

Research Question and Contribution

What are the health effects of having children?

Specific research question:

- Are there negative effects on parents' mental health and physical health?
- How do these effects develop over time?
- Do the effects differ across the distribution of the health outcomes?

Contribution:

- Adding to the limited causal analysis on the effect of children on parental health.
- Different effects for better understanding.

Empirical Strategy

Two Stage Least Squares (2SLS):

$$health_i = \beta_0 + \rho m2kids_i + \beta_1 age_i + \beta_2 migback_i + \beta_3 west_i + \lambda_t + u_i$$

Two Stage Least Squares (2SLS) over age groups:

$$health_{it} = \beta_0 + grp_j + \sum_{j=1}^n \rho_j m2kids_i * grp_j + \beta_1 migback_i + \beta_2 west_i + \lambda_t + u_i$$

Quantile Treatment Effects (QTE):

The QTEs for compliers: $\Delta_c^\tau = Q_{Y^1|c}^\tau - Q_{Y^0|c}^\tau$

Data Source

German Socio-Economic Panel (SOEP):

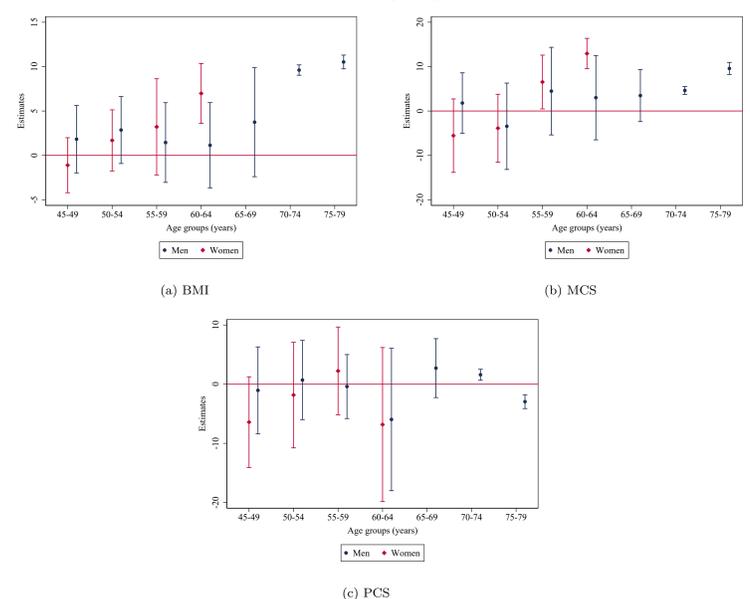
- Data from 1984 - 2017
 - Information on health based on the SF-12-variables
 - Information on children: number, birth month and year.
 - Other relevant information: age, age at first birth, migration background and location (East or West).
 - Individuals ages 45 to 90 with at least 2 children
- ⇒ Share with twin birth $\approx 1\%$

Main Results

Sample	First-stage					
	All		BMI		MCS & PCS	
	Women	Men	Women	Men	Women	Men
Twins at second birth	0.664*** (0.011)	0.668*** (0.015)	-	-	-	-
F-statistic	3880.57	1982.42	-	-	-	-
Observations	34,036	23,877	-	-	-	-
Same sex	-	-	0.020* (0.012)	0.050*** (0.014)	0.019 (0.012)	0.049*** (0.013)
F-statistic	-	-	2.95	13.52	2.61	13.58
Observations	-	-	33,932	23,842	33,364	23,617
	OLS		2SLS		2SLS*	
	Women	Men	Women	Men	Women	Men
BMI						
3 or more children	0.852*** (0.118)	-0.046 (0.112)	1.513 (1.736)	2.582 (1.619)	2.418 (1.787)	2.621 (1.830)
Observations	34,036	23,877	34,036	23,877	27,934	18,907
MCS						
3 or more children	-0.956*** (0.197)	-0.588*** (0.217)	-0.846 (3.165)	1.518 (3.063)	0.652 (3.301)	1.389 (3.453)
Observations	33,464	23,665	33,464	23,665	27,350	18,614
PCS						
3 or more children	-1.118*** (0.200)	-0.640*** (0.223)	-2.524 (3.197)	-1.045 (2.393)	-1.067 (3.439)	-0.962 (2.622)
Observations	33,464	23,665	33,464	23,665	27,350	18,614
Restricted sample	No	No	No	No	Yes	Yes

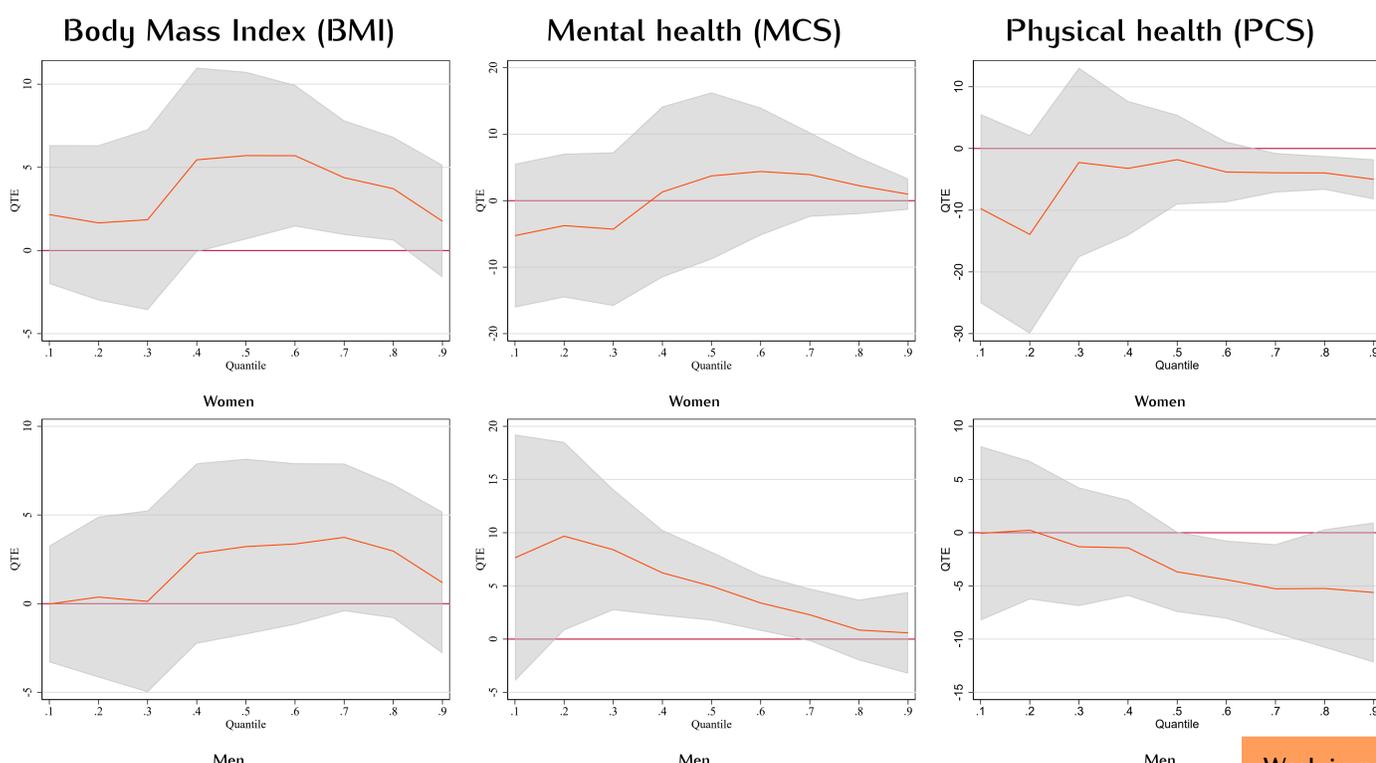
Note: All regressions include age and indicators for migration background, West Germany and survey years. Robust standard errors clustered at individual level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

2SLS over age groups



Note: Author's calculations based on the SOEP v34. All regressions include indicators for the age groups, migration background, West Germany and survey years. Robust standard errors clustered at individual level. The extended lines on the points depict the confidence intervals.

Quantile Treatment Effects (QTEs)



Note: Age at first birth is included in the covariates here. Bootstrap standard errors (with 200 replications) clustered at individual level in parentheses.

Conclusion

The mental health of men improves. Why? Physical health of both men and women deteriorate.

Women, especially, should be educated as early as during pregnancy by providing dietary and physical fitness advice, in order to curb their likelihood of being obese.

Note: Our results allow us to identify the effects on a small population of compliers. It is difficult to draw a general conclusion from our results. Nonetheless, it is still important to draw attention to the possible effects children have on health.