Abstract Title:-

Music as a Neurodevelopmental Bridge for Inclusive Learning: Live Experiential Models for Educational Inclusion

Keynote Speaker – Dr. Rehab Kamal– Music Therapy & Rehabilitation Consultant

Abstract:

Music is a powerful human and scientific medium that engages the brain beyond traditional linguistic and cognitive pathways, making it an effective tool for supporting neurodevelopment and promoting inclusive learning. This interactive oral presentation explores music as a neurodevelopmental bridge for inclusive education through live, experiential models that can be applied in classrooms and community settings.

The session highlights how key musical elements—rhythm, vocal sound, and movement—can influence attention regulation, sensory integration, and social communication, particularly for individuals with diverse learning profiles and neurodevelopmental differences. By linking neurodevelopmental principles with practical application, the presentation demonstrates how music can support engagement, emotional regulation, and meaningful participation without depending on verbal instruction alone.

A core component of the session involves live audience participation, where structured musical activities are demonstrated using simple methods without specialized instruments. These models illustrate how music can function as an accessible assistive tool in inclusive classrooms, as well as in home and community contexts. Activities emphasize safety, enjoyment, adaptability, and inclusion—positioning music as a supportive learning mediator rather than a performance-based activity.

The session also emphasizes the importance of extending music-based approaches beyond isolated therapy sessions by empowering educators and families to integrate music into daily learning routines. It concludes by reframing music not as entertainment, but as a neurodevelopmentally informed strategy that strengthens inclusive practice and supports diverse learners.

Keywords:

Music Therapy, Inclusive Education, Neurodevelopment, Sensory Integration, Experiential Learning

Learning Objectives

By the end of this session, participants will be able to:

- Explain how music can be used as a neurodevelopmentally informed tool to support inclusive learning environments.
- Identify how rhythm, vocal sound, and movement contribute to attention regulation, sensory integration, and social engagement.
- Apply simple experiential music-based models to promote participation and inclusion in education and community settings.
- Recognize practical strategies for integrating music into daily learning routines without specialized equipment.

Short Professional Biography:

Dr. Rehab Kamal is a Music Therapy and Rehabilitation Consultant and the Founder of RMTKA Music Therapy and Learning Solutions LLC. She holds a PhD specializing in music-based and technology-supported approaches that enhance neurodevelopment and skill-building in individuals with diverse learning profiles. With over 20 years of experience across clinical, educational, and community settings, her work focuses on designing structured, goal-oriented music models that strengthen communication, attention, sensory regulation, and inclusive learning through practical experiential application..