Why Can't (won't) my child Sleep

GP CME Christchurch 2010

Overview

Babies/toddlers

Pre-schoolers

Pre-adolescents (1˚ school)

Adolescents

Overview

- "Normal" developmental changes in children's sleep architecture

- Evaluation of sleep in Children. B.E.A.R.S

- Common sleep problems.

- Treatments

Baby / Infant

0 – 3/12 (The fourth trimester)

- Baby rules
- 16-20hrs sleep
- Sleep/wake cycle dependent on hunger/comfort
- Encourage light/dark exposure.
- Active vs Quiet sleep (50%REM as a baby)

3/12 – 1yr

- 9-12hrs at night. 4 - 1 naps of 2 – 4.5hrs
- Total of 14-15hrs at 4/12, and 13-14hrs at 6/12
- Development of 4 stages of NREM at 4/12
- Enter sleep through NREM
- 70% - 80% sleep through the night by 9/12
- Sleep cycle of ~ 50mins

Toddler /Preschooler

1yr - 3yrs

- Approximately 12hrs total.
- Average reduction of naps from 2 to 1 at 18/12.
- Average move from cot to bed at 2yrs.
- Reduced length of REM

3yrs – 5yrs

- Napping in the day stops at around 4yrs (keep going as long as possible)
- Total of 11 -12 hrs overnight.
- REM continues to decline
- NREM increases
- 90 minute sleep cycles (same as adults)

Primary school / Adolescent

5yrs- 11yrs

- Approximately 10 – 11hrs sleep.
- Discrepancy between school nights and non-school nights
- High levels of Melatonin at night.
- Excellent ‘sleep efficiency’
- Less daytime sleepiness

>11yrs

- Ideal sleep time 9hrs, actual average ~ 7hrs
- Irregular sleep schedule.
- Circadian phase delay with onset of puberty
- NREM declines; REM at adult levels of ~25% sleep

B. E. A. R. S

A simple Paediatric Assessment

Objective

To assess the effectiveness of a simple 5-item paediatric sleep screening instrument for primary care.

Judith Owens & Victoria Dalzell 2004

B.E.A.R.S.

B -- Bedtime problems

E -- Excessive Daytime Sleepiness

A -- Awakenings during the night

R -- Regularity & Duration of sleep

S -- Snoring

B.E.A.R.S.

B Bedtime problems

Baby and infant: (6/12 – 2yrs)

Do you think that your child has a sleeping problem? (p)

Does their sleep problem impact on your sleep? (p)

Toddlers/Pre-school: (2-5yrs)

Does your child have problems going to bed and/or falling asleep? (p)

B.E.A.R.S.

B Bedtime problems

School age: (6-12yrs)

Does your child have problems at bedtime? (p)

Do you have problems going to bed? (c)

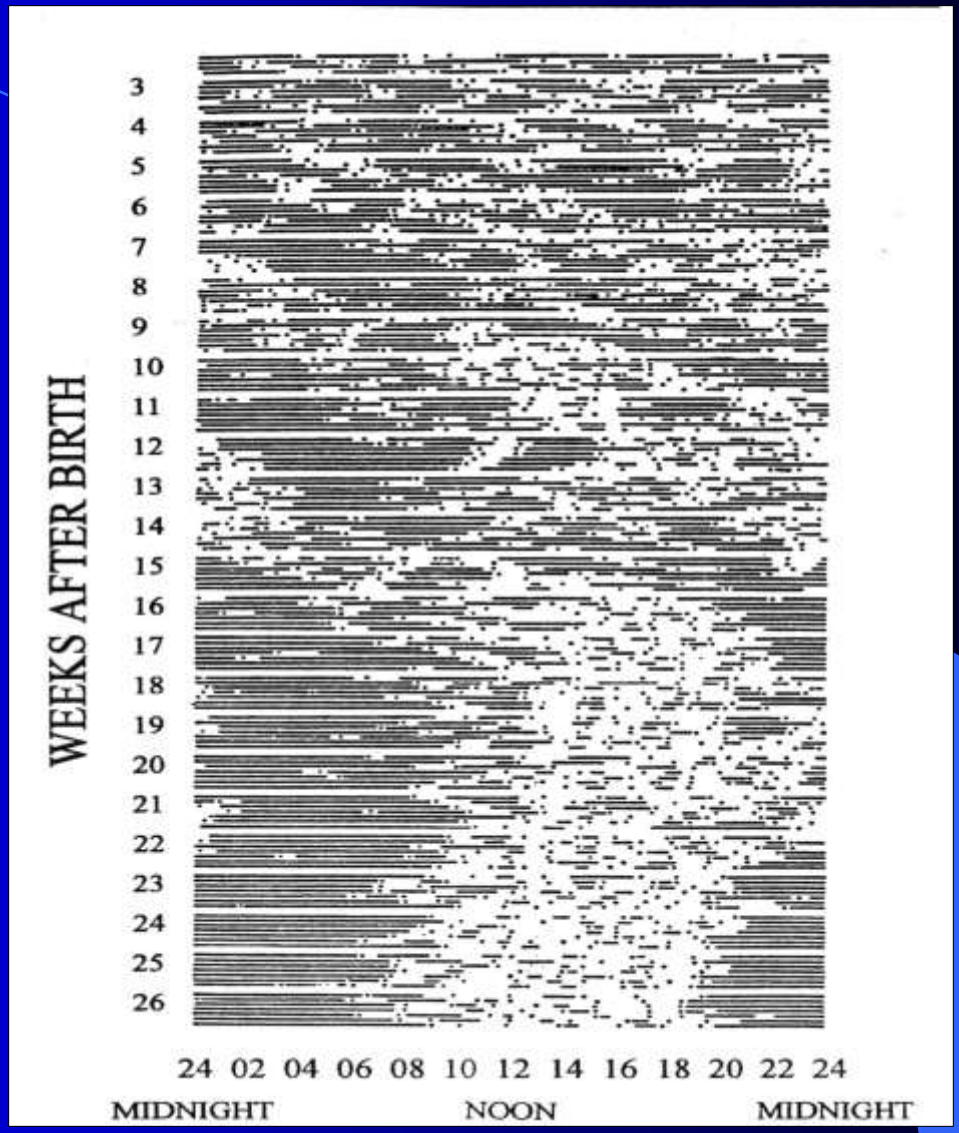
Adolescent: (13-18yrs)

Do you have problems going to bed? (c)

Do you have problems going to sleep? (c)

Consolidation of sleep-wakefulness rhythm in an infant: black lines indicate sleep, dots indicate feeding, and white patches indicate wakefulness.

From the jacket of N. Kleitman's *Sleep and Wakefulness,* 2d ed. (Chicago: University of Chicago ress,1963).



B.E.A.R.S.

B Bedtime

- Limit setting problem.
- Bedtime stalling.
- Bedtime refusal
- Method of settling the child.

B.E.A.R.S.

B Bedtime

- Routine
- Bedtime.

. Needs to be appropriate for the child. ?earlier, ?later

Observe “tired behaviours”.

. Swaddling is helpful for babies

. A baby/toddler does not know the time. You decide.

. Pre-bedtime routine. Bath/quiet time/stories/light out.

. Cool (not cold), dark (dim), constant background noise.

. Be careful of “encores”.

. Be firm, and consistent

B.E.A.R.S.

B Bedtime

Active responses

1. Extinction “Crying it out”.
   - Not before 6/12
   - More rapid, (and therefore effective) 6-12/12
   - Usually 3 – 4 nights only
   - Emotionally draining
   - Watch for “post-extinction burst”
   - Ensure: safety, wellness, support, and timing.

B.E.A.R.S.

B Bedtime

2. Graduated Extinction (Ferber Method)
   - Leave for 2 minutes, and return to reassure
   - Then 5 minutes, 10 minutes, 15 minutes, and keep returning every15 minutes until baby/toddler sleeps.
   - Takes longer.
   - Baby/toddler is not counting minutes!
   - Less taxing on emotions

B.E.A.R.S.

B Bedtime

3. Fading of Adult intervention

   Sit beside the cot/bed with little physical contact

   Night by night, move the chair further from the bed until out of sight.

   Be present, but not in physical contact.

   Takes longer

   Less emotionally taxing, but time consuming.

B.E.A.R.S.

B Bedtime. General tips.

. The less you need to do to initiate sleep in the evening, the less you will need to do at night.

. Be consistent. Decide on what suits you, and stick with it.

. Based on the results of the Global Sleep survey (7/12 – 36/12)

A. A regular pre-bed routine

B. Bed before 9pm

C. Children learn to fall asleep on their own.

B.E.A.R.S.

B Bedtime

Co-sleeping is fine if :-

1. It is an active choice, not a reaction to baby/toddler demands.
2. No alcohol/drugs/smoking
3. Firm bed
4. No sleep disorder (OSA, PLMS)
5. No obesity
6. Related to more frequent waking, but generally for less time.

B.E.A.R.S.

E Excessive daytime sleepiness

Baby and infant: (6/12 – 2yrs)

Does your child seem excessively sleepy, or irritable in the daytime? (p)

Toddlers/Pre-school: (2-5yrs)

Does your child exhibit tired and sleepy behaviour during the day? (p)

B.E.A.R.S.

E Excessive daytime sleepiness

School age: (6-12yrs)

Does your child have problems waking in the morning? (p)

Do you often feel tired? (c)

Adolescent: (13-18yrs)

Do you feel sleepy during the day? (c)

B.E.A.R.S.

E Excessive daytime sleepiness

- Yawning, Rubbing eyes.
- Irritable, emotional behaviour.
- Difficulty rising in the morning.
- Inappropriate sleep in the daytime.
- Difficulty concentrating at school
- Nighttime parasomnias:- Sleep walking
  Night terrors
  Nightmares

B.E.A.R.S.

A Awakenings during the night

Baby and infant: (6/12 – 2yrs)

Are you Breast feeding or Bottle feeding? (p)

Where does your child sleep? (own room, shared room, parents bedroom, co-sleeping) (p)

Is your child able to self soothe at night? (p)

Toddlers/Pre-school: (2-5yrs)

Does your child wake frequently during the night? (p)

B.E.A.R.S.

A Awakenings during the night

School age: (6-12yrs)

Does your child wake frequently in the night?

Sleepwalk or suffer nightmares(p)

Do you wake frequently in the night, and have trouble getting back to sleep? (c)

Adolescent: (13-18yrs)

Do you wake, and have difficulty re-sleeping at night? (c)

B.E.A.R.S.

A Awakenings during the night

- Timing of awakening
- Frequency of awakening
- Reason for waking
- Length of time awake
- Ability to re-sleep

B.E.A.R.S.

A Awakenings during the night

- Is normal! (When parents are not involved)
- May reflect bedtime resistance
- Sleep deprivation will *increase* nighttime waking
- Use “transition objects”
- Avoid use of intercom unless really essential.
- Consistency of response
  - . Extinction (“Crying it out”)
  - . Graduated extinction (Ferber method)
  - . Fading of adult intervention

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B.E.A.R.S.

R Regularity and duration of sleep

Baby and infant: (6/12 – 2yrs)

Do you have a regular pre-bedtime routine?

What are they?(p)

Toddlers/Pre-school: (2-5yrs)

Does your child have a regular bedtime and wake-time?

What are they?(p)

B.E.A.R.S.

R Regularity and duration of sleep

School age: (6-12yrs)

What time does your child go to bed and get up on school days and on weekends? Are they getting enough sleep?(p)

Adolescent: (13-18yrs)

What time do you go to bed and get up on school on week days, and on weekends? How much sleep do you get?(c)

B.E.A.R.S.

R Regularity and Duration of sleep

- Routine around sleep habits.
- Sleep pattern during the week and weekend.
- Total amount of sleep, (night + day).
- Consider also daytime routine.

B.E.A.R.S.

R Regularity and Duration of sleep

Adolescents frequently develop some degree of Delayed Sleep Phase Syndrome (DSPS).

This is the result of both delayed Melatonin onset with puberty, and changes in behaviour and lifestyle.

Treatments should include:

- Limiting access to electronic media. cell phones/computers/TV.
- Regular wake time in the morning (allow 1hr longer at weekends)
- Bright light in the morning (preferably outside)
- Outside as much as possible in the daytime

B.E.A.R.S.

S Snoring

Toddlers/Pre-school: (2-5yrs)

Does your child regularly snore or have breathing difficulty at night? (p)

School age: (6-12yrs)

Does your child snore regularly or loudly, or have breathing difficulty at night? (p)

Adolescent: (13-18yrs)

Does your teenager snore loudly and regularly at night?(p)

B.E.A.R.S.

S Snoring

Nighttime: - Regular, loud snoring or loud breathing
- Restless sleep
- Sweating
- Abnormal sleeping positions

Daytime: - Mouth breathing
- Morning headaches
- Frequent ENT infections
- Poor appetite

B.E.A.R.S.

S Snoring

- Excessive Daytime Sleepiness:
- Difficulty waking
- Falling asleep at inappropriate times
- Mood changes
- Acting out
- Inattention
- Academic failure
- ADHD symptoms

B.E.A.R.S.

S Snoring

- Primary snoring
  - Occasional in 20% of children
  - Habitually in ~ 10% of children
- Obstructive Sleep Apnoea
  - Approximately 2% of children
  - Peak between 2 and 8 yrs
  - Gender equal pre-puberty
  - Often a family history
  - Hyperactivity in children, Fatigue in adolescents.

B.E.A.R.S.

S Snoring

- Evaluation
  - Medical history
  - Developmental/school history
  - Family history
  - Behavioural assessment
  - Physical examination,
    - especially growth (either obese or growth retarded)
      - tonsil size (not always reliable)
      - tongue size
      - craniofacial abnormalities

B.E.A.R.S.

S Snoring

- Evaluation
  - Polysomnography (level 1 or 2)
  - Level 3 measuring respiratory parameters (airflow and oximetry)
- Treatment
  - Adenotonsillectomy is effective in 85% of cases
  - Occasionally CPAP or Mandibular advancement Splint
  - Nasal decongestants
  - Weight reduction

• **Alice S.** ***Age 4 years***

Brought in by mother because of her disruptive behaviour at preschool, and teacher thinks she might be deaf.

B (Bedtime problems)

- Bedtime tantrums
- Frequent ‘curtain calls’
- Dislikes bedroom
- Crying/screaming wakes brother

• **Alice S.** ***Age 4 years***

E (Excessive daytime sleepiness)

- Wakes irritable in the morning.
- Falls asleep in the car, and on the sofa in the afternoon.
- Behaviour deteriorating during the day.
- Hasn’t had an afternoon nap for 2 years.

• **Alice S.** ***Age 4 years***

A (Awakenings during the night)

- Frequently wakes at night and disturbs parents.
- Will climb into parents bed when they are asleep.

(Parents have occasionally allowed this, ‘reactive co-sleeping’)

- Has been sleepwalking more frequently.
- Often awake for an hour or more at night.

• **Alice S.** ***Age 4 years***

R (Regularity and duration of sleep)

- Pre-school three days per week.
- Both parents work, and ‘after-school’ care varies.
- Insists on staying up to see a TV programme until 7.30pm, three nights per week.
- At weekends goes to bed later, and then ‘sleeps in’.

• **Alice S.** ***Age 4 years***

S (Snoring)

- Noisy breathing at night.
- Occasionally stops and starts breathing at night.
- Frequent sweating.
- Bed clothes off the bed in the morning.
- Often found sleeping with head/neck extended

- **Alice S.** ***Age 4 years***

Examination

All normal apart from enlarged tonsils, and obesity. A mouth breather.

Investigation

Sleep study was not available

Treatment

Adenotonsillectomy

Parental guidance

BEARS is a screening tool, not a substitute for a full and complete history and examination.

This should include:

- Psychosocial history
- Developmental/school history
- Medical history
- Family history
- Examination where relevant
- Investigation where relevant.
  - Sleep diary
  - ? Actigraphy
  - ? PSG

Thank You

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