

# **Research and Reviews in** Psychology

## Perspective

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## Therapeutic Efficacy of Neurodevelopmental Technique versus Conventional Physiotherapy for the Management of 3-8 Years Old Cerebral Palsy

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#### Introduction

It is non-progressive neurological disorder mainly affecting human locomotor system the term refereed to Cerebral palsy. Cerebral palsy is not genetic or hereditary and parents do not need to worry about the condition being passed down within a family. The objective of study is to compare the motor abilities and self-care skills before and after in NDT approach group with conventional physical therapy group. The methods of data collection are 30 CP children who are recruited for this study. The Type of study pretest to post experiment design and duration of study is 8 weeks. The pretest score is 41.33 and pretest score is 50.33 of group A. The pretest score is 38.47 and pretest score is 50.93 of group A. This study suggests that intermittent NDT that is NDT versus conventional therapy in CP children leads to improvement in overall gross motor abilities and self-care skills. This study suggests that NDT is effective when the parents are giving more time for exercise in the home session. And Conventional therapy will improve the overall body function which will help the children to perform a self-care activity. Cerebral palsy is actually an umbrella term for several different types of physical disabilities. The term "cerebral" refers to the area of the brain that is affected by the disease. The disease often includes other connections in the brain involving the cortex and parts of the cerebellum as well. The term "palsy" refers to the disorder of movement.

Cerebral palsy causes damage to the motor control centers of the brain and can occur during different parts of pregnancy and birth. Approximately 75% of cerebral palsy cases occur during pregnancy and approximately 5% occur during birth. Additionally, it can occur after childbirth up to about age three. Cerebral palsy occurs in an average of 2 to 3 babies out of 1000 live births. There has also been a slight increase in these numbers in recent years.

The damage that is caused by the disorder will not worsen over time. However, secondary orthopedic conditions are common with this disorder. It is not uncommon for patients to develop arthritis and osteoporosis much sooner than typical adults. Unfortunately, much of the information on cerebral palsy is related solely to the pediatric patient rather than the adult patient.

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group of permanent disorders of the development of movement and posture, causing activity limitations that are attributed to nonprogressive disturbances that occurred in the developing fetal or infant brain. The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, perception, cognition, communication and behaviour, by epilepsy and by secondary musculoskeletal problems." Obviously this is a clinical definition meaning that cerebral palsy is a condition in which there may be abnormal brain development or injury to the brain as it develops. This can occur before, during, after birth or during early childhood.

Children with cerebral palsy have difficulties in controlling muscles and movements as they grow and develop. The nature and extent of these difficulties may change as children grow but cerebral palsy itself is not progressive: The injury or impairment in the brain does not change. However, the effects of the brain injury on the body may change over time for better or worse. Physiotherapy and other therapies can often help people with cerebral palsy reach their full potential and become more independent therefore children with cerebral palsy will often be referred to a therapist or see a multidisciplinary team through referral to the local Child Development Centre.

Depending on the precise area of the brain that is affected, there may be associated difficulties which become obvious during development; for example, in vision, hearing, learning and behaviour. It is not unusual for a diagnosis not to be given until the child's motor development is nearly complete as doctors observe the child through the development stages of sitting, crawling and walking. There is currently no test before birth that will identify cerebral palsy.

#### **Definition of Cerebral Palsy**

Cerebral Palsy (C.P) describe a group of permanent disorders of the development of movements and posture causing activity limitation that are attributed to non-progressive disturbances that occurred in the developing fetal or the infant brain .The motor disorder of C.P are accompanied by disturbance of sensation, perception, cognition, communication and behaviour , epilepsy and by secondary musculoskeletal problems.

#### **Classification by Movement Disorder**

Spastic CP- Spastic muscles are tight and stiff, and have increased resistance to being stretched. They become overactive when used and produce clumsy movements. Normal muscles work in pairs: when one group contracts, the other group relax to allow free movement in the desired direction. Spastic muscles become active together and block effective movement. This muscular "tug-of- war" is called cocontraction.

Spasticity may be mild and affect only a few movements, or severe and affect the whole body. The amount of spasticity usually changes over time. Therapy, surgery, drugs and adaptive equipment may help to control spasticity. Damage to the brain's cerebral cortex is generally the cause of spastic cerebral palsy.

The classifications of movement disorder and number of limbs involved are usually combined (e.g. spastic diplegia). These technical words can be useful in describing the type and extent of cerebral palsy, but they are only labels. A label does not describe an individual.



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