



PHYSIOTHERAPY CURES AUTISM: A REVIEW

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ABSTRACT

Autism is one of the most persistent developmental disorder. This means that most people on the autism spectrum have delays, differences or disorders in many areas including gross and fine motor skills. Children on the spectrum have low muscle tone, or have a hard time with coordination with exercise and sports. These issues can interfere with basic day by day functioning and almost hinder with social and physical development. In this review it has been discussed that Physical therapy may be an option for children with autism who need help developing age-appropriate motor skills, have low muscle tone, or have problems with physical systems such as breathing control. And also older autistic children can also benefit from carefully constructed exercise programs, which may be led by a physical therapist.

Key Words:- Autism, Physical therapy, Motor skills etc.

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INTRODUCTION

As with other autism therapies, the goals of physical therapy will be determined on an individual basis with the input of parents, physicians, and other members of the autism treatment team. Autism symptoms addressed by physical therapy.

Autism is a childhood disorder which affects the way kids perceive, interpret and experience the world, making it harder for them to communicate in a social environment. They tend to unusually react to things going

on around them such as loud sounds, bright light, crowds etc. and may show unusual, repetitive behavior. They may have trouble linking words to their meanings making it hard to come up with the correct words to express their feelings (Madeline Vann; Anonymous 1).

Physical therapies required by autistic children are as follows:

- Treating impairments in the systems that impact motor function, such as problems with respiratory control and coordination
- Improving posture
- Addressing misalignments in the musculoskeletal system, such as chest wall deformities, and foot and ankle misalignments.

If you suspect that your baby has problems developing appropriate motor skills or has low muscle tone, you can involve a physical therapist before his first birthday. Federal law provides therapy to children with disabilities or developmental disorders through the Early Intervention Program up to age 3, and then through the public school system through age 21.

The earlier you can begin therapy for autism, the better, say experts.

Physical therapists can be involved even before a diagnosis is given if a child has subtle motor impairments

or impairments in the other systems, which impact movement.

Physical therapists with autistic children in a variety of settings, including Home, Day care, Community settings, Clinics, Hospitals, Rehabilitation programs, Fitness centers, Public exercise programs.

Physical therapists also become involved with rehabilitation after injuries. "Occasionally the diagnosis of autism is secondary," West-Low says. "For instance, a child might have had a leg fracture and be in a rehab hospital for physical therapy, but we have to take the diagnosis of autism into account when designing their plan of care and structuring their therapy sessions." A lot of physical therapy can seem like structured play and it is.

- Teaching children with autism to be comfortable and competent in their bodies is an important and often fun part of autism treatment.

- Autism Spectrum Disorders

Autism Spectrum Disorders are a range of disorders that affect a child's communication, social skills and behavior (Madeline Vann; Anonymous 1-3).

AUTISM SPECTRUM DISORDER (ASPERGER SYNDROME)

Some children with an Autism Spectrum Disorder can appear awkward or clumsy in their motor skills and movement. These coordination difficulties, combined with communication, social skill and behavioral challenges, can impact on their learning more complex playground and sporting skills.

Children with an Autism Spectrum Disorder can find learning to swim in a group environment challenging due to the noise, splashing and unpredictable movements and playing of other children.

The provision of 1:1 motor skill development sessions both on land and in the water, by experienced pediatric physiotherapists qualified in swim instruction methods for children with an Autism Spectrum Disorder, can lead to faster learning of these skills.

Autistic spectrum disorder is a developmental disorder that causes children to behave in odd and often disturbing ways in reaction to surroundings. Autism is fairly common; according to 2010 statistics from the Centers for Disease Control and Prevention, one in 110 children in the United States is diagnosed with some form of autism. Various treatments have been seen to help diminish behaviors associated with autism, including physical therapy involving strenuous exercise [4].

Autism spectrum disorder (ASD) is characterized by:

- Persistent deficits in social communication and social interaction across multiple contexts.

- Restricted, repetitive patterns of behavior, interests, or activities.

- Symptoms must be present in the early developmental period (typically recognized in the first two years of life); and Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

The term "spectrum" refers to the wide range of symptoms, skills, and levels of impairment or disability that children with ASD can have. Some children are mildly impaired by their symptoms, while others are severely disabled. The latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) no longer includes Asperger's syndrome; the characteristics of Asperger's syndrome are included within the broader category of ASD (Anonymous 3).

Physical Therapy Exercises for Autistic Children

Aquatic therapy can be a beneficial form of exercise for autistic children. Exercise-based physical therapy can be highly beneficial for children with autism, according to a study published in the journal "Physiotherapy Canada" in 2008. The study concluded that a variety of physical therapy exercises led to a short-term reduction in stereotypical autistic behavior in children with autism spectrum disorder. Discuss physical therapy with your child's doctor and case manager. They can give you professional advice specific to your child's situation (Anonymous 4).

In case you have a child, who is undergoing treatment for autism, you may be asked to include a physical therapist on the team of specialists. Several healthcare experts prescribe physical therapy for children with autism, in order to help them develop age-appropriate physical and motor skills, like jumping, clapping hands, skipping, hopping and throwing, kicking or catching a ball. With the help of physical therapy, a child can also gradually learn how to ride a bike. Some of the other benefits that are associated with physical therapy for children with autism include: (Andrea Rosenthal-Malek *et al.*, 1997)

- Improving posture, focus and eye contact
- Addressing musculoskeletal misalignments in the chest wall, foot or ankle
- Fixing impairments that affect coordination and motor functions
- Developing a fitness routine

Autism and Exercise

Research has found that vigorous physical activity can be a highly effective form of autism treatment. One such study, published in 1982 in the "Journal of Autism and Developmental Disorders," found that jogging sessions resulted in a decrease in self-stimulatory

behaviors and led to an increase in suitable play and academic responding. One theory regarding why exercise diminishes this type of behavior is that structured routines and repetitive activity, such as running and swimming, are similar to the repetitive behaviors associated with autism. Structured exercise routines serve as constructive forms of replacement behavior.

Equine Therapy

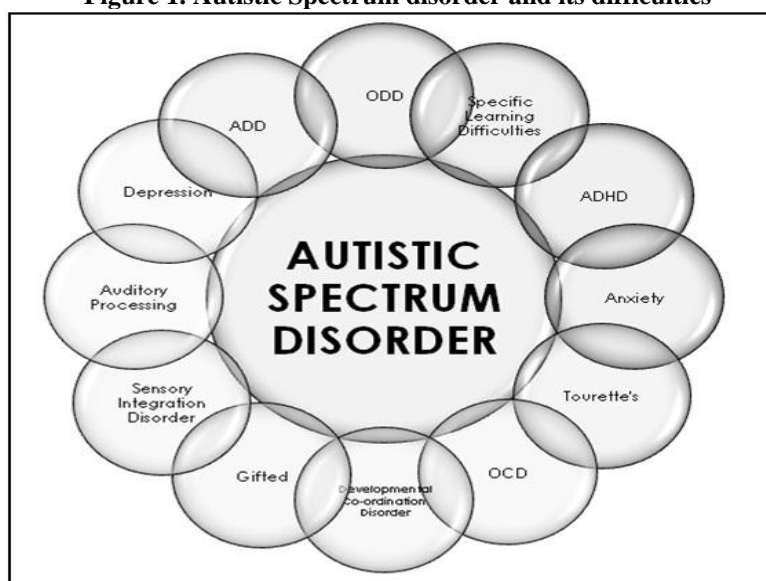
Equine therapy, or hippotherapy, is typically part of a larger program that involves therapeutic horseback riding. Equine therapy has been particularly helpful for autistic children; the multidimensional rhythmic movement of a horse closely mirrors the gait of human walking. An autistic child generally won't use a saddle during hippotherapy, explained the Aspen Education Group on its website. Riding without a saddle allows a child to better experience the horse's movements. The rider becomes aware of where the body is in relation to the horse. Equine therapy can help improve an autistic child's sense of his own body in space.

Aquatic Exercises

Another form of physical therapy exercise commonly used to treat autism is aquatic therapy, which generally takes place in a swimming pool. The pressure of warm water pressing against the body can soothe an autistic child. Water can provide a calming form of sensory input while the child performs exercises designed to improve range of motion and overall mobility. Recreational therapist Laurie Jake points out that warm water reduces body weight by 90 percent, decreases the force of impact on the body, relaxes muscles and reduces spasticity, making water "the ideal medium in which to exercise or rehabilitate the body" (Russell B. Lang *et al.*, 2010; Reed O. Elliott Jr. *et al.*, 1994).

It may be useful to integrate group activities such as dance training, yoga, or elementary martial arts training in the curricula of early learning institutions to improve motor and behavioral functions in children with ASD (Reed O. Elliott Jr. *et al.*, 1994; Anonymous 5).

Figure 1. Autistic Spectrum disorder and its difficulties



CONCLUSION

A lot of physical therapy can seem like structured play and ease of teaching the children with autism to be comfortable and competent in their bodies is an important and often fun part of autism treatment. The researchers assert that it may be useful to integrate group activities such as dance training, yoga, or elementary martial arts

training in the curricula of early learning institutions to improve motor and behavioral functions in children with ASD.

CONFLICT OF INTEREST

The author declares that he has no conflict of interest.

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