

## Teachers' Corner

### Increasing Physical Activity at Home for Families with Children with ASD



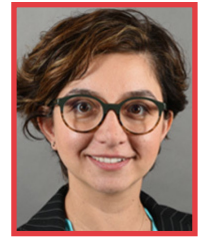
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For most children, motor skills develop naturally during activities that include running, jumping, and throwing or catching a ball. However, some young children, especially children with autism spectrum disorder (ASD), fail to develop proficient motor skills and, consequently, are less likely to engage in physical activity and may even experience negative health outcomes across their lifespan (Ming et al., 2007). Studies indicate that 50-73% of children with ASD have significant motor delays when compared to their peers (Macdonald et al., 2013). Children with ASD experience limited opportunities to engage in physical activity through play or organized sports due to motor, social, and behavioral concerns (Bhat et al., 2011), and they are less active than typically developing peers (Pan, 2011).

#### Guidelines

*Exercise and movement* are identified as evidence-based practices for individuals with ASD (e.g., Hume et al, 2021). National guidelines on physical activity (PA) suggest preschool-age children engage in at least 120 minutes (about 2 hours) of accumulated physical activity each day, with 60 minutes in structured activities and 60 minutes in unstructured activities (National Association for Sport and Physical Education, 2020). Guidelines for children older than six include at least 60 minutes per day of activity and most of that activity should be aerobic (U. S. Department of Health & Human Services, 2018). Children would benefit from multiple shorter activities (e.g., 10 minutes) during the day to help maintain focus since

the effects do not last for the entire school day (Prupas & Reid, 2001). Benefits include academic growth (e.g., increased time on task), behavioral growth (reduced classroom disruptions and self-stimulatory behavior), reductions in self-stimulatory behavior, executive function skills (Pasqualotto et al., 2021), social growth (e.g., increased peer engagement), and enhanced mood or attention which can result in positive behavioral changes (e.g., Lang et al., 2008).

According to the Initial Practice-Based Professional Preparation Standards for Early Interventionists/Early Childhood Special Educators (Division for Early Childhood [DEC] of the Council for Exceptional Children [CEC], 2020; hereafter referred to as the EI/ECSE Standards) it is essential to identify and create multiple opportunities for young children to develop and learn play skills and engage in meaningful play experiences independently and with others across contexts. This suggestion aligns with the DEC's Recommended Practices (2014), emphasizing the significance of establishing settings that encourage movement and consistent play activity (see Environment #6). This practice aims to support enhancing or maintaining fitness, wellness, and development across various domains of young children with disabilities.

#### Parent and Teacher Collaborations

Collaboration between teachers and families can effectively improve the PA attendance and motor skills of

children with ASD. This collaboration can involve family conferences where teachers can share effective practices with families. During these conferences, families can learn about the importance of PA and its positive effects on motor skills and other developmental domains, including social, language, and health. Often, families do not understand why PA is crucial for children with ASD. Families can gain valuable insights into the benefits of PA and how to integrate similar exercises into their daily lives by attending informative sessions. These conferences allow parents to participate in physical activities alongside their children at school and discover ways to incorporate similar exercises into their daily routines at the playground, park, or home. By attending these sessions, parents can also increase their knowledge of the types of physical activity their children are engaged in at school and how it contributes to their overall development.

There are many evidence-based practices teachers can use to encourage children's active participation in PA. One such practice is prompting (Hume et al., 2021). When parents learn to use prompting procedures correctly, they can help their children be more active (Yang et al., 2021). Families can use verbal, gestural, visual, model, and physical prompts to encourage their children to attend and participate in PA. By teaching families these strategies, teachers can help to increase attendance and improve the motor skills of children with ASD. For example, teachers and families alike can utilize a visual schedule consisting of four or five physical movements. This is an effective tool for teaching children how to follow a schedule at the appropriate time. With the help of a timer, children can perform each movement in phases. Additionally, visual aids can be used to teach movements thoroughly. If a child struggles with a particular movement, visual prompts can be used alongside parent or teacher modeling to teach each step more effectively.

### Increasing Movement at Home

Suggested strategies should consider the varied characteristics of families. For families with access to outdoor space, activities such as the various types of tag (regular tag, freeze tag, team tag) and red light/green light are simple games with specific rules that children with ASD can easily follow. In addition, children with ASD often thrive with activities that have specific goals. Educators can support families in creating scavenger hunts for children that focus on finding naturally occurring items in the environment. An example of this type of scavenger hunt could be a rainbow hunt where children are tasked with finding items in their backyard or neighborhood that represent each color of the rainbow. Figure 1 is a child holding a handmade scavenger hunt with five colors listed. This can easily be adapted to include more or

fewer colors or to focus on specific colors the child is learning.

In addition, families know their neighborhoods best and could be provided with a blank template to create a scavenger hunt with neighborhood items such as street signs, specific mailboxes, flags, or flowers. Families can also support children in taking their favorite indoor games outside. For example, if a child is interested in trains and building train tracks, those tracks could be brought outside and hidden in different places that support physical activity. For instance, a train track could be placed on the top of a climbing structure or inside a tunnel, with both encouraging climbing and crawling. If families want to encourage running, the activity could be timed to see how fast the child can run to gather each piece.

While it may be easy to recommend playing outside in the backyard for 10-15 minutes a day, not all families have access to a backyard or outdoor space. These families should be encouraged to play inside in ways that promote physical activity. Families can be shown how to create obstacle courses using items in their homes like couch cushions, blankets, kitchen tables, and chairs. Children can be encouraged to climb over the cushions and under the table, jump across the blanket, and push the chair to get themselves to the finish line. In addition, families who have limited space can encourage children to move their bodies in smaller spaces by playing games like freeze dance or Simon says. There are also many videos available online that can support children in moving their bodies in smaller spaces, such as [Go Noodle](#) and Jack Hartmann's [Kids Movement Channel](#) via YouTube. These videos are free for families to access with an internet connection and can provide short movement breaks in limited spaces.

For some families, the best way to encourage children to be active is by enrolling in local classes such as swim-

*Figure 1*  
Color Scavenger Hunt



ming, karate, or gymnastics. While these classes are a great way to encourage physical activity and socialization, they can often be costly and inaccessible to all families. Educators should share financial support for these families, including local, state, and federal grant funding. Examples of such funding include [Kehillah](#), the special needs department of the Jewish Community Center in Springfield, MA. Kehillah's Project R.I.D.E. (recreation, independence, development, and equipment) loans modified tricycles to children and young adults with disabilities. Figure 2 shows a second-grade child riding an adaptive tricycle obtained through Kehillah's Project R.I.D.E.

For families looking to enroll their children in classes at local gyms or recreation centers, grants such as the ones offered through the [Willpower Foundation](#), can make attending classes more accessible for all families. The Willpower Foundation offers grants three times a year for individuals with disabilities living in Western MA. Families can receive one grant a year for up to \$750 for mobility and sensory equipment, therapeutic recreation programs, and other educational programming. Similar examples of funding sources are likely available in other localities. Families could reach out to their classroom teacher, other school personnel, local and state government, or private foundations to explore funding options.

There are many ways to encourage young children to engage in more PA and motor development activities, especially when teachers and families collaborate. It can be a fun way for families to spend time together. Local community and state resources may be available to support access to materials and programs.

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### Figure 2

Child with Modified Tricycle



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