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## **Settling in: studying stress to support young children and their parents during and beyond the transition to center-based child care**

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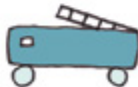
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## **Appendices**

## Supplementary materials

Chapter 2: Table S1 Search formulas by database

Database	Search formulas
EMBASE	("day care" OR "child care" OR "nursery") AND ("cortiso*" OR "hydrocortisone" OR "physiological stress") – [All Fields]
Emcare	("day care" OR "child care" OR "nursery") AND ("cortiso*" OR "hydrocortisone" OR "physiological stress") – [All Fields]
ERIC	("cortisol") AND ("child care") – [All Text]
ProQuest Dissertations and Theses	("cortisol") AND ("child care") – [Abstract]
PsychINFO	("cortiso*" OR "hydrocortisone" OR "hypothalamic pituitary adrenal axis") AND ("child care") – [All Text]
PubMed	("cortisol") AND ("child care") – [Title]
Web of Science	("cortisol") AND ("child care") – [Title]

Chapter 2: Table S2 Sensitivity analysis for the meta-analysis on cortisol pattern at child care versus home

	correlation difference score child care – home					
	<b>.000</b>		<b>.359</b>		<b>.800</b>	
correlation mid-morning to mid-afternoon	Effect size	(95% CI)	Effect size	(95% CI)	Effect size	(95% CI)
<b>.000</b>	.296	(0.148 – 0.444)	.301	(0.156 – 0.447)	.290	(0.157 – 0.424)
<b>.292</b>	.344	(0.180 – 0.507)	.350	(0.190 – 0.510)	.339	(0.191 – 0.487)
<b>.800</b>	.573	(0.344 – 0.801)	.586	(0.362 – 0.811)	.577	(0.365 – 0.789)

*Chapter 5: Child care in Times of COVID-19 (CiToC) questionnaire*

The following questions concern your and your child’s experiences during the closure of the child care centers and after they reopened.

1. How did you experience the closure of the child care center?

1 = strongly disagree, 2 = disagree, 3 = somewhat agree, 4 = agree, 5 = strongly agree,  
n.a. = not applicable

1. I agreed with the decision to close the child care centers.*	1	2	3	4	5	n.a.
2. I found it easy to find alternative child care during the closure.	1	2	3	4	5	n.a.
3. I enjoyed spending more time with my child during the closure.	1	2	3	4	5	n.a.
4. I found it difficult to entertain my child during the closure.	1	2	3	4	5	n.a.
5. I found it challenging to be a good parent during the closure.	1	2	3	4	5	n.a.
6. I found it supportive that the child care center contacted me during the closure.*	1	2	3	4	5	n.a.
7. I found it stressful to perform my caring responsibilities properly during the closure.	1	2	3	4	5	n.a.
8. I found it stressful to combine my caring responsibilities with my work during the closure.	1	2	3	4	5	n.a.

2. How did your child experience the closure of the child care center?

1 = strongly disagree, 2 = disagree, 3 = somewhat agree, 4 = agree, 5 = strongly agree,  
n.a. = not applicable

9. My child struggled with the breakdown of the normal routine.	1	2	3	4	5	n.a.
10. My child enjoyed their time at the alternative child care arrangement.*	1	2	3	4	5	n.a.
11. My child enjoyed spending more time with me during the closure.*	1	2	3	4	5	n.a.
12. My child found it difficult to entertain themselves during the closure.	1	2	3	4	5	n.a.
13. My child missed the contact with the professional caregivers.	1	2	3	4	5	n.a.
14. My child missed the contact with the other children at the child care center.	1	2	3	4	5	n.a.
15. My child missed the play facilities, activities, and challenges offered at the child care center.	1	2	3	4	5	n.a.

3. In the first two weeks after reopening, how did you feel about your child returning to child care?

1 = strongly disagree, 2 = disagree, 3 = somewhat agree, 4 = agree, 5 = strongly agree.

16. I was a bit nervous about bringing my child to the child care center again.	1	2	3	4	5
17. I liked being able to bring my child to the child care center again.	1	2	3	4	5
18. I didn't have a problem with bringing my child to child care again.	1	2	3	4	5
19. I was sorry to bring my child to the child care center again.	1	2	3	4	5
20. I found it difficult to bring my child to the child care center again.	1	2	3	4	5
21. I would have preferred to keep my child home.	1	2	3	4	5
22. I felt confident that it was okay to bring my child to the child care center again.	1	2	3	4	5
23. I was afraid that my child would contract the coronavirus and become sick.	1	2	3	4	5
24. I was afraid that my child would contract the coronavirus and that I would become sick.	1	2	3	4	5
25. I was afraid that my child would contract the coronavirus and that someone else would become sick.	1	2	3	4	5

4. How did your child react when you dropped them off and collected them from child care in the first two weeks after reopening? You can of course discuss this with your partner if necessary.

1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always

26. My child was happy when dropped off at the child care center.	1	2	3	4	5
27. My child was angry when dropped off at the child care center.	1	2	3	4	5
28. My child cried when dropped off at the child care center.	1	2	3	4	5
29. My child was anxious when dropped off at the child care center.	1	2	3	4	5
30. My child was unsettled when dropped off at the child care center.	1	2	3	4	5
31. My child didn't seem to mind when I left after dropping them off at the child care center.	1	2	3	4	5
32. My child was happy when collected from the child care center.*	1	2	3	4	5
33. My child was angry when collected from the child care center.*	1	2	3	4	5
34. My child cried when collected from the child care center.*	1	2	3	4	5
35. My child was anxious when collected from the child care center.*	1	2	3	4	5
36. My child was unsettled when collected from the child care center.*	1	2	3	4	5
37. My child seemed relieved when collected from the child care center.	1	2	3	4	5

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5. How did your child react when they saw the professional caregivers? This is about the first drop-off after child care reopened. You can of course discuss this with your partner if necessary.

	1	2	3	4	5
38. My child seemed to recognize the professional caregivers.	1	2	3	4	5
39. My child immediately seemed to feel at ease with the professional caregivers.	1	2	3	4	5
40. My child seemed indifferent to seeing the professional caregivers.*	1	2	3	4	5
41. My child smiled at the professional caregivers.		2	3	4	5
42. My child did not like being touched or picked up by the professional caregivers.		2	3	4	5
43. My child tried to avoid contact with the professional caregivers.	1	2	3	4	5
44. My child immediately went up to the professional caregivers.	1	2	3	4	5

\* = these items were not included in the study in Chapter 5, based on the non-linear PCA

Scoring of the CiToC questionnaire:

Reverse the following items so that 1 = 5, 2 = 4, 3 = 4, 4 = 2, and 5 = 1: 1, 2, 3, 6, 10, 11, 17, 18, 22, 26, 31, 32, 38, 39, 41, 44

Calculate the mean of the following items to get the subscale Child Distress after Re-opening: 26 - 44

Calculate the mean of the following items to get the subscale Parental Distress after Re-opening: 16 - 22

Calculate the mean of the following items to get the subscale Child Stress during Closure: 9 - 15

Calculate the mean of the following items to get the subscale Parental Stress during Closure: 1 - 8

Calculate the mean of the following items to get the subscale Parental Fear of COVID-19: 23 - 25

Chapter 5: Table S3 Results of the hierarchical multiple linear regression analysis predicting child distress after reopening for complete cases (n = 543)

	Step 1				Step 2				Step 3			
	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t
(Intercept)	3.47	0.45		7.72**	3.90	0.70		5.55**	3.46	0.70		4.95**
Number of months in child care before closure	-0.02	0.00	-.25	-5.62**	0.01	0.00	.06	1.07	0.00	0.00	.04	0.67
Stability of professional caregivers <sup>a</sup>	-0.27	0.11	-.11	-2.41*	-0.19	0.10	-.08	-2.00	-0.16	0.09	-.06	-1.71
Family composition <sup>b</sup>	-0.52	0.22	-.11	-2.42*	-0.50	0.19	-.10	-2.65**	-0.46	0.18	-.10	-2.49*
Parental educational level <sup>c</sup>	0.20	0.09	.10	2.16*	0.16	0.08	.08	1.97	0.13	0.08	.07	1.70
Child age					-0.03	0.01	-.39	-6.01**	-0.03	0.01	-.36	-5.70**
Negative affectivity					0.13	0.05	.12	2.61**	0.13	0.05	.12	2.61**
Surgency/Extraversion					-0.08	0.05	-.07	-1.61*	-0.07	0.05	-.06	-1.37
Child hours in child care					-0.01	0.00	-.10	-2.37**	-0.01	0.00	-.10	-2.37**
Child stress during closure					-0.15	0.04	-.14	-3.41**	-0.14	0.04	-.13	-3.09**
Parental separation anxiety					0.69	0.09	.36	8.16	0.51	0.09	.27	5.48**
Parental perception of child care quality – Child					-0.16	0.11	-.08	-1.47	-0.10	0.11	-.05	-0.97
Parental perception of child care quality – Parent					-0.05	0.08	-.04	-0.65	-0.09	0.08	-.06	-1.13
Parental stress during closure					0.05	0.04	.05	1.21	0.09	0.04	.09	2.15*
Parental fear of coronavirus					-0.05	0.04	-.05	-1.29	-0.11	0.04	-.11	-2.64**
Parental distress after reopening									0.26	0.06	.21	4.23**
R <sup>2</sup>					.09**				.39**			.41**
F(df <sub>1</sub> , df <sub>2</sub> )					F(4, 456) = 11.86)**				F(14, 446) = 20.03**			F(15, 445) = 20.59**

\* p < .05, \*\* p < .01  
a = 0 = no, 1 = yes, b = 1 = one-parent family, 2 = two-parent family, c = 1 = 1 = low/middle, 2 = high.  
Notes: B = regression coefficient, SE = standard error,  $\beta$  = beta coefficient or standardized regression coefficient, t = t-value; R<sup>2</sup> = coefficient of determination;  
F(df1, df2) = F-value and degrees of freedom.



Chapter 5: Table S4 Results of the hierarchical multiple linear regression analysis predicting parental distress after reopening for complete cases (n = 543)

	Step 1				Step 2				Step 3			
	B	SE	$\beta$	t	B	SE	$\beta$	t	B	SE	$\beta$	t
(Intercept)	2.62	0.38		6.86**	1.76	0.53		3.32**	1.15	0.54		2.14*
Number of months in child care before closure	0.00	0.00	-0.07	-1.53	0.01	0.00	.12	2.20*	0.01	0.00	.10	1.99
Stability of professional caregivers <sup>a</sup>	-0.26	0.10	-0.13	-2.75**	-0.12	0.07	-0.06	-1.65	-0.09	0.07	-0.04	-1.27
Family composition <sup>b</sup>	-0.24	0.18	-0.06	-1.35	-0.10	0.14	-0.03	-0.71	-0.04	0.14	-0.01	-0.25
Parental gender <sup>c</sup>	0.38	0.11	.16	3.47**	0.21	0.08	.09	2.49**	0.18	0.08	.08	2.24*
Child age					-0.01	0.00	-0.12	-1.99	0.00	0.00	-0.05	-0.78
Negative affectivity					0.00	0.04	.00	0.11	-0.01	0.04	-0.02	-0.37
Surgency/Extraversion					-0.05	0.04	-0.05	-1.31	-0.04	0.04	-0.04	-1.00
Child hours in child care					0.00	0.00	.01	0.19	0.00	0.00	.02	0.59
Child stress during closure					-0.08	0.03	-0.09	-2.32*	-0.05	0.03	-0.06	-1.58
Parental separation anxiety					0.68	0.07	.43	10.42**	0.58	0.07	.37	8.48**
Parental perception of child care quality – Child					-0.22	0.08	-0.14	-2.71**	-0.20	0.08	-0.13	-2.45*
Parental perception of child care quality – Parent					0.14	0.06	.12	2.29*	0.15	0.06	.12	2.48*
Parental stress during closure					-0.15	0.03	-0.19	-4.83**	-0.16	0.03	-0.20	-5.18**
Parental fear of coronavirus					0.22	0.03	.27	7.37**	0.23	0.03	.28	7.74**
Child distress after reopening									0.15	0.04	.18	4.21**
R <sup>2</sup>	.05**											
F(df <sub>1</sub> , df <sub>2</sub> )	F(4, 456) = 6.42**											
	F(14, 446) = 28.31**											
	F(15, 445) = 28.59**											

\* p < .05, \*\* p < .01

a = 0 = no, 1 = yes, b = 1 = one-parent family, 2 = two-parent family, c = 0 = male, 1 = female.

Notes. B = regression coefficient, SE = standard error,  $\beta$  = beta coefficient or standardized regression coefficient, t = t-value; R<sup>2</sup> = coefficient of determination; F(df<sub>1</sub>, df<sub>2</sub>) = F-value and degrees of freedom.

## References

- Ahnert, L., Eckstein-Madry, T., Piskernik, B., Porges, S. W., & Lamb, M. E. (2021). Infants' stress responses and protest behaviors at childcare entry and the role of care providers. *Developmental Psychobiology*, 63(6), 22156. <https://doi.org/10.1002/dev.22156>
- Ahnert, L., & Lamb, M. E. (2003). Shared care: Establishing a balance between home and child care settings. *Child Development*, 74(4), 1044-1049. <https://doi.org/10.1111/1467-8624.00587>
- Ahnert, L., Gunnar, M. R., Lamb, M. E., & Barthel, M. (2004). Transition to child care: Associations with infant-mother attachment, infant negative emotion, and cortisol elevations. *Child Development*, 75(3), 639-650. <https://doi.org/10.1111/j.1467-8624.2004.00698.x>
- Ainsworth, M. D. S., Bell, S. M., & Stayton, D. J. (1974). Infant-mother attachment and social development: Socialisation as a product of reciprocal responsiveness to signals. In M. P. M. Richards (Ed.), *The introduction of the child into a social world* (pp. 9–135). Cambridge University Press.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Lawrence Erlbaum Associates.
- Aitken Z., Garrett C. C., Hewitt B., Keogh L., Hocking J. S., & Kavanagh A. M. (2015). The maternal health outcomes of paid maternity leave: A systematic review. *Social Sciences & Medicine*, 130, 32-41. <https://doi.org/10.1016/j.socscimed.2015.02.001>
- Albers, E. M., Beijers, R., Riksen-Walraven, J., Sweep, F. C. G. J., & De Weerth, C. (2016). Cortisol levels of infants in center care across the first year of life: Links with quality of care and infant temperament. *Stress*, 19(1), 8-17. <https://doi.org/10.3109/10253890.2015.1089230>
- Albers, E. M., Riksen-Walraven, J. M., & De Weerth, C. (2007). Infants' interactions with professional caregivers at 3 and 6 months of age: A longitudinal study. *Infant Behavior and Development*, 30(4), 631–640. <https://doi.org/10.1016/j.infbeh.2007.03.006>
- Albers, E. M., Riksen-Walraven, M. J., Sweep, F. C. G. J., & De Weerth, C. (2008). Maternal behavior predicts infant cortisol recovery from a mild everyday stressor. *Journal of Child Psychology and Psychiatry*, 49(1), 97–103. <https://doi.org/10.1111/j.1469-7610.2007.01818.x>

## REFERENCES

- Ali, N., & Nater, U. M. (2020). Salivary alpha-amylase as a biomarker of stress in behavioral medicine. *International Journal of Behavioral Medicine*, 27(3), 337–342. <https://doi.org/10.1007/s12529-019-09843-x>
- Ali, N., & Pruessner, J. C. (2021). The salivary alpha amylase over cortisol ratio as a marker to assess dysregulations of the stress systems. *Physiology and Behavior*, 106(1), 65–72. <https://doi.org/10.1016/j.physbeh.2011.10.003>
- Alstveit, M., Severinsson, E., & Karlsen, B. (2011). Readjusting one's life in the tension inherent in work and motherhood. *Journal of Advanced Nursing*, 67(10), 2151–2160. <https://doi.org/10.1111/j.1365-2648.2011.05660.x>
- Badanes, L. S. (2010). *Cortisol reactivity across the day at child care: Examining the contributions of child temperament and attachment to mother and lead teacher* [Doctoral dissertation]. ProQuest.
- Badanes, L. S., Dmitrieva, J., & Watamura, S. E. (2012). Understanding cortisol reactivity across the day at child care: The potential buffering role of secure attachments to caregivers. *Early Childhood Research Quarterly*, 27(1), 156-165. <https://doi.org/10.1016/j.ecresq.2011.05.005>
- Baier, A. L., Kline, A. C., & Feeny, N. C. (2020). Therapeutic alliance as a mediator of change: A systematic review and evaluation of research. *Clinical Psychology Review*, 82, 101921. <https://doi.org/10.1016/j.cpr.2020.101921>
- Belsky, J. (1986). Infant day care: A cause for concern? *Zero to Three*, 7(1), 1–7.
- Bennet, J., & Tayler, C. P. (2006). *Starting strong II: Early childhood education and care*. Organisation for Economic Cooperation and Development.
- Bernard, K., Peloso, E., Laurenceau, J. P., Zhang, Z., & Dozier, M. (2015). Examining change in cortisol changes during the 10-week transition to a new child-care setting. *Child Development*, 86(2), 456-471. <https://doi.org/10.1111/cdev.12304>
- Bettendorf, M., Albers, N., Bauer, J., Heinrich, U. E., Linderkamp, O., & Maser-Gluth, C. (1998). Longitudinal evaluation of salivary cortisol levels in full-term and preterm neonates. *Hormone Research*, 50(6), 303–308. <https://doi.org/10.1159/000023295>
- Bigras, N., Lemay, L., & Brunson, L. (2012). Parental stress and daycare attendance. Does daycare quality and parental satisfaction with daycare moderate the relation between family income and stress level among parents of four years old children? *Procedia Social and Behavioral Sciences*, 55, 894-901. <https://doi.org/10.1016/j.sbspro.2012.09.578>
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Wiley.

- Borenstein, M., Rothstein, D., & Cohen, J. (2005). *Comprehensive meta-analysis: A computer program for research synthesis* [Computer software]. Biostat.
- Bossi, T. J., De Andrade Neves Dias Brites, S., & Piccinini, C. A. (2017). Adjustment of babies to daycare: Aspects that facilitate adjustment or not. *Paidéia*, *27*(1), 448-456. <https://doi.org/10.1590/1982-432727s1201710>
- Bowlby, J. (1969). *Attachment and loss: Attachment* (Vol. 1). Basic Books.
- Briggs-Gowan, M. J., Carter, A. S., & Schwab-Stone, M. (1996). Discrepancies among mother, child, and teacher reports: Examining the contributions of maternal depression and anxiety. *Journal of Abnormal Child Psychology*, *24*(6), 749-765. <https://doi.org/10.1007/BF01664738>
- Broekhuizen, M. L., Van Aken, M. A. G., Dubas, J. S., & Leseman, P. P. M. (2018). Child care quality and Dutch 2- and 3-year-olds' socio-emotional outcomes: Does the amount of care matter? *Infant and Child Development*, *27*(1), 2043. <https://doi.org/10.1002/icd.2043>
- Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect*, *110*(2), 104699. <https://doi.org/10.1016/j.chiabu.2020.104699>
- Chartier, S., Delhalle, M., Baiverlin, A., & Blavier, A. (2021). Parental peritraumatic distress and feelings of parental competence in relation to COVID-19 lockdown measures: What is the impact on children's peritraumatic distress? *European Journal of Trauma & Dissociation*, *5*(2), 100191. <https://doi.org/10.1016/j.ejtd.2020.100191>
- Clarke-Stewart, A., & Allhusen, V. D. (2005). *What we know about childcare*. Harvard University Press.
- Clements, A. D., & Parker, C. R. (1998). The relationship between salivary cortisol concentrations in frozen versus mailed samples. *Psychoneuroendocrinology*, *23*(6), 613-616. [https://doi.org/10.1016/s0306-4530\(98\)00031-6](https://doi.org/10.1016/s0306-4530(98)00031-6)
- Cobham, V. E., McDermott, B., Haslam, D., & Sanders, M. R. (2016). The role of parents, parenting, and the family environment in children's post-disaster mental health. *Current Psychiatry Reports*, *18*(6), 1-9. <https://doi.org/10.1007/s11920-016-0691-4>
- Cohen, J. (1988). *Statistical power analysis for the social sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cooklin, A. R., Giallo, R., D'Esposito, F., Crawford, S., & Nicholson, J. M. (2013). Postpartum maternal separation anxiety, overprotective parenting, and children's social-emotional well-being: Longitudinal evidence from an Australian cohort. *Journal of Family Psychology*, *27*(4), 618-628. <https://doi.org/10.1037/a0033332>

## REFERENCES

- Copeland, D., & Harbaugh, B. L. (2005). Differences in parenting stress between married and single first time mothers at six to eight weeks after birth. *Issues in Comprehensive Pediatric Nursing*, 28(3), 139-152. <https://doi.org/10.1080/01460860500227556>
- Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool period: Relations to maternal parenting and child behaviour at age 5. *Infant and Child Development*, 14(2), 117-132. <https://doi.org/10.1002/icd.384>
- Crockenberg, S. C. (2003). Rescuing the baby from the bathwater: How gender and temperament (may) influence how child care affects child development. *Child Development*, 74(4), 1034-1038. <https://doi.org/10.1111/1467-8624.00585>
- Cryer, D., Wagner-Moore, L., Burchinal, M., Yazejian, N., Hurwitz, S., & Wolery, M. (2005). Effects of transitions to new child care classes on infant/toddler distress and behavior. *Early Childhood Research Quarterly*, 20(1), 37-56. <https://doi.org/10.1016/j.ecresq.2005.01.005>
- Dallaire, D. H., & Weinraub, M. (2005). Predicting children's separation anxiety at age 6: The contributions of infant-mother attachment security, maternal sensitivity, and maternal separation anxiety. *Attachment & Human Development*, 7(4), 393-408. <https://doi.org/10.1080/14616730500365894>
- Danzer, N., Halla, M., Schneeweis, N., & Zweimüller, M. (2017, June). *Parental leave, (in)formal childcare and long-term child outcomes* (CESifo Working Papers Series No. 6501). [https://autopapers.ssrn.com/sol3/papers.cfm?abstract\\_id=2990884](https://autopapers.ssrn.com/sol3/papers.cfm?abstract_id=2990884)
- Datler, W., Datler, M., & Funder, A. (2010). Struggling against a feeling of becoming lost: A young boy's painful transition to day care. *Infant Observation*, 13(1), 65-87. <https://doi.org/10.1080/13698031003606659>
- Datler, W., Ereky-Stevens, K., Hover-Reisner, N., & Malmberg, L. E. (2012). Toddlers' transition to out-of-home day care: Settling into a new care environment. *Infant Behavior & Development*, 35(3), 439-451. <https://doi.org/10.1016/j.infbeh.2012.02.007>
- Deater-Deckard, K. (1998). Parenting stress and child adjustment: Some old hypotheses and new questions. *Clinical Psychology: Science and Practice*, 5(3), 314-332. <https://doi.org/10.1111/j.1468-2850.1998.tb00152.x>
- Deater-Deckard, K., Scarr, S., McCartney, K., & Eisenberg, M. (1994). Paternal separation anxiety: Relationships with parenting stress, child-rearing attitudes, and maternal anxieties. *Psychological Science*, 5(6), 341-346. <https://doi.org/10.1111/j.1467-9280.1994.tb00283.x>
- De Haan, M., Gunnar, M. R., Tout, K., Hart, J., & Stansbury, K. (1998). Familiar and novel contexts yield different associations between cortisol and behavior among 2-year-

- old children. *Developmental Psychobiology*, 33(1), 93-101. [https://doi.org/10.1002/\(SICI\)1098-2302\(199807\)33:1<93::AID-DEV8>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1098-2302(199807)33:1<93::AID-DEV8>3.0.CO;2-N)
- De Kruif, R. E. L., Vermeer, H. J., Fukkink, R. G., Riksen-Walraven, J. M. A., Tavecchio, L. W. C., Van IJzendoorn, M. H., & Van Zeijl, J. (2007). *De nationale studie pedagogische kwaliteit kinderopvang: Eindrapport project 0 en 1*. Ministerie van Sociale Zaken en Werkgelegenheid.
- Del Boca, D., Oggero, N., Profeta, P., & Rossi, M. (2020). Women's and men's work, housework and childcare, before and during COVID-19. *Review of Economics of the Household*, 18(4), 1001-1017. <https://doi.org/10.1007/s11150-020-09502-1>
- De Schipper, E. J., Riksen-Walraven, J. M., & Geurts, S. A. E. (2006). Effects of child-caregiver ratio on the interactions between caregivers and children in child-care centers: An experimental study. *Child Development*, 77(4), 861-874. <https://doi.org/10.1111/j.1467-8624.2006.00907.x>
- De Schipper, J. C., Tavecchio, L. W. C., Van IJzendoorn, M. H., & Van Zeijl, J. (2004). Goodness-of-fit in center day care: Relations of temperament, stability, and quality of care with the child's adjustment. *Early Childhood Research Quarterly*, 19(2), 257-272. <https://doi.org/10.1016/j.ecresq.2004.04.004>
- De Schipper, J. C., Van IJzendoorn, M. H., & Tavecchio, L. W. C. (2004). Stability in center day care: Relations with children's well-being and problem behavior in day care. *Social Development*, 13(4), 531-550. <https://doi.org/10.1111/j.1467-9507.2004.00282.x>
- Detting, A. C., Gunnar, M. R., & Donzella, B. (1999). Cortisol levels of young children in full-day childcare centers: Relations with age and temperament. *Psychoneuroendocrinology*, 24(5), 519-536. [https://doi.org/10.1016/S0306-4530\(99\)00009-8](https://doi.org/10.1016/S0306-4530(99)00009-8)
- Detting, A. C., Parker, S. W., Lane, S., Sebanc, A., & Gunnar, M. R. (2000). Quality of care and temperament determine changes in cortisol concentrations over the day for young children in childcare. *Psychoneuroendocrinology*, 25(8), 819-836. [https://doi.org/10.1016/S0306-4530\(00\)00028-7](https://doi.org/10.1016/S0306-4530(00)00028-7)
- De Weerth, C., & Van Geert, P. (2002). A longitudinal study of basal cortisol in infants: Intra-individual variability, circadian rhythm, and developmental trends. *Infant Behavior and Development*, 25(4), 375-398. [https://doi.org/10.1016/S0163-6383\(02\)00141-8](https://doi.org/10.1016/S0163-6383(02)00141-8)
- De Weerth, C., Zijl, R. H., & Buitelaar, J. K. (2003). Development of cortisol circadian rhythm in infancy. *Early Human Development*, 73(1-2), 39-52. [https://doi.org/10.1016/S0378-3782\(03\)00074-4](https://doi.org/10.1016/S0378-3782(03)00074-4)
- Drugli, M. B., Solheim, E., Lydersen, S., Moe, V., Smith, L., & Berg-Nielsen, T. S. (2018). Elevated cortisol levels in Norwegian toddlers in childcare. *Early Child Development and Care*, 188(12), 1682-1693. <https://doi.org/10.1080/03004430.2016.1278368>

## REFERENCES

- Duval, S., & Tweedie, R. (2000a). A nonparametric “trim and fill” method of accounting for publication bias in meta-analysis. *Journal of the American Statistical Association*, *95*, 89–98. <https://doi.org/10.2307/2669529>
- Duval, S., & Tweedie, R. (2000b). Trim and fill: A simple funnel-plot-based method of testing and adjusting for publication bias in meta-analysis. *Biometrics*, *56*, 455–463. <https://doi.org/10.1111/j.0006-341X.2000.00455.x>
- Eckstein-Madry, T., Piskernik, B., & Ahnert, L. (2020). Attachment and stress regulation in socioeconomically disadvantaged children: Can public childcare compensate? *Infant Mental Health Journal*, *42*(6), 839-850. <https://doi.org/10.1002/imhj.21878>
- Emlen, A. C., Koren, P. E., & Schultze, K. H. (2000). *A packet of scales for measuring quality of child care from a parent's point of view*. Regional Research Institute for Human Services, Portland State University.
- Engel, M. L., & Gunnar, M. R. (2020). The development of stress reactivity and regulation during human development. In A. Clow, & N. Smyth (Eds.), *Stress and Brain Health: Across the Life Course* (Vol. 150, pp. 41-76). Academic Press Inc. <https://doi.org/10.1016/bs.irn.2019.11.003>
- Essex, M. J., Klein, M. H., Cho, E., & Kalin, N. H. (2002). Maternal stress beginning in infancy may sensitize children to later stress exposure: Effects on cortisol and behavior. *Biological Psychiatry*, *52*(8), 776-784. [https://doi.org/10.1016/s0006-3223\(02\)01553-6](https://doi.org/10.1016/s0006-3223(02)01553-6)
- Faravelli, C., Alessandra Scarpato, M., Castellini, G., & Lo Sauro, C. (2013). Gender differences in depression and anxiety: The role of age. *Psychiatry Research*, *210*(3), 1301-1303. <https://doi.org/10.1016/j.psychres.2013.09.027>
- Fein, G. G., Gariboldi, A., & Boni, R. (1993). The adjustment of infants and toddlers to group care: The first 6 months. *Early Childhood Research Quarterly*, *8*(1), 1-14. [https://doi.org/10.1016/S0885-2006\(05\)80095-X](https://doi.org/10.1016/S0885-2006(05)80095-X)
- Fukink, R., Groeneveld, M., Henrichs, L., Jilink, L., Leseman, P., Slot, P., & Vermeer, H. (Eds.) (2017). *De Nederlandse kinderopvang in wetenschappelijk perspectief*. SWP.
- Gallo, A., Wertz, C., Kairis, S., & Blavier, A. (2019). Exploration of relationship between parental distress, family functioning, and post-traumatic symptoms in children. *European Journal of Trauma & Dissociation*, *3*(2), 125–133. <https://doi.org/10.1016/j.ejtd.2018.06.001>
- Gartstein, M. A., & Iverson, S. (2014). Attachment security: The role of infant, maternal, and contextual factors. *International Journal of Psychology and Psychological Therapy*, *14*(2), 261-276.
- Geoffroy, M.-C., Côté, S. M., Parent, S., & Séguin, J. R. (2006). Daycare attendance,

- stress, and mental health. *The Canadian Journal of Psychiatry*, 51(9), 607-615. <https://doi.org/10.1177/070674370605100909>
- Gilbert, L. K., Strine, T. W., Szucs, L. E., Crawford, T. N., Parks, S. E., Barradas, D. T., Njai, R., & Ko, J. Y. (2020). Racial and ethnic differences in parental attitudes and concerns about school reopening during the COVID-19 pandemic. *Morbidity and Mortality Weekly Report*, 69(49), 1848-1852. <https://doi.org/10.15585/mmwr.mm6949a2>
- Goossens, F.A., & Van IJzendoorn, M.H. (1990). Quality of infants' attachment to professional caregivers: Relation to infant-parent attachment and day-care characteristics. *Child Development*, 61(3), 832-837. <https://doi.org/10.2307/1130967>
- Groeneveld, M. G., Vermeer, H. J., Linting, M., Noppe, G., Van Rossum, E. F. C., & Van IJzendoorn, M. H. (2013). Children's hair cortisol as a biomarker of stress at school entry. *Stress*, 16(6), 711-715. <https://doi.org/10.3109/10253890.2013.817553>
- Groeneveld, M. G., Vermeer, H. J., Van IJzendoorn, M. H., & Linting, M. (2010). Children's wellbeing and cortisol levels in home-based and center-based childcare. *Early Childhood Research Quarterly*, 25(4), 502-514. <https://doi.org/10.1016/j.ecresq.2009.12.004>
- Groeneveld, M. G., Vermeer, H. J., Van IJzendoorn, M. H., & Linting, M. (2012). Stress, cortisol and well-being of caregivers and children in home-based child care: A case for differential susceptibility. *Child Care Health and Development*, 38(2), 251-260. <https://doi.org/10.1111/j.1365-2214.2010.01194.x>
- Grunau, R. E., Haley, D. W., Whitfield, M. F., Weinberg, J., Yu, W., & Thiessen, P. (2007). Altered basal cortisol levels at 3, 6, 8, and 18 months in infants born at extremely low gestational age. *Journal of Pediatrics*, 150(2), 151-156. <https://doi.org/10.1016/j.jpeds.2006.10.053>
- Gunnar, M. R. (1989). Studies of the human infant's adrenocortical response to potentially stressful events. *New Directions for Child and Adolescent Development*, 1989(45), 3-18. <https://doi.org/10.1002/cd.23219894503>
- Gunnar, M. R. (1992). Reactivity of the hypothalamic-pituitary-adrenocortical system to stressors in normal infants and children. *Pediatrics*, 90(3), 491-497. <https://doi.org/10.1542/peds.90.3.491>
- Gunnar, M. R., & Cheatham, C. L. (2003). Brain and behavior interface: Stress and the developing brain. *Infant Mental Health Journal*, 24(3), 195-211. <https://doi.org/10.1002/imhj.10052>
- Gunnar, M. R., & Donzella, B. (2002). Social regulation of the cortisol levels in early human development. *Psychoneuroendocrinology*, 27(1-2), 199-220. [https://doi.org/10.1016/S0306-4530\(01\)00045-2](https://doi.org/10.1016/S0306-4530(01)00045-2)



## REFERENCES

- Gunnar, M. R., Kryzer, E., Van Ryzin, M. J., & Phillips, A. (2010). The rise in cortisol in family day care: Associations with aspects of care quality, child behavior, and child sex. *Child Development, 81*(3), 851-869. <https://doi.org/10.1111/j.1467-8624.2010.01438.x>
- Gunnar, M. R., Larson, M. C., Hertsgaard, L., Harris, M. L., & Brodersen, L. (1992). The stressfulness of separation among nine-month-old infants: Effects of social context variables and infant temperament. *Child Development, 63*(2), 290-303. <https://doi.org/10.2307/1131479>
- Gunnar, M. R., Talge, N. M., & Herrera, A. (2009). Stressor paradigms in developmental studies: What does and does not work to produce mean increases in salivary cortisol. *Psychoneuroendocrinology, 34*(7), 953-967. <https://doi.org/10.1016/j.psychneuen.2009.02.010>
- Gunnar, M. R., Tout, K., De Haan, M., Pierce, S., & Stanbury, K. (1997). Temperament, social competence, and adrenocortical activity in preschoolers. *Developmental Psychobiology, 31*(1), 65-85. [https://doi.org/10.1002/\(SICI\)1098-2302\(199707\)31:1<65::AID-DEV6>3.0.CO;2-S](https://doi.org/10.1002/(SICI)1098-2302(199707)31:1<65::AID-DEV6>3.0.CO;2-S)
- Hall, R., Van Bakel, H., De Wolff, M., Klein Velderman, M., & Alberti, J. (2022). The validity of a new checklist for disturbed child attachment. *Manuscript submitted for publication*.
- Hanrahan, K., McCarthy, A. M., Kleiber, C., Lutgendorf, S., & Tsalikian, E. (2006). Strategies for salivary cortisol collection and analysis in research with children. *Applied Nursing Research, 19*(2), 95-101. <https://doi.org/10.1016/j.apnr.2006.02.001>
- Hatfield, B. E., Hestenes, L. L., Kintner-Duffy, V. L., & O'Brien, M. (2013). Classroom emotional support predicts differences in preschool children's cortisol and alpha-amylase levels. *Early Childhood Research Quarterly, 28*(2), 347-356. <https://doi.org/10.1016/j.ecresq.2012.08.001>
- Hock, E., McBride, S., & Gnezda, M. T. (1989). Maternal separation anxiety: Mother-infant separation from the maternal perspective. *Child Development, 60*(4), 793-802. <https://doi.org/10.2307/1131019>
- Hock, E., & Schirtzinger, M. B. (1992). Maternal separation anxiety: Its developmental course and relation to maternal mental health. *Child Development, 63*(1), 93-102. <https://doi.org/10.1111/j.1467-8624.1992.tb03598.x>
- Howes, C., Galinsky, E., & Kontos S. (1998). Child care caregiver sensitivity and attachment. *Social Development, 7*(1), 25-36. <https://doi.org/10.1111/1467-9507.00048>
- Howes, C., Rodning, C., Galuzzo, D. C., & Myers, L. (1988). Attachment and child care: Relationships with mother and caregiver. *Early Childhood Research Quarterly, 3*(4), 403-416. [https://doi.org/10.1016/0885-2006\(88\)90037-3](https://doi.org/10.1016/0885-2006(88)90037-3)

- Hsu, H. C. (2004). Antecedents and consequences of separation anxiety in first-time mothers: Infant, mother, and social-contextual characteristics. *Infant Behavior and Development*, 27(2), 113–133. <https://doi.org/10.1016/j.infbeh.2003.09.005>
- Huebener, M., Waights, S., Spiess, C. K., Siegel, N. A., & Wagner, G. G. (2021). Parental well-being in times of COVID-19 in Germany. *Review of Economics of the Household*, 19(1), 1-122. <https://doi.org/10.1007/s11150-020-09529-4> IBM Corp. (2017). *IBM SPSS statistics for WIndows, version 25.0*. IBM Corp.
- Ivars, K., Nelson, N., Theodorsson, A., Theodorsson, E., Ström, J. O., & Mörelius, E. (2015). Development of salivary cortisol circadian rhythm and reference intervals in full-term infants. *PLOS One*, 10(6), 1–13. <https://doi.org/10.1371/journal.pone.0129502>
- Iwata, O., Okamura, H., Saitsu, H., Saikusa, M., Kanda, H., Eshima, N., Iwata, S., Maeno, Y., & Matsuishi, T. (2013). Diurnal cortisol changes in newborn infants suggesting entrainment of peripheral circadian clock in utero and at birth. *Journal of Clinical Endocrinology and Metabolism*, 98(1), 25-32. <https://doi.org/10.1210/jc.2012-2750>
- Jessop, D. S., & Turner-Cobb, J. M. (2008). Measurement and meaning of salivary cortisol: A focus on health and disease in children. *Stress*, 11(1), 1–14. <https://doi.org/10.1080/10253890701365527>
- Jones, D. (2020, May 24). *The impact of COVID-19 on young children, families, and teachers: A Defending the Early Years report*. <https://eric.ed.gov/?id=ED609168>.
- Juffer, F., Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (2008). *Promoting positive parenting: An attachment-based intervention*. Lawrence Erlbaum.
- Juffer, F., Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (2016). *Handleiding VIPP-SD: Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline* (3rd ed.). Leiden University.
- Juffer, F., Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (2017). Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD): Development and meta-analytic evidence of its effectiveness. In H. Steele, & M. Steele (Eds.), *Handbook of Attachment-Based Interventions*. Guilford Press.
- Kaitz, M. (2007). Maternal concerns during early parenthood. *Child: Care, Health, and Development*, 33(6), 720–727. <https://doi.org/10.1111/j.1365-2214.2007.00729.x>
- Kalyuga, S., Ayres, P., Chandler, P., & Sweller, J. (2003). The expertise reversal effect. *Educational Psychologist*, 38(1), 23-31. [https://doi.org/10.1207/S15326985sep3801\\_4](https://doi.org/10.1207/S15326985sep3801_4)
- Kaufman, G. (2020). Work-family integration and gender equality: How Nordic countries lead the way. In M. Karanika-Murray, & C. Cooper (Eds.). *Navigating the return-to-work experience for new parents* (1st ed., pp. 72 – 81). Routledge.

## REFERENCES

- Kirschbaum, C., & Hellhammer, D. H. (1989). Salivary cortisol in psychobiological research: An overview. *Neuropsychobiology*, 22(3), 150–169. <https://doi.org/10.1159/000118611>
- Kirschbaum, C., & Hellhammer, D. H. (1994). Salivary cortisol in psychoneuroendocrine research: Recent developments and applications. *Psychoneuroendocrinology*, 19(4), 313–333. [https://doi.org/10.1016/0306-4530\(94\)90013-2](https://doi.org/10.1016/0306-4530(94)90013-2)
- Klein, P. N., Kraft, R. R., & Shohet, C. (2010). Behaviour patterns in daily mother–child separations: Possible opportunities for stress reduction. *Early Child Development and Care*, 180(3), 387–396. <https://doi.org/10.1080/03004430801943290>
- Klein Velderman, M., Bakermans-Kranenburg, M. J., Juffer, F., & Van IJzendoorn, M. H. (2006). Effects of attachment-based interventions on maternal sensitivity and infant attachment: Differential susceptibility of highly reactive infants. *Journal of Family Psychology*, 20(2), 266–274. <https://doi.org/10.1037/0893-3200.20.2.266>
- Klette, T., & Killén, K. (2019). Painful transitions: A study of 1-year-old toddlers' reactions to separation and reunion with their mothers after 1 month in childcare. *Early Child Development and Care*, 189(12), 1970–1977. <https://doi.org/10.1080/03004430.2018.1424150>
- Kolijn, L., Van den Bulk, B. G., Van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Huffmeijer, R. (2021). Does maternal inhibitory control mediate effects of a parenting intervention on maternal sensitive discipline? Evidence from a randomized-controlled trial. *Infant Mental Health Journal*, 42(6), 749–766. <https://doi.org/10.1002/imhj.21946>
- Kopp, C. B. (1989). Regulation of distress and negative emotions: A developmental view. *Developmental Psychology*, 25(3), 343–354. <https://doi.org/10.1037/0012-1649.25.3.343>
- Lacey, J. I. (1956). The evaluation of autonomic responses: Toward a general solution. *Annals of the New York Academy of Sciences*, 67(5), 123–163. <https://doi.org/10.1111/j.1749-6632.1956.tb46040.x>
- Laevers, F., Aerden, I., De Bruyckere, G., Moons, J., & Silkens, K. (2003). *Belevingsonderzoek bij het jonge kind in opvangsituaties buiten huis. Eindrapport*. Expertisecentrum Ervaringsgericht Onderzoek.
- Laurent, H. K., Harold, G. T., Leve, L., Shelton, K. H., & Van Goozen, S. H. M. (2016). Understanding the unfolding of stress regulation in infants. *Development and Psychopathology*, 28(4), 1431–1440. <https://doi.org/10.1017/S0954579416000171>
- Leerkes, E. M., Weaver, J. M., & O'Brien, M. (2012). Differentiating maternal sensitivity to infant distress and non-distress. *Parenting: Science and Practice*, 12(2-3), 175–184. <https://doi.org/10.1080/15295192.2012.683353>

- Levine, S. (1957). Infantile experience and resistance to physiological stress. *Science*, 126(3270), 405. <https://doi.org/10.1126/science.126.3270.405>
- Lisonbee, J. A., Mize, J., Payne, A. L., & Granger, D. A. (2008). Children's cortisol and the quality of teacher-child relationships at child care. *Child Development*, 79(6), 1818-1832. <https://doi.org/10.1111/j.1467-8624.2008.01228.x>
- Little, R. J. A., & Rubin, D. B. (1987) *Statistical analysis with missing data*. Wiley.
- Liu, D., Diorio, J., Tannenbaum, B., Caldji, C., Francis, D., Freedman, A., Sharma, S., Pearson, D., Plotsky, P. M., & Meaney, M. J. (1997). Maternal care hippocampal glucocorticoid receptors and hypothalamic-pituitary-adrenal responses to stress. *Science*, 277(5332), 1659-1662. <https://doi.org/10.1126/science.277.5332.1659>
- Luborsky, L., Barber, J. P., Siqueland, L., Johnson, S., Najavits, L. M., Frank, A., & Daley, D. (1996). The revised Helping Alliance questionnaire (HAq-II): Psychometric properties. *Journal of Psychotherapy Practice and Research*, 5(3), 260-271.
- Lumian, D. S., Dmitrieva, J., Mendoza, M. M., Badanes, L. S., & Watamura, S. E. (2016). The impact of program structure on cortisol patterning in children attending out-of-home child care. *Early Childhood Research Quarterly*, 34, 92-103. <https://doi.org/10.1016/j.ecresq.2015.09.004>
- Magnano, C. L., Diamond, E. J., & Gardner, J. M. (1989). Use of salivary cortisol measurements in young infants: A note of caution. *Child Development*, 60(5), 1099-1101. <https://doi.org/10.1111/j.1467-8624.1989.tb03541.x>
- Majdandžić, M., & Van den Boom, D. C. (2007). Multi-method longitudinal assessment of temperament in early childhood. *Journal of Personality*, 75(1), 121-167. <https://doi.org/10.1111/j.1467-6494.2006.00435.x>
- McEwen, B. S. (2000). Definition and concepts of stress (Vol. 3). In G. Fink (Ed.), *Encyclopedia of stress* (pp. 508-509). Academic Press.
- Mesman, J., Minter, T., & Angged, A. (2016). Received sensitivity: Adapting Ainsworth's scale to capture sensitivity in a multiple-caregiver context. *Attachment and Human Development*, 18(2), 101-114. <https://doi.org/10.1080/14616734.2015.1133681>
- Millward, L. J. (2006). The transition to motherhood in an organizational context: An interpretative phenomenological analysis. *Journal of Occupational and Organizational Psychology*, 79(3), 315-333. <https://doi.org/10.1348/096317906X110322>
- Murray, D. W., Rosanbalm, K. D., Christopoulos, C., & Hamoudi, A. (2015). *Self-regulation and toxic stress report 1: Foundations for understanding self-regulation from an applied perspective*. <https://www.acf.hhs.gov/opre/report/self-regulation-and-toxic-stress-foundations-understanding-self-regulation-applied>

## REFERENCES

- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network (2002). The interaction of child care and family risk in relation to child development at 24 and 36 months. *Applied Developmental Science*, 6(3), 144–156. [https://doi.org/10.1207/S1532480XADS0603\\_4](https://doi.org/10.1207/S1532480XADS0603_4)
- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network (2003). Does amount of time spent in child care predict socioemotional adjustment during the transition to kindergarten? *Child Development*, 74(4), 976-1005. <https://doi.org/10.1111/1467-8624.00582>
- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network (2005). *Child care and child development: Results from the NICHD study of early child care and youth development*. Guilford Press.
- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network (2006). *The NICHD study of early child care and youth development. Findings for children up to age 4.5 years*. [https://www.nichd.nih.gov/sites/default/files/publications/pubs/Documents/SECCYD\\_06.pdf](https://www.nichd.nih.gov/sites/default/files/publications/pubs/Documents/SECCYD_06.pdf)
- Nelson, J. A., O'Brien, M., Blankson, A. N., Calkins, S. D., & Keane, S. P. (2009). Family stress and parental responses to children's negative emotions: Tests of the spillover, crossover, and compensatory hypotheses. *Journal of Family Psychology*, 23(5), 671-679. <https://doi.org/10.1037/a0015977>
- Nystad, K., Drugli, M. B., Lydersen, S., Lekhal, R., & Buoen, E. S. (2021). Toddlers' stress during transition to childcare. *European Early Childhood Education Research Journal*, 29(2), 157-182. <https://doi.org/10.1080/1350293x.2021.1895269>
- O'Farrelly, C., & Hennessy, E. (2013). Considering the realities of salivary research with young children: What's spit all about? *International Journal of Social Research Methodology*, 16(4), 323–335. <https://doi.org/10.1080/13645579.2012.705640>
- Organization for Economic Cooperation and Development (2000). *Early childhood education and care policy in the Netherlands: Background report to the OECD-project 'Thematic review of early childhood education and care policy'*. Ministry of Health, Welfare, and Sport. <https://www.oecd.org/education/school/2476092.pdf>
- Organization for Economic Cooperation and Development (2021). *Enrolment in child-care and pre-school*. [https://www.oecd.org/els/soc/PF3\\_2\\_Enrolment\\_childcare\\_preschool.pdf](https://www.oecd.org/els/soc/PF3_2_Enrolment_childcare_preschool.pdf)
- Orgilés, M., Morales, A., Delvecchio, E., Mazzeschi, C., & Espada, J. P. (2020). Immediate psychological effects of the COVID-19 quarantine in youth from Italy and Spain. *Frontiers in Psychology*, 11, 1–10. <https://doi.org/10.3389/fpsyg.2020.579038>

- Östberg, M., & Hagekull, B. (2000). A structural modeling approach to the understanding of parental stress. *Journal of Clinical Child Psychology, 29*, 615–625. [https://doi.org/10.1207/S15374424JCCP2904\\_13](https://doi.org/10.1207/S15374424JCCP2904_13)
- Ouellet-Morin, I., Tremblay, R. E., Boivin, M., Meaney, M., Kramer, M., & Côté, S. M. (2010). Diurnal cortisol secretion at home and at child care: A prospective study of 2-year-old toddlers. *Journal of Child Psychology and Psychiatry, 51*(3), 295-303. <https://doi.org/10.1111/j.1469-7610.2009.02167.x>
- Park, K. J., & Choi, J. Y. (2009). *Children's cortisol levels at child care in South Korea* [Presentation]. SRCD, Denver, CO, United States.
- Peleg, O., Halaby, E., & Whaby, E. (2006). The relationship of maternal separation anxiety and differentiation of self to children's separation anxiety and adjustment to kindergarten: A study in Druze families. *Journal of Anxiety Disorders, 20*(8), 973-995. <https://doi.org/10.1016/j.janxdis.2006.01.008>
- Pluess, M., & Belsky, J. (2009). Differential susceptibility to rearing experience: The case of childcare. *Journal of Child Psychology and Psychiatry, 50*(4), 396-404. <https://doi.org/10.1111/j.1469-7610.2008.01992.x>
- Puhakka, I. J. A., & Peltola, M. J. (2020). Salivary cortisol reactivity to psychological stressors in infancy: A meta-analysis. *Psychoneuroendocrinology, 115*, 104603. <https://doi.org/10.1016/j.psyneuen.2020.104603>
- Putnam, S. P., Gartstein, M. A., & Rothbart, M. K. (2006). Measurement of fine-grained aspects of toddler temperament: The Early Childhood Behavior Questionnaire. *Infant Behavior & Development, 29*(3), 386-401. <https://doi.org/10.1016/j.infbeh.2006.01.004>
- Putnam, S. P., Helbig, A. L., Gartstein, M. A., Rothbart, M. K., & Leerkes, E. (2014). Development and assessment of short and very short forms of the Infant Behavior Questionnaire–Revised. *Journal of Personality Assessment, 96*(4), 445-458. <https://doi.org/10.1080/00223891.2013.841171>
- Putnam, S. P., & Rothbart, M. K. (2006). Development of short and very short forms of the Children's Behavior Questionnaire. *Journal of Personality Assessment, 87*(1), 102-112. [https://doi.org/10.1207/s15327752jpa8701\\_09](https://doi.org/10.1207/s15327752jpa8701_09)
- Rauh, H., Ziegenhain, U., Müller, B., & Wijnroks, L. (2000). Stability and change in infant-mother attachment in the second year of life: Relations to parenting quality and varying degrees of day-care experience. In M. P. Crittenden, & H. A. Claussen (Eds.), *The organization of attachment relationships: Maturation, culture, and context* (pp. 251–276). Cambridge University Press.

## REFERENCES

- Remmerswaal, D., & Muris, P. (2010). Children's fear reactions to the 2009 Swine Flu pandemic: The role of threat information as provided by parents. *Journal of Anxiety Disorders*, 25(3), 444-449. <https://doi.org/10.1016/j.janxdis.2010.11.008>
- Reunamo, J., Sajaniemi, N., Suhonen, E., & Kontu, E. (2012). Cortisol levels and children's orientation in day care. *Early Child Development and Care*, 182(3-4), 363-381. <https://doi.org/10.1080/03004430.2011.646727>
- Rijksoverheid (2019, June 7). *Kwartaalrapportage kinderopvang: Eerste kwartaal 2019*.
- Rijksoverheid (2021, December 17). *Cijfers kinderopvang derde kwartaal 2021*. <https://www.rijksoverheid.nl/documenten/publicaties/2021/12/17/cijfers-kinderopvang-derde-kwartaal-2021>
- Rijksoverheid (n.d.) *Kwaliteit kinderopvang*. <https://www.rijksoverheid.nl/onderwerpen/kinderopvang/kwaliteitseisen-kinderopvang-en-peuterspeelzalen>
- Riksen-Walraven, M. (2000). *Tijd voor kwaliteit in de kinderopvang*. Vossiuspers AUP.
- Roisman, G. I., Susman, E., Barnett-Walker, K., Booth-Laforce, C., Owen, M. T., Belsky, J., Bradley, R. H., Houts, R., & Steinberg, L. (2009). Early family and child-care antecedents of awakening cortisol levels in adolescence. *Child Development*, 80(3), 907-920. <https://doi.org/10.1111/j.1467-8624.2009.01305.x>
- Rosenthal, R. (1979). The file drawer problem and tolerance for null results. *Psychological Bulletin*, 86(3), 638-64. <https://doi.org/10.1037/0033-2909.86.3.638>
- Rothbart, M. (2013). *Mary Rothbart's Temperament Questionnaires*. <https://research.bowdoin.edu/rothbart-temperament-questionnaires/>
- Russell, B. S., Hutchison, M., Tambling, R., Tomkunas, A. J., & Horton, A. L. (2020). Initial challenges of caregiving during COVID-19: Caregiver burden, mental health, and the parent-child relationship. *Child Psychiatry and Human Development*, 51(5), 671-682. <https://doi.org/10.1007/s10578-020-01037-x>
- Sajaniemi, N., Suhonen, E., Kontu, E., Rantanen, P., Lindholm, H., Hyttinen, S., & Hirvonen, A. (2011). Children's cortisol changes and the quality of the early learning environment. *European Early Childhood Education Research Journal*, 19(1), 45-62. <https://doi.org/10.1080/1350293x.2011.548938>
- Salimetrics (2021a). *SalivaBio Infant's Swab (SIS) Saliva Collection Device*. <https://salimetrics.com/collection-method/infant-swab-device/>
- Salimetrics (2021b). *Salivary Cortisol ELISA Kit*. <https://salimetrics.com/assay-kit/salivary-cortisol-elisa-kit/>
- Schaffer, H. R., & Emerson, P. E. (1964). The development of social attachments in infancy. *Monographs of the Society for Research in Child Development*, 29(94), 1-77. <https://doi.org/10.2307/1165727>

- Sippell, W. G., Becker, H., Versmold, H. T., Bidlingmaier, F., & Knorr, D. (1978). Longitudinal studies of plasma aldosterone, corticosterone, deoxycosterone, progesterone 17-hydroxyprogesterone, cortisol, and cortisone determined simultaneously in mother and child at birth and during the early neonatal period. I. Spontaneous delivery. *Journal of Clinical Endocrinology and Metabolism*, 46(6), 971-985. <https://doi.org/10.1210/jcem-46-6-971>
- Slot, P., Jepma, I., Muller, P., Romijn, B., Bekkering, C., & Leseman, P. (2019). *Ontwikkelingen in de kwaliteit van de Nederlandse kinderdagopvang, peuteropvang, buitenschoolse opvang en gastouderopvang: Gecombineerde metingen 2017-2019*. Universiteit Utrecht/Sardes.
- Slot, P., Jepma, I., Muller, P., Romijn, B., Bekkering, C., & Leseman, P. (2020). *Kwaliteit van de babyopvang in Nederland: Gecombineerde metingen 2017-2019*. Universiteit Utrecht/Sardes.
- Spangler, G., & Schieche, M. (1998). Emotional and adrenocortical responses of infants to the Strange Situation: The differential function of emotional expression. *International Journal of Behavioral Development*, 22(4), 681-706. <https://doi.org/10.1080/016502598384126>
- Spangler, G., Schieche, M., Ilg, U., Maier, U., & Ackerman, C. (1994). Maternal sensitivity as an external organizer for biobehavioral regulation in infancy. *Developmental Psychobiology*, 27(7), 425-437. <https://doi.org/10.1002/dev.420270702>
- Spiteri, G., & Xuereb, R. B. (2012). Going back to work after childbirth: Women's lived experiences. *Journal of Reproductive and Infant Psychology*, 30(2), 201-216. <https://doi.org/10.1080/02646838.2012.693153>
- Sonia, J. L., Bruce, S. M., Megan, R. G., & Christine, H. (2009). Effects of stress throughout the lifespan on the brain, behaviour, and cognition. *Nature Reviews Neuroscience*, 10(6), 434. <https://doi.org/10.1038/nrn2639>
- Stone, L. L., Otten, R., Soenens, B., Engels, R. C. M. E., & Janssens, J. M. A. M. (2015). Relations between parental and child separation anxiety: The role of dependency-oriented psychological control. *Journal of Child and Family Studies*, 24(11), 3192-3199. <https://doi.org/10.1007/s10826-015-0122-x>
- Suhonen, E., Sajaniemi, N. K., Alijoki, A., & Nislin, M. A. (2018). Children's biological givens, stress responses, language, and cognitive abilities and family background after entering kindergarten in toddlerhood. *Early Child Development and Care*, 188(3), 345-358. <https://doi.org/10.1080/03004430.2016.1218157>
- Sumner, M. M. (2009). *Full-day patterns of cortisol production among toddlers at child care* [Doctoral dissertation]. ProQuest.



## REFERENCES

- Sumner, M. M., Bernard, K., & Dozier, M. (2010). Young children's full-day patterns of cortisol production on child care days. *Archives of Pediatrics & Adolescent Medicine*, *164*(6), 567-571. <https://doi.org/10.1001/archpediatrics.2010.85>
- Swartz, R. A., Speirs, K. E., Encinger, A. J., & McElwain, N. L. (2016). A mixed methods investigation of maternal perspectives on transition experiences in early care and education. *Early Education and Development*, *27*(2), 170-189. <https://doi.org/10.1080/10409289.2016.1087777>
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Pearson.
- Tan, W., Hao, F., McIntyre, R. S., Jiang, L., Jiang, X., Zhang, L., Zhao, X., Zou, Y., Hu, Y., Luo, X., Zhang, Z., Lai, A., Ho, R., Tran, B., Ho, C., & Tam, W. (2020). Is returning to work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. *Brain, Behavior, and Immunity*, *87*, 84-92. <https://doi.org/10.1016/j.bbi.2020.04.055>
- Tervahartiala, K., Karlsson, L., Pelto, J., Kortessluoma, S., Hyttinen, S., Ahtola, A., Junttila, N., & Karlsson, H. (2019). Toddlers' diurnal cortisol levels affected by out-of-home, center-based childcare and at-home, guardian-supervised childcare: Comparison between different caregiving contexts. *European Child & Adolescent Psychiatry*, *29*(9), 1217-1229. <https://doi.org/10.1007/s00787-019-01432-3>
- Tollenaar, M. S., Jansen, J., Beijers, R., Riksen-Walraven, J. M., & De Weerth, C. (2010). Cortisol in the first year of life: Normative values and intra-individual variability. *Early Human Development*, *86*(1), 13-16. <https://doi.org/10.1016/j.earlhumdev.2009.12.003>
- Tout, K., De Haan, M., Campbell, E. K., & Gunnar, M. R. (1998). Social behavior correlates of cortisol activity at child care: Gender differences and time-of-day effects. *Child Development*, *69*(5), 1247-1262. <https://doi.org/10.2307/1132263>
- Tryphonopoulos, P. D., Letourneau, N., & Azar, R. (2014). Approaches to salivary cortisol collection and analysis in infants. *Biological Research for Nursing*, *16*(4), 398-408. <https://doi.org/10.1177/1099800413507128>
- UNICEF (2008). *The child care transition*. [https://www.unicef.org/publications/pdf/rc8\\_eng.pdf](https://www.unicef.org/publications/pdf/rc8_eng.pdf)
- Vaillancourt, T., Brittain, H., Haltigan, J. D., Ostrov, J. M., & Muir, C. (2018). Cortisol moderates the relation between physical peer victimization and physical aggression in preschoolers attending high-quality child care: Evidence of differential susceptibility across informants. *Journal of Developmental Psychology*, *64*(1), 101-134. <https://doi.org/10.13110/merrpalmquar1982.64.1.0101>

- Van Ginkel, J. R. (2019). Significance tests and estimates for  $R(2)$  for multiple regression in multiply imputed datasets: A cautionary note on earlier findings and alternative solutions. *Multivariate Behavioral Research*, *54*(4), 514–529. <https://doi.org/10.1080/00273171.2018.1540967>
- Van Ginkel, J. R. (2020). Standardized regression coefficients and newly proposed estimators for  $R^2$  in multiply imputed data. *Psychometrika*, *85*(1), 185-205. <https://doi.org/10.1007/s11336-020-09696-4>
- Van Zeijl, J., Mesman, J., Van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Juffer, F., Stolk, M. N., Koot, H. M., & Alink, L. R. (2006). Attachment-based intervention for enhancing sensitive discipline in mothers of 1- to 3-year-old children at risk for externalizing behavior problems: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *74*(6), 994-1005. <https://doi.org/10.1037/0022-006X.74.6.994>
- Vermeer, H. J., & Groeneveld, M. G. (2017a). Children's physiological responses to childcare. *Current Opinion in Psychology*, *15*, 201-206. <https://doi.org/10.1016/j.copsyc.2017.03.006>
- Vermeer, H. J., & Groeneveld, M. G. (2017b). Kwaliteit van babyopvang: Een literatuurstudie. In R. Fukkink (Ed.), *De Nederlandse kinderopvang in wetenschappelijk perspectief* (pp. 39-86). SWP.
- Vermeer, H. J., Groeneveld, M. G., Larrea, I., Van IJzendoorn, M. H., Barandiaran, A., & Linting, M. (2010). Child care quality and children's cortisol in Basque country and the Netherlands. *Journal of Applied Developmental Psychology*, *31*(4), 339-347. <https://doi.org/10.1016/j.appdev.2010.05.001>
- Vermeer, H. J., & Van IJzendoorn, M. H. (2006). Children's elevated cortisol levels at daycare: A review and meta-analysis. *Early Childhood Research Quarterly*, *21*(3), 390-401. <https://doi.org/10.1016/j.ecresq.2006.07.004>
- Vrijhof C. I., De Vet, S. M., Van der Veek, S. M. C., Van Bakel, H. J. A., & Vermeer, H. J. (2020). *Eerste resultaten van het onderzoek Terug naar de opvang: Kinderopvang in tijden van corona*. Leiden University. <https://www.universiteitleiden.nl/binaries/content/assets/sociale-wetenschappen/pedagogische-wetenschappen/rapporten/rapportage-eerste-resultaten-kinderopvang-in-tijden-van-corona.pdf>
- Vrijhof, C. I., De Vet, S. M., Van der Veek, S. M. C., Van Bakel, H. J. A., & Vermeer, H. J. (2022). Exploring the relation between maternal separation anxiety and infant well-being around the start in center-based child care. *Manuscript submitted for publication*.
- Vrijhof, C. I., De Vet, S. M., Van der Veek, S. M. C., & Vermeer, H. J. (2019). *Handleiding VIPP-TICC: Video-feedback Intervention to promote Positive Parenting - Transition to Infant Child Care*. Leiden University.

## REFERENCES

- Watamura, S. E., Coe, C. L., Laudenslager, M. L., & Robertson, S. S. (2010). Child care setting affects salivary cortisol and antibody secretion in young children. *Psychoneuroendocrinology*, 35(8), 1156-1166. <https://doi.org/10.1016/j.psyneuen.2010.02.001>
- Watamura, S. E., Donzella, B., Alwin, J., & Gunnar, M. R. (2003). Morning-to-afternoon increases in cortisol concentrations for infants and toddlers at child care: Age differences and behavioral correlates. *Child Development*, 74(4), 1006-1020. <https://doi.org/10.1111/1467-8624.00583>
- Watamura, S. E., Kryzer, E. M., & Robertson, S. S. (2009). Cortisol changes at home and child care: Afternoon differences and evening recovery in children attending very high quality full-day center-based child care. *Journal of Applied Developmental Psychology*, 30(4), 475-485. <https://doi.org/10.1016/j.appdev.2008.12.027>
- Watamura, S. E., Sebanc, A. M., & Gunnar, M. R. (2002). Rising cortisol at childcare: Relations with nap, rest, and temperament. *Developmental Psychobiology*, 40(1), 33-42. <https://doi.org/10.1002/dev.10011>
- Waters, E., & Deane, K. E. (1985). Defining and assessing individual differences in attachment relationships: Q-methodology and the organization of behavior in infancy and early childhood. *Monographs of the Society for Research in Child Development*, 50(1-2), 41-65. <https://doi.org/https://doi.org/10.2307/3333826>
- Waters, S. F., West, T. V., & Mendes, W. B. (2014). Stress contagion: Physiological covariation between mothers and infants. *Psychological Science*, 25(4), 934-942. <https://doi.org/10.1177/0956797613518352>
- Werner, C. D., Vermeer, H. J., Linting, M., & Van IJzendoorn, M. H. (2018). Video-feedback intervention in center-based child care: A randomized controlled trial. *Early Childhood Research Quarterly*, 42, 93-104. <https://doi.org/10.1016/j.ecresq.2017.07.005>
- Wilson, A. C., Lengua, L. J., Meltzoff, A. N., & Smith, K. A. (2010). Parenting and temperament prior to September 11, 2001, and parenting specific to 9/11 as predictors of children's posttraumatic stress symptoms following 9/11. *Journal of Clinical Child & Adolescent Psychology*, 39(4), 445-459. <https://doi.org/10.1080/15374416.2010.486317>