Infant and Child Basics: Sleeping, Elimination, and Sexual Behaviors

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Discussion Overview

We will briefly explore:

- Range of “normal” patterns
- Concerning patterns
- How to evaluate and/or intervene

Discussion Overview cont'd

We will cover topics that pre-occupy and concern caregivers & professionals:

- Sleep
- Elimination
- Sexual Behaviors

Sleep

Infant and Child Overview

Sleep in Infants & Children

- Complex state
- Complex interaction
  - Physiology
  - Organic issues
  - Psychosocial elements
  - Environment
- 40% of child's life (through adolescence)

Sleep

- Circadian clock: Controls rest/activity cycling; control by 6 weeks to 3 months
- Proper clock functioning requires daily “re-set”
- Active sleep (REM) + quiet sleep (non-REM)
- Healthy individuals: Cycle between REM and non-REM throughout sleep
- Arousal phase at end of each cycle

Sleep: General Overview

	Sleep/ 24 hours	Patterns
Neonate	16-20	1-4 hours sleep; 1-2 hours awake
1-12 months	13-15	6-8 hours by 4-6 months
1-3 years	12	1 nap (1.5 – 3.5 hours)
3-6 years	11-12	Most naps stop by 5
6-12 years	10-11	No daytime sleepiness
Adolescents	9	Circadian rhythm delay

Neonate Sleep

- 16-20 hours in a 24 hour period
- Alternating:
  - 1-4 hours sleep
  - 1-2 hours awake
- Rapid cycling through REM & non-REM (50 minutes)

Neonate Sleep: **Normal Occurrences**

- Arousal state
  - At the end of each cycle
  - Not a true “awakening”
  - Parents respond, creating true awakening
- REM phase
  - 50% of newborn sleep
  - Active (smiling, sucking, twitching)
  - Parents worry about inadequate sleep
- Periodic breathing
  - 10-20 second breathing pauses
  - Scares parents

Newborn Sleep

- Distinguish day and night (2 months)
- Organized non-REM sleep (4 months)
- 90-120 minute sleep cycles
- Arousal phase at end of phase
- Sleep through night (> 4 months)

Sleep: 12 Months of Life

- Physical and social development impacts sleep
- Bulk of sleeping at night with two daily naps
- Cycle every 90-120 hours
- Goal: Self-soothe through arousals (fall back to sleep)
- 50% with sleep onset and/or self-soothing difficulties

Sleep Problems

Clues that there may be sleep problems:

- Difficulty falling asleep
- Does not sleep soundly
- Restless sleep
- Wakes up frequently
- Does not go back to sleep once awake
- Terror “spells”
- Nightmares
- Sleep walking
- Snoring
- Wakes up “tired”
- Difficulty waking up

Sleep Problems

76% of caregivers report a problem!

Dyssomnias

- Disturbance in amount or timing of sleep
- Intrinsic disorders (apnea) or interactional difficulties (sleep-phase disorders)

Parasomnias

- Abnormal activities during sleep
- Sleep walking and talking; nightmares; night terrors

Other

- Asthma, epilepsy, anxiety disorder

Factors Predisposing to Sleep Problems

- Physical factors
  (Illness, pregnancy issues)
- Developmental factors
  (Separation anxiety)
- Behavioral factors
  (Temperament, adjustment difficulties)
- Interactional factors and environment
  (Sleep associations; over-attentiveness; sleeping arrangements; sleep expectations; psychosocial factors)

Interactional Factors Predisposing to Sleep Problems

- Unrealistic caregiver sleep expectations
- Unpredictable sleep associations (pacifier, back-rubbing, rocking, caregiver present)
- Over-attentive caregiver (over-stimulating during arousal)
- Non-supportive sleeping environment/arrangements
- Unpredictable schedule
- Over-feeding
- Nighttime fears
- Stressors
- Breastfeeding

Nightmares

- Peaks 3-6 years of age
- Occurs in REM stage (last 1/3 of night)
- Associated with dreams
- Has memory of the event
- Requires parent for comfort and has difficulty falling asleep again
- No family history reported
- Associated with: Stress, anxiety, sleep deprivation; medications that increase REM

Night Terrors

- Peaks 4-12 years of age
- Occurs in non-REM stage (first 1/3 of night)
- Not associated with dreams
- No memory of the event
- Comforting not required
- Family history reported
- Associated with: Sleep deprivation; chronic pain; sleep disordered breathing, seizures, environmental noise

Obstructive Sleep Apnea

- 1-3 % of children
- Overall: Difficulty breathing while sleeping
- Structural and/or neuromuscular problems
  (Adenotonsillar hypertrophy, obesity)
- Resistance to flow in upper airway; requires more effort to inspire; difficulty maintaining ventilation
- Chronic ventilation problems: Changes in blood vessels

Obstructive Sleep Apnea cont'd

Observed:

- Apnea
- Snoring and snorts
- Mouth-breathing
- Restless sleeping
- Arousals
- Unusual sleeping positions

Obstructive Sleep Apnea cont'd

Poor outcomes:

- Systemic hypertension
- Pulmonary hypertension
- Failure-to-thrive
- Enuresis
- Daytime sleepiness
- Neurocognitive difficulties
- Serious behavioral difficulties

Evaluation and Intervention

- Overall: Determine if there is a problem and determine risk factors
- Refer to “medical home” for evaluation & reassurance and/or intervention
- Promote good “sleep hygiene”
- Rarely: Medical or surgical intervention

Interventions: Sleep Hygiene

- Promote sleep hygiene
- Definition:

  Practices and routines that facilitate:

  – Falling asleep at night
  – Staying asleep
  – Getting adequate sleep

Sleep Hygiene

Environment

- Dark, quiet, comfortably cool

Schedule

- Regular waking time
- Regular bedtime
- Consistent nap length

Activities

- Consistent bedtime routine & transitional objects
- Put child to bed while awake

Counseling: 7 Facts About Normal Infant & Child Sleep (*Pediatrics In Review*, 1988)

- Sleep is active, complex state that matures during first 12 months of life
- Duration of sleep varies across children
- Duration of sleep rarely varies for an individual
- Consistent intervention (>14 days) required to change circadian rhythm
- Duration of day sleep negatively correlated to night sleep
- Bedtime and awakening time are positively correlated
- 40-60% of infants and young children experience nighttime waking

Elimination of Urine and Stool

Infant and Child Overview

Bladder & Bowel Control

- Normal developmental milestone
- Big deal for families and medical system
- In US, continence achieved by age:
  - 24 months: 25%
  - 30 months: 85%
  - 36 months: 98%
- Bladder control: When there is no longer involuntary leakage of urine
- Bowel control: When there is no longer involuntary leakage of stool from rectum

Bladder and Bowel Control

Normal sequence

1. Nighttime bowel control
2. Daytime bowel control
3. Daytime bladder control
4. Nighttime bladder control

Bladder Control

- Neonate: Sacral spinal cord reflex empties bladder when bladder is critically stretched (void ~ 20 times/day)
- > 1 year: Brain (pons) modulates reflex urination
- > 48 months: Brain consciously suppresses urge to urinate when critically stretched; when ready to urinate: contract bladder while relaxing sphincter

Enuresis

Enuresis: Involuntary leakage of urine

Categorized as:

- Primary versus secondary
  - Primary: Never achieved continence
  - Secondary: Achieved continence > 3 months
- Diurnal versus nocturnal
  - Diurnal: Daytime incontinence
  - Nocturnal: Nighttime incontinence

Diurnal Enuresis

Primary Diurnal Enuresis

- Failure to achieve urinary continence by 48 months of life
- Recommended: Medical evaluation

Secondary Diurnal Enuresis

- Had achieved continence for > 3 months
- Common issues: Stress; constipation; UTI; neurogenic bladder; diabetes

Primary Nocturnal Enuresis

- Inappropriate voiding beyond the age of anticipated bladder control
- Common (20% of 5 year olds)
- Rate significantly decreases by 6 years (1% of adolescents)
- < 5% due to “organic” reasons
- Male predominance

Primary Nocturnal Enuresis

Risk Factors:

- Family history/genetics (70% parent history)
- Sleep arousal dysfunction
- Urodynamics (bladder capacity/function)
- Polyuria
- Psychological stressors
- Maturational delay

“Normal” Bowel Continence

- Resting tone: Internal anal sphincter with support from puborectalis muscle
- >15 cc of stool in rectum:
  - Stretch receptors activated
  - Decreased tone in internal anal sphincter
  - Child decides to relax external anal sphincter
  - Valsalva manuever

Constipation

- Constipation: Failure to evacuate lower colon completely with a bowel movement
- Repetitive denial of evacuation leads to stretching of rectum and lower colon; reduced muscle tone and stool retention
- First symptoms: Painful defecation & encopresis
- Common (5% of all pediatric visits)

Constipation: Causes

- Functional
- Neurologic
- Obstructive
- Endocrine/metabolic
- Medicinal

Constipation: Complications

- Pain
- Fissures
- Encopresis
- Enuresis
- UTI
- Rectal prolapse
- Stasis syndrome
- Social exclusion/anxiety/depression

Encopresis

- Definition: Fecal soiling or involuntary passage of stool
- Cause: Usually due to overflow of looser stool around harder, retained stool
- Common: 3% of 4 year olds
- Management: Constipation intervention

Toileting (Stool) Refusal

- Children can “control” intake of food/drink and passage of stool (or urine)
- Counter-productive to try to “force” a child to eat or eliminate
- Refusal most common when constipated; difficult temperaments; parental difficulty with limit-setting.
- Following refusal: Wait 1-3 months to re-engage

Signs of Toilet Training Readiness
(*Pediatrics in Review*, 1999)

- Ability to ambulate to toilet
- Stability while sitting
- Ability to remain dry for several hours
- Receptive language skills that allow 1-2 step commands
- Expressive language or gestures
- Desire to please due to positive relationship
- Desire for independence + bladder/bowel function

Evaluation and Intervention

- Overall: Determine pattern of voiding/stooling difficulty
- Refer to “medical home” for evaluation & reassurance and/or intervention
- Promote good “toileting” practices
- Intervention:
  - Urinary: Motivational or behavioral
  - Stool: Medical followed by maintenance

Sexual Behaviors

Infant and Child Overview

Human beings are sexual creatures

- Sexual responses present at birth
- Sexual development is influenced by numerous factors:
  - Social
  - Familial
  - Cultural
  - Genetic
  - Biological

Common Sexual Behaviors in Children 2-6

- Nudity
- “Potty Words”
- Exploration of own and others’ bodies
- Curiosity about sexual body parts
- “Doctor” and “House”
- Pleasure in stimulating self

How do you know if the sexual behavior is normal?

- Exploratory
- Spontaneous
- Similar power differential/non-coercive
- Lack of anxiety
- Able to be re-directed

Problematic Sexual Behaviors in Children 2-6

- Putting mouth on sex parts
- Putting objects in vagina or rectum
- Masturbating with objects
- Touching others' sex parts after being told not to
- Touching adults' sex parts

Consider these rules

- Any sexual behavior is problematic if it appears
  - Compulsive
  - Between children who are not well acquainted
  - To interfere with normal developmental activities
  - Between children where there is a power differential
  - To be forced, coerced or aggressive
  - Does not decrease with adult intervening
  - Causes harm to child or others

What does it mean?

Why do children have sexual behaviors?

Problematic sexual behaviors may result from

- Child sexual abuse with direct contact
- Non-contact child sexual abuse
- Exposure to domestic violence
- Invasive medical procedures
- Neurological damage

Are problematic sexual behaviors sexual?

- Not necessarily
  - May not involve sexual gratification
  - May not be perceived as any different from other pleasant sensations
  - May be a form of traumatic re-experiencing

What do people worry about when they see children engaged in problematic sexual behaviors?

- All children who have been sexually abused must have them.
  - NOT TRUE. MOST DON'T
- The child will grow up to be a pedophile
  - NOT TRUE. MOST DON'T
- If a child is exhibiting them, they must have been sexually abused and if they are not exhibiting them, they must not have been abused.
  - NOT TRUE. MOST DON'T

What should we do if we see child sexual behavior problems

- Refer for assessment
- Contact DSS?
  - maybe