

The Role of Music in Child Development:
Exploring the Neurological Implications of
Classical Music Pedagogy Training (CMPT)

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RESEARCH OVERVIEW

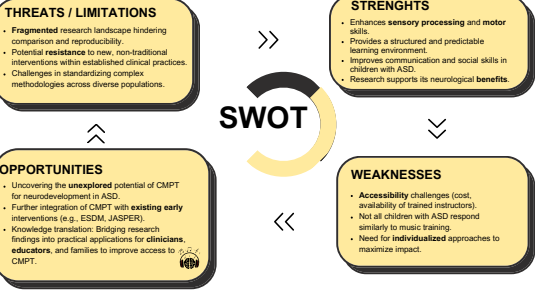
Exploring the Neurological and Developmental Impacts of Classical Music Pedagogy Training for Children with Autism Spectrum Disorder

Introduction

- Classical Music Pedagogy Training (CMPT) refers to structured, classical music education that improves cognitive, neurological, and developmental outcomes.
- Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder affecting communication, social interactions, and sensory processing.
- While previous reviews have explored social communication interventions for ASD, CMPT as a potential intervention remains underexamined.

Method

- Conducted a comprehensive literature review, screening numerous peer-reviewed articles to assess the strengths, weaknesses, opportunities, and limitations of CMPT in ASD interventions. Applied a SWOT framework to synthesize findings and highlight gaps, accessibility challenges, and potential integration pathways.



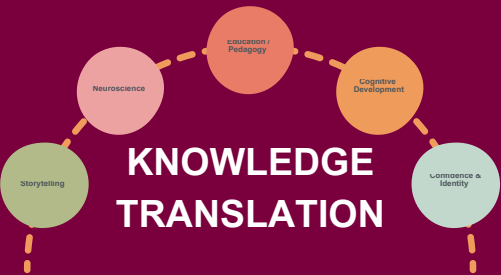
Results

	Typical Development	Autism Spectrum Disorder (ASD)
Sensory Processing & Auditory-Motor Connectivity	- Studies show that CMPT strengthens brain structures, enhancing motor skills and auditory processing (e.g., finger dexterity and rhythmic discrimination). - Early instrumental training leads to improvements in motor coordination and auditory processing abilities.	- Classical music's structured auditory patterns support sensory integration, helping children with ASD better process complex stimuli. - Music training, such as Auditory Integration Therapy (AIT), is used to address auditory hypersensitivity and improve sensory processing.
Communication, Social Skills & Emotional Regulation	- CMPT improves verbal skills, non-verbal reasoning, and emotion regulation. - Music-based training helps children express emotions, control impulses, and develop coping strategies.	- CMPT improves verbal production and joint attention in children with ASD, enhancing both non-verbal and verbal communication. - Music provides a structured, low-pressure environment for social interactions, helping children engage in group activities.
Fine Motor Skills & Executive Functioning	- Long-term music training strengthens fine motor skills and coordination, benefiting overall cognitive development. - Studies show improved performance in motor proficiency tests and melodic discrimination tasks in musically trained children.	- Music pedagogy addresses motor impairments, with studies showing improvement in balance, bilateral coordination, and overall motor skills in children with ASD. - Music-based movement programs lead to measurable improvements in gross motor skills.

Classical Music Training enhances neurological, motor, and social outcomes in children, but accessibility and integration challenges persist.

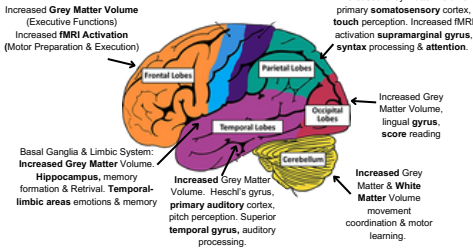


OBJECTIVE:
Connecting CMPT research to real-world practices, improving access and inclusion in music-based ASD interventions.



"First, foster the heart, then help the child acquire ability." – Shinichi Suzuki

Neurological Impacts of Music Training



NARRATIVE REVIEW

Accessibility / Inclusivity CMPT Training, Suzuki Association of the Americas



- The Harm in Stereotypes: As Black string musicians in predominantly non-Black spaces, we faced harmful stereotypes and microaggressions that reinforced the underrepresentation of Black musicians in classical music—perpetuating the false belief that Black youth don't belong in the field.
- Core Barriers to Inclusion: Beyond outreach, true inclusion requires fostering belonging. The lack of role models, financial burdens, and high parental involvement create barriers that discourage Black youth from pursuing classical music.
- Next Steps: Representation is key. Classical music educators should highlight Black musicians like Sheku Kanneh-Mason and Jessie Montgomery. Music organizations must work inward—diversifying leadership, reshaping narratives, and fostering environments where Black youth see themselves reflected and valued.

STORY & PURPOSE

Meet **Elodie**, a 7-year-old girl whose curiosity and excitement lead her on a journey to discover classical music. In her world, studying violin once seemed distant—something only others could do. But when she sees a young Black violinist perform, a spark ignites "I too can do this."

Elodie's story reflects the reality of studying classical music, the challenges, the joy, and the emotional depth of finding your passion.

COMMUNITY OUTREACH & ACCESSIBILITY

This book is more than a story—it's a tool to bridge the gap between families and accessible music education. Many children, like Elodie, have never envisioned themselves in classical music simply because they haven't seen someone like them succeed in that space.

- Connects families with **local & online music programs** tailored for underrepresented communities.
- Encourages **schools & community centers** to introduce music education to children from **diverse backgrounds**.
- Provides a **roadmap** for parents on **how to make music lessons possible**, regardless of financial or cultural barriers.



NEUROSCIENCE x MUSIC PEDAGOGY x EDUCATION

This book blends **storytelling, neuroscience, and education** research to highlight music's impact. Storytelling fosters emotional connection, neuroscience shows music enhances brain development, and education research demonstrates its role in boosting creativity, discipline, and social skills.



CanChild Centre for Childhood-onset Disability Research