Physical Fitness for Individuals with ASD: More than just a Healthy Lifestyle

• My Background
  • P.H.D. Special Education- Emphasis ASD-Minor Adapted Physical Activity
  • Clear California Teaching Credentials PE & APE
  • M.B.A. Regis University
  • B.S. Criminal Justice

Education

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• Clear California Teaching Credentials PE & APE
• M.B.A. Regis University
• B.S. Criminal Justice
Experience

• New Mexico State University- Instructor and graduate assistant
• Adapted and Physical Education Teacher in CA- Nine years
• Group Home worker for developmentally disabled adults and at-risk youth.
• Safety Alert Inc. - Crisis Specialist
• Special Olympics Leadership Council- Community Outreach

Increasing Physical Activity in Individuals With Autism

• “Physical activity is an important part of a healthy lifestyle for all people (U.S. Department of Health and Human Services, 1996) but is often overlooked in people with severe disabilities (Ellis, et. al. 1992), including those with autism spectrum disorder (ASD).”

• “The number of individuals being diagnosed with ASD is increasing (Wing & Potter, 2002), and many teachers and coaches are-or soon will be- including children with ASD in their programs (Todd & Reid, 2006).”

Issues associated with obesity

• Certain factors concerning the disability of ASD, along with the surrounding environment, could lead to an imbalance between the intake and expenditure of energy, which consequently leads to obesity (Srinivasan et al.).

• Obesity contributes to significant health problems for the student with ASD (Srinivasan et al). The prevalence of obesity in children with ASD is 30.4% in comparison to children without ASD which is 23.6% (Srinivasan et al. 2014).
Because of this, obesity is associated with long-term physical and psychosocial consequences, including diabetes, osteoarthritis, increased cardiovascular risk, stroke, stigma, and depression (Srinivasan et al.).

And because of these factors, APE teachers must understand the circumstances that surround the student in APE in order to accommodate any unforeseen social issues that may impede their ability to properly facilitate the students physical fitness environment.

Participation and Motor Skills

"Parents have noted motor delays in infants with ASD as early as 6 months to 9 months of age (Todd, 2006)."

"Participation in physical activity is often a challenge for people with autism because of poor motor functioning and low motivation (Koegel et. al. 2001), difficulty in planning and generalization (Todd, 2006), and difficulty in self-monitoring (Hughes et. al. 1994)."

"Promoting physical activity with complex motor skills (e.g., golfing, soccer, basketball) is likely to be problematic (Todd, 2006)."

"Team sports become difficult for individuals with ASD (Todd, 2006)."

"Sedentary lifestyles are commonplace for individuals with intellectual disabilities (Draheim et. al., 2002)."

"Few studies have reported fitness levels of adolescents and adults with severe autism, despite the fact that the majority of individuals with autism also have an intellectual disability (Fombonne, 2003)."
Nutrition

• About 70% of students with ASD demonstrate gastrointestinal problems, chronic constipation, abdominal discomfort, diarrhea, and reflux, as well as food allergies (Srinivasan at el. 2014).

• Students with ASD have problematic eating behaviors and food selectivity in that they prefer diets that consist of starchy foods such as sweetened beverages and pizza, as opposed to fruits, vegetables, lean protein, and higher-foods (Srinivasan at el. 2014).

Motor Skills in relation to Social and Communication Skills

• It has been hypnotized that students with better motor skills will have better social communication skills, while students with weaker motor skills, will have lesser social communication skills (Staples & Reid, 2010).

• However, recently, efficacy along with the application of learned social skills beyond the treatment setting has come into question (MacDonald, 2013).

• And because of this, motor skill deficits are common among school-aged children with ASD and may in turn be hindering opportunities for social communicative practice (MacDonald et al. 2013 ; Staples & Reid, 2010).

Motivational Techniques

• Positive Reinforcement
• Token economy
• Participating with the individual
• Comfortable environment
• Determining what types of activities the individual would like to engage in.
Processes for engagement

- **Newell’s Constraint Model** (Pope et al., 2012)
- According to Newell, the constraint model consists of three specific types of constraints: individual, environmental, and task.
- Modification of these variables to promote engagement
- **Previewing** involves the introduction of social or motor skills that will be practiced before a student arrives to class (Grenier & Yeaton, 2011).

Spectrum Style of Teaching

- In 1966, Muska Mosston published his first book, *Teaching Physical Education*, in which he first introduced the Spectrum of teaching styles to physical education teachers (Byra, 2000; Byra, 2006; Mosston & Ashworth, 2002; Sherrill, 2004). According to the Adapted Physical Education National Standards (NCPERID, 1995), APE teachers should be competent in using multiple teaching styles from the Spectrum (Mosston & Ashworth, 2002).

Activities

- Elastic bands
- Light weights
- Cardio equipment
- Basketball
- Softball
References


References cont.


