

## Peer Reviewed Article

### The Importance of Physical Fitness in Youths, Including Youths with Disabilities

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#### ABSTRACT

With obesity levels rising, including the decline of health-related fitness in school-aged youth, it is imperative that practices change in order to support the development of a life-long fitness mindset in youth. Activities that emphasize physical fitness that can be performed with limited to single participants are particularly important for individuals to be versed in prior to entering adulthood. Youths with disabilities should also be participating more in health-related fitness activities for physiological as well as cognitive benefits. The benefits of a transition to health-related activity choices as the norm will also help to develop in students with orthopedic and cognitive impairments the strength to work side-by-side with their peers during physical activities.

*Keywords:* health-related physical fitness, intellectual impairment, intellectual disabilities, orthopedic impairments, adapted physical education, autism-spectrum disorders.

#### Introduction

In current practice, students in physical education courses throughout the nation are being presented with a blueprint for developing and maintaining personal health and fitness in the form of highly social group-focused sport activities. This is in the hopes that they will continue these activities after they leave the public school setting. However, the number of children who have reached the point of being overweight or obese in the U.S. has more than tripled, and in some cases, quadrupled since the 1960s and 1970s (Fryar, Carroll, Ogden ,2016, p.1). Students are not being taught enough in school about how important health-related physical fitness is for long-term happiness and productivity. Instead, the focus of PE is presented as a way to assist

students in developing conversational and team working skills that should be being developed throughout all of their school and social activities throughout their daily lives.

If we hope to curtail the obesity epidemic prevalent in American society today, children need to become accustomed to performing activities that develop their health-related physical fitness on a daily basis. This idea also needs to spread over into Adapted Physical Education, as students within this group are at an even higher risk of missing out on physical activity time needed to develop their fitness levels. For example, according to a study which monitored the activity levels of both students with Autism Spectrum Disorder (ASD), as well as students without ASD, it was found that only 37% of participants with Autism performed 60 minutes of

moderate to vigorous physical activity (MVPA) per day compared to 60% of typical development (TD) students (Pan et al., 2016, p. 515).

Children without intellectual impairments are facing difficulties similar to students with these forms of disabilities in regards to developing and maintaining their health-related physical fitness. Considering students with orthopedic impairments, studies have even been done on youths with disabilities that are active in sports. In a study completed by Piva da Cunha Furtado, Morato, Potenza and Guitierrez (2016), it was found that only 5% of active goalball players were able to reach the fitness standards on all levels of the Brockport Physical Fitness Test (BPFT), a test designed to determine health related physical fitness in individuals with disabilities (p. 263). Just being active in a sport does not guarantee that any individual, with or without disabilities, will be able to develop and maintain their health-related physical fitness.

With regards to physical education specifically, current inclusion practices have Adapted Physical Education Specialists scrambling to develop skills in all sports throughout the curriculum, in an effort to be able to move students back into the general education PE classes as quickly as possible. This is a good thing to be able to do, as being within the general education setting is where the students will be able to develop social skills with their peers. However, the lack of general strength, balance and endurance are the basic factors that tend to limit many students' abilities in PE. Not only do these students need health related fitness activities for the sake of their own health, but they also require these abilities in order to be able to more effectively participate with their peers in mainstream physical education.

### **Factors that Effect the Issue**

For individuals with a disability, having decreased health-related physical fitness in and of itself makes day to day life much more strenuous than it has to be. According to a study completed which included the testing of 10-17-year-old youths with visual impairments, "the need to be in good health is of greater importance for individuals who are visually impaired than for the general population

owing to the increased exertion necessary for activities of "daily living" (Lieberman, Byrne, Heidi, Mattern, Watt, Fernández-Vivó, 2010, p. 349). Not only should individuals with visual impairments be participating in regular, health-related fitness activities, it is even more important for this population to stay active in this way than it is for the general population! Physical education teachers are in the perfect position to provide the sense of security that young students with visual impairments need in order to put forth their best effort in activities requiring them to navigate the world around them. It is during this time, when the students have a trained educator present to support them, that teachers and support personnel can provide the most benefit for the student's increasing confidence. This can be done by taking part in fitness activities that they will need to participate in for the rest of their lives in order to maintain and increase their personal health.

For individuals with intellectual disabilities and even for typical developing students as well, many sports can have a number of confusing, and unnecessary rules and techniques. The length of time it takes to explain and demonstrate all of the intricacies can cause activities to slow to a halt in an attempt to develop all of the individual mechanical components of the movements. This may cause students with difficulties in comprehension or memory to feel frustrated, exhausted and defeated, when trying to participate in sports that most adults tend to move away from after they are no longer with their peer groups in structured activity settings (i.e. within their physical education classes and sports youth groups). By placing a greater emphasis on more basic physical activities, such as running, weight training, swimming and callisthenic-like movements, students can develop the skills and knowledge necessary to stay active for a lifetime, regardless of their environment.

When it comes to the activities, Adapted Physical Education Specialists seem to focus on the technique aspects of the activities too often. For instance, when testing students in APE using tools like the Test of Gross Motor Development (1, 2 or 3), which emphasizes sport skills, students are asked to complete each component of a movement correctly before they can pass and be re-designated into

general PE (GPE). This means that in order to say that a student can throw a ball well enough to join his peers, they must complete pieces such as starting their throw with a wind-up (bringing the ball down into a low arc), rotate their body until they are almost perpendicular to their target, take a weight shift step with their front foot before initiating the full throw, and then follow through with the throw by allowing the throwing arm to release the ball as it flows across the body towards the opposite side... One can find students as well as adults who do not complete these motions with all of the necessary components, yet they are participating with their peers and family thanks to their ability to handle the exertion of the game play with or without proper technique. However, students are prevented from building the endurance and strength to run and throw throughout a game of baseball, while they are held back to the sidelines during session after session of one-on-one instruction because they cannot remember to bring the ball all the way up by their ear first...

The individual techniques and skill parts are less important than having the active exercise time with their peers. If the focus of APE is to develop a student's sport skills in order to help them join in with their peers in the mainstream PE classes, they are sure to find it extremely difficult to participate in games that require endurance and strength, like soccer. Having the best corner kick in school will not matter if they do not have the endurance necessary to perform the constant running required to participate in the sport throughout the duration of a class or game.

### **Implications**

If I was an APE specialist in California, and a student was selected to take part in the assessment procedures to determine their status in and/or eligibility for APE, and the assessment process was agreed to by the student's parents, I would begin with a test designed to determine the student's level of health-related physical fitness. The main test used for the purpose of testing physical fitness in older students (age 10-17), is the Brockport Physical

Fitness Test (BPFT). This test includes multiple choices for determining an older student's strength, endurance, flexibility and body composition. For students as young as five years old, an alternative test, focused on activities such as isometric push-ups, the sit-and-reach and aerobic exercise, known as the Kansas Adapted/Special Physical Education Test that could be used (Block, Horvat, Kelly, 2007, p.134-135).

With inclusion still an important goal of Adapted Physical Education, the students' program should be designed in a way that maximizes physical activity during APE sessions, while emphasizing continued activity during general education or home settings. I would design my lesson plans with more focus on activities from within the "fitness component" category. Wheel chair users can lift weights or even play "Bocce Ball", with weighted balls, in order to develop their upper body strength. Racing and tag-like games can be used as fun and exciting activities to get students active quickly while focusing on the development of their cardiovascular strength. Students with intellectual impairments can benefit from a number of health-related fitness activities as well.

Students with intellectual disorders are also highly benefitted through an increased focus on health-related fitness. Students with Autism Spectrum Disorders (ASD) can be kept more attentive and participatory if the activities presented include the use of large, gross motor movements. Activities like "Star Jumps", in which the student curls their body down towards their feet and springs into the air while spreading his/her limbs, are great exercises to include in warm-ups for these students. Such activities require a great deal of muscular effort when compared to skill based exercises like kicking and throwing, and can be a great deal of fun for the student! Research has found that general aerobic exercise, such as jogging, helps to improve attention span and impulse control in children with ASD (Meneer, Neumeier 2017, p.45). This means that games like "tag", as well as more basic exercises, like running itself, will not only boost these student's activity levels and cardiovascular health, but can also lead to classroom benefits as well.

## Recommendations

In order to best serve the needs of a population in which health-related norms, especially in terms of a healthy body composition, are declining, physical educators must begin to see themselves as a barrier between their students and obesity. Although to a certain respect, students are set in the ways of their particular personalities, and activity choices may need to be adapted for particular disabilities, all students should be able to reach within the acceptable range of health-related physical fitness under the guidance of professionals within the subject matter. Those professionals are we, the physical educators, who work with these students on a daily basis, and who have studied the science behind human physical activity and well-being. Therefore it is imperative that we place an increased emphasis on the health-related physical fitness of our students, at least for the time being, while we work our society back into shape.

In order to bring about this change, educators and health professionals should begin to place more emphasis on the items that are already being tested for on a regular basis, the health and fitness related skills. If students are going to be tested on their physical fitness in general physical education classes, it is only logical that physical fitness goals should be of high priority during APE programming and class sessions. Include fitness activities as a staple piece of

each session, by having students perform traditional activities like push-ups and sit-ups for those without orthopedic impairments or medicine ball and resistance band activities for students with less movement abilities. Use activities like bocce ball to add strength building pieces to lesson plans. And always remember to push students to put in their best efforts toward all activities.

## Summary

Although physical education classes can provide students with a way to develop their social skills with classmates, it cannot be forgotten that it is a class on "Physical" Education. For many students, this might be the only time that they have set aside for physical activity, and for individuals with disabilities, it may also be the only time that they feel safe performing physical activities. Therefore it is the duty of the physical educator to maximize the health benefits of the limited activity time that students of all ages and ability levels receive in school during their youth. At the moment, whether in APE or GPE, students are not reaching the fitness standards in place for them. With more time spent on developing students' abilities in the area of health-related physical fitness, perhaps the dream of having everyone participate in a lifetime of physical activity could still become a reality.

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