

## Case Worksheet for Learners

### Case Goal

Children with autism spectrum disorder (ASD) present with similar development issues and challenges to typically developing children, but special consideration may be needed when evaluating these issues and providing anticipatory guidance to families.

### Key Learning Points of This Case

1. *Recognize some of the common developmental issues that present in children with ASD and how to evaluate them.*
  - a. Describe the different types of sleep problems seen in children with ASD \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - b. Provide a differential diagnosis for feeding problems in children with ASD \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - c. Describe the common challenges to toilet training in children with ASD \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. *Identify management approaches and strategies for the common developmental issues seen in children with ASD*
  - a. Describe behavioral strategies that may promote improved sleep in children with ASD \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - b. Identify the indications for using medications in the treatment of sleep difficulties. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - c. Recognize strategies to improve eating habits in children with ASD \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  - d. Become familiar with techniques for toilet training children with ASD \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Post Learning Exercise

Read the article:

Kodak T, Piazza C. Assessment and behavioral treatment of feeding and sleeping disorders in children with autism spectrum disorders; *Child Adolesc Psychiatr Clin N Am.* 2008;17(4):887-905

## Case Study Part I

Jack is a 3 ½-year-old boy recently diagnosed with an ASD. His mother brings him to your office today for his well-child visit. You begin by asking if she has any concerns and she reports Jack has been having difficulty falling asleep. Before going to bed, he has an elaborate ritual. He refuses to sleep by himself and will only sleep with an empty soda bottle. She has to lie beside him until he falls asleep, which takes anywhere from 30 minutes to an hour. He wakes up three to four times in the middle of the night looking for her. He refuses to go back to bed unless she lies back down with him. His bedtime is at 7 p.m. and, although she wishes he would sleep longer, he wakes up like clockwork at 5 a.m. His mother notices he gets cranky in the afternoon, so she tries to enforce an afternoon nap. Some days he takes a nap easily; other days he fusses. When you ask if he snores, she chuckles and mentions that for a little person, he snores like a truck. His mother states that she feels exhausted all the time, and she has a short fuse.

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### Case Study Part II

Realizing that you must move on with the visit, you ask about Jack's eating habits. Jack's mother describes him as a picky eater who refuses to drink milk. He prefers to eat chicken nuggets, crackers, toast, cheese, and grapes, and he drinks mostly juice.

With such a limited diet, you ask whether he has problems with constipation or diarrhea. In fact, he is only stooling every few days, and his stools are very hard. Jack's mother has been trying to toilet train him for the past six months without success. He has never had a bowel movement on the toilet. Recently, she started having him sit on the toilet once a day after dinner, right before his bedtime routine. Jack will urinate in the toilet when asked to do so, but does not go to the bathroom on his own to urinate.

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### Case Study Handout Part III – Epilogue

You are concerned about the history of constipation and ask Jack's mother a few more questions while you perform the physical exam.

- Has he had any diarrhea (i.e., overflow leakage of stool associated with constipation)?
- Is there blood with the stools?
- Can she tell or can Jack communicate whether he experiences pain with the bowel movements?
- What has she tried to help the constipation?

He has not had any recent diarrhea or blood with his stools. She is unsure whether he is having pain with bowel movements because he goes in his diapers. She thought the fruit juice would help, so she lets him have it whenever he asks.

Your abdominal physical exam is normal, although Jack was slightly uncooperative. You decide to defer the rectal exam.

You give Jack a stool softener and ask his mother stop toilet training at this time. You schedule a follow-up appointment so you can devote more time to discussing Jack's diet, toileting issues, and sleep. You also refer him to an otolaryngologist for evaluation of possible sleep apnea.

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## Handout I: Causes of Insomnia in Children with ASD

Neurobiological (e.g., synaptic transmission deficiency, metabolism)

GABA

Melatonin

Behavioral

Inadequate sleep hygiene

Inappropriate sleep-onset association

Improper limit-setting

Coexisting neurologic disorders (e.g., epilepsy)

Coexisting medical disorders (e.g., gastrointestinal, gastroesophageal reflux disease)

Coexisting psychiatric disorder (e.g., anxiety)

Food and medications (e.g., caffeine, corticosteroids, bronchodilators)

Other sleep disorders

Obstructive sleep apnea

Restless leg syndrome

Periodic limb movements of sleep

Delayed sleep-phase disorder

Irregular sleep-wake rhythm

Johnson KP, Malow BA. Assessment and Pharmacologic Treatment of Sleep Disturbance in Autism. *Child and Adolescent Psychiatric Clinics of North America*; Vol 17;2008;pp. 773-785.

## Handout II: Clinical Properties of Selected Medications Used for Pediatric Insomnia

Drug	Side Effect
Alpha-2 agonist Clonidine	Dry mouth, dizziness, drowsiness, headache, sedation, fatigue, weakness, constipation
Antihistamines Diphenhydramine Bronpheniramine Chlorpheniramine Hydroxyzine	Daytime drowsiness, GI problems (appetite loss, nausea/vomiting), constipation, dry mouth), paradoxical excitation
Atypical antidepressants Trazodone	Dizziness, CNS overstimulation, cardiac arrhythmias, hypotension, priapism
Benzodiazepine receptor agonists Benzodiazepine Clonazepam Flurazepam Quazepam Temazepam Estazolam Triazolam	Residual daytime sedation, rebound insomnia on discontinuation, psychomotor/cognitive impairment, anterograde amnesia (dose dependent), impairment of respiratory function
Benzodiazepine receptor agonists Non-benzodiazepine Zolpidem Zaleplon Eszopiclone	Headache, retrograde amnesia, few residual next-day effects
Melatonin	Drowsiness and headaches
Synthetic melatonin receptor agonist Ramelteon	No significant side effects

Suggested Citation: Kralovic, S., Ocampo, A.M.S. Clinical Properties of Selected Medications Used for Pediatric Insomnia. Developed for the *Autism Case Training: A Developmental-Behavioral Pediatrics Curriculum*. 2011.

## Handout III: TEACCH Toileting Chart with Picture Icons



Pull down pants



Pull down underwear



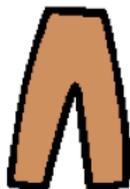
Sit on toilet



Use toilet paper



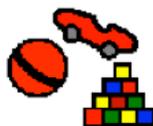
Pull up underwear



Pull up pants



Flush toilet



Go play

*Boswell S, Gray D. Applying Structured Teaching Principles to Toilet Training. TEACCH Autism Program website. 2006. <http://teacch.com/educational-approaches/applying-structured-teaching-principles-to-toilet-training-susan-boswell-and-debbie-gray>. Accessed January 21, 2013.*



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