Early Perceptual-Motor Behaviors In Children With Special Needs Compared to Conventional Physical Therapy Alone

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PICO Question

Does the incorporation of early perceptual-motor behaviors in physical therapy help children with special needs gain greater developmental advancements compared to those with only conventional therapy?

Background

Research has shown that early cognitive development has ties to motor development. Early perceptual-motor experience has been shown to “alter, build, and maintain cognition.” Children with motor delays may have cognitive delays, and children with cognitive delays may also have motor delays.

What is Perceptual-Motor Behavior?

Defined as “any skill involving the interaction and integration of perceptual processes and voluntary physical movement.” Improvements in perceptual-motor behavior have been shown to have not only immediate effects, but also improvements in lifelong learning.

Limits of Conventional Physical Therapy

- Lack reinforcement from the environment
- Ineffective in advancing delayed development
- Lack opportunity for exploration/problem solving

Interventions

- Object Interaction & Sitting
- Locomotion
- Functional Activity: Therapeutic Enhancement & Complementary Activities
- Fine & Gross Motor Training (ex: cut & paste, mazes, skipping, hopping)
- Ride On Toy Car

Possible Child Diagnoses for Treatment

- Prematurity
- Autism
- Cerebral Palsy
- Down Syndrome
- Neurological Conditions
- Children with Mild Mental Retardation

Benefits of Perceptual-Motor Behaviors

- Readiness to participate & learn
- Easy to incorporate into daily activity
- Motor coordination
- Gross motor
- Visual motor integration
- Interaction with environment
- Functional mobility

Conclusion & Future Research

In children with cognitive or motor delays, Physical Therapy (PT) that utilizes perceptual-motor behaviors has shown better results in advancing foundational development and minimizing future delays than conventional PT. Future research may look into further options of combined motor and cognitive activities.

References