Intervention for Motor Impairment in a Child with Autism Spectrum Disorder: A Case Report

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PURPOSE
- The purpose of this report was to examine the course of rehabilitation for a child with Autism and to examine his needs for targeted gross motor interventions.

METHODS
- Retrospective case report
- Examined patient’s past charts and records
- Interviewed patient’s mother and private OT
- Examined patient scores on the PDMS-2

INTRODUCTION
- Autism spectrum disorders (ASDs) are neurodevelopmental disorders that can cause social, communication, and behavioral challenges.
- Motor impairments are observed in children with ASDs; however, the other characteristics of ASD tend to receive greater attention.
- Recent studies have measured impairment due to motor skills deficits in children with ASD. Motor incoordination and poor balance tend to be more prevalent.
- Motor deficiencies appear more prevalent when performing gross motor movements that rely on postural control and mobility.
- Lack of postural mobility may correlate to a decrease in movement preparation and coordination. Motor planning, coordination, and postural stability are essential for efficient movement.
- Treatment plans should include interventions aimed at improving motor performances.
- Current treatments for ASD:
  - OT, Speech, ABA (Applied Behavior Analysis)

OUTCOMES
- The patient received speech therapy and was, subsequently, discharged
- The patient received OT and ABA over a 15 month period.
- The patient’s fine motor score on the PDMS-2 increased from the 5th percentile to the 42nd percentile over this 15 month period.
- The patient was ranked in the 13th percentile on the PDMS-2 for motor development and did not receive physical therapy.
- PT reported that the patient would benefit from increasing his sensory modulation ability in OT prior to beginning physical therapy.
- At the conclusion of this report, he had not begun PT

DISCUSSION
- There has been an increase in the number of referrals of children with ASD to physical therapy for improving overall motor performance and motor planning.
- Policy and practice lag behind in recognizing the potential contributions of physical therapists in research, practice, and education related to ASD.
- Urgent need to develop novel embodied interventions grounded in movement and motor learning principles for children with autism.
- Physical therapists can and should play a unique role in promoting functionally based intervention strategies to enhance motor activity and improve function in children with ASD.
- Since the patient made significant improvement in his fine motor development with therapy, targeted physical therapy interventions could directly impact his gross motor skills.
- Our outcomes paralleled current literature findings.
- Indoor-rock climbing also shows promise for improving muscular strength, coordination, and balance in children with ASD.

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REFERENCES