

# The ABCs of Challenging Behavior: Understanding Basic Concepts

¶than is an adorable 2½-yearold boy. His delays are I mostly in the language and the behavioral domains. His language delays are evident in that he uses a very narrow range of words such as "mom," "dad," "cookie," "more," and "all done." Ethan is also an affectionate and social child. He likes to play with his peers and family members, and enjoys being the center of attention. Recently, his parents, John and Anya, have had several conversations with Ethan's developmental therapist, Amanda, about Ethan's challenging behaviors. Anya stated that her biggest concern is with Ethan's screaming and crying. He cries and screams frequently and his parents do not know what to do to stop this behavior. It affects their entire family. Amanda asked the parents to describe a few situations in which Ethan cries and screams. John said that these behaviors occur every night before bath and many times they decide not to give him a bath so that he will calm down. Anya added that when Ethan's older brother is playing with a toy, Ethan will frequently cry and scream until his brother gives him the toy. In addition, at times Ethan will burst into a room crying and screaming for no apparent reason. Anya really does not know why or what to do. The parents reported they had tried

"everything," but nothing helped and Ethan continues to engage in these behaviors. Amanda knows the importance of partnerships with families in addressing challenging behavior and wants to build on the family members' strengths to develop an appropriate intervention. She decides to collaborate with John and Anya to understand why Ethan cries and screams, and to develop and implement strategies to reduce his challenging behavior and replace it with more appropriate behavior. Amanda realizes that she will first need to talk with Ethan's parents about basic concepts in behavior to help them understand his behavior.

Many young children engage in challenging behaviors that could have short- and long-term negative effects for both the children and their families. Challenging behaviors refer to "any repeated pattern of behavior, or perception of behavior, that interferes with or is at risk of interfering with optimal learning or engagement in prosocial interactions with peers and adults" (Powell, Fixsen, Dunlap, Smith, & Fox, 2007, p. 83). If challenging behaviors are not addressed early with appropriate intervention and evidence-based practices, there is an

DOI: 10.1177/1096250614523969 http://yec.sagepub.com © 2014 Division for Early Childhood

**Hedda Meadan, PhD, BCBA-D** University of Illinois, Champaign, USA

**Shiri Ayvazo, PhD, BCBA-D**David Yellin Academic College, Jerusalem, Israel

Michaelene M. Ostrosky, PhD University of Illinois, Champaign, USA

One of the major obstacles facing parents and family members, as they attempt to address their child's challenging behavior, is confusion or unfamiliarity with the terminology and the technical jargon of behavioral interventions.

77

increased likelihood that children will struggle with poor academic achievement, peer rejection, and mental health concerns in the future. Challenging behavior could also have negative effects on a person's family, peers, and the community at large (Dunlap et al., 2006; Powell et al., 2007).

The Division for Early Childhood's (DEC) position statement on identification of and intervention with challenging behavior emphasizes the importance of identifying children with challenging behavior early to promote school success and decrease the likelihood of more severe social and academic problems (Division for Early Childhood, 2007). The DEC (2007) statement also stresses the need to collaborate with families on the prevention of and treatment for challenging behavior. Parents are experts on their children and about their family's culture, routines, resources, and social supports. Research supports family involvement in reducing challenging behavior, including participating in assessments, planning and developing interventions, and implementing strategies aimed at reducing challenging behavior (Dunlap et al., 2006; Park, Alber-Morgan, & Fleming, 2011). In other words, parents are essential participants in collaboration with professionals, in developing interventions to help their child with challenging behavior participate in everyday activities, learn new skills, and become more independent (Fettig & Ostrosky, 2011).

There are several effective practices for preventing and reducing challenging behavior. For example, Boulware, Schwartz, and McBride (1999) presented Positive Behavior Support (PBS) as an approach for addressing challenging behavior at home. PBS focuses on preventive measures, environmental changes at home, and teaching adaptive behaviors in place of the child's undesirable behaviors. Neilsen, Olive, Donovan, and McEvoy (1999) proposed strategies that could help educators assess challenging behavior in educational settings and then design appropriate interventions. Fox, Dunlap, Hemmeter, Joseph, and Strain (2003) described the Pyramid Model, which is a framework for addressing the social and emotional development and challenging behavior of young children in early childhood settings. Heward (2005) posited that behavioral strategies are highly effective for teaching children new skills and modifying existing behaviors. Nevertheless, many parents and educators experience difficulties understanding and using these practices effectively with young children.

One of the major obstacles facing parents and family members, as they attempt to address their child's challenging behavior, is confusion or unfamiliarity with the terminology and the technical jargon of behavioral interventions.

Therefore, initial efforts should focus on helping family members *understand* the terminology used to assess and analyze challenging behavior, so they can collaborate with others to develop interventions that effectively address challenging behaviors.

When family members and professionals are not successful in addressing the problem behavior independently, they might consider collaborating with a behavior specialist, such as a Board Certified

If a child engages in challenging behavior over and over again, it means that the behavior is working for the child.

Thus, understanding why the behavior occurs is an important initial step in changing or replacing it.

77

Behavior Analyst (BCBA), who is specially trained in the field of Applied Behavior Analysis (ABA). Explaining concepts and strategies that emerge from basic behavioral concepts in a conversational style may facilitate understanding and increase the acceptability of strategies in the eyes of family members who may not have expertise in behavioral principles (Rolider & Axelrod, 2005; Rolider, Axelrod, & Van Houten, 1998). The first step in promoting the use of effective practices is to help family members and professionals understand the terms used in assessing and analyzing challenging behavior and provide them with information to better facilitate collaboration.

The purpose of this article is to explain challenging behavior, including basic concepts and vocabulary related to challenging behavior from a behavior-analytic perspective. The behavior-analytic approach suggests that by focusing on the contexts and outcomes of the challenging behavior (i.e., observing what happens before and after the challenging behavior occurs), it is possible to better understand why a child behaves in a certain way (i.e., determine the function of behavior). If a child engages in challenging behavior over and over again, it means that the behavior is working for the child. Thus, understanding why the behavior occurs is an important initial step in changing or replacing it. Using strategies, such as modifying the physical and social environment and teaching new socially appropriate skills, could make the challenging behavior less effective and efficient, and lead to fewer challenging behaviors and positive outcomes for the child and

the family. This perspective stands in contrast to the examples in the opening vignette which illustrated a very common situation whereby adults attempt to stop a challenging behavior by arbitrarily using a variety of methods such as reprimanding or removing a demand without understanding what motivates a child to engage in challenging behavior, thus offering a temporary remedy and one that does not teach the child new behaviors that could be used instead of the challenging behavior. Understanding the basic principles of behavior can facilitate adults' understanding of challenging behavior and promote collaboration between family members and professionals in the development of effective prevention and intervention strategies.

The discussion of each concept in this article is brief; Table 1 includes definitions of key concepts that support information provided in this article. For practical information and tools, readers are encouraged to visit the following websites: the Center on the Social and Emotional Foundations for Early Learning (CSEFEL, http://csefel.vanderbilt.edu/), and the Technical Assistance Center on Social Emotional Intervention for Young Children (TACSEI, http://challengingbehavior.org/index.htm).

### Basic Concepts for Understanding Challenging Behavior

#### **ABA**

Behavior refers to anything a person does (e.g., walking, reaching, pointing, crying) that can be

Table 1
Essential Concepts for Understanding Challenging Behavior

Concept	Description		
Antecedent	What happens before a behavior (i.e., a stimulus or environmental condition that immediately precedes a behavior)		
Antecedent strategies	Intervention strategies used for managing challenging behavior by changing what happens before the challenging behavior (i.e., changing the stimulus that precedes the behavior)		
Applied Behavior Analysis	Systematic use of behavioral principles to change a behavior that is socially significant		
Consequence	What happens after a behavior (i.e., a stimulus or environmental condition that immediately follows a behavior)		
Consequence strategies	Intervention strategies used to address challenging behavior by changing what happens after the behavior (i.e., changing the stimuli that follow the behavior)		
Function	The purpose of a behavior or the effect of a behavior on the environment		
Functional Behavior Assessment	A systematic method for gathering descriptive data on the function of a challenging behavior		
Motivating Operation	An event or condition that influences how a child responds to a situation, and the extent to which an object or event is a reinforcer		
Punisher	A stimulus that decreases the likelihood a behavior will occur again		
Reinforcer	A stimulus that increases the likelihood a behavior will occur again		
Replacement skill	A socially acceptable skill that replaces a challenging behavior		
Stimulus	An environmental condition that evokes a response		
Topography	The physical form or shape of a behavior (i.e., how the behavior looks)		

observed and measured (Cooper, Heron, & Heward, 2007). ABA is the scientific study of behavior. Using systematic direct observations of behavior and collecting data on its occurrence, people who use ABA principles seek to understand why behaviors occur and persist. The main goal when studying behavior is to reveal cause and effect relations between environmental events and behavior (e.g., Ethan tries to gain his mom's attention by crying when she is busy doing something else). ABA focuses on socially significant behaviors that are important for the individual, his/her family, and the community (e.g., communicating one's wants and needs, reading, independent life skills). ABA is applied in range of settings with

individuals with and without special needs, gifted education, workforce adjustment and productivity, juvenile delinquency, life skills training, physical activity habits, and problem behaviors. ABA is often used with children with autism spectrum disorders.

## Functional Behavior Assessment (FBA)

FBA is the process used to identify events in the environment that reliably predict and maintain challenging behavior. Systematically gathering information through a FBA maximizes the effectiveness and efficiency of a behavioral support plan (Cooper et al., 2007; Ndoro, Hanley, Tiger, & Heal, 2006;

O'Neill et al., 1997). FBA is typically the first procedure that behavior analysts conduct with family members and professionals using descriptive, indirect, and direct assessment strategies. The strategies used to collect FBA data include interviewing individuals who know the child with challenging behavior (e.g., parents, teachers), directly observing the child in various settings, and conducting a functional analysis (i.e., systematically manipulating problem situations), if needed. FBA helps family members and professionals identify the purpose or function of the challenging behavior and determine factors that may be maintaining the behavior across time and contexts (Cooper et al., 2007). The information revealed through a FBA guides family members and

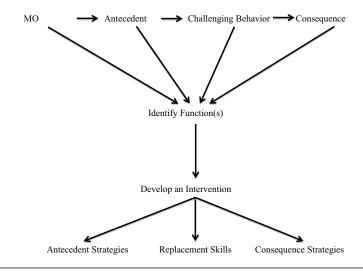
professionals as they develop interventions. For more specific information about how to conduct a FBA, including instruments for conducting interviews and observations, see O'Neill et al. (1997), and the CSEFEL and TACSEI websites.

#### The ABC of Behavior

The ABC of behavior analysis is the acronym used to identify the relation between the environment and behavior (A = antecedent, B = behavior, C = consequences). The ABC can help summarize the sequence of events that surround challenging behavior. Behavior does not just happen for environmental events or stimuli precede and follow its occurrence. The stimuli that are present with or occur immediately prior to the behavior are called antecedents. In reference to challenging behavior, they are also known as triggers or predictors. For instance, a parent's request to "get ready for bath time" might be an antecedent to a behavior such as compliance or getting undressed. In instances of challenging behavior, this request may well serve as a trigger to a problem behavior such as crying or screaming.

Stimuli that follow a behavior are called *consequences*. For example, following Ethan's crying and screaming when told to get ready for his bath, Ethan's mom might tell him "OK, let's do your bath later, let's do something else now." In this example, Ethan's challenging behavior (i.e., crying and screaming) is followed by a postponement or even removal of the bath request (i.e., the consequence), and a suggestion to do something else that may very

Figure 1
Sequence of events within the ABC analysis, identification of functions, and development of interventions



Note. MO = Motivating Operations.

44

To understand challenging

to discriminate between the topography of the

behavior, it is important

of the behavior.

behavior and the function

77

well be more fun for Ethan. Consequences that maintain or increase behavior in future similar episodes are called *reinforcers*. In the same manner, consequences that reduce or eliminate potential behavior in the future are called *punishers* (Cooper et al., 2007).

#### **Motivating Operations (MO)**

An additional component to consider within the ABC sequence is called *Motivating Operations*. MO are antecedent events that take place prior to the challenging behavior, yet could still change the probability that a behavior will occur at a later point in time (McGill, 1999). For example, if Ethan did not sleep well at nap time (i.e., MO) he could be more irritable during the afternoon, which might increase the probability of a tantrum at bath time. There are several conditions or motivating states that are important to consider due to their

potential effect on challenging behavior including (a) internal states (e.g., the child is hungry, cold, tired, or not feeling well), (b) medications (e.g., changes in the child's dosage of medication), (c) hygienic conditions (e.g., the child has a dirty diaper), (d) an interruption to the daily schedule (e.g., a substitute preschool teacher), and (e) unusual life events (e.g., the mother is out of town for work or the grandfather passed away) (Carter & Driscoll, 2007; O'Neill et al., 1997). It is important to identify MO when addressing challenging behavior. See Figure 1 for a sequence of events within the ABC analysis.

#### **Topographies and Functions**

To understand challenging behavior, it is important to discriminate between the *topography* of the behavior and the *function* of the behavior.

Topography refers to the external

The accurate identification of the reasons for a challenging behavior (i.e., functions), and the maintaining consequences are critical when planning interventions to alleviate the problem behavior.

77

appearance, shape, or form of the behavior (Cooper et al., 2007). For example, there are several ways to greet another person. One might say "Hello," "Good morning," or "How do you do?" All responses differ topographically. However, they have the same environmental effect, and thus, the same function (i.e., greeting a person). In the same manner, challenging behavior, such as tantrums, can vary in topography. A tantrum may include screaming and crying for one child and biting and kicking for another child. Furthermore, tantrums may look different for one child, under a different set of conditions (e.g., on one occasion the child might cry and scream, yet at another time she might kick and lay on the ground).

The function of behavior is its purpose, or how it serves the child. Function is based on the consequence rather than the appearance of the behavior. For example, Ethan might cry and scream to get his mother's attention, or he might cry and scream to avoid taking a bath. In general, there are two main functions as to why a child engages in challenging behavior: (a) getting something or (b) avoiding and escaping something. These two functions could be further categorized as getting or avoiding/escaping (a) attention from peers, family members, or others; (b) an item, object, or an activity; or (c) sensory input or stimulation (e.g., touching things, moving the body back and forth) (Cooper et al., 2007; McGill, 1999; O'Neill et al., 1997). For instance, a child might pick up food and throw it on the floor to gain his mother's attention. Alternatively, if he is simply not hungry anymore, a child may throw food on the floor

to "escape" from the eating activity. Finally, the child may hold and then throw the food because he enjoys feeling the food's texture in his hands (i.e., gaining sensory input from it). In preschool settings, the most prevalent reinforcers for problem behaviors are attention, access to materials, and escape from instructional demands (McGill, 1999; McKerchar & Thompson, 2004).

The accurate identification of the reasons for a challenging behavior (i.e., functions), and the maintaining consequences are critical when planning interventions to alleviate the problem behavior. Once a team has identified the function of the challenging behavior, they will need to discuss different intervention strategies that match the function of the behavior. Through a collaborative process, the team will identify the intervention strategy that best matches the function of the behavior, the child's characteristics, and the setting in which the intervention will be implemented.

When an intervention strategy is identified, instruction could focus on either changing the antecedents and/ or consequences to that behavior (i.e., using antecedent and consequence strategies), or developing more socially appropriate and adaptive responses that could replace the challenging behavior (i.e., replacement skills). Examples of these strategies are provided in Table 2 and discussed next.

#### **Antecedent Strategies**

Antecedent strategies, also known as antecedent interventions or prevention strategies, rely on changes in the environment or in the

Table 2
Possible Prevention and Intervention Strategies for Ethan's Challenging Behaviors

Possible function	Antecedent strategies	Replacement skills strategies	Consequence strategies
Avoid a non- preferred activity—bath time	Create visuals for evening routine with a preferred activity (e.g., story time) at the end of the routine.  Arrange for preferred bath time activities and games.  Provide a choice for taking a bath or a shower,	Teach Ethan how to request a shower instead of a bath.	Provide frequent verbal praise for appropriate behavior. Celebrate the completion of a bath activity.
Obtain a preferred item—toy	bubbles or no bubbles.  Teach expectations and establish a routine for playing with toys (e.g., a set time for playing with preferred toys).	Teach Ethan how to request a preferred toy. Teach Ethan to wait and take turns.	Provide frequent, positive verbal reinforcement for appropriate behavior and honor requests for toys when appropriate.
			Reinforce appropriate requests with immediate and longer play time.
Obtain mom's attention	Prepare the child immediately prior to situations where attention will be minimized (e.g., "I am going to the kitchen. If you need me, say 'Mom' and I will be right back").	Teach Ethan to recruit his mom's attention.	Provide frequent verbal praise for appropriate behavior and honor appropriate requests for attention.
Escape tooth brushing	Use visual (e.g., timer) or auditory (e.g., preferred song) signals to show how long the activity will last.  Prompt and physically assist if needed to	Teach Ethan how to request a "break" from the current activity (e.g., say "stop," hold up	Provide frequent verbal praise for appropriate behavior and honor appropriate requests for short breaks. Follow appropriate teeth brushing with a
	maintain fluency through the routine. Use a favorite flavor of toothpaste.	his hand).	favorite activity.

motivational level of the child to affect subsequent behavior (Cooper et al., 2007). In other words, antecedent strategies focus on modifying events that occur prior to the challenging behavior. For example, if screaming occurs repeatedly when the child quarrels over a toy, an antecedent intervention will include environmental arrangements (e.g., providing clear instructions on turn taking) that take place before opportunities arise to engage in this challenging behavior.

Antecedent intervention strategies include (a) providing explicit instructions, prompts, and reminders, including visual schedules and behavior expectations; (b) providing pre-exposure to the anticipated reinforcer (e.g., showing the child the preferred item that he will receive); (c) reducing unpleasant stimuli in the environment (e.g., decreasing the noise level); (d) offering choices (e.g., providing the child with choices of reinforcers or the order of activities); and (e) providing frequent access to the reinforcer that maintains the problem behavior when the problem behavior is not occurring (i.e., allowing the child to play with his favorite toy freely and frequently throughout the day) (Cooper et al., 2007; Ndoro et al., 2006; Wilder, Zonneveld, Harris, Marcus, & Reagan, 2007).

Implementing antecedent strategies to deal with Ethan's crying and screaming when his sibling is playing with a toy could

A possible strategy to address challenging behavior is to teach the child a new or replacement skill that could be used in place of the challenging behavior and have the same impact on the environment.

"

include giving clear explanations about how to play with the toy and take turns prior to play time, setting distinct play times for each child with the toy, providing another identical toy so that each child has one, distancing the two children from one another, providing the desired toy freely throughout the day to avoid irritating deprivation levels, and using prompts and reminders to encourage appropriate behavior.

#### **Replacement Skills**

Although antecedent strategies could change existing behavior, there are situations in which a child lacks the appropriate skills to obtain the desired reinforcer. For example, Ethan might not know how to ask for a break or how to gain his mother's attention in an appropriate way. A possible strategy to address challenging behavior is to teach the child a new or replacement skill that could be used in place of the challenging behavior and have the same impact on the environment (e.g., gaining access to a preferred item or avoiding a non-preferred activity). Once the functions of challenging behaviors are identified, family members and professionals need to teach more appropriate behaviors that may compete with the challenging behavior (Cooper et al., 2007; Webber & Scheuermann, 1991). Frequently, there is a need to teach more adaptive and socially acceptable ways of requesting and recruiting the attention of others (Lalli, Casey, & Kates, 1995). When these skills are missing from a child's repertoire, teaching the specific skill is critical. For example, Ethan's parents might teach him to tap a person's elbow to

request attention or say "my turn" to request a preferred toy; these behaviors are socially acceptable and could replace his crying and screaming while still providing Ethan with access to what he wants.

#### **Consequence Strategies**

Consequence strategies focus on modifying the events that follow the challenging behavior. Consequences that follow behavior can strengthen (i.e., reinforce) or weaken (i.e., punish) the future probability of the challenging behavior occurring. During an individual's lifetime, behaviors that are reinforced are learned and adopted into the child's range of behaviors, while behaviors that result in punishing consequences tend to disappear from one's repertoire (Cooper et al., 2007).

An initial strategy for managing challenging behaviors could focus on preventing the reinforcer that maintains the behavior. If food throwing is maintained by getting the mother's attention, when the child threw food, the mother would refrain from providing attention. If throwing food does not result in the mother's attention anymore, the behavior would probably cease. If food throwing continues, the mother could add an aversive consequence (e.g., a reprimand such as "no," without providing additional attention) immediately following the challenging behavior. It is important to pair a punitive consequence with an instruction regarding appropriate behavior (e.g., "If you want me to talk to you, you can say, 'Mom.'"). Also, when the more adaptive behavior is observed, it is critical to reinforce it (e.g., "Nice job saying 'Mom!' What do you want?").

Table 3
Hypothesized ABC Analysis of One of Ethan's Challenging Behaviors

Antecedent	Behavior	Consequence	Possible function
Dad says to Ethan, "Get ready for bath time."	Cries and screams	Dad decides to skip bath and says, "Let's do something else."	Avoids non-preferred activity.
Brother is playing with a toy. Mom is busy.	Cries and screams Cries and screams	Brother gives Ethan the toy.  Mom stops what she is doing, goes to  Ethan, and talks with him.	Obtains preferred toy. Obtains attention from others.
Mom is brushing Ethan's teeth.	Cries and screams	Mom stops the routine.	Escapes non-preferred activity.

## Understanding Ethan's Challenging Behavior

Returning to Ethan, the team members realized that they needed to conduct a FBA to analyze the context and outcomes of the challenging behaviors (i.e., antecedents and consequences) and to identify possible functions. The ABC analysis is used to describe the Antecedent, the challenging Behavior, the Consequences, and potential MO. After identifying a possible function, the team agrees on intervention strategies to try. An example of an ABC analysis of Ethan's challenging behaviors is provided in Table 3. Note that in this example one particular behavior (crying and screaming) serves several different functions. This emphasizes

the importance of collecting the information in the FBA.

To analyze Ethan's challenging behavior in situations when his sibling is playing with a toy, his parents used the ABC conceptualization. As part of the ABC recording, they noted each time Ethan cried and screamed and described the antecedent events, such as his brother playing with a toy, specifying which toy (e.g., always the same toy or a different toy in different situations), how long Ethan did not have access to the specific toy, what Ethan was doing right before he noticed his brother playing with the desired toy, and any other stimuli that might be relevant to the situation. The parents also described the challenging behavior (e.g., topography or form) and its dimensions (e.g., how long Ethan cried and with what intensity). In addition, the parents recorded the events that followed the crying and screaming behavior (i.e., consequence events). These consequences might include the brother's refusal to give Ethan the toy initially, but then relinquishing it when Ethan's crying and screaming escalated or when one of the parents entered the room and attended to Ethan. Finally, the parents would want to consider possible MO that could have



increased the likelihood of Ethan's challenging behavior. For example, it is possible that Ethan did not sleep well during the night or that he did not eat much during lunch. Feeling tired or hungry could have increased the possibility of Ethan engaging in challenging behavior.

Information from a FBA will help the team identify potential functions. For example, the possible function of crying and screaming while Ethan's sibling is playing with a toy could be to obtain a preferred item. Ethan might have learned through previous experiences that crying and screaming gained him access to his favorite toys; crying and screaming "worked" for Ethan. In professional terminology, these behaviors are being reinforced (i.e., by the brother's behavior of giving him the toy when Ethan cries and screams). As this challenging behavior is reinforced, it is very likely that Ethan will engage in these behaviors in the future under similar situations.

Ethan's team, including his parents, and Amanda, the developmental therapist, met to discuss potential intervention strategies. They hypothesized, based on the data they collected, that the function of Ethan's crying and screaming when his older brother is playing with a toy, is to obtain the toy (i.e., obtain a preferred item). They decided to teach Ethan how to request the toy from his brother (i.e., replacement skill strategy) and to reinforce him immediately when he requests the toy in an appropriate way (i.e., consequence strategy). Together Ethan's parents and Amanda taught Ethan acceptable ways to ask for a toy. In addition, they talked with Ethan's brother and explained to him how to respond to Ethan when he asked for a toy

appropriately. They explained to Ethan's brother that he will not need to always give Ethan the toy he is playing with, they only needed him to do this until Ethan learns how to ask nicely and then they will teach Ethan how to wait for his turn.

Although the same topographies of crying and screaming appear during different situations (e.g., bath time, toy playing), the function of the behavior in each situation is different. For example, Ethan cries and screams to avoid bath time, to gain access to a preferred toy, to get attention from his mother, and to avoid tooth brushing. As prevention and intervention strategies should be developed based on the function of these behaviors, different strategies are recommended for different situations (refer to Table 2 for ideas for antecedent strategies, replacement skills, and consequence strategies).

In summary, children's challenging behaviors could have negative outcomes for the child, family members, and the community. Ideally, family members and professionals should collaborate to address challenging behaviors. However, many individuals do not understand behavior principles in enough depth to allow them to actively participate in this process. In this article, we discussed basic behavioral concepts to provide family members and professionals with practical and essential knowledge about challenging behavior, the reasons it occurs, and the process by which adults can effectively select strategies to prevent or intervene on these behaviors. This information can help family members and professionals feel better prepared to take an active role when working with children like Ethan.

#### **Authors' Note**

You may reach Hedda Meadan by e-mail at meadan@illinois.edu.

#### References

- Boulware, G., Schwartz, I., & McBride, B. (1999). Addressing challenging behaviors at home: Working with families to find solutions. In S. Sandall & M. Ostrosky (Eds.), *Young exceptional children: Practical ideas for addressing challenging behaviors* (pp. 29-40). Longmont, CO: Sopris West.
- Carter, M., & Driscoll, C. (2007). A conceptual examination of setting events. *Educational Psychology*, 27, 655-673.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behaviour analysis* (2nd ed.). Upper Saddle River, NJ: Pearson.
- Division for Early Childhood. (2007). DEC position statement on identification of and intervention with challenging behavior. Retrieved from http://dec-sped.org/uploads/docs/about\_dec/position\_concept\_papers/PositionStatement\_Chal\_Behav\_updated\_jan2009.pdf
- Dunlap, G., Strain, P., Fox, L., Carta, J., Conroy, M., Smith, B., . . . Sowell, C. (2006). Prevention and intervention with young children's challenging behavior: Perspectives regarding current knowledge. *Behavioral Disorders*, 32, 29-45.
- Fettig, A., & Ostrosky, M. M. (2011). Collaborating with parents in reducing children's challenging behaviors: Linking functional assessment to intervention. *Child Development Research*, 2011, Article 835941.
- Fox, L., Dunlap, G., Hemmeter, M. L., Joseph, G. E., & Strain, P. S. (2003). The teaching pyramid: A model for supporting social competence and preventing challenging behavior in young children. *Young Children*, 58, 48-52.
- Heward, W. L. (2005). Reasons Applied Behavior Analysis is good for education and why those reasons have been insufficient. In W. L. Heward et al. (Eds.), Focus on behavior analysis in education: Achievements, challenges and opportunities (pp. 316-348). Upper Saddle River, NJ: Pearson Education.
- Lalli, J. S., Casey, S., & Kates, K. (1995). Reducing escape behaviour and increasing task completion with functional communication training, extinction, and response chaining. *Journal of Applied Behavior Analysis*, 28, 261-268.
- McGill, P. (1999). Establishing operations: Implications for the assessment, treatment and prevention of problem behaviors. *Journal of Applied Behavior Analysis*, 32, 393-418.
- McKerchar, P. M., & Thompson, R. H. (2004). A descriptive analysis of potential reinforcement contingencies in the preschool classroom. *Journal of Applied Behavior Analysis*, 37, 431-444.
- Ndoro, V. W., Hanley, G. P., Tiger, J. H., & Heal, N. A. (2006). A descriptive assessment of instructional-based interactions in the preschool classroom. *Journal of Applied Behavior Analysis*, 39, 79-90.
- Neilsen, S. L., Olive, M., Donovan, A., & McEvoy, M. (1999). Challenging behaviors in your classroom? Don't react: Teach instead! In S. Sandall & M. Ostrosky (Eds.), *Young exceptional children: Practical ideas for addressing challenging behaviors* (pp. 5-16). Longmont, CO: Sopris West.
- O'Neill, R., Horner, R., Albin, R., Sprague, J., Storey, K., & Newton, J. (1997). Functional assessment and programme development for problem behaviour:

- A practical handbook. Pacific Grove, CA: Brooks/Cole Publishing Company.
- Park, J. H., Alber-Morgan, S. R., & Fleming, C. (2011). Collaborating with parents to implement behavioral interventions for children with challenging behavior. *TEACHING Exceptional Children*, 43, 22-30.
- Powell, D., Fixsen, D., Dunlap, G., Smith, B., & Fox, L. (2007). A synthesis of knowledge relevant to pathways of service utilization for young children with or at risk for challenging behavior. *Journal of Early Intervention*, 29, 81-106.
- Rolider, A., & Axelrod, S. (2005). The effects of "behavior-speak" on public attitudes toward behaviors interventions: A cross-cultural argument for using conversational language to describe behavioral interventions to the general public. In W. L. Heward et al. (Eds.), Focus on behavior analysis in education: Achievements, challenges and opportunities (pp. 283-294). Upper Saddle River, NJ: Pearson Education.
- Rolider, A., Axelrod, S., & Van Houten, R. (1998). Don't speak behaviorism to me: How to clearly and effectively communication behavioral interventions to the general public. *Child & Family Behavior Therapy*, 20, 39-56.
- Webber, J., & Scheuermann, B. (1991). Accentuate the positive . . . eliminate the negative. *TEACHING Exceptional Children*, 24, 13-19.
- Wilder, D. A., Zonneveld, K., Harris, C., Marcus, A., & Reagan, R. (2007). Further analysis of antecedent interventions on preschoolers' compliance. *Journal of Applied Behavior Analysis*, 40, 535-539.