

Music therapy: meeting physical, emotional, cognitive and social needs

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Influence and importance of music

Music is a phenomenon unique for humans – but why? Why does music play such an important role in our lives? Feelings and emotions – triggered by food, drinks, closeness and another person's touch – are all a matter of survival and thus logical and easily explained. But what about music?

Many researchers agree that music stimulates the same universal emotions worldwide, and this indicates that music is one central part of what makes us human, which is one explanation of why music has such impact [1].

Generally, music is a key part of every child's cultural milieu. Consequently, individual musical effects are created within each child – based on music to which they are exposed.

We now know that a 25-week-old foetus can hear. Stimuli (for example, music) are stored in every person's memory. Music affects all of us in various ways; it can be arousing, activating, calming, focusing and evoking emotional expressions and physical responses [2-4].

Music conveys memories and feelings, which partly explains emotional expressions that are associated with some music pieces. Joyful and motivational music is invaluable in the context of dialogue, communication and learning. Music works as an instrument for clearly displaying an individual's optimal ability [5, 6].

Often, persons with Rett syndrome are very decisive when it comes to music preferences. Favorite songs, artists and recordings are quite common [7-10]. Music selection varies and is highly personal. When new music is introduced, a person's inner and outer musical spaces expand. Here, inner space refers to thoughts, imagery, dreams, attitudes and feelings. Outer space refers to the external environment. Some individuals with Rett syndrome are exceedingly sensitive to new contexts and sounds – including music. Purposeful exposure to music from various cultures and genres strengthens their ability to feel safe and thus accept varying contexts and situations in daily living.

For persons with Rett syndrome, musical development depends on (i) the inclination of others in an immediate environment to present new music and (ii) how (or if) a person's responses to music are noticed and understood. Children's songs might still have a prominent role for adults perhaps because the songs have very special significance for the individual, or alternatively, because no new music has been introduced since their childhood.

Favourite tunes can create physiological responses and expressions. One tune might evoke *activation* (arousal), generate movements, laughter and contact. Another tune might facilitate focus, concentration and relaxation.

All responses are important, and varying responses function as tools in various contexts, for example, to generate movements (motor activity). That said, stakeholders (patients, parents, partners, musicians, caregivers, therapists) must understand that emotional responses might be difficult to interpret, for example, distinguishing between very happy and excessively happy.

Excessively happy could very well be a physiological “over-arousal” caused by emotions and a dysfunctional brainstem, a reaction that can be hard to control for a person with Rett syndrome [11,12].

It might also be easy to miss – or misinterpret – important expressions of interest, focus and relaxation, because these could be “silent expressions” – expressions that others in the surrounding environment generally don’t look for or are not trained to monitor/observe.

Musical interventions – in therapy and in daily activities

Music therapy is a health profession in which music functions as a tool within a therapeutic relationship for attending to individuals’ physical, emotional, cognitive and social needs. Sometimes, music therapy is considered a type of music education, entertainment or a nice moment, which it *can* be – depending on a person’s individual needs.

Music therapy’s main objectives are interaction, communication and sensory regulation. During music therapy, musical interventions generate various emotional expressions and enable individuals to personally experience strong feelings. Therapists create a supporting, fundamental base – a safe place – and usually succeed in eliciting a person's best abilities. On this platform, music therapists develop individual strategies for specific objectives, treatments and recommendations, for example:

- **Stimulate**
 - Language and augmentative and alternative communication
 - Motor functions (e.g., movement and coordination)
- **Develop**
 - Language
 - Communication and dialogue through musical interactions
 - Body awareness and identity (self) awareness
 - Imagination
 - Physical capabilities and dexterity
- **Experience**
 - Visions, imagery, creativity in mind and in interactions with others
 - Various emotions – and express them
- **Influence challenging behaviour**

Stakeholders should understand that music is ideal when managing various issues. The techniques described below– depending on individual needs and abilities – because they are accessible and easy to integrate into daily life:

Improvisation

Use music as a bridge between a person’s inner and outer space to develop a shared language in relations with responsible stakeholders. Musical dialogue can occur through rhythm, voice or other expressions. During interaction, a stakeholder can support, stimulate and challenge. Improvisation can be free or directed by special rules. [13]

Music within specified structures and frames

Use familiar melodies to create structure and security. Known songs construct a clear framework for recognition, security and ability to relate to past experiences. So music offers opportunities to express feelings and moods that otherwise might be difficult to develop and manage. Part of the structure may be to compose music and/or lyrics using various techniques. [14]

Music and song as tools for physical practice

Use music to teach and sustain physical capabilities. Music is movement (sound waves); it also generates movements and is thus optimal when teaching and maintaining fine- and gross-motor functional skills. [15]

Recording and listening

Leverage all available technologies that enable getting exact, understandable feedback from created music. Then keep/store, elaborate on, and repeatedly listen to the created music.

Togetherness

Promote familiarity and closeness. Music, playing and dancing together create a community and understanding, which in turn create belonging, identity and security (social empowerment).

Music therapy can only be provided by trained music therapists. That said, you need not be a therapist to sing, play, dance, listen, talk about music, create music and use music as a tool in daily living.

Music and musical expressions are part of human expressions, which we all have in common and share. As mentioned earlier, musical components are inherited. And music is something that's easy to include in various ways as a natural part of daily life. You need not be able to play an instrument. You always have access to your voice – and the human voice is a fantastic instrument. So why not make a habit of singing every day? In different contexts? The voice and singing facilitate contact and interest and clarify messages and instructions. Remember, it's not about *how* you sing or play – it's about whether you actually *do it or not!*

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