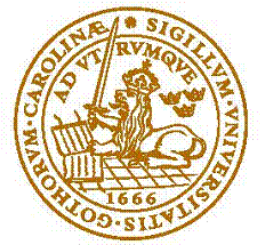




Kristianstad
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UNIVERSITY

Sleep and Media Habits in School-age Children

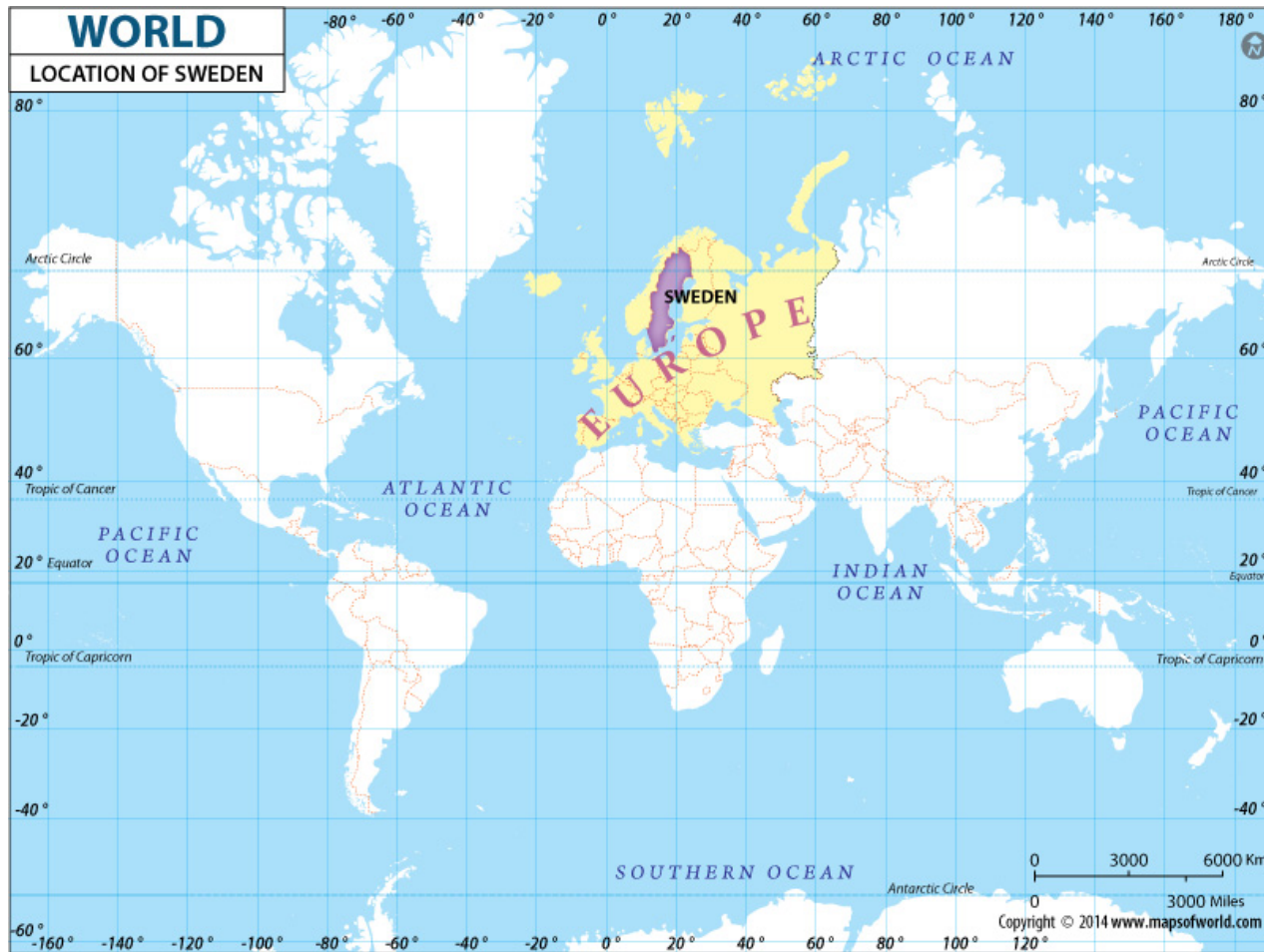
Pernilla Garmy,

School Nurse, PhD student

San Francisco, August 11, 2015

Sweden:

a country in Europe with 9 million inhabitants



Sleep habits in schoolchildren

1. How do they sleep?
2. How should they sleep?
3. Should we do something about it?





Sleep length of schoolchildren in Lund

- 6-7 y: 10 h (20:00)
- 10y: 9½ h (21:00)
- 14y: 8 h (22:30)
- 16y: 7½ h (23:00)

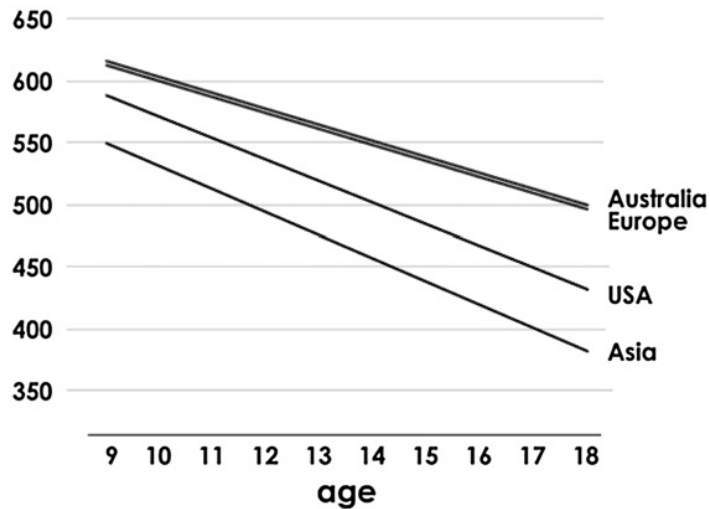
- n=3011

- Garmy P, Nyberg P, Jakobsson U. Sleep and Television and Computer Habits of Swedish School-Age Children *The Journal of School Nursing*, 2012 Dec;28(6): 469-76

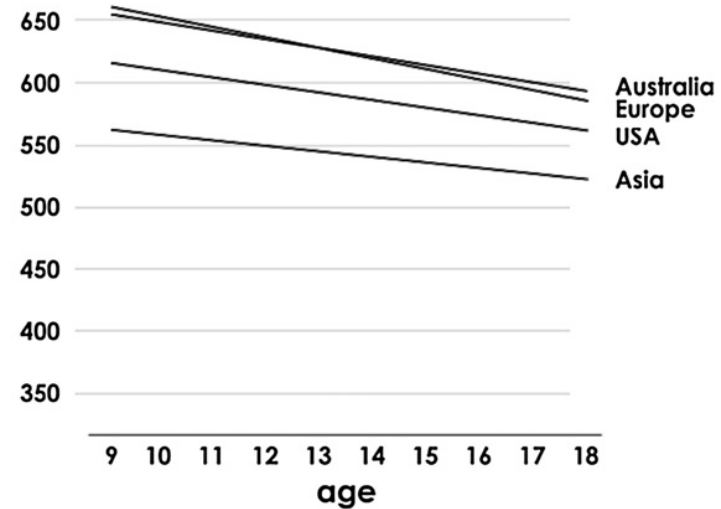


International diversity

school day sleep duration (min)



non-school day sleep duration (min)



10 h = 600 min; 9 h = 540 min; 8 h = 480 min; 7 h = 420 min; 6 h = 360 min

Olds et al. (2010) The relationships between sex, age, geography and time in bed in adolescents: A meta-analysis of data from 23 countries. Sleep Medicine Reviews



Declining sleep length?

- 30-40 min shorter sleep compared with 50 years earlier Klackenberg (1982)
- 1 h shorter sleep / 100 years
Matricciani et al. 2012



What has happened?

- Later bedtimes
- Unchanged waking-up times



24/7 – night-time on earth



National Geographic







How much sleep do they need?

- Schoolchildren 6-12 y: 10-11 h
- Adolescents 13-18 y: 9 h

Sömnstörningar hos barn – kunskapsdokument.
Information från läkemedelsverket 2: 2015



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Short sleep length is associated with

- Bedroom TV
- TV time more than 2 h
- Computer time more than 2 h
- Sleep problems
- Being tired at school
- Difficulties waking up
- Less enjoyment in school

- Garmy P, Nyberg P, Jakobsson U. Sleep and Television and Computer Habits of Swedish School-Age Children
Journal of School Nursing, 2012 Dec;28(6): 469-76



Short term sleep deprivation influences

- Short-term memory
- Problem-solving skills
- Concentration ability
- Stress sensitivity
- Alcohol sensitivity

Kryger et al. 2011 Principles and Practice of Sleep Medicine



Long-term sleep deprivation influences

- Stress hormones
- Insulin resistance
- Regulation of leptin / ghrelin (hunger/ satiety)
- Immune system
- Learning ability
- Risk of overweight, cardiovascular diseases, and diabetes



Mental health

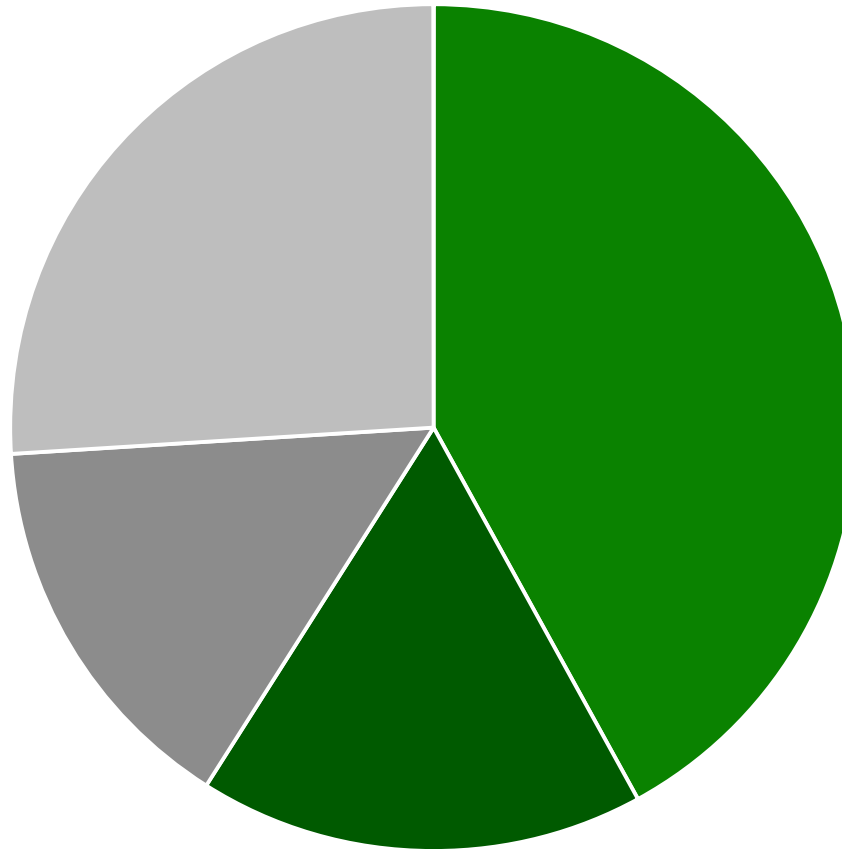
- Sleep deprivation in childhood and adolescence increases the risk for mental disorders in adults (Smedje 2008)
- Disturbed sleep is present in almost all mental disorders (Mallon 2009)



Snoring

- Schoolchildren should not snore!

Sending or receiving SMS at night



■ Never 42% ■ Sometimes a year 17% ■ Sometimes a month 15% ■ Every week 26%

n=286

Garmy (2015). Survey among adolescents 16 years (1st year at secondary school). Unpublished data



Irregular wake times

- Rising time weekends: 10:00
- Rising time school days: 6:30

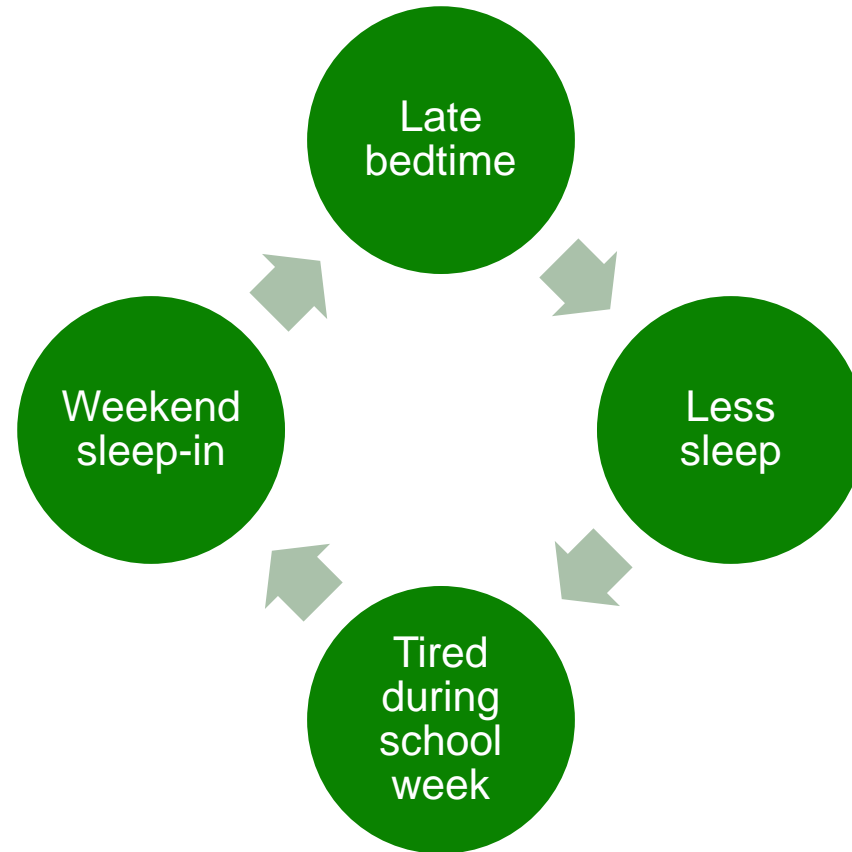
... 3½ h discrepancy ...

n=204, 16y

Garmy (2014) Sleep, television, texting and computer habits and overweightness in schoolchildren and adolescents. Chapter in Psychology of Habits



Social jet lag



- Adolescent sleep misalignment and chronic jet lag: a matter of public health (Touitou 2013)



Social jet lag symptoms

- Indigestion
- Sluggishness
- Struggling to wake up and/or fall asleep
- Feeling sleepy during the day
- Loss of appetite
- Difficulties concentrating
- Clumsiness
- Feeling generally unwell



General advice

- Outdoor 1h a day
- Regular waking-up times (school day and weekends – breakfast at 9 am on weekends!)
- Go to bed before 10 p.m.
- Avoid screentime before bedtime

Finally...

- Ask about sleep and nightmares!
- Be optimistic!
- Have patience!

Thanks for your attention
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