

Child well-being in context

Child well-being in context – Bidirectional links between parents' well-being and children's regulatory problems

Ulrike Lux & Sabine Walper

German Youth Institute Munich


14th September 2023

2nd Munich International Symposium on the Role of Parental Psychopathology and (E-health) Preventive Interventions



Gefördert vom:

Bundesstiftung
Frühe Hilfen

 Bundesministerium
für Familie, Senioren, Frauen
und Jugend

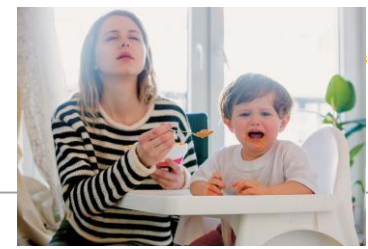
Nationales Zentrum
Frühe Hilfen

Träger:

 Bundeszentrale
für
gesundheitliche
Aufklärung

In Kooperation mit:

 Deutsches
Jugendinstitut



Regulatory Problems of infants and toddlers

Attaining self-regulation is one of the first key developmental tasks of infants and toddlers

Problems are mostly transient, but clinically relevant difficulties according to DC:0-5 (ZERO TO THREE, 2016) may include

- **Excessive crying** (excessive and inconsolable crying of more than 3 hours per day, 3 days a week over 3 weeks; “rule of threes”, Wessel et al., 1954)
- **Sleeping disorders** (e.g., significant problems falling asleep within 30 min or sleeping through the night without multiple, prolonged awakenings over weeks)
- **Feeding and eating disorders** (e.g., consistently eating less than expected and showing maladaptive eating behavior like fearful avoidance, lack of interest)

Prevalence rates vary depending on age, definition, and assessment method; **6 % infants older than three months cry excessively, up to every fifth infant has a sleeping disorder** (Castro Dias & Figueiredo, 2020; Olsen et al., 2019; von Kries et al., 2006, Wake et al., 2006; Wolke et al., 1998)



Risk factors and consequences

Persistent regulatory problems linked with considerable distress for infants and families → longitudinal links to later behavioral difficulties, e.g., conduct problems, hyperactivity, attachment disorganization (Bilgin & Wolke, 2020; Hemmi et al., 2011)

Persistent regulatory problems or clinically relevant disorders determined by a multitude of causes, best understood in a **relational context with high parental psychosocial burden and a dysfunctional parent–child interaction** (Papoušek; 2004)

In addition to pre- or perinatal risk factors and child characteristics, **maternal psychopathology** was found to be particularly salient (Madigan et al., 2018; Petzoldt et al., 2016; Radesky et al., 2013). However, maternal depression/ anxiety may not only be a risk factor, but also consequence: children's sleeping problems predict maternal depression (Wake et al., 2006)



Parent-child-interaction and problems in the parenting role as key mediating mechanism

Parenting stress is a well-documented risk factor for infants' excessive crying and sleeping problems (Bailhache et al., 2019; Müller et al., 2016; Sadeh et al., 2010)

Social isolation more likely among mothers of infants with sleeping problems or excessive crying (Bernier et al., 2013; Martini et al., 2017; Rautava et al., 1993); yet, a recent study found low social support to be linked only to maternal – not infants' – sleeping problems (Mersky et al., 2020).

Impaired bonding in mothers of **excessively crying infants** (Sidor et al., 2012), even **antenatal** maternal feelings predicted excessive crying (Le Bas et al., 2020). Similarly, **infants' sleep disturbances** were associated with mother-infant bonding difficulties (Hairston et al., 2011).

However, when parents were not burdened by the child's problems, they showed less depressive symptoms and less parenting stress (Hiscock & Wake, 2001; Sinai & Tikotzky, 2012)



Research questions

Child well-being in context

(Cross-sectional) links:

1. Are maternal anxiety and depression symptoms linked to excessive crying and sleeping problems beyond well-known risk factors?
2. Do social isolation and/or bonding difficulties mediate this link?

Longitudinal impact of sleeping problems:

3. Does the amount of sleeping problems influence parents' individual and parent-child-related well-being two years later?
4. What role does parental burden due to the child's problems play?



Study Series Children in Germany „KiD 0-3“

(Cross-sectional) links:

2015
National Main Study

- **Representative nationwide study**
- **$N = 8.063$ families**, thereof $N = 6251$ mothers of normally developed children up to 38 months
- **Access via pediatricians in well-child visits**
- **Focus on psychosocial burden**

Longitudinal impact:

2017
Two years' follow up

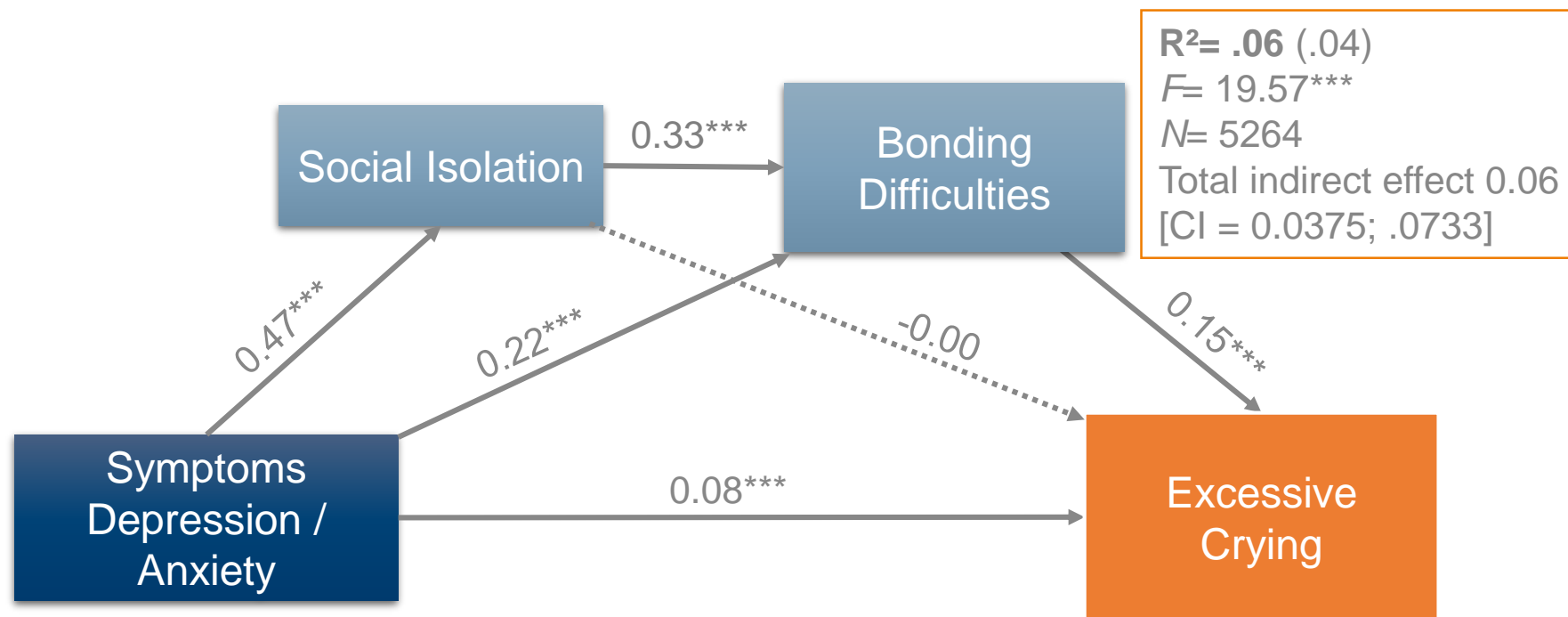
- $N = 945$ families in the longitudinal sample, thereof $N = 669$ with children older than 5 months at t1
- Similar questionnaire, but no module on regulatory problems
- compared to t1 less parents with low education or poverty risk

KiD 0-3 National Main Study

- 1. Are maternal anxiety and depression symptoms linked to excessive crying and sleeping problems beyond well-known risk factors?**
- 2. Do social isolation and/or bonding difficulties mediate this link?**

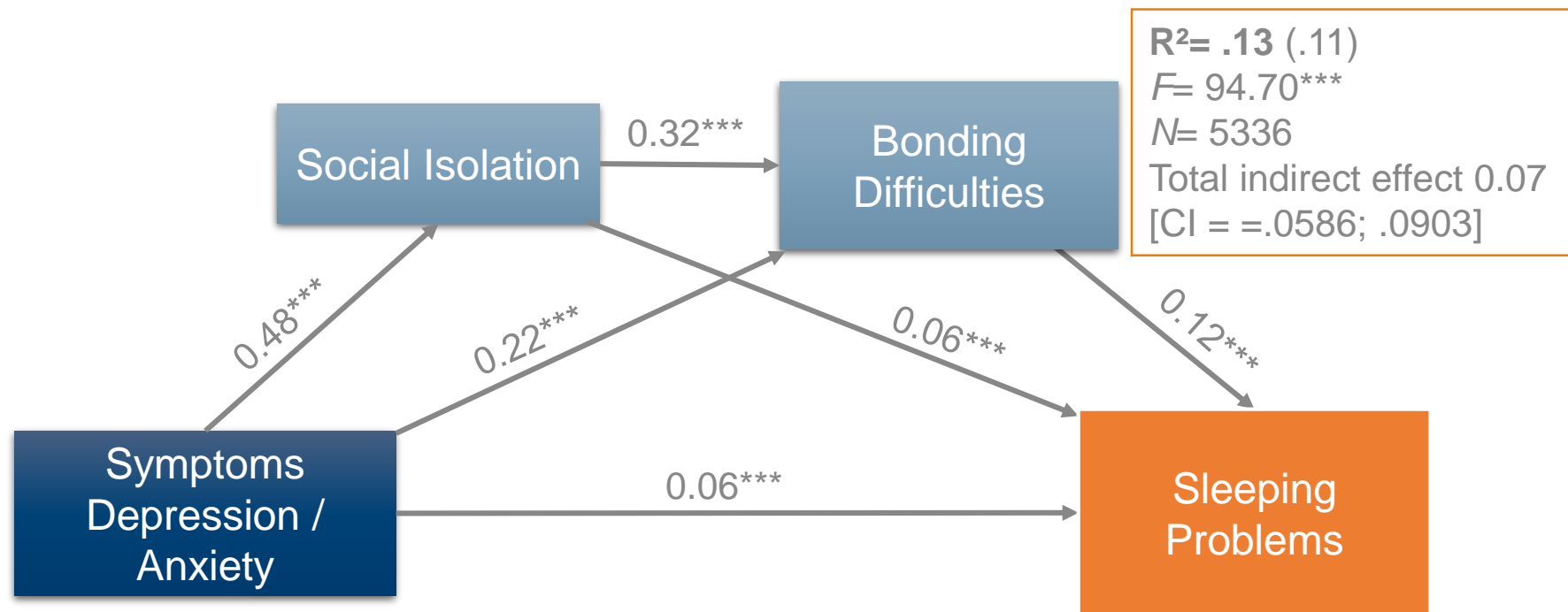
Lux, U., Müller, M., Reck, C., Liel, C. & Walper, S. (2023). The role of maternal psychopathology and parenting stress for children's excessive crying and sleeping problems in a large representative German sample. *Infancy* 28(2), 435-453 (Article first published online: 17 November 2022). <https://doi.org/10.1111/infa.12514>

Total Effect Model of Excessive Crying



Covariates: Lower Maternal Education+; Poverty; History of Migration; Lower Maternal Age**; Breastfeeding; Unplanned Pregnancy*; Smoking in Pregnancy, Lower Child Age***; Neonatal Problems; Single Parent

Total Effect Model of Sleeping Problems



Covariates: Higher Maternal Education^{***}, No Siblings^{*}, History of Migration^{***}, Breastfeeding^{***}, Unplanned Pregnancy, Lower Child Age^{***}

KiD 0-3 Longitudinal Sample

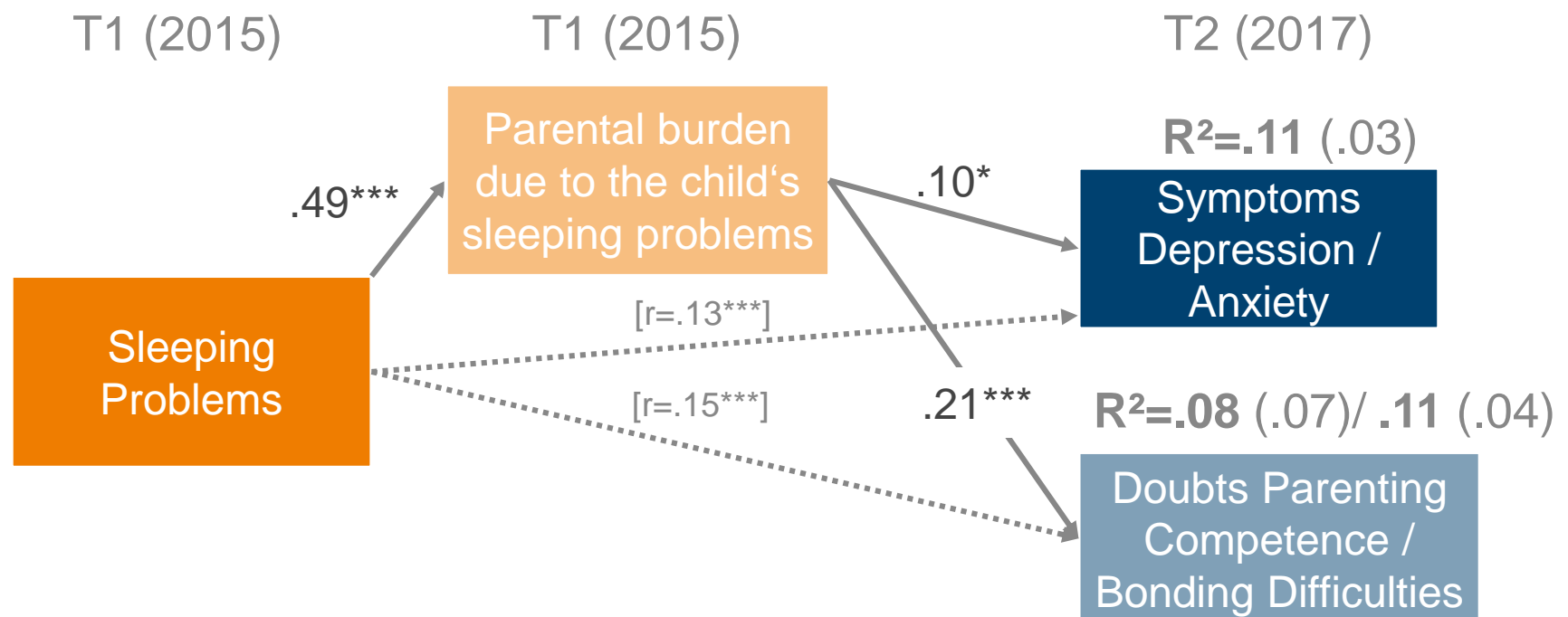
Does the amount of sleeping problems influence parents' individual and parent-child-related well-being two years later?

What role does parental burden due to the child's problems play?

Lux, U. & Friedmann, A. (2023). Die Bedeutung frühkindlicher Schlafprobleme für das spätere familiale Wohlergehen. *Kindheit und Entwicklung* 32(2), 85-94.

<https://doi.org/10.1026/0942-5403/a000403>

Impact of children's sleeping problems on family well-being two years later



Covariates: Female Parental Gender* (Depression/Anxiety; Parenting Competence), Parental Age, Higher Education* (Parenting Competence), Child Age (N = 599)



Discussion

Cross-sectional links:

- Maternal psychopathology linked to excessive crying and sleeping problems of young children confirmed – with a significant, small effect
- Social Isolation and Bonding Difficulties explained about half of this link for sleeping problems and for excessive crying

Longitudinal impact:

- Early childhood sleeping problems significantly predicted parents' individual and parent-child related well-being even 2 years later
- Parental burden fully mediated the longitudinal association

Impairments of parental well-being and the parent-child relationship should be taken into account in the diagnostics and therapy of infants' and toddlers' regulatory problems.

Thank you for your attention!

ulux@dji.de

KiD 0-3 Main Study Sample

Mean Age of Mother (years) (SD)	31.5 (5.4)
Mean Age of Father (years) (SD)	34.6 (6.6)
Parental Education (ISCED)	Low: 14.6% Intermediate: 55.1% High: 30.3%
Employment Status	22.8% Employed 64.7% Maternity leave
Welfare Receipt	19.2 %
Family Form	89.0 % Nuclear family 9.1% Single parent 5.2% Stepfamily
Child Age (months) (SD)	14.1 (10.9)
Child Gender: Male	49.9 %
Only Child (in %)	46.9 %
Migration Background Child (in %)	29.1 %

Indicators

Excessive Crying (t1)

- ▶ Crying length and duration according to the 'rule of threes' (Wessel et al., 1954) and ability to sooth the child; sum index

Sleeping Problems (t1)

- ▶ Duration and frequency of problems with sleep onset or night waking and ability to fall asleep without (much) help; sum index

Symptoms of Depression and Anxiety (t1 and t2)

(PHQ-4; Löwe et al., 2010) 4 Items | $\alpha=.80$

Experienced Social Isolation (t1 and t2)

(Subscale of PSI; Abidin, 1995) 4 Items

Bonding difficulties (t1 and t2)

(Subscale of PSI; Abidin, 1995) 4 Items

Doubts about parenting competence (t1 and t2)

(Subscale of PSI; Abidin, 1995) 4 Items

Operationalisierung Regulationsprobleme

Exzessives Schreien (*DC:0-5: Excessive Crying Disorder*):

1. Is child sometimes screaming more than 3 hours a day? {yes} {no}
2. Does child scream/cry on 3+ days per week? {yes} {no}
3. Does child scream/cry on 3+ weeks? {yes} {no}
4. Are you able to settle child easily? {yes} {no}
5. Respondent's impact of child screaming/crying {not at all} - {very much}

Schlafprobleme (*DC:0-5: Sleep Onset Disorder & Night Waking Disorder*):

1. how much time does child need to fall asleep? {less than 15 minutes} - {more than 60 minutes}
2. does child fall asleep by himself after rituals without a parent present? {yes} {no}
3. how well does child respond to sleeping aids? {not at all} {a little} {quite a lot} {very much}
4. how often does child wake up per night? {never} - {more than 4 times}
5. if child wakes up 3x or more times, is that at least at 4 days a week? {yes} {no}
6. if child awake, is that for more than 20 minutes at a time? {yes} {no}
7. Respondent's impact of child sleeping behaviour {not at all} {a little} {quite a lot} {very much}

Schwieriges Essverhalten / Fütterprobleme (*nach S1k-Leitlinien erfasst; nicht mehr aktuell*)

1. How long child need to finish meals {less than 30 min} - {more than 60 minutes}
2. Period between child's meals {1, Less than 1 hour} - {more than 3 hours}
3. difficulty to feed child {not at all} - {very much}
4. Respondent's impact of child's eating behaviour {not at all} - {very much}

Deskriptive Statistiken

Schlafprobleme

	Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
Gültig	,00	2672	33,1	36,6
	1,00	2287	28,4	31,4
	2,00	1166	14,5	16,0
	3,00	691	8,6	9,5
	4,00	320	4,0	4,4
	5,00	113	1,4	1,5
	6,00	44	,5	,6
Gesamt		7293	90,5	100,0
Fehlend	System	770	9,5	
Gesamt		8063	100,0	

10.7 % of children fulfilled all criteria of a Sleep Onset Disorder, 2.5 % of a Night Waking Disorder
2.0 % of children fulfilled all criteria of Excessive Crying according to DC:0-5

Total number of crying symptoms

	Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
Gültig	0	7011	87,0	90,9
	1	422	5,2	5,5
	2	93	1,2	1,2
	3	109	1,4	1,4
	4	74	,9	1,0
Gesamt		7709	95,6	100,0
Fehlend	System	354	4,4	
Gesamt		8063	100,0	

Total number of feeding symptoms

	Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
Gültig	0	6716	83,3	86,2
	1	957	11,9	12,3
	2	112	1,4	1,4
	3	6	,1	,1
Gesamt		7791	96,6	100,0
Fehlend	System	272	3,4	
Gesamt		8063	100,0	

Selbstberichtete psychosoziale Belastungen von Eltern mit Kleinkindern (Lorenz, Ulrich, Sann & Liel, 2020)

TABELLE 3

Prävalenzen von psychosozialen Belastungsmerkmalen (% , gewichtet *) nach den Früherkennungsuntersuchungen U3-U7a

	Gesamt [95%-KI]	U3	U4	U5	U6	U7	U7a
Belastung durch das Kind							
negative Emotionalität	4,8 [4,28; 5,38]	4,2	2,8	2,4	4,3	7,0	7,8
belastendes Schreiverhalten („Dreier-Regel“)	2,1 [1,73; 2,49]	5,3	2,6	1,7	1,5	1,0	1,4
subjektive Belastung durch das Schreiverhalten	12,8 [11,89; 13,79]	14,8	11,6	13,2	13,2	10,8	13,7
subjektive Belastung durch das Schlafverhalten	11,6 [10,63; 12,56]	14,3	7,6	12,6	12,9	11,3	10,8
subjektive Belastung durch das Essverhalten	4,6 [4,07; 5,28]	6,0	4,9	2,9	3,9	4,9	5,7

* Die Gewichtung besteht aus einer Designgewichtung, um Unterschiede in den Bundesländern zu adjustieren, und einem Poststratifizierungsverfahren zur Adjustierung von sozialen Charakteristika (Alter, Staatsangehörigkeit, Schulbildung und Berufsausbildung der Mutter sowie Haushaltskonstellation).

EBI, Eltern-Belastungs-Inventar, KI, Konfidenzintervall; n, Stichprobenumfang