



Earn

4 CE credits

This course was written for dentists, dental hygienists, and assistants.

Building Bridges - Part 2: Understanding and Guiding the Dental Patient with Autism

A Peer-Reviewed Publication

**Written by Ann-Marie DePalma, RDH, MEd, FAADH
and Karen A. Raposa, RDH, MBA**

ADA CERP® Continuing Education
Integration Program

PennWell is an ADA CERP recognized provider

ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.

Concerns of complaints about a CE provider may be directed to the provider or to ADA CERP at www.ada.org/goto/cerp.



This course has been made possible through an unrestricted educational grant. The cost of this CE course is \$59.00 for 4 CE credits.

Cancellation/Refund Policy: Any participant who is not 100% satisfied with this course can request a full refund by contacting PennWell in writing.

Educational Objectives

The overall goal of this article is to provide the reader with information on the dental treatment and oral care of patients with autism. Upon completion of this course, the dental professional will be able to do the following:

1. List signs and symptoms that patients with autism experience.
2. List and describe the prevalence, possible associations and demographics of patients with autism.
3. List and describe the events and stimuli in a dental office that can influence the behavior of patients with autism.
4. List and describe the steps and care that should be taken in treating patients with autism.

Abstract

Dental professionals are likely to encounter patients with autism on a regular basis. Understanding the factors in the dental office that can influence the behavior and cooperation of patients with autism and the best approach to take with these patients will help the dental professional be able to successfully treat patients with autism.

Introduction

According to recent research from the Centers for Disease Control and Prevention, autism affects 1 in 110 children and 1 in 70 boys.¹ Autism can severely impair one's ability to communicate, interact with others and maintain appropriate contact with the outside world. It is a general term used to describe complex developmental brain disorders known as pervasive developmental disorders (PDD). The other pervasive developmental disorders are PDD-NOS (pervasive developmental disorder – not otherwise specified), Asperger's syndrome, Rett syndrome and childhood disintegrative disorder. Many parents and professionals refer to this group of brain disorders as autism spectrum disorders (ASDs). Children and adults with ASDs present with unusual learning patterns, attention deficits and atypical reactions to sensations. These symptoms can range from mild to severe. The odds are great that as a dental professional, you will encounter ASD patients in your practice.

ASDs can be seen as delays in children as early as 6 months of age. Developmental delays are described as a child's skills developing at a rate slower than is appropriate for the child's age. Children who are at risk for delays are those who have spent time in a neonatal intensive care unit (NICU); have low-birth APGAR (Activity, Pulse, Grimace, Appearance and Respiration) scores; have frequent ear infections, allergies or colds; have genetic defects or seizure disorders; or have cleft lips/cleft palates and rely on nasal-gastric feeding tubes. Most often these delays diminish over time in non-ASD children, but in those who are affected, the ASD becomes promi-

nent usually between ages 2 and 3. ASDs are seen across all ethnic and social groups, with a male predominance, and it is estimated that 3 million people in the United States have autism. The development of autism has not been attributed to any one etiological factor. Autism is diagnosed from a pattern of symptoms rather than from one symptom. The common characteristics of patients with autism involve difficulties with social interaction and communication,² limited interests, and repetitive behaviors.

As a dental professional, you will encounter a variety of patients who exhibit ASDs. Each individual must be treated as "different" and not as "disabled." Many patients with autism lead full and active lives, although different than in the traditional sense. A dental patient with autism is treated like any other patient is.³ A previous CE program⁴ provided the professional with general information regarding autism spectrum disorders and dental treatment. The current program will discuss how to learn about the ASD patient prior to treatment and to provide appropriate behavior guidance or support based on each patient's unique needs during treatment.

Research has shown that children with autism spectrum disorders who display difficult behavior are less likely to see a dentist for routine care, more likely to have longer intervals between dental appointments and more likely to receive care only when issues arise.^{3,5} Dental professionals are routinely unaware of the specific needs that a patient with autism will require and therefore are likely to avoid treating these patients. With education and understanding, any dental professional can treat this special group.

Children with autism spectrum disorders who display difficult behavior are less likely to see a dentist for routine care and more likely to have longer intervals between dental appointments.

The Initial Point of Contact

The initial point of contact with any dental patient is a crucial event. As part of a "best practice" protocol, when a patient calls a dental office for a new-patient appointment, care must be taken to ensure that the patient is treated with respect and thoughtfulness. The front-office administrative staff must be friendly and educated about the practice's philosophy and treatment protocols. Routine staff training sessions, or other continuing education programs to educate the front staff, are important to ensure that an appropriate "face" of the practice is in place. The same is true in handling patients with autism and their parents/caregivers. In addition to the medical and dental history forms that a practice utilizes, patients with autism should be asked to complete additional information that will assist the dental team in providing optimal care.

Figure 1. Supplemental form for patients with autism

TREATING DENTIST _____

TREATING DENTAL HYGIENIST _____

PATIENT INFORMATION (Please Print) Date: _____

PERSONAL INFORMATION:

Name: _____

Address: _____

City _____ State _____ Zip Code _____

Phone: (home) _____ (work) _____

Email Address: _____

Date of Birth: ____/____/____ Age: _____

Height: _____ Weight: _____

PERSON TO CONTACT IN CASE OF EMERGENCY:

Name: _____ Relationship: _____

Address:(if different from above) _____

Phone: home- _____ work- _____

Current Physician: _____ Phone: _____

MEDICAL INFORMATION:

Describe the nature of your disability: _____

Are you currently taking any medications? YES / NO

If yes, what medications: _____

Describe side effects of current medications: _____

Have you ever had SEIZURES? YES / NO

If YES, date of last seizure ____/____/____

Describe the type of seizure _____

Do you have any ALLERGIES? YES / NO

If yes, please list _____

Do you have any FOOD SENSITIVITIES OR AVERSIONS? YES / NO

If yes, please list _____

Do you have any BLADDER or BOWEL ADAPTATIONS?: YES / NO

Please list any adaptations: _____

Are there any precautions we should be aware of regarding bladder/bowel control?: _____

DENTAL EXPERIENCE:

Have you had any dental experiences? YES / NO

If yes, please describe _____

Do you have a dental experience at home on a daily basis? YES / NO

If yes, please describe _____

How would you describe your tolerance for dental experiences? Good / Fair / Poor

Do you use a powered toothbrush or a manual toothbrush? _____

What are your dental health goals? _____

ORAL HABITS

How often are you snacking during the day? _____

Is food used as a reward during therapy?: _____

If yes, what types of food do you prefer?: _____

Do you need to chew for sensory stimulation? _____

If yes, how often per day?: _____

If yes, what materials do you chew on?: _____

Do you have a tendency to put non-edible items in your mouth?

If yes, please describe?: _____

PHYSICAL FUNCTIONING

Are you currently working or attending school? _____

If yes, how long is your average work or school day?: _____

Do you have difficulty breathing? _____

Do you have normal range of motion in the following?

Right arm: YES / NO Left arm: YES / NO

If NO, please describe: _____

Describe your strength: (Circle all that apply)

Upper Body: Weak / Average / Strong

Left Side: Weak / Average / Strong

Right Side: Weak / Average / Strong

SENSATION:

Is any part of your body paralyzed? YES / NO

Can you feel hot and cold normally? YES / NO

If YES to any of the above, please explain: _____

COMMUNICATION:

Receptive communication level High / Medium / Low

Expressive communication level High / Medium / Low

Can patient make needs known to dental team? YES / NO

Do you have difficulty speaking or communicating? YES / NO

Do others have difficulty understanding you? YES / NO

Do you have difficulty remembering things? YES / NO

Do you have difficulty in learning new things? YES / NO

Do you have difficulty following directions? YES / NO

Do you have difficulty hearing? YES / NO

If you answered YES to any of these questions, PLEASE EXPLAIN: _____

Useful phrases or words that work best with patient? _____

Does student use non verbal communication? YES / NO

If YES please check all that apply:

☐ Mayer Johnson Symbols

☐ Sign Language

☐ Picture Exchange Communication System (PECS)

☐ Sentence Board or Gestures

Will you be bringing a communication system with you? YES / NO

Are there any symbols/signs that we can have available to assist with communication? _____

VISION:

Do you wear glasses?: YES / NO

Do you wear contacts?: YES / NO

Please mark any of the following that are true about your vision:

double vision _____

visual perceptual problems _____

can only see to one side _____ Which side, left _____ right _____

HEARING

Do you have a hearing impairment? YES / NO

Do you wear a hearing aide? YES / NO

If YES, please explain _____

BEHAVIOR/EMOTIONS:

Impulsive? YES / NO

Do you become easily frustrated? YES / NO

Do you become angry easily? YES / NO

Do you every physically/verbally lose control? YES / NO

PLEASE give details to any question that you answered yes to: _____

What are the best ways to help you gain control? _____

Behavior to be discouraged: _____

PLEASE GIVE ANY ADDITIONAL INFORMATION THAT MAY HELP US TO PREPARE FOR A SUCCESSFUL DENTAL EXPERIENCE: _____

Documentation

Documentation of specific needs, challenges, skills and capacities of the patient with autism can be reviewed using this additional form. (Figure 1) This allows the parent/caregiver to inform the dental professional of opportunities, strengths and weaknesses the patient may present with. Information obtained concerning the patient's previous behavior and reactions to experiences such as haircuts and toothbrushing, and their level of physical function and communication are also useful in assessing the child's response to behavior guidance.⁶ In understanding a patient's individual needs, the dental professional can tailor treatment to suit the patient's abilities rather than disabilities. Maintaining a positive environment from the initial contact will go far in providing care for these patients. Detailed data should include information on all personal and medical statistics, previous dental experiences (positive and negative), level of physical function and communication, effects of stimuli (light, noise), and range of emotional behaviors. This information can be obtained via a phone interview, but ideally the parent/caregiver who will be bringing the patient to the dental office should have a face-to-face interview with the dental team to ensure best practices for the patient.

Each section of the detailed form should be reviewed by all dental team members who will be providing care for the patient with autism. However, the number of team members should be kept to a minimum and the patient should be seen by the same professional each time (for example, the same hygienist in the practice should work with the patient, rather than different hygienists at each visit). A patient with autism likes continuity, and seeing the same face each time allows for a trusting relationship to build, which in turn will allow for better cooperation.

In understanding a patient's individual needs, the dental professional can tailor treatment to suit the patient's abilities rather than disabilities.

Over time, it is a good idea to introduce the patient to additional staff members in case a change in the dental professional providing treatment is required. The medical information section should include data on the contact information for the patient's primary care physician and other professionals (medical or educational specialists) the patient may be seeing. An actual diagnosis and level of function, list of current medications, and list of any allergies/sensitivities should be included. Keep in mind, however, that these inquiries are supplemental to the standard medical history review and information. Dental professionals should also understand the patient's bowel or bladder issues that may present during a dental procedure.

It also may be a good idea to ask prior to beginning any dental treatments if the patient needs to use the restroom.

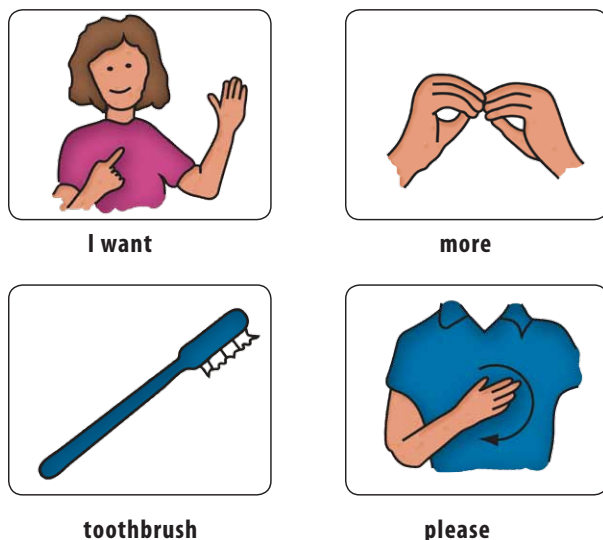
Dental care history

The parent/caregiver should be questioned as to the level of previous dental care. This should include actual dental visits and their outcomes, both positive and negative. Detailed information as to how the patient reacted to dental stimuli should be included. Daily homecare routines and products used should also be discussed. Emphasis should be placed on the fact that homecare should be a daily part of the patient's routine and does not have to take place in the bathroom. Homecare should take place in a location where the patient feels comfortable and cooperative and that will allow for proper oral homecare, whether in the bathroom or other area in the home. It should also be suggested to the parent/caregiver that oral care be included in the patient's individual education plan (IEP) in school as part of the patient's daily life skills learning program. Information as to the parent's/caregiver's goals and expectations for current dental treatment should be elicited. These should include both short- and long-term expectations and benefits.⁵

Assessing the patient's level of physical function

The patient's level of physical function and communication should be assessed during the initial interview. The level of physical function will determine the ability of the dental professional to provide traditional dental services and homecare recommendations or whether adaptations will need to be provided. Information as to the patient's range of motion, stamina, breathing abilities, vision and hearing, and self-care should be discussed. Patients with autism will often have communication issues both in expressive and receptive language skills. Expressive language is the process of formulating and sending a message, while receptive language is the process of receiving and understanding the message. Many patients with autism do not understand nonverbal cues, and some may use assistive communication devices. These range from an AlphaSmart, a portable word processor, to a picture exchange communication system (PECS). (Figure 2) The PECS is a book with pictures that represent objects, people, places and emotions that the patient is familiar with. The patient may point to or use the pictures in the book as a way of communicating wants and needs to others. The book grows as the patient grows and learns.⁷ Dental professionals can assist the parent/caregiver in adding pictures or words to the PECS to simulate dental procedures and the office environment that will offer the patient some familiarity prior to the initial visit. Additionally, a series of photos can be developed to provide guidance in the daily homecare routines.

Figure 2. PECS



ASD patients often will exhibit strong reactions to various stimuli. Lights and sounds can create intense reactions. The dental office with its lights and sounds can overstimulate the senses of the ASD patient. It is important that the dental professional limit unnecessary sights or sounds. Using an operatory that is secluded rather than one that is in the middle of a busy office, lowering lights, and using soft, soothing music can be helpful.⁸ The dental professional should anticipate additional treatment time to allow the patient to adjust to new sights and sounds without experiencing undue stress. The treating professional should always document in the patient's chart anything that affects the patient in either a positive or negative manner for future treatments. This documentation should focus on the positives, as this will provide guidance and support opportunities to build upon in the future.

Using an operatory that is secluded rather than one that is in the middle of a busy office, lowering lights, and using soft, soothing music can be helpful.

Patients with autism can exhibit a range of behavioral issues. Many patients have low frustration thresholds and can be hyperactive. Often the ASD patient will employ head banging, biting, pinching or continuous rocking either as a self-injuring or soothing mechanism. Obtaining information from the parent/caregiver as to what soothes or sets off the patient is important in maintaining control during the dental treatment. As much as possible, the dental professional should ignore "bad" behaviors as long as they do not jeopardize the patient's or professional's safety and should continually praise appropriate behaviors. For many, behavior guidance allows dental treatment to occur in a positive manner for patients with ASD.

Table 1. "Best practice" protocol for new dental patients with autism

Front office staff knowledgeable about the practice's philosophy
Obtain supplemental documentation on specific needs, challenges, skills and capacities
Review of supplemental documentation by all dental team members
Assess the patient's level of physical function during the initial interview
Assess the patient's level of communication during the initial interview
Maintain a positive environment
Tailor treatment to suit the patient's abilities
Treat the patient with respect and thoughtfulness
Allow the patient time to adjust to new sights and sounds
Continually praise appropriate behaviors
As much as possible, ignore 'bad' behaviors
Arrange for the same treating clinician to see the patient each time
Minimize the number of dental team members interacting with the patient
Use accepted behavior guidance techniques to aid treatment

Behavior Guidance Techniques

Behavior guidance is based on science and requires skills in communication and empathy. In many cases, dental professionals are initially unfamiliar with behavior guidance, but once it becomes standard practice while working with patients with autism, it can provide tremendous rewards. Goals of behavior guidance are to establish communication, alleviate anxiety and provide quality dental treatments while building a trusting and positive relationship for a lifetime between the professional and patient.⁷ The use of behavior guidance is based on the benefit vs. risk for the patient and professional, with the parent/caregiver involved in the overall process. Behavior guidance may include communication guidance, positive reinforcements, the use of distractions, parental/caregiver presence in the treatment operatory and the use of nitrous oxide/oxygen inhalation. The use of protective stabilization devices is controversial and will not be addressed in this article; dental professionals need to consult their state dental practice acts regarding this.

Communication is important in developing a relationship with the ASD patient. Many patients, however, lack critical communication skills. Communication guid-

ance helps establish a trusting relationship and builds needed cooperation. Each dental team member can use the methods that best suit the patient and the provider's comfort level. These techniques include but are not limited to “tell, show and do”; voice control; nonverbal communication; positive reinforcement; and distraction. The functioning level and developmental age of the patient should be considered when the dental professional and parent/caregiver decide on the appropriate communication guidance method. Chronological age is not an appropriate measure of skills.

The goals of behavior guidance are to establish communication, alleviate anxiety and provide quality dental treatments while building a trusting and positive relationship.

Tell, show and do

“Tell, show and do” is the hallmark of working with the pediatric population. The patient is told the procedure, the patient is shown the procedure and then the procedure is done. Adult and pediatric ASD patients benefit tremendously from the “tell, show and do” method of communication guidance. Verbal cues and explanations geared to the patient's abilities are discussed; demonstrations of the procedure for the patient with visual, auditory, olfactory and tactile information are given; and then the procedure is performed on or with the patient. The ASD patient is provided constant positive reinforcement throughout the “tell, show and do” method, regardless of the amount of cooperation that is achieved. Patients may need to have this method of behavior guidance practiced several times before an actual procedure is completed; therefore the positive reinforcement is used to continue to progress in the process. Pediatric patients may also request that a favorite stuffed animal or toy be shown the procedure as well. The objectives of “tell, show and do” are to familiarize the patient with the dental operator and prepare the patient to accept various aspects of dental treatment. It is effective in shaping the patient's response to procedures through desensitization. “Tell, show and do” can be used with both pediatric and adult ASD patients, with no contraindications.

In actions similar to the “tell, show and do” demonstrations, the parent/caregiver can be given materials from the dental office prior to the visit, to work with the patient at home. These can include radiographic film, disposable plastic mouth mirrors, mouth props or rests, saliva ejectors/suction tips, or other materials the dental professionals are comfortable in instructing the parent/caregiver on. In this way, the patient can become familiar with unfamiliar products used in a familiar environment (the home) and will recognize them when used in the dental office.

Voice control

Voice control is the regulation of the dental team member's voice during treatment. Changes in voice volume, inflection, pace and tone are used to direct the patient's behavior while receiving treatment. The parent/caregiver must be informed of the use of voice control, to prevent any misunderstandings during treatment. The objective of voice control is to increase cooperation and attention while decreasing any negative behaviors. It can be used with any ASD patient, although patients who experience hearing deficits would not be good candidates. Phrases such as “eyes to me,” “look at me,” “hands on tummy” or “feet straight out” can be used to elicit appropriate behaviors. David Tesini, DMD, has developed a program, D-Termined Program of Repetitive Tasking and Familiarization in Dentistry, for dental professionals using these techniques. Many ASD patients do not “read” nonverbal communication well. The level of function of the ASD patient must be assessed initially prior to using nonverbal communication guidance. If the patient is able to understand nonverbal communication, the use of nonverbal cues is a good way of eliciting appropriate behavior.

Positive reinforcement

In combination with other behavior guidance activities, positive reinforcement can greatly enhance the ASD patient's cooperation. Positive reinforcement is the process of establishing desired and appropriate behaviors. It rewards desired behaviors and thus strengthens the recurrence of the behavior. Verbal praise and the appropriate demonstrations of affection, along with tokens or toys, can be used as positive reinforcers. Each individual responds to a different reinforcer. What works for one patient at one point may not work for another patient or for the same patient at a later time. It is often recommended that the parent/caregiver bring an appropriate reward for the patient so that the dental team member can reward the patient with the current appropriate reinforcer. Positive reinforcements can be used for any patient, with no contraindications.

Positive reinforcement can greatly enhance cooperation in patients with autism.

Distraction

The use of distraction helps divert the patient's attention from inappropriate behaviors or from a procedure that may be viewed as unpleasant. It allows the patient to take a short break (with a specific count in time) during stressful periods or if a behavior is not appropriate. An ASD patient can count or sing/hum during this time. For patients who are diagnosed with higher-functioning levels of autism, another distraction technique involves having patients close their eyes, think of something pleas-

ant (place, person, object), and imagine the object or place with them at that moment. By focusing on the positive, pleasant aspects of something, patients are often soothed and relaxed enough to undergo a procedure. The use of distraction, however, can be used only with patients who have a trusting relationship with the dental team member.

The presence of parents/caregivers

The presence of the parent/caregiver in the operatory can be a positive reinforcement for treatment. The importance of communication is critical to achieving success. The parent/caregiver must be instructed to only maintain a presence and not to interfere in the treatment process unless requested. With the parent/caregiver in the operatory, communication should be directed to the patient as appropriate, not to the parent/caregiver. The parent/caregiver presence is used to gain the patient's attention and increase compliance, decrease negative behaviors, establish appropriate roles during treatment, provide effective communication between dental provider and patient, and provide a positive dental experience.

Advanced procedures

The use of nitrous oxide/oxygen inhalation is an appropriate treatment option for many ASD patients. Nitrous is safe and effective in reducing anxiety, with its rapid onset and recovery. It provides a degree of analgesia, amnesia and reduction in the gag reflex. Due to its occupational health hazards, scavenger systems and monitoring devices need to be used and evaluated routinely. Despite the dental team's best efforts with minimal behavior guidance techniques, there are times when more advanced procedures such as sedation and general anesthesia will be needed.⁹ Dental professionals should seek guidance from their state dental practice acts before using any advanced procedure and only when *all* other attempts at behavior guidance have been exhausted. Each has benefits and risks that must be weighed prior to usage. Usage of sedation or general anesthesia is viewed as a "last resort" measure to be used when other behavior guidance modalities have not been successful. Each is used with consideration of the dental needs of the patient and the quality of care that can be provided in a safe environment for both the dental professional and the patient. Consideration as to the patient's emotional and physical development is also an important component.

Summary

The use of behavior guidance techniques makes treating patients with autism less stressful for the dental team. Initially, there may be a learning curve for the team to successfully accomplish the goals of behavior guidance, but in the long run, it will reward the practice in many unseen ways. Parents/caregivers of patients with autism

report that they appreciate dental teams that have an understanding of patients' situations and the anxiety that dental treatment may evoke in these special patients. When the dental team takes the time to treat the patients and their families with respect and dignity, communicate and listen to information appropriately, see the patients as "different" rather than "disabled," and allow for extra time during treatment, the parents/caregivers and patients will respond in kind. Parents/caregivers also understand that working with patients with autism is a two-way street. The parent/caregiver must prepare the patient prior to visits by role play, books and pictures. The use of distractions while waiting and at appropriate times during treatment and scheduling appointments at the patient's "best" times during the day as well as providing all required information in a timely manner will significantly help the dental team in providing treatment. With respect to behavior guidance techniques, parents have been found to be most accepting of positive verbal reinforcement, 'tell, show and do', distraction and rewards.¹⁰ The initial visit with the patient should be a trust-building appointment that is short in length and procedure. Each subsequent visit should occur at regular intervals (weekly, monthly) so that the patient becomes familiar with the team and the practice. A reassuring phone call a day or two after an appointment also fosters continued success and motivation. Each appointment should review previous success and set the stage for the future while providing treatment in a timely manner. Keeping instruments out of sight until needed; keeping lights dimmed; providing comfort items (even a lead apron can be a comfort to some patients) and soothing music; and allowing the use of toys or chew tubes to keep the appointment focused all will allow treatment to proceed in the best interest of the patient.

Parents have been found to be most accepting of positive verbal reinforcement, 'tell, show and do', distraction and rewards as behavior guidance techniques.

Treating patients with autism may be challenging but can be immensely rewarding. It is more of an art than a science, and dental team members must be flexible in determining a patient's particular needs. Those professionals who have been successful in working with these special patients report receiving rewards that are too numerous to mention. Success is measured by the smiles seen on many parents'/caregivers' faces when they realize that there is a true "dental home" for this special person. In addition, what a wonderful reward if the patient with autism responds to the dental team with a smile and hug or by speaking to you when he or she may speak to no one else!

References

- 1 Autism and Developmental Disabilities Monitoring Network Surveillance Year 2006 Principal Investigators; Centers for Disease Control and Prevention (CDC). Prevalence of autism spectrum disorders - Autism and Developmental Disabilities Monitoring Network, United States, 2006. MMWR Surveill Summ. 2009;58(10):1-20.
- 2 Green D, Flanagan D. Understanding the autistic dental patient. Gen Dent. 2008;56(2):167-71.
- 3 TH Brickhouse, et al. Barriers to Dental Care for Children in Virginia with Autism Spectrum Disorders. J Dent Children. 2009;76(3):188-93.
- 4 Raposa K, DePalma AM. Building Bridges: Dental Care for Patients with Autism. Available at: www.ineedce.com.
- 5 Raposa K. Behavioral Management for Patients with Intellectual and Developmental Disorders. Dent Clin N Am. 2009;53(2):359-73.
- 6 Marshall J, Sheller B, Williams BJ, Mancl L, Cowan C. Cooperation predictors for dental patients with autism. Pediatr Dent. 2007 Sep-Oct;29(5):369-76.
- 7 American Academy of Pediatric Dentistry: Clinical Affairs Committee. Guideline on Behavior Guidance. Pediatr Dent. 2008-09;30(7Suppl): 125-33
- 8 National Institute of Dental and Craniofacial Research – National Institutes of Health, Practical Oral Care for People with Autism.
- 9 Loo CY, et al. Behavior Guidance in Dental Treatment of Patients with Autism Spectrum Disorder. Int J Ped Dent. 2009;19(6):390-8.
- 10 Marshall J, Sheller B, Mancl L, Williams BJ. Parental attitudes regarding behavior guidance of dental patients with autism. Pediatr Dent. 2008;30(5):400-7.

Author Profiles

Ann-Marie C. DePalma, RDH, MEd, FAADH

Ann-Marie C. DePalma, RDH, MEd, FAADH is a Fellow and current treasurer of the American Academy of Dental Hygiene, holds a Masters in Education degree from the University of Massachusetts - Boston and is a graduate of the Forsyth School for Dental Hygienists. Ann-Marie is a monthly columnist for RDH Magazine. She is a continuous



member of ADHA and is a member and Fellow of the Association of Dental Implant Auxiliaries. Ann-Marie provides continuing education programs for hygienists and dental team members on a variety of topics including

recognizing childhood developmental delays. She can be contacted at amrdh@aol.com

Karen A. Raposa, RDH, MBA

Karen A. Raposa, RDH, MBA holds an Associate of Science and Bachelor of Science degree in Dental Hygiene from The University of Rhode Island. She received her Master's Degree in Business Administration from the University of Massachusetts at Dartmouth, Charlton College of Business. Karen has spent the last several years of her career lecturing to dental professionals on an international



level, writing a textbook chapter, as well as journal articles on a variety of topics including courses and articles containing detailed tips and tools for successful dental treatment of patients with developmental and intellectual disabilities.

Karen has held several varied positions during her career in dental hygiene that include private practice, business management, professional relations, marketing, and sales. Most recently, she held an Assistant Professor/Assistant Director position at Boston University in the Department of General Dentistry's Extramural Programs. She is a member of the ADHA, the ADEA, the AADH, the Special Care Dentistry Association, the American Academy of Dental Medicine and Dentistry and holds advisory board positions with several key dental hygiene publications. Karen is currently Senior Manager of Professional Relations at Colgate-Palmolive, one of the supporters of this course.

Acknowledgements

This course contains content derived from Ms. Raposa's presentation on patients with autism.

Pennwell would like to thank Colgate, Discus, Kerr, Midmark, Patterson Dental and Philips Sonicare for their generous support of this course.

Disclaimer

The authors generously donated their time to write this course.

Reader Feedback

We encourage your comments on this or any PennWell course. For your convenience, an online feedback form is available at www.ineedce.com.

Online Completion

Use this page to review the questions and answers. Return to www.ineedce.com and sign in. If you have not previously purchased the program select it from the "Online Courses" listing and complete the online purchase. Once purchased the exam will be added to your Archives page where a Take Exam link will be provided. Click on the "Take Exam" link, complete all the program questions and submit your answers. An immediate grade report will be provided and upon receiving a passing grade your "Verification Form" will be provided immediately for viewing and/or printing. Verification Forms can be viewed and/or printed anytime in the future by returning to the site, sign in and return to your Archives Page.

Questions

1. According to recent research, autism affects 1 in 110 children and 1 in 70 boys.
 - a. True
 - b. False
2. Autism can severely impair one's ability to _____.
 - a. communicate
 - b. interact with others
 - c. maintain appropriate contact with the outside world
 - d. all of the above
3. The odds are great that as a dental professional, you will encounter ASD patients in your practice.
 - a. True
 - b. False
4. Autism is a general term used to describe complex developmental brain disorders known as pervasive developmental disorders.
 - a. True
 - b. False
5. Research has shown that children with autism spectrum disorders who display difficult behavior are _____.
 - a. less likely to see a dentist for routine care
 - b. more likely to have longer intervals between dental appointments
 - c. more likely to receive care only when issues arise
 - d. all of the above
6. Documentation can be reviewed using a supplemental form for information on _____ for the patient with autism.
 - a. specific needs
 - b. challenges
 - c. skills and capacities
 - d. all of the above
7. Information obtained concerning the patient's previous behavior and reactions to experiences such as haircuts and toothbrushing are useful in assessing the child's response to behavior guidance.
 - a. True
 - b. False
8. In understanding a patient's individual needs, the dental professional can _____.
 - a. tailor treatment to suit the patient's disabilities
 - b. tailor treatment to suit the patient's abilities
 - c. tailor treatment to suit the caregiver
 - d. none of the above
9. The number of team members should be kept to a minimum for the patient with autism.
 - a. True
 - b. False
10. A patient with autism should be seen by the same dental professional each time.
 - a. True
 - b. False
11. It also may be a good idea to ask prior to beginning any dental treatments for a patient with autism if the patient needs to use the restroom.
 - a. True
 - b. False
12. The parent/caregiver of a patient with autism should be questioned as to _____.
 - a. the level of previous dental care
 - b. actual dental visits and their outcomes
 - c. how the patient reacted to dental stimuli
 - d. all of the above
13. Oral homecare should take place in a location where the patient feels comfortable and cooperative and that will allow for proper oral homecare; it need not be in the bathroom.
 - a. True
 - b. False
14. The patient's level of physical function and communication should be assessed during the initial interview.
 - a. True
 - b. False
15. Many patients with autism do not understand nonverbal cues, and some may use assistive communication devices such as _____.
 - a. an AlphaSmart
 - b. a picture exchange communication system
 - c. a portable word processor
 - d. all of the above
16. It is important that the dental professional limit unnecessary sights or sounds in the dental office as these can overstimulate the senses of the ASD patient.
 - a. True
 - b. False
17. The treating professional should always document in the patient's chart anything that affects the patient in either a positive or negative manner for future treatments.
 - a. True
 - b. False
18. Often the ASD patient will employ head banging, biting, pinching or continuous rocking either as a _____ or _____ mechanism.
 - a. self-injuring; controlling
 - b. controlling; soothing
 - c. self-injuring; soothing
 - d. none of the above
19. A goal of behavior guidance is to _____.
 - a. establish communication and alleviate anxiety
 - b. provide quality dental treatments
 - c. build a trusting and positive relationship between the professional and patient
 - d. all of the above
20. The use of behavior guidance is based on the benefit vs. risk for the patient and professional.
 - a. True
 - b. False
21. Chronological age is an appropriate measure of skills in patients with autism.
 - a. True
 - b. False
22. Adult and pediatric ASD patients benefit tremendously from the "tell, show and do" method of communication guidance.
 - a. True
 - b. False
23. Changes in _____ can be used to direct the patient's behavior while receiving treatment.
 - a. voice volume
 - b. inflection
 - c. pace and tone of speaking
 - d. all of the above
24. Positive reinforcement _____.
 - a. is the process of establishing desired and appropriate behaviors
 - b. rewards desired behaviors
 - c. strengthens the recurrence of desired and appropriate behavior
 - d. all of the above
25. The use of distraction _____.
 - a. helps divert the patient's attention from inappropriate behaviors
 - b. helps divert the patient's attention from a procedure that may be viewed as unpleasant
 - c. can be used only with patients who have a trusting relationship with the dental team member
 - d. all of the above
26. The presence of the parent/caregiver in the operatory can be a positive reinforcement for treatment.
 - a. True
 - b. False
27. Despite the dental team's best efforts with minimal behavior guidance techniques, there are times when more advanced procedures such as sedation and general anesthesia will be needed.
 - a. True
 - b. False
28. With respect to behavior guidance techniques, parents have been found to be most accepting of positive verbal reinforcement, 'tell, show and do', distraction and rewards.
 - a. True
 - b. False
29. A reassuring phone call a day or two after an appointment fosters continued success and motivation.
 - a. True
 - b. False
30. Treating patients with autism _____.
 - a. may be challenging
 - b. is more of an art than a science
 - c. can be immensely rewarding
 - d. all of the above

Building Bridges - Part 2: Understanding and Guiding the Dental Patient with Autism

Name:	Title:	Specialty:
Address:	E-mail:	
City:	State:	ZIP:
Country:		
Telephone: Home ()	Office ()	

Requirements for successful completion of the course and to obtain dental continuing education credits: 1) Read the entire course. 2) Complete all information above. 3) Complete answer sheets in either pen or pencil. 4) Mark only one answer for each question. 5) A score of 70% on this test will earn you 4 CE credits. 6) Complete the Course Evaluation below. 7) Make check payable to PennWell Corp. **For Questions Call 216.398.7822**

Educational Objectives

1. List signs and symptoms that patients with autism experience.
2. List and describe the prevalence, possible associations and demographics of patients with autism.
3. List and describe the events and stimuli in a dental office that can influence the behavior of patients with autism.
4. List and describe the steps and care that should be taken in treating patients with autism.

Course Evaluation

Please evaluate this course by responding to the following statements, using a scale of Excellent = 5 to Poor = 0.

1. Were the individual course objectives met?	Objective #1: Yes	No	Objective #3: Yes	No
	Objective #2: Yes	No	Objective #4: Yes	No
2. To what extent were the course objectives accomplished overall?	5	4	3	2
3. Please rate your personal mastery of the course objectives.	5	4	3	2
4. How would you rate the objectives and educational methods?	5	4	3	2
5. How do you rate the author's grasp of the topic?	5	4	3	2
6. Please rate the instructor's effectiveness.	5	4	3	2
7. Was the overall administration of the course effective?	5	4	3	2
8. Do you feel that the references were adequate?		Yes	No	
9. Would you participate in a similar program on a different topic?		Yes	No	
10. If any of the continuing education questions were unclear or ambiguous, please list them.				

11. Was there any subject matter you found confusing? Please describe.

12. What additional continuing dental education topics would you like to see?

If not taking online, Mail completed answer sheet to

Academy of Dental Therapeutics and Stomatology,
A Division of PennWell Corp.

P.O. Box 116, Chesterland, OH 44026
or fax to: (440) 845-3447

For IMMEDIATE results,
go to www.ineedce.com to take tests online.
Answer sheets can be faxed with credit card payment to
(440) 845-3447, (216) 398-7922, or (216) 255-6619.

☐ Payment of \$59.00 is enclosed.
(Checks and credit cards are accepted.)

If paying by credit card, please complete the following: ☐ MC ☐ Visa ☐ AmEx ☐ Discover

Acct. Number: _____

Exp. Date: _____

Charges on your statement will show up as PennWell

- | | |
|---------------------|---------------------|
| 1. (A) (B) (C) (D) | 16. (A) (B) (C) (D) |
| 2. (A) (B) (C) (D) | 17. (A) (B) (C) (D) |
| 3. (A) (B) (C) (D) | 18. (A) (B) (C) (D) |
| 4. (A) (B) (C) (D) | 19. (A) (B) (C) (D) |
| 5. (A) (B) (C) (D) | 20. (A) (B) (C) (D) |
| 6. (A) (B) (C) (D) | 21. (A) (B) (C) (D) |
| 7. (A) (B) (C) (D) | 22. (A) (B) (C) (D) |
| 8. (A) (B) (C) (D) | 23. (A) (B) (C) (D) |
| 9. (A) (B) (C) (D) | 24. (A) (B) (C) (D) |
| 10. (A) (B) (C) (D) | 25. (A) (B) (C) (D) |
| 11. (A) (B) (C) (D) | 26. (A) (B) (C) (D) |
| 12. (A) (B) (C) (D) | 27. (A) (B) (C) (D) |
| 13. (A) (B) (C) (D) | 28. (A) (B) (C) (D) |
| 14. (A) (B) (C) (D) | 29. (A) (B) (C) (D) |
| 15. (A) (B) (C) (D) | 30. (A) (B) (C) (D) |

AGD Code 750

PLEASE PHOTOCOPY ANSWER SHEET FOR ADDITIONAL PARTICIPANTS.

AUTHOR DISCLAIMER

The author(s) of this course has/have no commercial ties with the sponsors or the providers of the unrestricted educational grant for this course.

SPONSOR/PROVIDER

This course was made possible through an unrestricted educational grant. No manufacturer or third party has had any input into the development of course content. All content has been derived from references listed, and/or the opinions of clinicians. Please direct all questions pertaining to PennWell or the administration of this course to Machele Galloway, 1421 S. Sheridan Rd., Tulsa, OK 74112 or macheleg@pennwell.com.

COURSE EVALUATION AND PARTICIPANT FEEDBACK

We encourage participant feedback pertaining to all courses. Please be sure to complete the survey included with the course. Please e-mail all questions to: macheleg@pennwell.com.

INSTRUCTIONS

All questions should have only one answer. Grading of this examination is done manually. Participants will receive confirmation of passing by receipt of a verification form. Verification forms will be mailed within two weeks after taking an examination.

EDUCATIONAL DISCLAIMER

The opinions of efficacy or perceived value of any products or companies mentioned in this course and expressed herein are those of the author(s) of the course and do not necessarily reflect those of PennWell.

Completing a single continuing education course does not provide enough information to give the participant the feeling that s/he is an expert in the field related to the course topic. It is a combination of many educational courses and clinical experience that allows the participant to develop skills and expertise.

COURSE CREDITS/COST

All participants scoring at least 70% (answering 21 or more questions correctly) on the examination will receive a verification form verifying 4 CE credits. The formal continuing education program of this sponsor is accepted by the AGD for Fellowship/Mastership credit. Please contact PennWell for current term of acceptance. Participants are required to contact their state dental boards for continuing education requirements. PennWell is a California Provider. The California Provider number is 4527. The cost for courses ranges from \$49.00 to \$110.00.

Many PennWell self-study courses have been approved by the Dental Assisting National Board, Inc. (DANB) and can be used by dental assistants who are DANB certified to meet DANB's annual continuing education requirements. To find out if this course or any other PennWell course has been approved by DANB, please contact DANB's Recertification Department at 1-800-FOR-DANB, ext. 445.

RECORD KEEPING

PennWell maintains records of your successful completion of any exam. Please contact our offices for a copy of your continuing education credits report. This report, which will list all credits earned to date, will be generated and mailed to you within five business days of receipt.

CANCELLATION/REFUND POLICY

Any participant who is not 100% satisfied with this course can request a full refund by contacting PennWell in writing.

© 2010 by the Academy of Dental Therapeutics and Stomatology, a division of PennWell

AUT710RDH

Pennwell is proud to be donating 50% of all CE course revenue from “Building Bridges - Part 2: Understanding and Guiding the Dental Patient with Autism” to Autism Speaks.

Autism Speaks is dedicated to funding global biomedical research into the cause, prevention, treatments and cure for autism; to raising public awareness about autism and its effects on individuals, families, and society; and to bringing hope to all who deal with the hardships of this disorder.

The following companies along with Pennwell have generously supported the printing and distribution cost of this CE course. The authors have also donated their time and effort in creating this valuable educational piece.



AUTISM SPEAKS™
It's time to listen.

www.autismspeaks.org


The Academy of Dental Therapeutics and Stomatology, Inc.

The Companies below generously supported this project



PATTERSON
DENTAL



MIDMARK®

Free Interactive CE. 24/7 On-Demand.

Kerr
Learning Source

Mastering Dental Techniques

kerrdental.com/LS



PHILIPS
sonicare
the sonic toothbrush

EXTRAVAGANZA IS BACK!
(800) 293-1515

DISCUS™

Inspired by you.™



Colgate®