

# Custody Form and Children's Sleep Habits

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## BACKGROUND

As in many other countries experiencing a parental union disruption is common for children in Sweden. Recent research showed that 28 percent of Swedish children have experienced a parental union disruption before age 15 (Andersson et al. 2016). Of the children whose parents divorced or separated 72 percent were in a shared legal custody arrangement (Statistics Sweden 2013a), which is the legal default option after a divorce or non-marital parental separation. Shared legal custody means that both parents have the right to decide in matters regarding the child, like example school-choice etc. While the parental separation rate has stabilized since the change of the millennium (Statistics Sweden 2013b) shared legal custody has increased (Statistics Sweden 2013a) as has shared physical custody (Statistics Sweden 2014). Shared physical custody means that in additions to having equal rights and obligations in decisions regarding the child, he or she also lives roughly equal time with both parents alternating between two households. Shared physical custody has increased from one percent of children with separated parents in the 1980's to 35 percent in 2013 (Statistics Sweden 2014).

Recent research has shown shared physical custody to be positively correlated to different aspects of children's wellbeing (for summaries see for example Nielsen 2011; 2013; 2018). It is however less clear how this correlation is mediated. One important mediating factor may be sleep habits. Adolescents of today sleep less than they did as children and less than the adolescents before them did, with the average teenager sleeping 75min less per night than teenagers 100 years ago (Leger et al, 2012; Matricciani et al., 2012). Changes in sleep habits

are concerning, as insufficient sleep in Adolescence is associated with immediate as well as long-term adverse consequences for mental and somatic health (see Owens et al., 2014 for a summary). For example, experimentally induced sleep deprivation during a week for 14–17 year olds (6.5h per night) was associated with subjectively more negative emotions and poorer ability to regulate emotions according to family members (Baum et al., 2014).

Regarding long-term consequences, teenagers with sleep problems were more likely to report internalising problems such as depression, anxiety or somatic symptoms later on (Roberts & Duong, 2014; Touchette et al., 2012).

Shared physical custody, with a child living in two parental households, may create instability that result in sleep problems. The child may have to adjust to two different parenting regimes with different demands and expectations for bed-time, rise time etc. Whereas children living equal time in two households have been show to fare better on a range of outcomes than those only living with one parent, the children who live with both parents but not eqally may experience a greater instability.

## **Aim**

The aim of this study is to analyse a potential link between children's sleep habits including bed times, sleep duration and sleep onset difficulties, and custody form. Children living in original two-parent families will be compared to those with separated parents living in equal shared custody, in a single parent household or a custody form with some, but not equal, time sharing.

## **Data**

Data was obtained from the Swedish national sample of Health Behaviours in School-aged Children (HBSC) survey from the data collections in 2013/2014. HBSC is a World Health Organization collaborative cross-national survey in schools; self-report questionnaires are administrated in classrooms. Parents receive written information about the study and are instructed to inform their children's teachers if they do not want their children to participate. A standard protocol is followed to ensure nationally representative samples for ages 11, 13 and 15. The response rate was 69.4% (n = 7867) (Löfstedt et al. 2014).

## Measures

### *Dependent variables*

We investigate children's sleep habits by analysing five different aspects of it; bedtime, rise time, sleep duration, the difference between schooldays and weekends and sleep onset difficulties.

Bedtime was measured with the following item: 'At what time do you usually go to bed when you are going to school the morning after?' Responses were reported as follows: 'Around 9 pm or earlier', 'Around 9.30 pm', 'Around 10 pm', 'Around 10.30 pm' and 'Around 11 pm or later'. Rise time was measured with the following item: 'At what time do you usually get up when you are going to school?' Responses were reported as follows: 'Around 6 am or earlier', 'Around 6.30 am or earlier', 'Around 7 am', 'Around 7.30 am', and 'Around 8 am or later'.

Sleep duration was calculated by estimating the time between bedtime and rise time. Less than seven hours is 'not recommended' for ages 6–17. For this reason the variable was dichotomised where sleep duration of less than seven hours was considered 'insufficient sleep' and coded 1 whereas a duration of seven hours or more was coded 0.

The difference in sleep duration between school nights and weekends is an important indicator of sleep disturbances. Sleeping-in on a weekend to make up for lost sleep time during the week result in a delayed circadian rhythm and a decline in mood and cognitive functioning (Taylor et al. 2008). The measure is calculated by using bedtime and rise time for school nights and weekends respectively. It is dichotomized at "sleeping-in 3 hours or more" as this cut-off has been shown to be related to sleep onset difficulties and significantly greater daytime fatigue and sleepiness (Taylor et al. 2008).

Sleep onset difficulties were measured with an item from the HBSC Symptom Check List (HBSC-SCL): 'How often have you had the following symptoms during the past 6 months? Difficulties falling asleep'. Responses were reported on a 5-point Likert scale as follows: 1 = 'Almost daily'; 2 = 'More than once per week'; 3 = 'About once per week'; 4 = 'About once per month'; and 5 = 'Seldom or never'. Sleep onset difficulties several times per week are considered a clinically relevant symptom of insomnia (American Psychiatric Association 2013), thus 'More than once per week' and 'Almost daily' were operationalised as having sleep onset difficulties whereas less frequent problems were considered as not having sleep onset difficulties.

### *Independent variable*

The measure for the child's living arrangement is based of four questions: 1. Whom the child lives with in his or her primary household (mother, father, other), 2. Whether the child also lives in a secondary household, if so; 3. How frequently the child lives in the secondary household and 4. With whom does the child live in the secondary household? Using this information we constructed a measure with seven categories: In a two-parent family the child lives with both his or her parents in the same household, in a single mother family the child lives with the mother only, in a single father family the child lives with the father only, in a 50/50 shared custody arrangement the child lives equal time with both the mother and the father in two separate households. The child can also report living regularly in two separate parental households but sharing less than equally, living in one of the parental households "rarely" or "almost never".

### *Controls*

The multivariate analysis controls for the child's sex, age (11, 13 or 15), whether it lives with siblings or with a stepparent in either home, immigrant background (born in Sweden or not), and for perceived family affluence. Perceived family affluence is measured using the Perceived Family Affluence Scale, a four-item measure of family wealth, developed in the HBSC study (Boyce et al. 2005). The children where asked "Does your family own a car?; Do you have your own bedroom for yourself?; During the past 12 months, how many times did you travel away on holiday with your family?; How many computers does your family own?".

### **Analysis**

*Bedtime* and *rise time* are analysed by ordinary least squares regression and the binary variables *Sleep duration <7 hours*, *Sleeping in on weekends* and *Sleep onset difficulties* are analysed by logistic regression.

### **Preliminary findings**

The final conference presentation will have results from all analyses described above. Here we present our first findings from the logistic regression analysis of children's likelihood of sleeping less than 7 hours per night.

Table 1 presents the results from the multivariate logistic regression of likelihood of sleeping less than 7 hours. We can see that the sleeping habits of children living regularly with both

parents do not differ from those living in an original two-parent family. Those living with a single parent have significantly higher likelihood of sleeping less than the recommended seven hours as do those who do have some residential sharing but not regularly.

Table 1. Logistic regression. Sleeping less than 7 hours/night.

	OR	Std. Err.	95% Conf. interval	
<b>Living arrangement</b>				
Both parents (ref.)	1			
Single mother	1.43*	0.26	1.01	2.04
Single father	2.10*	0.74	1.05	4.20
Shared; 50/50	1.36	0.25	0.96	1.94
Shared; regularly <50	0.70	0.23	0.36	1.35
Shared: rarely	2.49***	0.52	1.66	3.74
Shared; almost never	2.16***	0.44	1.45	3.21
<b>Child's age</b>				
11	0.20***	0.04	0.13	0.29
13 (ref.)	1			
15	2.39***	0.26	1.94	2.96
<b>Child's sex</b>				
Boy (ref.)	1			
Girl	1.16	0.11	0.96	1.40
<b>Family affluence</b>				
Low	1.84	0.64	0.93	3.65
Medium (ref.)	1			
High	1.00	0.12	0.79	1.27
<b>Born in Sweden</b>				
Yes (ref.)	1		1.43	2.46
No	1.87***	0.26		
<b>Stepfamily</b>				
Yes	1.12	0.17	0.83	1.52
No (ref.)	1			
<b>Siblings</b>				
Yes	0.87	0.13	0.64	1.17
No (ref.)	1			
<b>Constant</b>	0.06***	0.01	0.04	0.08
<b>N</b>	6926			

Note: \* p<0.05; \*\* p<0.01; \*\*\* p<0.001.

Source: Swedish Health Behavior in School-Aged Children (HBSC) 2013/14

## References

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders*. 5th ed. Washington, VA: American Psychiatric Association Publishing.

Andersson, G., Thomson, E. & Duntava, A. (2016). Life-table Representations of Family Dynamics in the 21st Century. Stockholm Research Reports in Demography 2016:12.

- Baum, K.T., Desai, A., Field, J., Miller, L.E., Rausch, J., Beebe, D.W. (2014). Sleep restriction worsens mood and emotion regulation in adolescents. *Journal of Child Psychology and Psychiatry* 55 (2), 180–190
- Boyce, W. et al. (2005). The Family Affluence Scale as a Measure of Wealth: Validation of an Adolescent Self-report Measure. *Social Indicators Research*, 78: 473–487
- Leger, D., Beck, F., Richard, J.-B., Godeau, E. (2012). Total sleep time severely drops during adolescence. *PLoS One* 7 (10)
- Löfstedt P, Corell M, Telander J, et al. (2014) *Skolbarns hälsovanor i Sverige 2013/14*. Folkhälsomyndigheten, Sweden.
- Matricciani, L.A., Olds, T.S., Petkov, J. (2012). In search of lost sleep: Secular trends in the sleep time of school-aged children and adolescents. *Sleep Medicine Reviews* 16 (3), 203–211
- Nielsen, L. (2011). Shared Parenting After Divorce: A Review of Shared Residential Parenting Research, *Journal of Divorce & Remarriage*, 52: 586-609
- Nielsen, L. (2013). Shared Residential Custody: Review of the Research (Part II of II). *American Journal of Family Law* 27:123-137
- Nielsen, L. (2018). Joint versus sole physical custody: Outcomes for children independent of family income or parental conflict, *Journal of Child Custody*, DOI: 10.1080/15379418.2017.1422414
- Owens, J., Au, R., Carskadon, M., Millman, R., et al. (2014). Insufficient sleep in adolescents and young adults: An update on causes and consequences. *Pediatrics* 134 (30)
- Roberts, R.E., Duong, H.T. (2014). The prospective association between sleep deprivation and depression among adolescents. *Sleep* 37 (2), 239–244
- Statistics Sweden. (2013a). *50000 barn är med om en separation varje år*. Nr 2013:1. Stockholm, Statistics Sweden. Retrieved from: [http://www.scb.se/sv\\_/Hitta-statistik/Artiklar/50-000-barn-ar-med-om-en-separation-varje-ar/](http://www.scb.se/sv_/Hitta-statistik/Artiklar/50-000-barn-ar-med-om-en-separation-varje-ar/)
- Statistics Sweden. (2013b). *Barn, föräldrar och separationer. Utvecklingen under 2000-talet*. Demografiska rapporter 2013:1. Stockholm, Statistics Sweden.
- Statistics Sweden. (2014). *Olika familjer lever på olika sätt – om barns boende och försörjning efter en separation*. Demografiska rapporter 2014:1. Stockholm, Statistics Sweden.
- Taylor, A., Wright H. & Lack, L. et al. (2008). Sleeping-in on the weekend delays circadian phase and increases sleepiness the following week. *Sleep and Biological Rhythms*, 6(3): 172-179.
- Touchette, E., Cholle, A., Galéra, C., et al. (2012). Prior sleep problems predict internalising problems later in life. *Journal of Affective Disorders* 143 (1), 166–171.