

Maternal Life Satisfaction and Child Outcomes – Are They Related?

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Motivation & Background

- In the economics of skill formation, early childhood is playing a growing role (e.g., Carneiro/Heckman 2003, Cunha/Heckman 2007 etc.).
- The relation between objective factors (like parental education and employment) and early child outcomes has been analyzed repeatedly; subjective factors – like mothers' subjective well-being – have not yet been accounted for.
- In the discipline of developmental psychology, attachment theory claims that the **quality of attachment** between the child and his/her main caregiver is decisive for its development. The quality of attachment depends on the caregiver's **sensitivity** and **responsiveness**; This, in turn, is closely related to the caregiver's **psychological well-being** (Belsky 1997).
- Several empirical studies in developmental psychology have found a negative impact of maternal depression (specific form of well-being) on child outcomes (e.g., Stein et al 2008).
- Our focus: the relationship between the general life satisfaction of mothers and child outcomes. The focus is on mothers because they are the main caregivers.

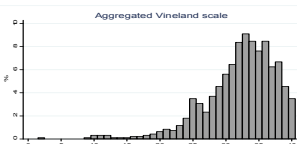
Data & Methods

Data source

- SOEP, waves 2001-2008 (mother-child data)

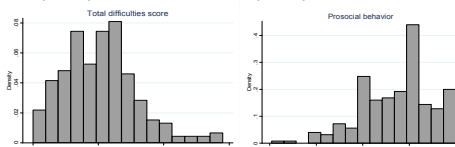
Dependent variables

- (1) **Adaptive behavior** of 2-3 year old children modified Vineland score (Sparrow et al. 1984, Tietze et al. 1998): 4 domains (*verbal skills, activities of daily living, motor skills, social skills*: scales 0-10) + *aggregated Vineland score* (scale 0-40)

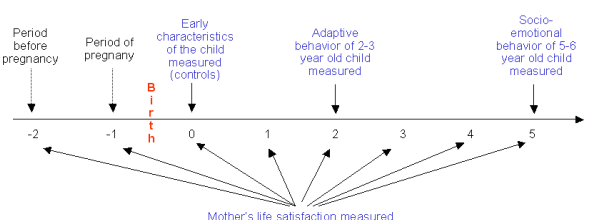


- (2) **Socio-emotional behavior** of 5-6 year old children:

Modified SDQ (Goodman 1997, 2001): Variables *Total difficulties score* (scale 0-30), *prosocial behavior* (scale 0-10), and *behavior* (total difficulties score reduced to the outcomes "normal" (72%), "borderline" (16%), and "abnormal" (12%).



Time horizon of the analysis



Control variables

Characteristics of the mother	Mean
Age	39.5
Education:	
University/College	0.24
Vocational degree	0.60
No professional degree	0.16
Education of the partner:	
University/College	0.27
Vocational degree	0.52
No professional degree	0.10
No partner in HH	0.10
Employment:	
Not employed	0.53
Part-time	0.23
Full-time	0.24

Characteristics of the child	Mean
Age in months	33.2
Male	0.49
Older brothers or sisters	0.59
Younger brothers or sisters	0.14
Preterm birth	0.14
Disability / dysfunction in t=0	0.06
Disease / dysfunction in t=2	0.46
Obese	0.07
In formal child care (hrs per week)	10.4
Care by relatives (hrs per week)	6.5

Characteristics of the HH	Mean
Net HH income (euros per month)	2,177
Other adults in HH	0.07
Town size:	
Urban area	0.52
Between rural and urban area	0.35
Rural area	0.13
Other language	0.19

Main explanatory variable

Mother's life satisfaction (LS):

- Current LS (LS_t , LS_{t-1})
- Mean LS over the periods since the child was born
- Fluctuation in LS since the child was born
- IV-approach (Instrumental variable approach): LS before pregnancy ($t=-2$) as instrument for current LS and for mean LS in order to exclude *reverse causality* which might occur if mothers of children with high outcomes are more satisfied due to the relative performance of their child.

Results & First Conclusions

(1) Adaptive behavior of 2-3 year old children (OLS, IV)

	Verbal skills	Activities of daily living	Motor skills	Social skills	Aggregated skills	N
LS in t=2	0.07+	0.04	0.05	0.05	0.20	556-563
Mean LS (t=0 to t=2)	0.11*	-0.04	0.08	0.08	0.23	545-552
Fluctuation	-0.03	0.04	-0.05	-0.05	-0.09	545-552
LS_2 instrumented by LS_{-2}	0.30*	0.01	0.13	0.06	0.50	473-478
Mean LS instrumented by LS_{-2}	0.31*	-0.03	0.14	0.07	0.49	468-473

Note: Each coefficient from a separate estimation, models include all control variables (see above).

(2) Socio-emotional behavior of 5-6 year old children (OLS, ordered probit, probit, IV)

	Total difficulties score (OLS)	Behavior (ordered probit: marg. eff. for "normal")	Behavior normal (binary probit: marg. eff.)	Behavior abnormal (binary probit: marg. eff.)	Prosocial behavior (OLS)	N
LS in t=5	-0.83*	0.07**	0.08**	-0.02*	0.12	146-154
Mean LS (t=0 to t=5)	-1.15**		0.10**	-0.02*	0.13	143-150
Fluctuation	0.24*	-0.02*	-0.03*	0.01*	-0.02	145-153
LS_5 instrumented by LS_{-2}	-2.04+		0.08	-0.04	-0.21	116-122
Mean LS instrumented by LS_{-2}	-1.57+		0.05	-0.01	-0.17	114-120

Note: Each coefficient/marginal effect from a separate estimation, models include all control variables (see above).

First Conclusions

Mothers' life satisfaction and child outcomes are related: The more satisfied the mother, the higher the scores for the verbal skills and the socio-emotional behavior of the child.

→ Mothers' subjective well-being might be an important factor in explaining skill formation in early childhood.

→ However, a causal effect is still unclear, even though reverse causality has been excluded.

→ Further analyses in preparation.