222** (0.092)
Father education	0.050 (0.086)	-0.015 (0.082)	-0.135 (0.091)	-0.054 (0.092)	0.034 (0.097)	-0.039 (0.081)
Mother age	-0.001 (0.005)	0.001 (0.006)	-0.003 (0.006)	0.002 (0.006)	0.015*** (0.006)	0.001 (0.005)
Divorce	0.039 (0.188)	-0.087 (0.179)	0.087 (0.207)	0.511** (0.222)	-0.186 (0.209)	0.174 (0.166)
Wealth index	-0.514*** (0.193)	-0.107 (0.187)	-0.239 (0.203)	-0.157 (0.217)	0.612*** (0.209)	-0.430** (0.190)
Boy ratio	0.012 (0.015)	0.032** (0.015)	0.027 (0.018)	0.044** (0.018)	-0.040* (0.020)	0.034** (0.016)
Father involvement	0.047 (0.109)	0.113 (0.119)	-0.001 (0.126)	0.053 (0.131)	-0.093 (0.127)	0.099 (0.099)
Constant	0.316*** (0.114)	0.221* (0.121)	-0.670 (0.408)	-0.762*** (0.191)	0.771*** (0.126)	0.212 (0.158)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	956	956	956	956	956	956

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A6a. Child labour and mental health: Mental health as dummy variable – First stage of conditional mixed-process (Vietnam)

	Dependent variable: Child labour (=1)					
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Rainfall deviation	0.012*** (0.004)	0.011** (0.004)	0.012*** (0.004)	0.012*** (0.004)	0.013*** (0.003)	0.014*** (0.004)
Female	-0.568*** (0.110)	-0.568*** (0.112)	-0.574*** (0.110)	-0.557*** (0.109)	-0.566*** (0.102)	-0.554*** (0.110)
School attendance	0.548 (0.578)	0.533 (0.592)	0.371 (0.512)	0.305 (0.463)	0.504 (0.506)	0.246 (0.463)
BMI index	-0.024 (0.043)	-0.019 (0.042)	-0.017 (0.042)	-0.005 (0.043)	-0.034 (0.040)	-0.021 (0.041)
Mother education	-0.156 (0.130)	-0.178 (0.140)	-0.149 (0.133)	-0.147 (0.131)	-0.144 (0.124)	-0.146 (0.135)
Father education	-0.306** (0.147)	-0.316** (0.154)	-0.328** (0.147)	-0.391*** (0.144)	-0.366*** (0.140)	-0.350** (0.144)
Mother age	-0.003 (0.007)	-0.002 (0.008)	-0.004 (0.008)	-0.006 (0.008)	-0.002 (0.007)	-0.007 (0.008)
Divorce	-0.224 (0.294)	-0.236 (0.301)	-0.241 (0.296)	-0.095 (0.280)	-0.273 (0.264)	-0.155 (0.280)
Wealth index	0.560 (0.361)	0.611 (0.374)	0.529 (0.373)	0.500 (0.362)	0.459 (0.317)	0.372 (0.367)
Boy ratio	-0.003 (0.038)	-0.006 (0.039)	-0.003 (0.038)	-0.004 (0.037)	-0.004 (0.032)	0.001 (0.036)
Father involvement	-0.022 (0.175)	0.001 (0.189)	-0.049 (0.186)	-0.012 (0.173)	-0.126 (0.165)	-0.031 (0.178)
Constant	0.424 (0.338)	0.486 (0.756)	-0.320 (0.479)	-1.063** (0.480)	2.071*** (0.423)	-0.944** (0.478)
Rho value	-0.382 (0.951)	-0.481 (1.068)	-0.228 (0.917)	-0.271 (0.869)	-0.060 (0.826)	0.072 (0.874)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	978	978	978	978	978	978

Notes: Standard errors in parentheses; rainfall deviation represents the absolute value of rainfall anomalies in the last 12 months before the interview date in Young Lives; *** p<0.01, ** p<0.05, * p<0.1

Table A6b. Child labour and mental health: Mental health as dummy variable – First stage of conditional mixed-process (India)

	Dependent variable: Child labour (=1)					
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel B: India						
Rainfall deviation	0.139*** (0.035)	0.137*** (0.038)	0.145*** (0.037)	0.148*** (0.034)	0.125*** (0.024)	0.136*** (0.038)
Female	0.572*** (0.088)	0.565*** (0.088)	0.556*** (0.089)	0.544*** (0.089)	0.505*** (0.080)	0.566*** (0.088)
School attendance	-1.047*** (0.288)	-1.056*** (0.299)	-1.032*** (0.290)	-1.053*** (0.295)	-0.928*** (0.240)	-1.046*** (0.296)
BMI index	-0.007 (0.018)	-0.006 (0.023)	-0.007 (0.027)	-0.005 (0.023)	-0.020 (0.027)	-0.007 (0.025)
Mother education	-0.350*** (0.125)	-0.363*** (0.125)	-0.345*** (0.131)	-0.344*** (0.125)	-0.267** (0.111)	-0.364*** (0.126)
Father education	0.083 (0.110)	0.076 (0.111)	0.062 (0.114)	0.070 (0.110)	0.061 (0.103)	0.075 (0.111)
Mother age	0.004 (0.007)	0.003 (0.007)	0.003 (0.007)	0.003 (0.007)	0.005 (0.007)	0.004 (0.007)
Divorce	-0.029 (0.247)	-0.054 (0.249)	-0.052 (0.248)	-0.084 (0.248)	-0.060 (0.235)	-0.053 (0.248)
Wealth index	0.038 (0.271)	0.072 (0.269)	0.092 (0.268)	0.057 (0.267)	-0.014 (0.237)	0.084 (0.270)
Boy ratio	-0.052** (0.022)	-0.056** (0.023)	-0.056** (0.023)	-0.055** (0.023)	-0.059*** (0.022)	-0.056** (0.023)
Father involvement	0.048 (0.160)	0.045 (0.159)	0.042 (0.159)	0.031 (0.157)	0.016 (0.147)	0.044 (0.159)
Constant	0.748** (0.357)	0.183 (0.446)	-0.446 (0.423)	-0.810* (0.424)	7.543 (26.414)	-0.075 (0.404)
Rho value	0.713 (0.551)	0.754 (0.585)	0.800 (0.601)	0.840 (0.574)	0.868 (0.540)	0.737 (0.600)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	956	956	956	956	956	956

Notes: Standard errors in parentheses; rainfall deviation represents the absolute value of rainfall anomalies in the last 12 months before the interview date in Young Lives; *** p<0.01, ** p<0.05, * p<0.1

Table A7a. Child labour and mental health: Mental health as dummy variable (Vietnam)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Child labour	-0.686 (0.516)	-0.493 (1.148)	0.982 (0.744)	1.575*** (0.285)	-2.080*** (0.085)	1.588*** (0.353)
Female	-0.021 (0.107)	-0.311** (0.140)	-0.152 (0.135)	0.120 (0.089)	0.014 (0.078)	0.082 (0.093)
School attendance	0.320 (0.409)	0.157 (0.365)	0.074 (0.345)	-0.284 (0.318)	0.659* (0.373)	-0.071 (0.322)
BMI index	-0.126*** (0.032)	-0.024 (0.030)	0.017 (0.031)	-0.075** (0.031)	-0.040 (0.032)	-0.084*** (0.032)
Mother education	-0.053 (0.110)	-0.130 (0.113)	-0.004 (0.115)	-0.124 (0.103)	0.048 (0.103)	-0.097 (0.107)
Father education	0.134 (0.131)	-0.077 (0.144)	-0.315** (0.146)	0.148 (0.108)	-0.040 (0.111)	0.103 (0.117)
Mother age	0.001 (0.006)	-0.008 (0.006)	0.002 (0.006)	0.004 (0.006)	0.001 (0.006)	-0.001 (0.006)
Divorce	0.214 (0.230)	-0.322 (0.238)	-0.321 (0.238)	-0.288 (0.210)	0.187 (0.206)	-0.144 (0.212)
Wealth index	0.057 (0.286)	0.627* (0.349)	-0.378 (0.309)	-0.005 (0.258)	0.923*** (0.234)	-0.057 (0.261)
Boy ratio	-0.054* (0.031)	-0.051* (0.030)	-0.088*** (0.031)	-0.072** (0.031)	-0.027 (0.028)	-0.089*** (0.031)
Father involvement	-0.142 (0.148)	-0.434*** (0.151)	-0.186 (0.146)	-0.174 (0.143)	0.279** (0.136)	-0.286** (0.138)
Constant	1.644** (0.723)	1.426** (0.680)	0.949 (0.728)	1.318** (0.663)	-0.457 (0.693)	1.574** (0.694)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	978	978	978	978	978	978

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; the Table shows results of second stage of conditional mixed-process model; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A7b. Child labour and mental health: Mental health as dummy variable (India)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel B: India						
Child labour	0.849** (0.344)	-0.266 (0.711)	1.070** (0.522)	1.069*** (0.350)	-1.258*** (0.051)	0.402 (0.660)
Female	0.230** (0.113)	-0.144 (0.172)	-0.260** (0.130)	-0.327*** (0.105)	0.386*** (0.073)	-0.164 (0.152)
School attendance	-0.139 (0.304)	-0.117 (0.383)	0.308 (0.316)	0.386 (0.291)	-0.383* (0.198)	0.389 (0.366)
BMI index	-0.016 (0.028)	-0.012 (0.027)	0.007 (0.025)	-0.037 (0.023)	-0.028 (0.022)	-0.004 (0.028)
Mother education	-0.333*** (0.115)	-0.080 (0.141)	-0.186 (0.146)	0.188 (0.119)	-0.251** (0.102)	-0.285** (0.142)
Father education	0.122 (0.101)	0.021 (0.104)	-0.085 (0.104)	-0.020 (0.100)	0.030 (0.094)	0.041 (0.105)
Mother age	-0.001 (0.007)	-0.005 (0.007)	0.004 (0.007)	0.006 (0.007)	0.015** (0.006)	-0.002 (0.007)
Divorce	0.232 (0.244)	-0.180 (0.250)	-0.257 (0.253)	0.412 (0.255)	-0.052 (0.212)	0.193 (0.246)
Wealth index	-0.656*** (0.247)	-0.184 (0.241)	-0.251 (0.241)	-0.152 (0.230)	0.396* (0.212)	-0.251 (0.245)
Boy ratio	0.032 (0.021)	0.035 (0.023)	0.028 (0.021)	0.029 (0.020)	-0.039** (0.019)	0.046** (0.022)
Father involvement	0.156 (0.158)	0.049 (0.150)	-0.219 (0.161)	-0.005 (0.145)	-0.012 (0.137)	-0.076 (0.151)
Constant	0.071 (0.584)	0.422 (0.655)	-0.119 (0.597)	0.051 (0.539)	0.348 (0.453)	-0.295 (0.654)
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	956	956	956	956	956	956

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; the Table shows results of second stage of conditional mixed-process model; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A8. Child labour and mental health by gender

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Child labour (boys)	-0.181 (0.354)	0.477* (0.288)	0.862 (0.588)	1.879*** (0.252)	-2.579*** (0.222)	0.824 (0.621)
Child labour (girls)	-0.582 (0.762)	1.619*** (0.314)	0.278 (1.198)	1.512*** (0.359)	-1.877*** (0.192)	1.458** (0.678)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observation (boy sample)	488	488	488	488	488	488
Observation (girl sample)	490	490	490	490	490	490
Panel B: India						
Child labour (boys)	1.744*** (0.299)	-0.134 (0.310)	1.800*** (0.372)	1.903*** (0.339)	-1.109*** (0.254)	2.034*** (0.257)
Child labour (girls)	-0.739** (0.337)	-0.644* (0.380)	0.364 (0.447)	0.568 (0.523)	-0.677*** (0.245)	-0.307 (0.283)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observation (boy sample)	466	466	466	466	466	466
Observation (girl sample)	490	490	490	490	490	490

Notes: Standard errors in parentheses; results of second stage of conditional mixed-process model; results of first stage are not shown; all models include time interview dummies and commune fixed effects; control variables include gender, child's age, BMI index, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p<0.01, ** p<0.05, * p<0.1

Table A9. Child labour and mental health by living location

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptoms	Conduct problems	Hyperactivity	Peer problems	Prosocial behaviour	Total difficulties
Panel A: Vietnam						
Child labour*Urban	-1.463*** (0.428)	0.049 (0.320)	0.694** (0.329)	-1.307*** (0.284)	1.418*** (0.242)	0.486 (0.389)
Child labour	1.493*** (0.404)	0.138 (0.246)	-0.430 (0.284)	1.613*** (0.209)	-1.996*** (0.157)	-0.248 (0.350)
Urban	0.105 (0.127)	0.127 (0.110)	0.225** (0.109)	0.541*** (0.115)	-0.629*** (0.117)	0.184 (0.116)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	490	490	490	490	490	490
Panel B: India						
Child labour*Urban	0.293 (0.265)	0.020 (0.202)	0.501 (0.385)	-0.099 (0.368)	0.859*** (0.227)	0.442 (0.310)
Child labour	-0.059 (0.233)	-0.094 (0.157)	-0.200 (0.360)	0.264 (0.334)	-0.339* (0.197)	-0.196 (0.293)
Urban	-0.612*** (0.120)	-0.391*** (0.115)	-0.372*** (0.139)	0.086 (0.154)	-0.379*** (0.130)	-0.608*** (0.129)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	490	490	490	490	490	490

Notes: Standard error in parentheses; results of second stage of conditional mixed-process model, results of first stage are not shown; all models include time interview dummies and commune fixed effects; control variables include gender, child's age, BMI index, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A10. Child labour and mental health: Roles of support

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptoms	Conduct problems	Hyperactivity	Peer problems	Prosocial behaviour	Total difficulties
Panel A: Vietnam						
Rainfall deviation	0.011*** (0.003)	-0.005 (0.003)	-0.000 (0.003)	0.004 (0.003)	-0.004 (0.003)	0.006* (0.003)
Government support	0.049 (0.110)	0.003 (0.111)	0.019 (0.111)	0.026 (0.110)	-0.006 (0.108)	0.041 (0.111)
Rainfall deviation* Government support	-0.002 (0.005)	0.006 (0.005)	-0.001 (0.005)	0.003 (0.005)	0.007 (0.005)	0.001 (0.005)
Friends/Relatives support	-0.096 (0.067)	-0.006 (0.068)	0.033 (0.068)	-0.205*** (0.067)	-0.055 (0.066)	-0.104 (0.067)
Rainfall deviation* Friends/Relatives support	-0.012*** (0.004)	-0.007* (0.004)	-0.006 (0.004)	-0.005 (0.004)	0.007* (0.004)	-0.012*** (0.004)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	490	490	490	490	490	490
Panel B: India						
Rainfall deviation	0.109** (0.049)	0.120** (0.049)	0.077 (0.049)	0.065 (0.049)	0.067 (0.048)	0.092* (0.049)
Government support	-0.547 (0.565)	-0.109 (0.570)	0.202 (0.566)	0.020 (0.568)	-1.690*** (0.560)	-0.211 (0.564)
Rainfall deviation* Government support	-0.071 (0.110)	-0.023 (0.111)	-0.045 (0.110)	-0.017 (0.110)	0.271** (0.109)	-0.019 (0.109)
Friends/Relatives support	-0.601* (0.330)	-0.810** (0.333)	0.466 (0.330)	-0.765** (0.331)	-0.050 (0.327)	-0.690** (0.329)
Rainfall deviation* Friends/Relatives support	-0.136** (0.060)	-0.161*** (0.061)	0.067 (0.060)	-0.170*** (0.061)	-0.001 (0.060)	-0.161*** (0.060)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	490	490	490	490	490	490

Notes: Standard error in parentheses; results of OLS; all models include time interview dummies and commune fixed effects; rainfall deviation represents the absolute value of rainfall anomalies in the last 12 months before the interview date in Young Lives; control variables include gender, child's age, BMI index, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; *** p < 0.01, ** p < 0.05, * p < 0.1

Table A11a. Child labour and mental health: Alternative measure of rainfall

	Dependent variable: Child labour (=1)					
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Rainfall deviation	1.720*** (0.524)	2.363*** (0.536)	1.927*** (0.612)	2.443*** (0.526)	1.003** (0.485)	2.325*** (0.538)
Rho value	-1.062*** (0.232)	-0.643** (0.273)	0.013 (0.176)	-0.797*** (0.132)	1.249*** (0.205)	-0.601*** (0.195)
Observations	978	978	978	978	978	978
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: India						
Rainfall deviation	1.174*** (0.196)	1.088*** (0.233)	0.992*** (0.251)	1.096*** (0.239)	1.185*** (0.218)	1.053*** (0.204)
Rho value	-0.871*** (0.149)	-0.662*** (0.212)	-0.787*** (0.263)	0.169 (0.145)	-0.890*** (0.255)	-0.936*** (0.137)
Observations	956	956	956	956	956	956
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors in parentheses; rainfall deviation is calculated by taking the natural log of actual rainfall minus the natural log of long-term average rainfall in the last 12 months before the interview date in Young Lives; control variables include gender, child's age, BMI index, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio; *** p<0.01, ** p<0.05, * p<0.1

Table A11b. Child labour and mental health: Alternative measure of rainfall

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Vietnam						
Child labour	1.681*** (0.291)	1.465*** (0.359)	0.366 (0.324)	1.475*** (0.188)	-2.290*** (0.207)	1.357*** (0.286)
Observations	978	978	978	978	978	978
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: India						
Child labour	1.503*** (0.202)	0.994*** (0.308)	-0.211 (0.241)	1.448*** (0.379)	-1.638*** (0.359)	1.573*** (0.180)
Observations	956	956	956	956	956	956
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; control variables include gender, child's age, BMI index, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio; *** p<0.01, ** p<0.05, * p<0.1

Table A12a. Child labour and mental health: Alternative measure of BMI (Vietnam)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Second stage (dependent variable is mental health)						
Child labour	1.712*** (0.273)	0.480 (0.362)	0.683 (0.577)	1.463*** (0.262)	-2.071*** (0.159)	1.346*** (0.349)
BMI index	-0.393*** (0.091)	-0.162** (0.080)	0.076 (0.082)	-0.166** (0.084)	-0.225** (0.090)	-0.246*** (0.087)
Observations	978	978	978	978	978	978
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: First stage (dependent variable is BMI index)						
Average BMI	0.927*** (0.109)	0.928*** (0.109)	0.927*** (0.109)	0.927*** (0.108)	0.924*** (0.108)	0.927*** (0.109)
Observations	956	956	956	956	956	956
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; control variables include gender, child's age, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio *** p<0.01, ** p<0.05, * p<0.1

Table A12b. Child labour and mental health: Alternative measure of BMI (India)

	(1)	(2)	(3)	(4)	(5)	(6)
	Emotional symptom	Conduct problem	Hyperactivity	Peer problem	Prosocial	Total difficulties
Panel A: Second stage (dependent variable is mental health)						
Child labour	0.335* (0.195)	0.394* (0.207)	1.058 (2.840)	1.255*** (0.298)	-0.857*** (0.179)	0.164 (0.222)
BMI index	-0.190*** (0.073)	-0.130** (0.065)	-0.087 (0.081)	-0.029 (0.062)	-0.137** (0.062)	-0.200*** (0.074)
Observations	978	978	978	978	978	978
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
Commune fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Panel B: First stage (dependent variable is BMI index)						
Average BMI	0.992*** (0.179)	0.992*** (0.179)	0.992*** (0.178)	0.991*** (0.179)	0.990*** (0.179)	0.992*** (0.179)
Observations	956	956	956	956	956	956
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes
Time interview dummies	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors in parentheses; the instrumental variable is rainfall deviation; standard errors are clustered at the province level; higher SDQ scores indicate a negative outcome for all subscales but the prosocial behaviour; control variables include gender, child's age, mother's education and age, father's education, father involvement, divorce, wealth index and boy ratio; *** p<0.01, ** p<0.05, * p<0.1