Counseling on Early Childhood Concerns: Sleep Issues, Thumb Sucking, Picky Eating, and School Readiness

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Sleep issues, thumb sucking, coping with picky eating, and determining if a child is ready for school are common concerns of families with young children. Information and resources to help counsel on these topics include recommendations from the American Academy of Sleep Medicine, the American Dental Association, and the U.S. Department of Agriculture. Infant sleep times can be prolonged by unmodified or graduated extinction, maintaining routines, scheduled awakenings, and parent education. Thumb sucking can be addressed with positive reinforcement, alternative comfort measures, reminders, and child involvement in solutions. Worry about picky eating can be eased by educating parents about the dietary requirements of toddlers. Social and emotional factors most influence kindergarten success. Keeping children from starting school may not be in their best interest academically. (*Am Fam Physician*. 2009;80(2):139-142. Copyright © 2009 American Academy of Family Physicians.)

ILLUSTRATION BY MARK SCHULER

▶ **Patient information:** A handout on early childhood development, written by the authors of this article, is available at http://www.aafp.org/afp/20090715/139-s1.html.

There are many issues during the early childhood and toddler years that parents ask about during well child visits. These issues include sleeping difficulties, picky eating, thumb sucking, and school readiness. Formal education about these issues rarely occurs in family medicine residencies. Many physicians use their personal experience as the basis of their counseling because there are few evidenced-based guidelines on these topics. This article provides suggestions and resources for physicians to help parents address these common concerns.

Sleeping Difficulties in Infants

Sleep issues are a common concern for parents. Child sleep issues directly affect the sleep pattern of their caregivers. In a 2003 study, persistence or recurrence of sleep problems was linked to maternal depression; however, these mothers seemed not to differ in their stress levels, coping skills, or family functioning compared with other mothers who did not have children with sleep issues.[1]

An important part of the childhood development process is gaining independence, and one way in which an infant works toward this goal is by sleeping through the night. Approximately 80 percent of children sleep through the night by six months of age, and 90 percent by one year of age.[2] The definition of "sleeping through the night" is variable, because sleep schedules for each family and person are unique. Some children sleep through the night at an early age, but temporarily revert to nighttime awakenings. These awakenings are usual in the nine- to 18-month age group, when separation anxiety is common.[3]

Table 1 shows the 2006 American Academy of Sleep Medicine guidelines for prolonging sleep in infants and young children (i.e., five years and younger), which are based on a review of 52 articles on sleep in children.[4] There is insufficient evidence to favor one method of sleep intervention over another.[4] There is also insufficient evidence to support a combination of methods as more favorable than one sleep intervention alone.[4]

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	*Evidence rating*	*References*
Parents should be reassured that sleep difficulties are a normal developmental stage. No one method of resolving sleep issues is more beneficial than others.	C	4, 5
Children with persistent thumb sucking beyond four years of age should be referred to a pediatric dentist. Until this age, no one intervention is recommended.	C	13, 14
A parent should offer a food to a child at least 10 times before deciding the child does not like it.	C	15, 16, 18
Keeping children from starting school may not be in their best interest academically.	C	23, 24

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort.xml.

In a 2002 Swedish study of infants at an average age of 10 months, there were no outcome differences between parents receiving written directions on sleep and parents receiving sleep advice directly from physicians.[5]

Diphenhydramine (Benadryl) was recommended by 49 percent of 671 primary care pediatricians surveyed in a 2003 U.S. study.[6,7] However, the trial of infant response to diphenhydramine (TIRED) study showed that diphenhydramine was no more effective than placebo in reducing nighttime awakenings in infants.[6] Medication should not be used to treat this normal developmental stage. Parents can be reassured that regardless of the method used, there is no difference in family functioning between children who have and do not have sleep issues.[1]

Table 1. American Academy of Sleep Medicine 2006 Guidelines for Prolonging Sleep in Infants

Method	*Example*	*Evidence**
Unmodified extinction	Lay the infant down to sleep at a designated time and do not respond to any crying until morning	Level 1
Graduated extinction	Gradually respond less frequently to the infant's cries (e.g., initially respond within five minutes of crying, then space out the response to every 10 minutes, then longer)	Level 2
Bedtime routines	Maintain the same sleep and wake schedule daily	Level 1
Scheduled awakenings before expected awakening time	If the predicted awakening times for the infant are, for example, 1:00 a.m., 4:00 a.m., and 7:00 a.m., awaken the infant 15 minutes earlier than the predicted time; the infant will eventually sleep through the predicted times	Level 1
Parent education	Give parents handouts on sleep difficulties (e.g., http://www.med.umich.edu/1libr/yourchild/sleep.htm) and encourage participation in support groups	Level 1

NOTE: *Some methods listed may not be feasible for some families; for example, a family that lives in a thin-walled apartment complex may have complaints from neighbors if they attempt to let their infant cry through the night. Parents can try a method that fits with their values, culture, and living arrangement.*

**—American Academy of Sleep Medicine classification of evidence: level 1 = high-quality randomized studies; level 2 = lower-quality randomized studies.*

Information from reference 4.

Thumb Sucking

Thumb sucking is an innate reflex and one of the most common security and self-soothing mechanisms. In infants, thumb sucking and pacifier use are often classified together as nonnutritive sucking methods. Pacifier use has been linked to decreased breastfeeding duration,[8,9] but the same effect of thumb sucking on breastfeeding has not been reported.[9] In some studies, combinations of the use of pacifiers and thumb sucking have been reported to lead to decreased breastfeeding.[8,9] Pacifier use has been documented to be protective against sudden infant death syndrome (SIDS) in children younger than six months and was included in the 2005 American Academy of Pediatrics SIDS guideline update;[10] however, there have been few studies advocating thumb sucking as an equally preventive measure against SIDS.

The incidence of thumb sucking among children decreases with age, and most children spontaneously stop thumb sucking between two and four years of age.[11]

Table 2 lists several tips to help children stop thumb sucking.[12] School-aged children with persistent thumb sucking should be referred to a pediatric dentist.[13] At this age, when the permanent teeth erupt, thumb sucking can affect a child's teeth alignment and mouth shape.[13] The greatest risk of developing malocclusive problems, such as overbite and crossbite, occurs in children who have persistent thumb sucking problems beyond four years of age.[14]

Picky Eating

Picky eating is a trait among toddlers that often leads to significant stress for parents. The percentage of children perceived as picky eaters increases from 19 to 50 percent from

Table 2. American Dental Association Recommendations to Stop Thumb Sucking

Praise children when they don't suck their thumb (e.g., verbal praise, stickers)
Find alternative ways of comforting and soothing for children (e.g., stuffed toy)
Provide reminders or negative reinforcement for thumb sucking (e.g., placing topical bitter liquids* on the thumb, putting a bandage around the thumb to remind the child not to suck on it)
Involve older children in ways in which they can stop sucking (e.g., have children help create their own reward system)

*—Examples include Mavala Stop or Thum.

Information from reference 12.

Table 3. U.S. Department of Agriculture Recommended Dietary Needs for a Two-Year-Old Child of Average Height and Weight

Type of food	*Daily quantity*	*Comments*
Grains	3 oz	Make one half of the grains whole grains
Vegetables	1 cup	Offer a variety of colors of vegetables over time to supply a variety of vitamins
Fruits	1 cup	—
Milk	2 cups	Or equivalent substitute (e.g., cheese, yogurt)
Meat and beans	2 oz	—

Information from reference 19.

Table 4. Strategies to Reduce Picky Eating in Children

Follow the rule of 10s—introduce a food 10 times before deciding a child does not like it; offer foods frequently and in different settings
Expand food choices by offering other foods with similar properties
Offer calm, pleasant mealtimes
Offer peer modeling of eating—if an older sibling is eating something that picky eaters think they do not like, then they may change their mind and try it
Combine foods, even if in illogical combinations—changing how the food is presented may alter its palatability (e.g., "ants on a log" is a fun way to present celery, peanut butter, and raisins)
Limit milk to 16 to 24 oz per day—milk is an important part of a child's diet, but too much can decrease the appetite and lead to iron deficiency and other nutrient imbalances
Limit juice to no more than 4 to 6 oz per day—juices can represent a large amount of sugar and calories in a child's diet; if offered at all, it should be in small quantities
Emphasize quality over quantity—a small quantity of high-quality foods is better than having a child fill up on nutrient-poor foods; smaller portions may be less overwhelming for a child
Offer the child only foods that parents wish the child to eat; do not indulge the child's wishes (e.g., if the child is only eating crackers, do not offer crackers; rather, offer a selection of other foods)

Information from references 15 through 17, 21, and 22.

four to 24 months of age.[15] It is a trait that is prevalent regardless of sex, ethnicity, or household income.[15] Most children with picky eating behaviors have no long-term consequences affecting their growth or development.[16,17]

As with sleeping through the night, picky eating is a developmental sign of a child seeking autonomy. Children are innately wary of new foods, and a child needs frequent and varied exposures to new foods before accepting them. It may take up to 10 exposures before a child learns to accept a flavor.[15,16,18]

A review of the child's diet, growth curves, and nutrient needs may show that parental expectations exceed the child's needs. Parents should be reminded that toddlers are no longer in a rapid growth stage (i.e., they are no longer doubling and tripling their weight as they were in infancy) and that a child's stomach is about the size of a clenched fist.[16] Parents can track their child's nutritional needs at http://www.mypyramid.gov[19]; reviewing this information may be helpful because the daily nutritional requirements are often much less than parents would predict *(Table 3[19])*. Physicians should encourage the use of foods instead of supplements to achieve nutritional requirements.[20] If parents choose to use vitamin supplements, they should be cautioned about inadvertently exceeding requirements by using both fortified foods and vitamins.

Forcing a toddler to eat by using punishment, prodding, or rewards may worsen the behavior and inhibit the child's ability to learn self-control.[16,18] Punishment can reinforce the negative impression associated with a food. It is not advisable to indulge the child and provide only what they want, because this will limit the foods they are exposed to.[16] A more helpful approach would be to offer a variety of healthy foods at every meal, and if the child does not eat certain foods, store those as leftovers and offer them again on a different day or in a different way. *Table 4* outlines strategies for coping with picky eating.[15-17,21,22]

SCHOOL READINESS

Some myths about school readiness are that it can be measured easily, that it is mostly related to maturation and that more time will help, and that children who are not ready do not belong in school.[23] Although school-readiness tests exist, these tests should not be used to delay a child's entry into school.[24] Children learn many social and academic

skills in school, and they learn at a higher rate than those who are held back.[25] All of a child's experiences (home, child care, and school) are educational, and promoting school readiness should start at birth[26] with the five Rs: reading, rhyming and playing, setting routines, rewarding success, and nurturing relationships.[24] A child's ability to learn is marked not only by intellectual skill, but also by his or her motivation to learn and by social-emotional support.[24]

The most significant developmental markers that predict success in kindergarten are social and emotional. A safe, healthy environment, friendships and community involvement, and emotional support are all important. Physicians should explain the myths of school readiness, discuss the five Rs, assess the child's environment, and refer families that need help providing a setting that is supportive of learning.

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