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Supplementary appendix 2

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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The COVID-19 pandemic and maternal mental health in a fragile and conflict-affected setting: a cohort study in Tumaco, Colombia.

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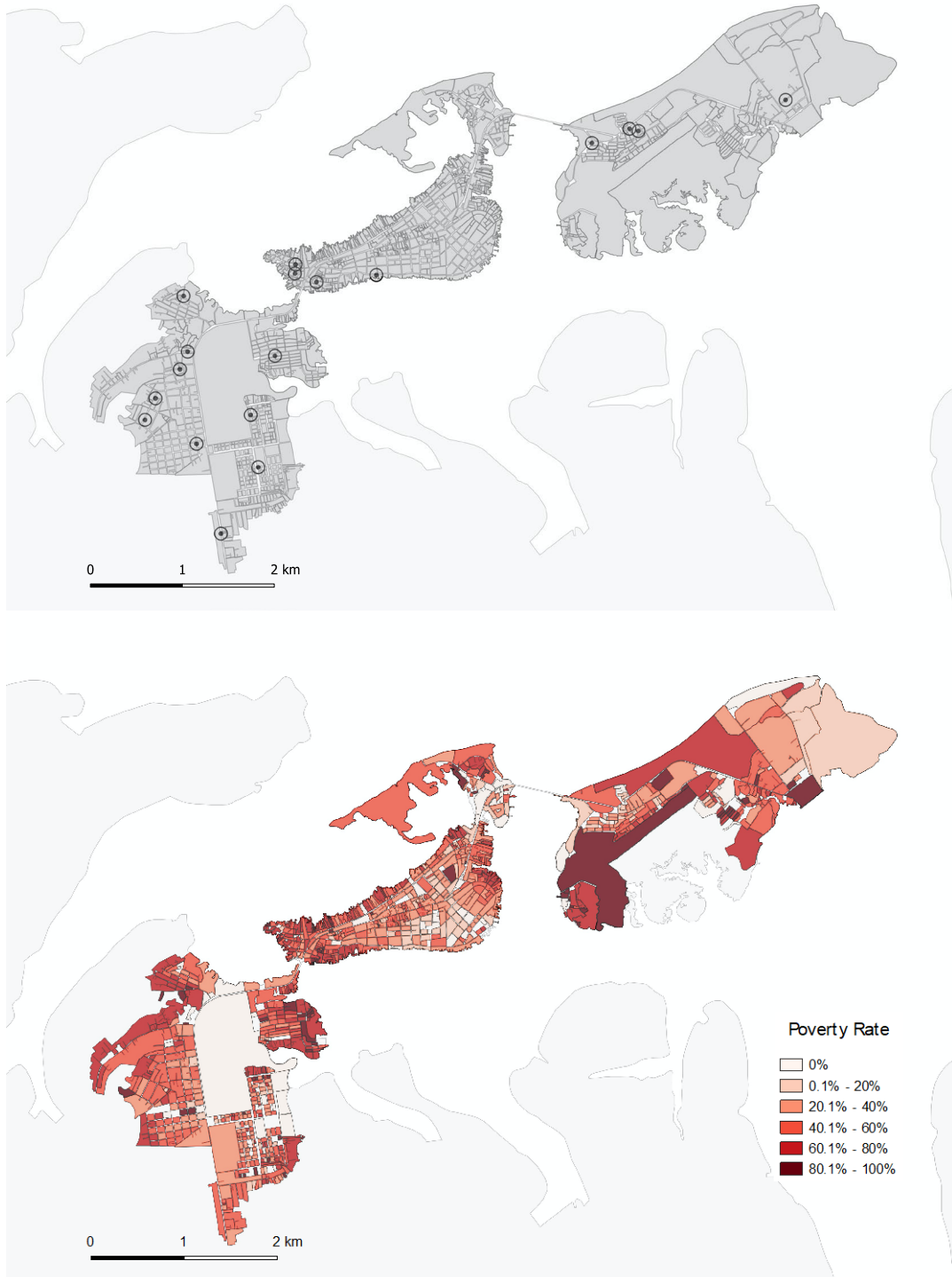
A. Context

Table A1: Tumaco's socioeconomic and violence-related profile

	Tumaco (1)	Colombia (2)
Poverty and Demographics		
Multidimensional poverty index	0.45	0.20
Illiteracy rate	0.15	0.08
Low educational achievement	0.49	0.41
Inappropriate walls	0.45	0.10
No health insurance	0.17	0.10
Formal employment	0.08	0.27
Afro-Colombian	0.90	0.10
Access to public services		
Unsafe drinking water	0.44	0.11
Sewerage	0.08	0.92
Aqueduct	0.54	0.95
Internet coverage	0.13	0.54
Hospital beds (per 1,000)	0.85	1.70
Intensive care unit beds (per 1,000)	0.01	0.11
Violence		
Homicide rate (per 100,000)	101	24
Displaced population (rate per 100,000)	2003	285
Reception of displaced population (rate per 100,000)	943	238
COVID-19 during data collection period		
COVID-19 case rate (per 100,000)	5	9
COVID-19 death rate (per 100,000)	0.39	0.57
COVID-19 up to date: Sep 30		
COVID-19 case rate (per 100,000)	761	1647
COVID-19 death rate (per 100,000)	31.90	51.61

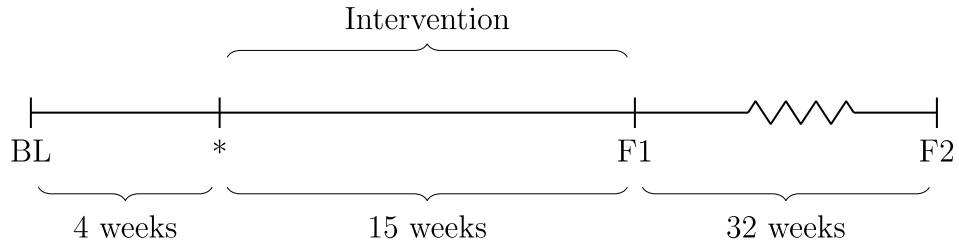
Notes: Administrative data on Tumaco and Colombia. Source: National Administrative Department of Statistics and the National Planning Department, Colombia.

Figure A1: ECDC's distribution and poverty rates



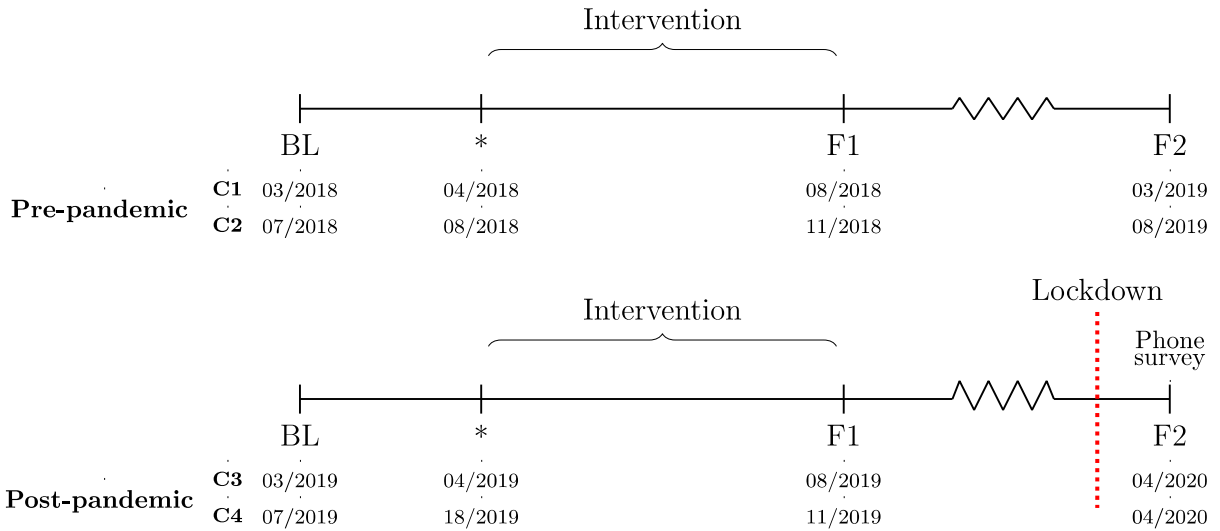
Notes: Map of Tumaco. Panel A illustrates the distribution of early childhood development centers (ECDCs). Panel B illustrates poverty rates in Tumaco at the block-level using data from the Colombian National Administrative Department of Statistics.

Figure A2: General timeline of evaluation



Notes: Figure illustrates the general timeline of the *Semillas de Apego* implementation and data-collection. BL corresponds to baseline data collection; * marks the start of the intervention for treatment arm; F1 corresponds to 1-month follow-up data collection; and F2 corresponds to the 8-month follow-up.

Figure A3: Timeline for pre and post-pandemic cohorts



Notes: Figure depicts actual timeline for pre and post-pandemic cohorts. BL corresponds to baseline data collection; * marks the start of the intervention for treatment arm; F1 corresponds to 1-month follow-up data collection; and F2 corresponds to the 8-month follow-up. Dates under each mark report the dates in which each wave was administered for the corresponding cohort.

B. Main Results

Descriptives

Table A2: Mental health outcomes at each wave

	Pre-pandemic (1)	Post-pandemic (2)	Diff [95% CI] (3)	p-value (4)
Baseline				
Anxiety T-score	57.21 (6.736)	57.01 (6.964)	-0.20 [-0.938 to 0.536]	0.59
Depression T-score	59.91 (7.074)	59.73 (6.931)	-0.19 [-0.936 to 0.564]	0.63
PSI T-score	52.14 (7.451)	53.01 (6.791)	0.87 [0.11 to 1.628]	0.02
Follow-up 1				
Anxiety T-score	56.72 (6.745)	55.81 (6.209)	-0.91 [-1.619 to -0.209]	0.01
Depression T-score	58.88 (6.586)	58.38 (6.196)	-0.50 [-1.198 to 0.196]	0.16
PSI T-score	52.6 (7.183)	52.2 (7.43)	-0.40 [-1.202 to 0.403]	0.33
Follow-up 2				
Anxiety T-score	55.44 (5.756)	58.31 (7.35)	2.86 [2.103 to 3.619]	p<0.0001
Depression T-score	58.22 (5.949)	59.16 (6.843)	0.94 [0.209 to 1.67]	0.01
PSI T-score	51.85 (6.959)	53.76 (6.234)	1.91 [1.172 to 2.648]	p<0.0001

Notes: Table reports descriptive statistics based on raw data for mental health symptoms (T-scores) at each wave for Cohorts 1 & 2 (N=572), and Cohorts 3 & 4 (N=803), respectively. These cohorts are referred to as pre and post-pandemic cohorts to signal that while all assessments were administered prior to the pandemic for Cohorts 1 & 2, for Cohorts 3 & 4, the final assessment (follow-up 2) was administered 2 to 5 weeks into the pandemic. Column 1 reports mean (sd) for the pre-pandemic cohorts while Column 2 for the post-pandemic cohorts. Column 3 indicates the mean-difference test between post and pre-pandemic cohorts; 95% confidence interval reported in brackets. Column 4 reports p-value of the difference

Table A3: Mental health outcomes at each wave for the post-pandemic cohorts

	Baseline (1)	Follow-up 1 (2)	Follow-up 2 (3)	Follow-up 2 vs. Follow-up 1 Diff [CI 95%] (4)	p-value (5)
Anxiety above risk threshold	135 (16.8%)	68 (8.9%)	159 (22.0%)	-0.13 [-0.167 to -0.095]	p<0.0001
Depression above risk threshold	225 (28.0%)	149 (19.5%)	174 (24.1%)	-0.04 [-0.088 to -0.039]	0.03
PSI above risk threshold (pc73)	281 (35.0%)	232 (30.3%)	221 (36.9%)	-0.06 [-0.113 to -0.018]	0.01

Notes: Table reports descriptive statistics on the likelihood of experiencing mental health symptoms above the at-risk thresholds at each wave in the post-pandemic cohorts (N=803). Columns 1- 3 report the number of participants (%) with at-risk symptoms at baseline, follow-up 1, assessments administered prior to the pandemic, and follow-up 2, administered 2 to 5 weeks into the pandemic. Column 4 indicates the mean-difference test between follow-up 2 and follow-up 1 assessments; 95% confidence interval reported in brackets. Column 4 reports p-value of the difference.

Changes in mental health associated with the pandemic

In the main specification, we estimate model 1, where we regress $mh_{i,t}$ on $PostPandemic_{i,t}$, an indicator variable that takes the value of one for the *treated* post-pandemic cohorts, controlling for $mh_{i,t-1}$ the mental health variable at baseline and $X_{i,t-1}$, and a vector of baseline-level sociodemographic controls. Sociodemographic controls include the caregiver's age, number of children under 5 years of age in household, a two-parent household indicator, years of education, an indicator of whether the household head was formally employed, household income per capita, asset index, an indicator of whether the family was beneficiary of main conditional cash transfer program, an internally displaced indicator, and the number of violent events experienced by the household over the past 10 years. Results of the main model are reported in Table A4 and in Figure 2.

$$mh_{i,t} = \beta_0 + \beta_1 PostPandemic_{i,t} + \beta_2 mh_{i,t-1} + \Gamma_1' X_{i,t-1} + \xi_i \quad (1)$$

**Table A4: Impact of the pandemic on maternal mental health
Models using risk thresholds controlling for baseline mental health outcome**

	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Post-pandemic	0.14 [0.100 to 0.174]	p<0.0001	0.05 [0.005 to 0.091]	0.03	0.10 [0.046 to 0.146]	0.0002
Lagged dependent variable	0.28 [0.212 to 0.354]	p<0.0001	0.30 [0.239 to 0.358]	p<0.0001	0.27 [0.207 to 0.327]	p<0.0001
Sample mean at baseline	0.16		0.27		0.33	
Observations	1218		1218		1218	
R-squared	0.15		0.15		0.13	
F-test	14.24		15.37		15.52	

Notes: Estimates for the post-pandemic effect on the probability of symptoms of anxiety, depression or parenting stress above the at-risk thresholds. Estimates come from the lagged dependent variable model (1) that controls for the baseline lagged dependent variable and a set of baseline demographic and socioeconomic controls. 95% confidence interval in brackets.

Heterogeneity according to baseline characteristics

To explore the heterogeneity in the impact according to baseline sociodemographic characteristics, we estimate model 2 for each sociodemographic characteristic x . Specifically, we regress $mh_{i,t}$ on the $PostPandemic_{i,t}$ indicator variable, and the interaction between $PostPandemic_{i,t}$ and $x_{i,t-1}$. Table A5 and Figure 3 panel A, report estimates from model 2.

$$mh_{i,t} = \beta_0 + \beta_1 PostPandemic_{i,t} + \beta_2 x_{i,t-1} + \beta_3 PostPandemic_{i,t} \times x_{i,t-1} + \beta_4 mh_{i,t-1} + \Gamma_1' X_{i,t-1} + \xi_i \quad (2)$$

Table A5: Moderating effect of baseline characteristics
Models using risk thresholds controlling for baseline mental health outcome

	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Caregiver's age	0.03 [-0.005 to 0.072]	0.09	0.05 [0.005 to 0.090]	0.03	0.03 [-0.019 to 0.086]	0.20
Household size	0.01 [-0.027 to 0.056]	0.49	0.00 [-0.043 to 0.049]	0.89	-0.02 [-0.069 to 0.035]	0.53
Two-parent hh (=1)	0.07 [-0.012 to 0.155]	0.09	0.13 [0.031 to 0.226]	0.01	0.06 [-0.056 to 0.170]	0.32
Number of children under 5yrs	-0.02 [-0.057 to 0.023]	0.40	-0.01 [-0.055 to 0.038]	0.72	-0.06 [-0.110 to -0.003]	0.04
Years of Education	-0.05 [-0.090 to -0.011]	0.01	-0.06 [-0.108 to -0.021]	0.004	-0.06 [-0.115 to -0.013]	0.01
Hh head employed (=1)	-0.06 [-0.168 to 0.043]	0.25	0.00 [-0.120 to 0.120]	0.996	-0.05 [-0.185 to 0.089]	0.49
Formal job (=1)	-0.08 [-0.163 to -0.000]	0.05	0.01 [-0.086 to 0.099]	0.89	-0.08 [-0.188 to 0.035]	0.18
Income per capita (log)	-0.03 [-0.071 to 0.009]	0.13	-0.01 [-0.055 to 0.039]	0.74	-0.01 [-0.064 to 0.042]	0.68
Asset index	0.01 [-0.020 to 0.035]	0.58	0.02 [-0.008 to 0.056]	0.14	0.00 [-0.031 to 0.040]	0.78
CCT beneficiary (=1)	0.06 [-0.020 to 0.132]	0.15	-0.05 [-0.133 to 0.042]	0.31	0.06 [-0.042 to 0.159]	0.25
IDP (=1)	0.13 [0.052 to 0.203]	0.001	0.06 [-0.027 to 0.150]	0.17	0.17 [0.071 to 0.275]	0.001
Number of violent events	0.05 [0.006 to 0.087]	0.02	0.01 [-0.033 to 0.058]	0.59	0.01 [-0.037 to 0.063]	0.61
Mental health at baseline	0.11 [-0.029 to 0.249]	0.12	0.02 [-0.091 to 0.141]	0.67	0.13 [0.018 to 0.248]	0.02

Notes: Estimates of the moderating effect of baseline demographic and socioeconomic characteristics on the probability of developing at-risk symptoms of anxiety, depression and parenting stress. Each estimate comes from a separate model that includes the post-pandemic treatment indicator and the interaction of this indicator and the variable listed in the vertical axis, as in model (2). All models control for the baseline lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, IDP stands for Internally Displaced Persons, and hh stands for household.

Heterogeneity according to pandemic-relates stressors

Finally, for each pandemic-related stressor $s_{i,t}$, we estimate model 3, where we regress $mh_{i,t}$ on $s_{i,t}$ for the post-pandemic cohort only. Table A6 and Figure 3 panel B report these results.

$$mh_{i,t} = \beta_0 + \beta_1 s_{i,t} + \beta_2 mh_{i,t-1} + \Gamma_1' X_{i,t-1} + \xi_i \text{ if } PostPandemic = 1 \quad (3)$$

**Table A6: Moderating effect of pandemic-related stressors
Models using risk thresholds controlling for baseline mental health outcome**

	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Job or income loss	0.06 [0.000 to 0.114]	0.05	0.06 [-0.003 to 0.114]	0.06	0.03 [-0.038 to 0.094]	0.41
Lack of food	0.05 [-0.013 to 0.106]	0.13	0.08 [0.021 to 0.141]	0.008	0.10 [0.024 to 0.166]	0.01
Illness of a relative	0.10 [0.022 to 0.170]	0.01	0.07 [-0.013 to 0.144]	0.10	0.08 [0.005 to 0.160]	0.04
Death of a relative	0.19 [0.055 to 0.324]	0.01	0.08 [-0.046 to 0.210]	0.21	0.02 [-0.125 to 0.169]	0.78
Disruption in water provision	0.02 [-0.043 to 0.085]	0.52	0.03 [-0.033 to 0.096]	0.34	0.08 [0.010 to 0.154]	0.02
One additional stressor	0.05 [0.024 to 0.085]	0.0005	0.05 [0.023 to 0.084]	0.001	0.05 [0.021 to 0.089]	0.001

Notes: Estimates of the moderating effect of pandemic related stressors on the probability of developing critical anxiety, depression and parenting stress. Each estimate comes from a separate model that includes the indicator of the variable listed in the vertical axis, for the post-pandemic cohort only as in model (3). All models control for the baseline lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets.

C. Validity

Psychometrics

In this section we explore the validity of our results. We first confirm the psychometric properties of our scales by estimating the Cronbach's alpha and the Confirmatory Factor Analysis. Tables A7 and A8 report these results, respectively.

Table A7: Cronbach's Alpha

	Anxiety (1)	Depression (2)	PSI (3)
All waves			
All cohorts	0.89	0.90	0.89
Pre-pandemic cohort	0.86	0.86	0.90
Post-pandemic cohort	0.90	0.91	0.88
Baseline			
All cohorts	0.86	0.87	0.89
Pre-pandemic cohort	0.85	0.87	0.89
Post-pandemic cohort	0.86	0.87	0.88
Follow-up 1			
All cohorts	0.87	0.86	0.90
Pre-pandemic cohort	0.86	0.86	0.90
Post-pandemic cohort	0.87	0.86	0.90
Follow-up 2			
All cohorts	0.89	0.91	0.88
Pre-pandemic cohort	0.85	0.85	0.90
Post-pandemic cohort	0.87	0.87	0.86

Notes: Cronbach's alpha for anxiety, depression and parenting stress index scales, by wave and cohort

Table A8: Confirmatory Factor Analysis

	RMSEA (1)	CFI (2)	TLI (3)
Anxiety	0.05	0.97	0.97
Depression	0.06	0.95	0.94
PSI	0.05	0.86	0.85

Notes: Goodness of fit for anxiety, depression, and parenting stress index scales

Selection

Second, we explore whether participants selected themselves into the post-pandemic cohorts. For this purpose, we estimate model 4 where we regress the $PostPandemic_{i,t}$, indicator variable, which takes the value of one for the *treated* post-pandemic cohorts, on $Z_{i,t-1}$, a vector of baseline demographic and socioeconomic variables, and on $mh_{i,t-1}$ the mental health variable at baseline. Table A9 reports those results and confirms there is no selection to the pre and post-pandemic cohorts.

$$PostPandemic_{i,t} = \beta_0 + \beta_1 mh_{i,t-1} + \gamma_1' Z_{i,t-1} + \xi_i \quad (4)$$

Table A9: Selection into the post-pandemic cohorts at baseline

	Coefficient [95% CI] (1)	p-value (2)
Caregiver's age	0.00 [0.000 to 0.007]	0.05
Mother is caregiver (=1)	0.13 [0.037 to 0.217]	0.01
Household size	0.01 [-0.007 to 0.023]	0.28
Number of children under 5yrs	-0.05 [-0.102 to 0.001]	0.06
Index child age in months	0.01 [0.002 to 0.008]	0.0007
Two-parent hh (=1)	0.01 [-0.051 to 0.068]	0.78
Highest years of education	0.00 [-0.007 to 0.010]	0.75
CCT beneficiary (=1)	-0.11 [-0.161 to -0.051]	0.0002
Head is employed (=1)	0.05 [-0.023 to 0.118]	0.19
Asset index	-0.01 [-0.033 to 0.005]	0.16
Number of violent events	0.00 [-0.016 to 0.017]	0.96
IDP (=1)	-0.04 [-0.099 to 0.016]	0.15
Anxiety T-score	0.00 [-0.007 to 0.005]	0.77
Depression T-score	0.00 [-0.008 to 0.004]	0.48
PSI T-score	0.01 [0.002 to 0.011]	0.004
Constant	0.07 [-0.304 to 0.447]	0.71
Observations	1374	
R-squared	0.036	
F-test	3.682	

Notes: Estimated coefficients of a model that regresses baseline characteristics on the post-pandemic indicator. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household. F-test provides the statistic for the joint-significance test.

Attrition

To explore whether attrition to follow-up 2 causes selection in our sample, we estimate model 5 where we regress $Attrition_{i,t}$, an indicator variable that takes the value of one for participants not surveyed in the 8-month follow-up, on $Z_{i,t-1}$, a vector of baseline demographic and socioeconomic variables, on $mh_{i,t-1}$, the mental health variable at baseline, and on ψ_i , cohort fixed effects. Table A10 confirms there is no selection into the 8-month follow-up.

$$Attrition_{i,t} = \beta_0 + \beta_1 mh_{i,t-1} + \gamma_1' Z_{i,t-1} + \psi_i + \xi_i \quad (5)$$

Table A10: Attrition

	No cohort fixed effects		Cohort fixed effects	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)
Caregiver's age	0.00 [-0.003 to 0.001]	0.43	0.00 [-0.003 to 0.001]	0.41
Mother is caregiver (=1)	0.00 [-0.056 to 0.053]	0.96	0.00 [-0.058 to 0.052]	0.92
Household size	0.00 [-0.007 to 0.012]	0.55	0.00 [-0.007 to 0.012]	0.57
Number of children under 5yrs	0.01 [-0.025 to 0.041]	0.64	0.01 [-0.025 to 0.042]	0.62
Index child age in months	0.00 [-0.000 to 0.004]	0.09	0.00 [-0.000 to 0.003]	0.12
Two-parent hh (=1)	-0.02 [-0.053 to 0.020]	0.38	-0.02 [-0.054 to 0.019]	0.36
Highest years of education	-0.01 [-0.014 to -0.003]	0.004	-0.01 [-0.014 to -0.003]	0.01
CCT beneficiary (=1)	-0.03 [-0.061 to 0.003]	0.08	-0.03 [-0.058 to 0.008]	0.13
Head is employed (=1)	0.00 [-0.037 to 0.047]	0.83	0.00 [-0.038 to 0.046]	0.87
Asset index	0.00 [-0.014 to 0.009]	0.66	0.00 [-0.014 to 0.009]	0.68
Number of violent events	0.00 [-0.014 to 0.006]	0.43	0.00 [-0.013 to 0.006]	0.48
IDP (=1)	-0.01 [-0.038 to 0.028]	0.75	-0.01 [-0.041 to 0.027]	0.68
Anxiety T-score	0.00 [-0.003 to 0.004]	0.82	0.00 [-0.003 to 0.004]	0.79
Depression T-score	0.00 [-0.005 to 0.002]	0.36	0.00 [-0.005 to 0.002]	0.32
PSI T-score	0.00 [-0.002 to 0.003]	0.62	0.00 [-0.002 to 0.003]	0.68
Cohort=2			0.04 [-0.003 to 0.089]	0.42
Cohort=3			0.02 [-0.024 to 0.058]	0.07
Cohort=4			0.04 [-0.003 to 0.084]	0.07
Constant	0.22 [-0.020 to 0.455]	0.07	0.20 [-0.034 to 0.443]	0.09
Observations	1374		1374	
R-squared	0.020		0.023	
F-test	1.353		1.404	

Notes: Estimates of attrition. Column 1 reports results of the regression of baseline characteristics on the likelihood of attrition following model 5 but without including cohort fixed effects. Column 3 reports the results for the same model including cohort fixed effects. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household. F-test provides the statistic for the joint-significance test.

To further confirm that any attrition in the 8-month follow-up does not bias our sample, we explore whether balance at baseline changes when we exclude the attritors. Table A11 confirms balance does not change when removing follow-up 2 attritors. These results are also supported by Table A12 and A13 where we explore mean difference between attritors and non-attritors, and between pre and post-pandemic attritors, respectively.

Table A11: Balance at baseline without attritors

	Total (1)	Pre-pandemic cohort (2)	Diff [95% CI] (3)	p-value (4)
Participant's characteristics				
Caregiver's age	29.15 (9.304)	29.14 (9.37)	0.01 [-1.034 to 1.063]	0.98
Caregiver is female	1,192 (95.7%)	489 (93.7%)	0.04 [0.013 to 0.058]	0.002
Mother is caregiver	1,083 (87.0%)	441 (84.5%)	0.04 [0.005 to 0.081]	0.03
Caregiver's years of education	11.96 (3.641)	11.97 (3.875)	-0.02 [-0.432 to 0.389]	0.92
Household characteristics				
Household size	4.98 (1.975)	5.05 (2.062)	-0.11 [-0.331 to 0.114]	0.34
Number of children under 5yrs	1.29 (0.553)	1.33 (0.586)	-0.07 [-0.135 to -0.011]	0.02
Index child age in months	35.16 (8.341)	34.31 (6.504)	1.46 [0.526 to 2.399]	0.002
Two-parent hh	882 (70.8%)	367 (70.3%)	0.01 [-0.042 to 0.061]	0.72
Highest years of education	12.8 (3.233)	12.78 (3.41)	0.05 [-0.316 to 0.413]	0.79
Asset index	-0.25 (1.367)	-0.22 (1.344)	-0.07 [-0.223 to 0.086]	0.38
Access to public water supply	666 (53.5%)	276 (52.9%)	0.01 [-0.046 to 0.067]	0.71
Access to sewage service	259 (20.8%)	95 (18.2%)	0.04 [-0.001 to 0.091]	0.05
CCT beneficiary	539 (43.3%)	256 (49.0%)	-0.1 [-0.155 to -0.043]	0.0005
Monthly hh income per capita (PPP 2017 USD)	272.19 (655.351)	268.4 (501.387)	6.52 [-67.353 to 80.396]	0.86
Head is employed	1,028 (82.7%)	421 (80.7%)	0.04 [-0.007 to 0.078]	0.10
Head has formal job	271 (22.3%)	108 (21.3%)	0.02 [-0.031 to 0.064]	0.50
Days hh head works in a month	23.72 (6.45)	23.11 (6.691)	1.01 [0.19 to 1.821]	0.02
Exposure to violence				
Victim of direct violence	1.026 (82.4%)	421 (80.7%)	0.03 [-0.013 to 0.073]	0.17
Number of violent events	2.38 (1.778)	2.41 (1.862)	-0.06 [-0.259 to 0.142]	0.57
IDP	715 (57.4%)	321 (61.5%)	-0.07 [-0.126 to -0.014]	0.01
Outcomes				
Anxiety T-score	57.12 (6.847)	57.32 (6.799)	-0.35 [-1.12 to 0.423]	0.38
Anxiety above risk threshold	196 (15.7%)	78 (14.9%)	0.01 [-0.027 to 0.055]	0.51
Depression T-score	59.85 (6.973)	59.98 (7.051)	-0.21 [-0.999 to 0.573]	0.60
Depression above risk threshold	342 (27.5%)	138 (26.4%)	0.02 [-0.033 to 0.068]	0.49
PSI T-score	52.58 (7.082)	52.23 (7.4)	0.61 [-0.189 to 1.406]	0.13
PSI above risk threshold (pc73)	403 (30.4%)	157 (30.1%)	0.04 [-0.013 to 0.092]	0.14

Notes: Column 1 reports sample mean (sd) or n (%) for the full sample of non-attritors; column 2 reports sample mean (sd) for pre-pandemic cohorts sample of non-attritors. Column 3 reports mean difference between post and pre-pandemic cohort sample of non-attritors. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household.

Table A12: Attritors and not attritors characteristics

	Sample (1)	Attritors (2)	Diff [95% CI] (3)	p-value (4)
Participant's characteristics				
Caregiver's age	29.15 (9.304)	28.20 (8.804)	-0.19 [-3.322 to 2.945]	0.263
Caregiver is female	1,192 (95.7%)	127 (97.0%)	0.01 [-0.047 to 0.076]	0.511
Mother is caregiver	1,083 (87.0%)	116 (88.6%)	-0.03 [-0.141 to 0.087]	0.612
Caregiver's years of education	11.96 (3.641)	10.82 (3.83)	0.23 [-1.136 to 1.589]	0.001
Household characteristics				
Household size	4.98 (1.975)	5.19 (2.145)	1.08 [0.343 to 1.823]	0.256
Number of children under 5yrs	1.29 (0.553)	1.36 (0.609)	0.2 [-0.012 to 0.416]	0.151
Index child age in months	35.16 (8.341)	36.62 (8.625)	-0.3 [-3.373 to 2.765]	0.058
Two-parent hh	882 (70.8%)	85 (64.8%)	0.04 [-0.135 to 0.206]	0.156
Highest years of education	12.8 (3.233)	11.65 (3.867)	0 [-1.373 to 1.379]	0.000
Asset index	-0.25 (1.367)	-0.28 (1.354)	-0.3 [-0.777 to 0.181]	0.867
Access to public water supply	666 (53.5%)	68 (51.9%)	0.08 [-0.099 to 0.257]	0.730
Access to sewage service	259 (20.8%)	41 (31.3%)	-0.03 [-0.199 to 0.132]	0.006
CCT beneficiary	539 (43.3%)	46 (35.1%)	-0.1 [-0.269 to 0.07]	0.072
Monthly hh income per capita (PPP 2017 USD)	272.19 (655.351)	226.43 (285.916)	-42.31 [-140 to 59.184]	0.271
Head is employed	1,028 (82.7%)	108 (82.4%)	-0.03 [-0.167 to 0.105]	0.940
Head has formal job	271 (22.3%)	15 (11.7%)	-0.04 [-0.154 to 0.079]	0.006
Days hh head works in a month	23.72 (6.45)	24.11 (6.25)	-2.6 [-5.053 to -0.151]	0.251
Exposure to violence				
Victim of direct violence	1,026 (82.4%)	101 (77.1%)	-0.12 [-0.267 to 0.031]	0.133
Number of violent events	2.38 (1.778)	2.18 (1.988)	-0.28 [-0.984 to 0.428]	0.234
IDP	715 (57.4%)	72 (55.0%)	0 [-0.177 to 0.179]	0.587
Outcomes				
Anxiety T-score	57.12 (6.847)	56.87 (7.089)	1.26 [-1.249 to 3.778]	0.697
Anxiety above risk threshold	196 (15.7%)	24 (18.3%)	0.08 [-0.062 to 0.213]	0.444
Depression T-score	59.85 (6.973)	59.33 (7.148)	0.14 [-2.405 to 2.683]	0.415
Depression above risk threshold	342 (27.5%)	34 (26.0%)	0.01 [-0.149 to 0.164]	0.711
PSI T-score	52.58 (7.082)	53.21 (7.095)	3.34 [0.879 to 5.793]	0.333
PSI above risk threshold (pc73)	403 (30.4%)	47 (35.9%)	0.2 [0.035 to 0.37]	0.416

Notes: Columns 1 reports sample means (sd) or n (%) of not attritors; columns 2 reports mean (sd) for attritors sample. Column 3 reports mean difference of the not attritors and attritors sample. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household.

Table A13: Characteristics of Attritors by cohort

	Pre-pandemic cohort (1)	Post-pandemic cohort (2)	Diff [95% CI] (3)	p-value (4)
Participant's characteristics				
Caregiver's age	28·31 (8·608)	28·13 (8·980)	0·95 [-0·716 to 2·620]	0·91
Caregiver is female	49 (96·1%)	78 (97·5%)	-0·01 [-0·048 to 0·024]	0·65
Mother is caregiver	46 (90·2%)	70 (87·5%)	-0·02 [-0·076 to 0·045]	0·64
Caregiver's years of education	10·69 (3·957)	10·91 (3·769)	1·14 [0·475 to 1·794]	0·74
Household characteristics				
Household size	4·53 (1·943)	5·61 (2·173)	-0·21 [-0·567 to 0·151]	0·004
Number of children under 5yrs	1·24 (0·428)	1·44 (0·691)	-0·07 [-0·174 to 0·027]	0·06
Index child age in months	36·80 (6·870)	36·50 (9·618)	-1·46 [-2·965 to 0·051]	0·85
Two-parent hh	32 (62·8%)	53 (66·3%)	0·06 [-0·023 to 0·142]	0·68
Highest years of education	11·65 (4·204)	11·65 (3·663)	1·16 [0·561 to 1·749]	0·9966
Asset index	-0·09 (1·352)	-0·39 (1·350)	0·02 [-0·225 to 0·267]	0·22
Access to public water supply	24 (47·1%)	44 (55·0%)	0·02 [-0·074 to 0·106]	0·38
Access to sewage service	17 (33·3%)	24 (30·0%)	-0·11 [-0·179 to -0·031]	0·69
CCT beneficiary	21 (41·2%)	25 (31·3%)	0·08 [-0·007 to 0·171]	0·25
Monthly hh income per capita (PPP 2017 USD)	252·27 (254·777)	209·96 (304·521)	0·30 [-0·237 to 0·845]	0·41
Head is employed	43 (84·3%)	65 (81·3%)	0·00 [-0·066 to 0·071]	0·66
Head has formal job	7 (14·0%)	8 (10·3%)	0·11 [0·031 to 0·180]	0·52
Days hh head works in a month	25·73 (4·569)	23·12 (6·938)	-0·81 [-2·195 to 0·574]	0·04
Exposure to violence				
Victim of direct violence	43 (84·3%)	58 (72·5%)	0·05 [-0·016 to 0·122]	0·12
Number of violent events	2·35 (1·968)	2·08 (2·005)	0·20 [-0·127 to 0·521]	0·44
IDP	28 (54·9%)	44 (55·0%)	0·03 [-0·065 to 0·114]	0·99
Outcomes				
Anxiety T-score	56·10 (6·004)	57·36 (7·697)	0·25 [-0·993 to 1·483]	0·32
Anxiety above risk threshold	7 (13·7%)	17 (21·3%)	-0·03 [-0·092 to 0·040]	0·28
Depression T-score	59·25 (7·345)	59·38 (7·065)	0·52 [-0·736 to 1·783]	0·91
Depression above risk threshold	13 (25·5%)	21 (26·3%)	0·02 [-0·065 to 0·096]	0·92
PSI T-score	51·18 (7·959)	54·51 (6·193)	-0·63 [-1·907 to 0·646]	0·01
PSI above risk threshold (pc73)	12 (23·5%)	35 (43·8%)	-0·04 [-0·120 to 0·049]	0·02

Notes: Columns 1 and 2 report sample mean (sd) or n (%) for the sample of attritor in the pre and post-pandemic cohorts, respectively. Column 3 reports mean difference between the two groups. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household.

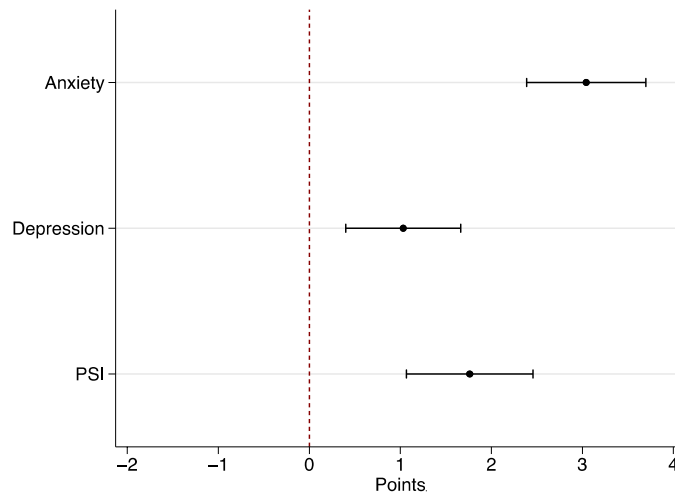
D. Robustness

Main impact

Outcomes measured as T-scores

In this section we explore different specifications of models 1- 3 to assess the robustness of our results. First, we replicate the main results focusing on the continuous T-scores as the main outcomes. Specifically, for each mental health variable $mh_{i,t-1}$ we estimate model 1 with the t-score of the scale instead of the risk threshold, controlling for the baseline mental health outcome and other socioeconomic and demographic controls. Figure A4 and Table A14 report these results.

**Figure A4: Impact of the pandemic on maternal mental health
Models using T-scores as outcome of interest**



Notes: Coefficient plot of the point estimates and 95% confidence intervals for the effect of the pandemic on anxiety, depression or parenting stress T-scores. Estimates come from the lagged-dependent variable model that controls for the baseline mental health outcome and a set of baseline demographic and socioeconomic characteristics.

**Table A14: Impact of the pandemic on maternal mental health
Models using T-scores as outcome of interest**

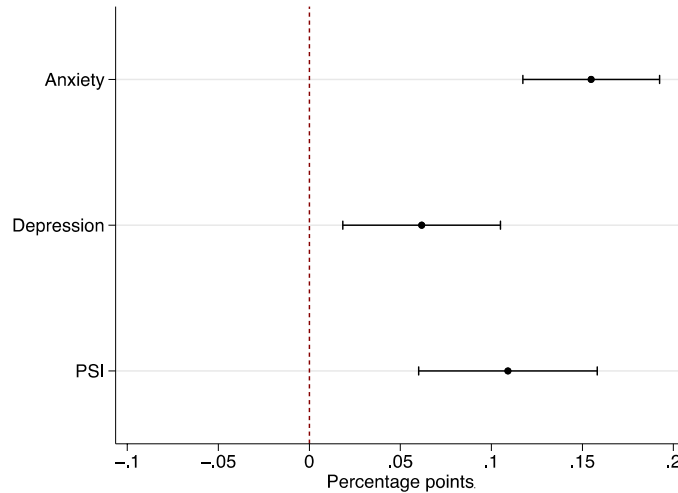
	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Post-pandemic	3.04 [2.388 to 3.697]	p<0.0001	1.03 [0.399 to 1.665]	0.001	1.76 [1.066 to 2.457]	p<0.0001
Lagged dependent variable	0.42 [0.362 to 0.480]	p<0.0001	0.40 [0.348 to 0.460]	p<0.0001	0.35 [0.300 to 0.408]	p<0.0001
Sample mean at baseline	57.09		59.80		52.64	
Observations	1218		1218		1218	
R-squared	0.28		0.25		0.21	
F-test	31.25		25.80		24.50	

Notes: Estimates for the effect of the pandemic on anxiety, depression or parenting stress continuous T-scores. Estimates come from the lagged dependent variable model that controls for the baseline lagged dependent variable and a set of baseline demographic and socioeconomic characteristics. 95% confidence interval in brackets.

Outcomes measured as risk threshold and controlling for 1-month follow-up level

Further, we estimate model 1, both for the risk threshold and for the t-score of each mental health outcome, but now controlling for the lagged dependent variable at follow-up 1. Figures A5 and A6, and Tables A15 and A16 report these results, and further confirm the robustness of our results.

**Figure A5: Impact of the pandemic on maternal mental health
Models using the risk threshold and controlling for 1-month mental health outcome**



Notes: Coefficient plot of point estimates and 95% confidence intervals plot for the effect of the pandemic on the probability of having anxiety, depression or parenting stress symptoms above the at-risk threshold. Estimates come from the lagged-dependent variable model that controls for the 1-month mental health outcome and a set of baseline demographic and socioeconomic characteristics.

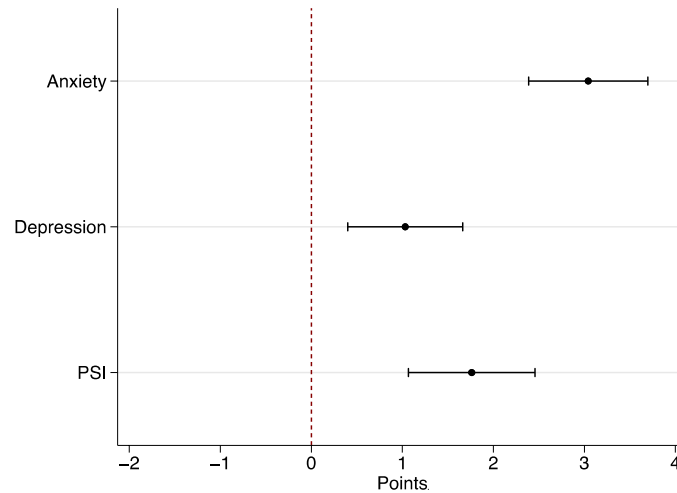
**Table A15: Impact of the pandemic on maternal mental health
Models using the risk threshold and controlling for 1-month follow-up mental health outcome**

	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Post-pandemic	0.14 [0.100 to 0.175]	p<0.0001	0.05 [0.005 to 0.091]	0.03	0.10 [0.046 to 0.146]	0.0002
Lagged dependent variable	0.28 [0.213 to 0.355]	p<0.0001	0.30 [0.239 to 0.358]	p<0.0001	0.27 [0.208 to 0.327]	p<0.0001
Sample mean at baseline	0.16		0.27		0.33	
Observations	1218		1218		1218	
R-squared	0.15		0.15		0.13	
F-test	14.20		15.37		15.52	

Notes: Estimates for the effect of the pandemic on the probability of having anxiety, depression or parenting stress above the at-risk thresholds. Estimates come from the lagged-dependent variable model that controls for the 1-month mental health outcome and a set of baseline demographic and socioeconomic characteristics. 95% confidence interval in brackets.

Outcomes measured as T-score and controlling for 1-month follow-up level

**Figure A6: Impact of the pandemic on maternal mental health
Models using the T-score and controlling for 1-month mental health outcomes**



Notes: Coefficient plot of point estimate and 95% confidence intervals plot for the effect of the pandemic on the anxiety, depression or parenting stress symptoms T-scores. Estimates come from the lagged-dependent variable model controlling for the 1-month mental health outcome and a set of baseline demographic and socioeconomic characteristics. 95% confidence interval in brackets.

**Table A16: Impact of the pandemic on maternal mental health
Models using the T-score and controlling for 1-month mental health outcomes**

	Anxiety		Depression		PSI	
	Coefficient [95% CI] (1)	p-value (2)	Coefficient [95% CI] (3)	p-value (4)	Coefficient [95% CI] (5)	p-value (6)
Post-pandemic	3.04 [2.388 to 3.697]	p<0.0001	1.03 [0.399 to 1.665]	0.001	1.76 [1.066 to 2.457]	p<0.0001
Lagged dependent variable	0.42 [0.362 to 0.480]	p<0.0001	0.40 [0.348 to 0.460]	p<0.0001	0.35 [0.300 to 0.408]	p<0.0001
Sample mean at baseline	57.09		59.80		52.64	
Observations	1218		1218		1218	
R-squared	0.28		0.25		0.21	
F-test	31.25		25.80		24.50	

Notes: Estimates for the effect of the pandemic on the anxiety, depression or parenting stress symptoms T-score. Estimates come from the lagged-dependent variable model controlling for the 1-month mental health outcome and a set of baseline demographic and socioeconomic characteristics. 95% confidence interval in brackets. 95% confidence interval in brackets.

Parenting stress measured using alternative risk thresholds

As discussed in the paper, we follow Barroso et al in our main specification and use the 73rd percentile to indicate at-risk symptoms of parenting stress. Here we explore the robustness of our results under alternative thresholds under the PSI scale guidelines or using corresponding thresholds calculated on the empirical distribution. Tables A17 and A18 confirm PSI are robust to different thresholds.

**Table A17: Impact of the pandemic on parenting stress
Alternative estimates using different risk thresholds**

	Threshold with scale guidelines		Threshold with sample distribution	
	Coefficient [95% CI] (1)	p-value (2)	Coefficient [95% CI] (3)	p-value (4)
PSI above risk threshold (pc 73)				
Post-pandemic	0.10 [0.046 to 0.146]	0.0002	0.07 [0.023 to 0.118]	0.004
Lagged dependent variable	0.27 [0.207 to 0.327]	p<0.0001	0.25 [0.187 to 0.304]	p<0.0001
Sample mean at baseline	0.33		0.33	
Observations	1218		1218	
R-squared	0.13		0.12	
F-test	15.52		13.40	
PSI above risk threshold (pc 77)				
Post-pandemic	0.07 [0.025 to 0.112]	0.002	0.07 [0.026 to 0.122]	0.003
Lagged dependent variable	0.22 [0.155 to 0.290]	p<0.0001	0.25 [0.178 to 0.312]	p<0.0001
Sample mean at baseline	0.20		0.23	
Observations	1218		1218	
R-squared	0.09		0.11	
F-test	8.52		11.64	
PSI above risk threshold (pc 85)				
Post-pandemic	0.02 [-0.008 to 0.050]	0.16	0.05 [0.015 to 0.095]	0.01
Lagged dependent variable	0.22 [0.128 to 0.318]	p<0.0001	0.23 [0.158 to 0.302]	p<0.0001
Sample mean at baseline	0.08		0.16	
Observations	1218		1218	
R-squared	0.08		0.09	
F-test	4.53		7.04	

Notes: Estimates for the effect of the pandemic on the probability of a PSI score above different at-risk thresholds. Each set of estimates is calculated using different threshold values, using the PSI scale guidelines or the empirical sample distribution. Column 1 reports estimates for different thresholds following the scale's percentile conversion table. Column 3 reports estimates for different thresholds based on the empirical sample distribution. All estimates come from the lagged dependent variable model that controls for the baseline mental health outcomes and a set of demographic and socioeconomic controls. 95% confidence interval in brackets.

**Table A18: Impact of the pandemic on parenting stress
Alternative estimates using different risk thresholds**

	Threshold with scale guidelines		Threshold with sample distribution	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)
PSI above risk threshold (pc 73)				
Post-pandemic	0.11 [0.060 to 0.158]	p<0.0001	0.08 [0.034 to 0.127]	0.001
Lagged dependent variable	0.37 [0.309 to 0.426]	p<0.0001	0.34 [0.280 to 0.396]	p<0.0001
Sample mean at baseline	0.33		0.33	
Observations	1184		1184	
R-squared	0.19		0.18	
F-test	22.68		18.26	
PSI above risk threshold (pc 77)				
Post-pandemic	0.05 [0.012 to 0.095]	0.01	0.07 [0.020 to 0.113]	0.01
Lagged dependent variable	0.35 [0.282 to 0.417]	p<0.0001	0.37 [0.301 to 0.434]	p<0.0001
Sample mean at baseline	0.2		0.23	
Observations	1184		1184	
R-squared	0.17		0.17	
F-test	13.78		17.09	
PSI above risk threshold (pc 85)				
Post-pandemic	0.01 [-0.019 to 0.039]	0.49	0.04 [-0.003 to 0.074]	0.07
Lagged dependent variable	0.22 [0.129 to 0.311]	p<0.0001	0.33 [0.260 to 0.407]	p<0.0001
Sample mean at baseline	0.08		0.16	
Observations	1184		1184	
R-squared	0.09		0.15	
F-test	4.22		10.29	

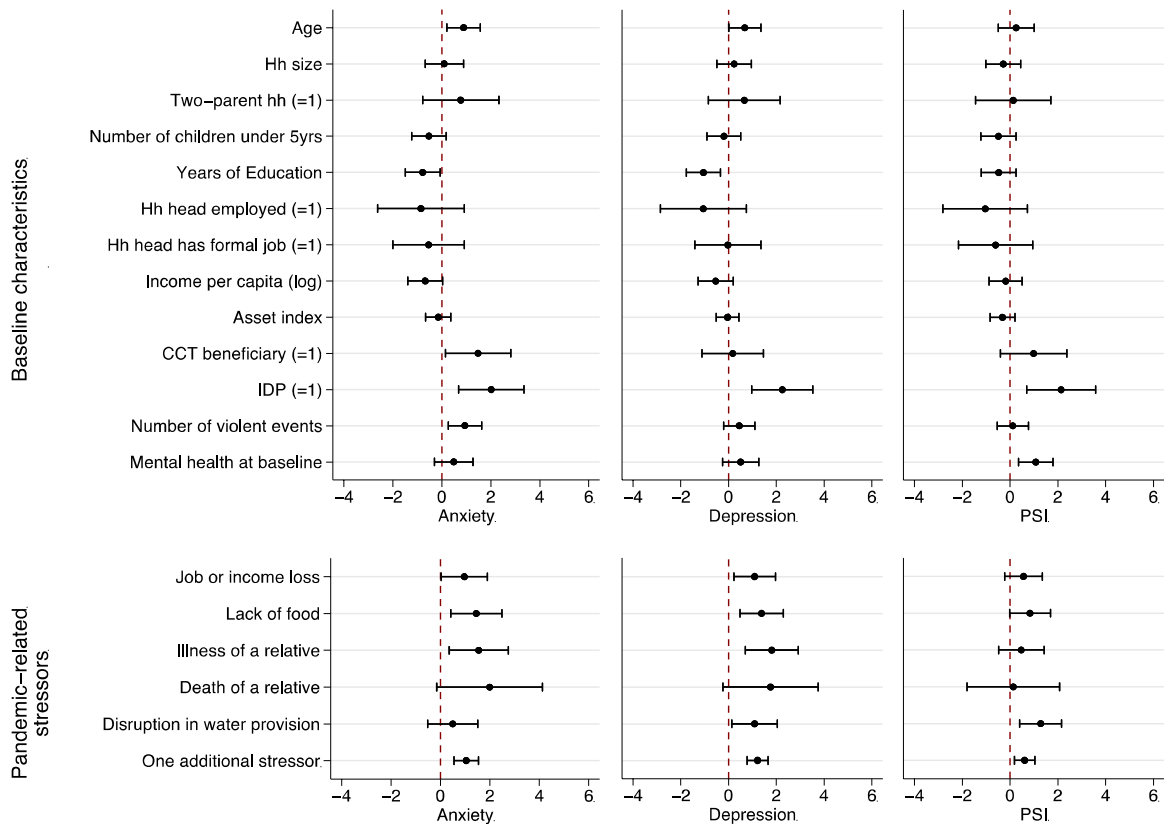
Notes: Estimates for the effect of the pandemic on the probability of a PSI score above the different critical thresholds. Column 1 reports estimates over risk threshold based on the scale's percentile conversion table. Column 3 reports estimate over risk thresholds based on the empirical sample distribution. All estimates come from the lagged dependent variable model that controls for the 1-month follow-up mental health outcome and a set of baseline demographic and socioeconomic controls. 95% confidence interval in brackets

Moderating effects

Outcomes measured as T-scores

Finally, we assess the robustness of the exploratory analysis of moderating effect of baseline characteristics and pandemic-related stressors under different specifications. In particular, we estimate models 4 and 5 using the T-scores for each mental health outcome, controlling for the 1-month follow-up mental health outcome. Tables A19 – A24 and Figures A7 – A9 report the results of these models.

Figure A7: Moderating effects
Models using the mental health outcome T-score, controlling for the baseline level



Notes: Coefficient plot of the point estimates and 95% confidence intervals for the moderating effect of baseline demographic and socioeconomic characteristics (Panel A) and pandemic-related stressors (Panel B). In Panel A, estimates come from a separate model where we regressed the T-score mental health outcome on the post-pandemic treatment indicator and the interaction of this indicator with the variable listed in the vertical axis. In Panel B, estimates come from a separate model where we regressed the T-score mental health outcome on the pandemic-related stressors. All models control for the baseline lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh is short for household.

**Table A19: Moderating effect of baseline characteristics
Models using the mental health outcome T-score, controlling for the baseline level**

	Anxiety		Depression		PSI	
	Coefficient [95% CI] (1)	p-value (2)	Coefficient [95% CI] (3)	p-value (4)	Coefficient [95% CI] (5)	p-value (6)
Caregiver's age	0.89 [0.209 to 1.570]	0.01	0.68 [0.010 to 1.349]	0.05	0.26 [-0.494 to 1.010]	0.50
Household size	0.10 [-0.681 to 0.881]	0.80	0.23 [-0.428 to 0.954]	0.53	-0.28 [-1.012 to 0.450]	0.45
Two-parent hh (=1)	0.77 [-0.780 to 2.329]	0.33	0.66 [-0.846 to 2.164]	0.39	0.14 [-1.439 to 1.714]	0.86
Number of children under 5yrs	-0.53 [-1.235 to 0.179]	0.14	-0.20 [-0.905 to 0.515]	0.59	-0.48 [-1.215 to 0.246]	0.19
Years of Education	0.78 [-1.495 to -0.070]	0.03	-1.05 [-1.769 to -0.339]	0.004	-0.48 [-1.205 to 0.254]	0.20
Hh head employed (=1)	-0.86 [-2.628 to 0.917]	0.34	-1.06 [-2.856 to 0.745]	0.25	-1.04 [-2.806 to 0.729]	0.25
Formal job (=1)	-0.54 [-2.001 to 0.911]	0.46	-0.03 [-1.414 to 1.361]	0.97	-0.60 [-2.153 to 0.945]	0.45
Income per capita (log)	-0.68 [-1.388 to 0.027]	0.06	-0.54 [-1.270 to 0.191]	0.15	-0.18 [-0.873 to 0.510]	0.61
Asset index	-0.15 [-0.663 to 0.362]	0.57	-0.04 [-0.512 to 0.430]	0.87	-0.31 [-0.835 to 0.208]	0.24
CCT beneficiary (=1)	1.48 [0.150 to 2.810]	0.03	0.17 [-1.116 to 1.457]	0.80	0.99 [-0.408 to 2.382]	0.17
IDP (=1)	2.02 [0.685 to 3.353]	0.003	2.25 [0.971 to 3.531]	0.001	2.14 [0.705 to 3.577]	0.003
Number of violent events	0.94 [0.258 to 1.621]	0.01	0.45 [-0.203 to 1.102]	0.18	0.12 [-0.539 to 0.770]	0.73
Mental health at baseline	0.49 [-0.299 to 1.272]	0.23	0.51 [-0.251 to 1.265]	0.19	1.08 [0.361 to 1.801]	0.003

Notes: Estimates of the moderating effect of baseline demographic and socioeconomic characteristics on the anxiety, depression and parenting stress symptoms T-score. Each estimate comes from a separate model that includes the post-pandemic treatment indicator and the interaction of this indicator and the variable listed in the vertical axis. All models control for the baseline lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household.

**Table A20: Moderating effect of pandemic related stressors
Models using the mental health outcome T-score, controlling for the baseline level**

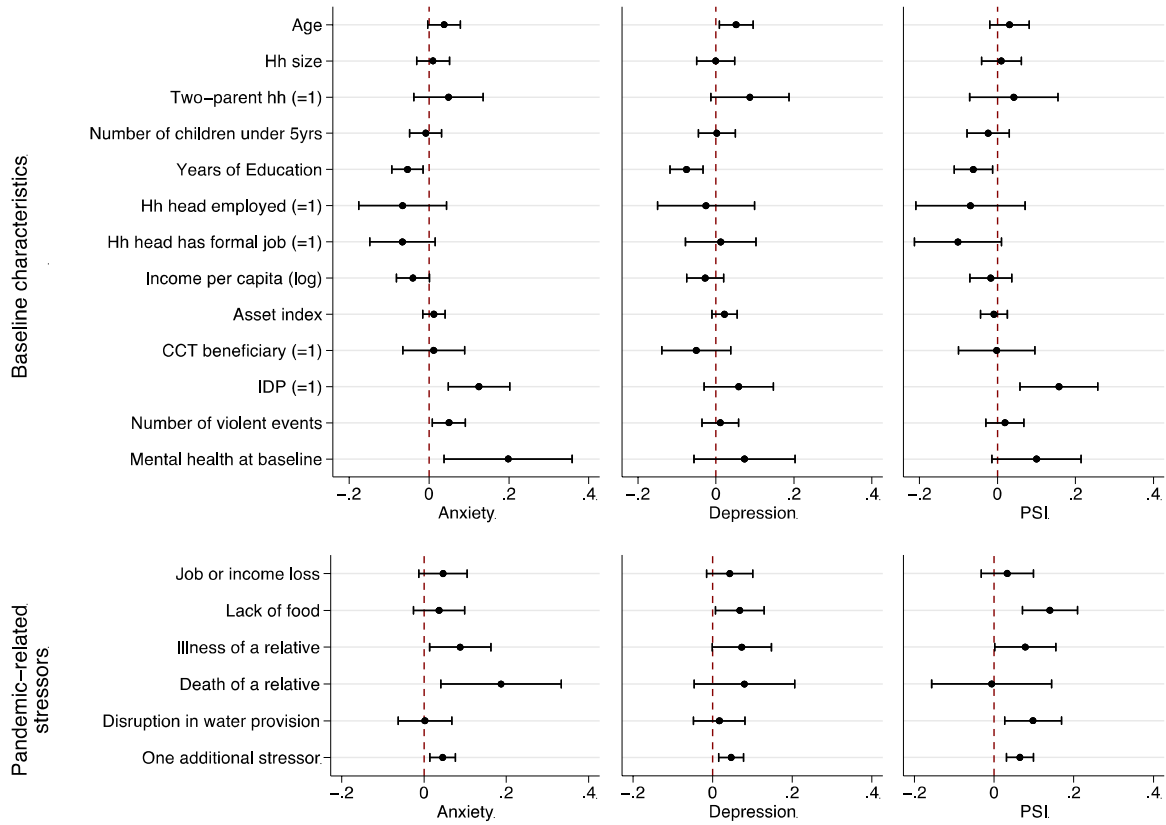
	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Job or income loss	0.97 [0.030 to 1.902]	0.04	1.09 [0.224 to 1.961]	0.01	0.56 [-0.230 to 1.348]	0.16
Lack of food	1.46 [0.422 to 2.486]	0.01	1.38 [0.477 to 2.285]	0.003	0.84 [-0.018 to 1.689]	0.06
Illness of a relative	1.55 [0.353 to 2.743]	0.01	1.81 [0.708 to 2.916]	0.001	0.47 [-0.483 to 1.426]	0.33
Death of a relative	1.99 [-0.148 to 4.129]	0.07	1.76 [-0.240 to 3.751]	0.08	0.14 [-1.800 to 2.070]	0.89
Disruption in water provision	0.50 [-0.513 to 1.513]	0.33	1.09 [0.136 to 2.037]	0.03	1.28 [0.408 to 2.159]	0.004
One additional stressor	1.04 [0.553 to 1.531]	p<0.0001	1.22 [0.781 to 1.650]	p<0.0001	0.61 [0.185 to 1.039]	0.005

Notes: Estimates of the moderating effect of pandemic related stressors on the anxiety, depression and parenting stress symptoms continuous t-score. Each estimate comes from a separate model that includes the indicator of the variable listed in the vertical axis, for the post-pandemic cohort only. All models control for the baseline lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets.

Outcomes measured as risk threshold and controlling for 1-month follow-up level

Figure A8: Moderating effects

Models using the mental health outcome risk threshold, controlling for the follow-up 1 level



Notes: Coefficient plot of the point estimates and 95% confidence intervals for the moderating effect of baseline demographic and socioeconomic characteristics (Panel A) and pandemic-related stressors (Panel B). Each estimate comes from a separate model that regresses the mental health outcome on the post-pandemic treatment indicator and the interaction of this indicator with the variable listed in the vertical axis. All models control for the follow-up 1 lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons and hh stands for household.

**Table A21 Moderating effect of baseline characteristics
Models using the mental health outcome risk threshold, controlling for the follow-up 1 level**

	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Caregiver's age	0.04 [-0.003 to 0.078]	0.07	0.05 [0.008 to 0.095]	0.02	0.03 [-0.020 to 0.081]	0.23
Household size	0.01 [-0.031 to 0.051]	0.63	0.00 [-0.050 to 0.048]	0.97	0.01 [-0.041 to 0.061]	0.70
Two-parent hh (=1)	0.05 [-0.038 to 0.135]	0.27	0.09 [-0.013 to 0.187]	0.09	0.04 [-0.071 to 0.155]	0.47
Number of children under 5yrs	-0.01 [-0.048 to 0.032]	0.69	0.00 [-0.045 to 0.049]	0.93	-0.02 [-0.078 to 0.030]	0.38
Years of Education	-0.05 [-0.093 to -0.014]	0.01	-0.08 [-0.118 to -0.033]	0.0005	-0.06 [-0.111 to -0.013]	0.01
Hh head employed (=1)	-0.07 [-0.175 to 0.044]	0.24	-0.03 [-0.150 to 0.099]	0.69	-0.07 [-0.209 to 0.071]	0.33
Formal job (=1)	-0.07 [-0.148 to 0.016]	0.11	0.01 [-0.078 to 0.103]	0.79	-0.10 [-0.213 to 0.010]	0.07
Income per capita (log)	-0.04 [-0.083 to 0.001]	0.06	-0.03 [-0.075 to 0.020]	0.25	-0.02 [-0.071 to 0.036]	0.53
Asset index	0.01 [-0.016 to 0.040]	0.390	0.02 [-0.010 to 0.054]	0.18	-0.01 [-0.043 to 0.025]	0.61
CCT beneficiary (=1)	0.01 [-0.066 to 0.089]	0.77	-0.05 [-0.139 to 0.038]	0.26	0.00 [-0.100 to 0.096]	0.97
IDP (=1)	0.13 [0.048 to 0.202]	0.001	0.06 [-0.031 to 0.147]	0.20	0.16 [0.058 to 0.257]	0.002
Number of violent events	0.05 [0.009 to 0.091]	0.02	0.01 [-0.036 to 0.058]	0.64	0.02 [-0.029 to 0.068]	0.44
Mental health at baseline	0.20 [0.038 to 0.358]	0.02	0.07 [-0.056 to 0.203]	0.27	0.10 [-0.014 to 0.215]	0.09

Notes: Estimates of the moderating effect of baseline demographic and socioeconomic characteristics on the probability of developing critical anxiety, depression and parenting stress. Each estimate comes from a separate model that includes the post-pandemic treatment indicator and the interaction of this indicator and the variable listed in the vertical axis. All models control for the follow-up 1 lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household.

Table A22: Moderating effect of pandemic related stressors
Models using the mental health outcome risk threshold, controlling for the follow-up 1 level

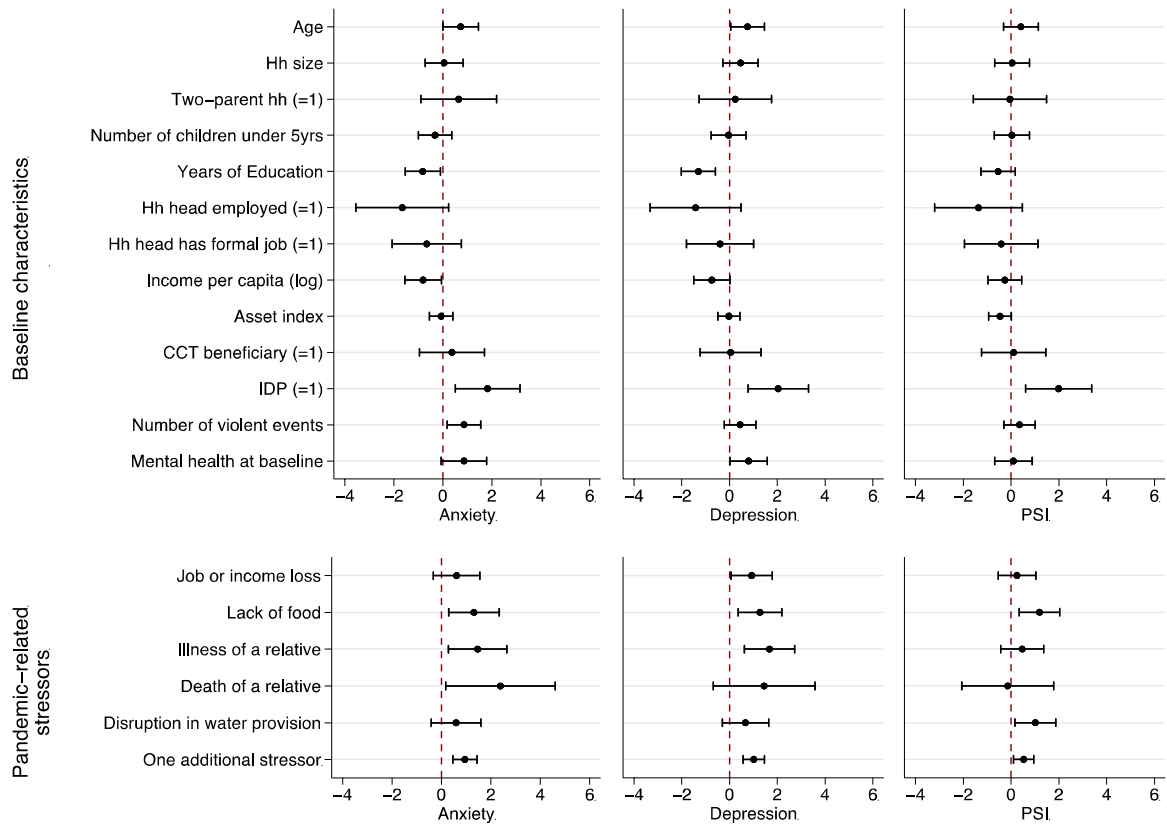
	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Job or income loss	0.05 [-0.012 to 0.105]	0.12	0.04 [-0.015 to 0.101]	0.15	0.03 [-0.032 to 0.099]	0.32
Lack of food	0.04 [-0.025 to 0.099]	0.25	0.07 [0.007 to 0.129]	0.03	0.14 [0.071 to 0.209]	0.0001
Illness of a relative	0.09 [0.013 to 0.162]	0.02	0.07 [-0.001 to 0.147]	0.05	0.08 [0.001 to 0.155]	0.05
Death of a relative	0.19 [0.041 to 0.333]	0.01	0.08 [-0.046 to 0.206]	0.22	-0.01 [-0.157 to 0.144]	0.94
Water disruption	0.00 [-0.063 to 0.067]	0.94	0.02 [-0.048 to 0.081]	0.61	0.10 [0.027 to 0.169]	0.01
One additional stressor	0.05 [0.014 to 0.076]	0.004	0.05 [0.015 to 0.078]	0.004	0.06 [0.031 to 0.099]	0.0002

Notes: Estimates of the moderating effect of pandemic related stressors on the probability of developing critical anxiety, depression and parenting stress. Each estimate comes from a separate model that includes the indicator of the variable listed in the vertical axis, for the post-pandemic cohort only. All models control for the follow-up 1 lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets.

Outcomes measured as T-score and controlling for 1-month follow-up level

Figure A9. Moderating effects

Models using the mental health outcome T-score, controlling for the follow-up 1 level



Notes: Coefficient plot of the point estimates and 95% confidence intervals for the moderating effect of baseline demographic and socioeconomic characteristics (Panel A) and pandemic-related stressors (Panel B). Each estimate comes from a separate model that regresses the mental health outcome on the post-pandemic treatment indicator and the interaction of this indicator with the variable listed in the vertical axis. All models control for the follow-up 1 lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons and hh stands for household.

**Table A23: Moderating effect of baseline characteristics
Models using the mental health outcome T-score, controlling for the follow-up 1 level**

	Anxiety		Depression		PSI	
	Coefficient [95% CI] (1)	p-value (2)	Coefficient [95% CI] (3)	p-value (4)	Coefficient [95% CI] (5)	p-value (6)
Caregiver's age	0.73 [0.000 to 1.453]	0.05	0.75 [0.041 to 1.462]	0.04	0.41 [-0.317 to 1.143]	0.27
Household size	0.05 [-0.718 to 0.827]	0.89	0.46 [-0.281 to 1.198]	0.22	0.04 [-0.684 to 0.772]	0.91
Two-parent hh (=1)	0.65 [-0.900 to 2.192]	0.41	0.24 [-1.278 to 1.754]	0.76	-0.05 [-1.576 to 1.483]	0.95
Number of children under 5yrs	-0.32 [-0.993 to 0.359]	0.36	-0.04 [-0.771 to 0.686]	0.91	0.03 [-0.701 to 0.769]	0.93
Years of Education	-0.82 [-1.503 to -0.105]	0.03	-1.31 [-2.013 to -0.597]	0.0003	-0.54 [-1.256 to 0.175]	0.14
Hh head employed (=1)	-1.66 [-3.547 to 0.230]	0.09	-1.42 [-3.329 to 0.481]	0.14	-1.36 [-3.200 to 0.473]	0.15
Formal job (=1)	-0.65 [-2.070 to 0.761]	0.37	-0.40 [-1.804 to 1.004]	0.57	-0.41 [-1.954 to 1.130]	0.60
Income per capita (log)	-0.81 [-1.556 to -0.058]	0.04	-0.74 [-1.500 to 0.014]	0.05	-0.26 [-0.965 to 0.444]	0.47
Asset index	-0.07 [-0.554 to 0.408]	0.77	-0.02 [-0.484 to 0.435]	0.92	-0.46 [-0.938 to 0.018]	0.06
CCT beneficiary (=1)	0.37 [-0.959 to 1.694]	0.59	0.04 [-1.234 to 1.317]	0.95	0.11 [-1.232 to 1.461]	0.87
IDP (=1)	1.83 [0.512 to 3.147]	0.01	2.04 [0.770 to 3.305]	0.002	2.00 [0.615 to 3.375]	0.01
Number of violent events	0.86 [0.174 to 1.547]	0.01	0.44 [-0.228 to 1.108]	0.20	0.35 [-0.300 to 1.007]	0.29
Mental health at baseline	0.86 [-0.068 to 1.787]	0.07	0.80 [0.021 to 1.577]	0.04	0.10 [-0.687 to 0.883]	0.81

Notes: Estimates of the moderating effect of baseline demographic and socioeconomic characteristics on the anxiety, depression and parenting stress symptoms continuous t-score. Each estimate comes from a separate model that includes the post-pandemic treatment indicator and the interaction of this indicator and the variable listed in the vertical axis. All models control for the follow-up 1 lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets. CCT beneficiary stands for beneficiaries of Conditional Cash Transfers, while IDP stands for Internally Displaced Persons, and hh stands for household.

**Table A24: Moderating effect of pandemic related stressors
Models using the mental health outcome T-score, controlling for the follow-up 1 level**

	Anxiety		Depression		PSI	
	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value	Coefficient [95% CI]	p-value
	(1)	(2)	(3)	(4)	(5)	(6)
Job or income loss	0.61 [-0.330 to 1.547]	0.20	0.92 [0.066 to 1.783]	0.03	0.25 [-0.536 to 1.034]	0.53
Lack of food	1.32 [0.297 to 2.336]	0.01	1.28 [0.364 to 2.188]	0.006	1.19 [0.345 to 2.040]	0.01
Illness of a relative	1.46 [0.282 to 2.646]	0.02	1.67 [0.621 to 2.727]	0.002	0.46 [-0.435 to 1.366]	0.31
Death of a relative	2.39 [0.178 to 4.595]	0.03	1.45 [-0.679 to 3.575]	0.18	-0.14 [-2.058 to 1.785]	0.89
Water disruption	0.58 [-0.416 to 1.593]	0.25	0.67 [-0.301 to 1.632]	0.18	1.02 [0.164 to 1.867]	0.02
One additional stressor	0.94 [0.455 to 1.436]	0.0002	1.01 [0.569 to 1.459]	p<0.0001	0.53 [0.109 to 0.945]	0.01

Notes: Estimates of the moderating effect of pandemic related stressors on the probability of developing anxiety, depression and parenting stress symptoms continuous t-score. Each estimate comes from a separate model that includes the indicator of the variable listed in the vertical axis, for the post-pandemic cohort only. All models control for the follow-up 1 lagged dependent variable and demographic and socioeconomic controls. Continuous moderators are standardized. 95% confidence interval in brackets.