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Music Therapy's Role in the Education System

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Music Therapy's Role in the Education System

Abstract

Music therapy is a lesser-known and used related service, yet it provides significant benefits to students that have language, behavioral, and social needs. This article reviews the literature on music therapy, discusses its historical and theoretical roots, and examines its use in educational settings. Special attention is given to therapeutic practices that are geared toward students on the autism spectrum because their social and communication needs are often a good fit for music therapy practices. Recommendations on using music therapy in special and general education classrooms are also made. Additionally, recommendations for including music therapy content in teacher preparation programs are made.

Keywords

music therapy, education, autism, teacher preparation, general education, special education, related service

Introduction

As Plato said, “[music]...gives soul to the universe, wings to the mind, flight to the imagination, and life to everything” (Watson, 1991, p. 45). Recently, music has brought a new soul, a new flight, and new life to the world of therapies. Music therapy has been utilized for many decades but has just recently gained newfound popularity. According to the American Music Therapy Association (AMTA, 2013), musical therapy takes a clinical and evidence-based approach to fulfill individual goals through the incorporation of music as a therapeutic program. Research has shown that music therapy promotes wellness, helps alleviate stress, lessens pain, assists in expressing feelings, enhances memory, improves communication, and promotes physical rehabilitation (Koelsch, 2009; Levy, 2017). Music therapy is categorized into five respective types: receptive music therapy (listening), compositional music therapy (creating), improvisational music therapy (spontaneous creation), recreative music therapy (playing), and activity music therapy (structured musical games) which can be used independently or collectively to achieve the various, individual-oriented goals (Accordino, Comer & Heller, 2006). The purpose of this article is to develop a more comprehensive understanding of music therapy by exploring its historical and theoretical foundations, reviewing the goals of therapy for various ages, examining its application in a school context for students with and without disabilities, and making recommendations for including music therapy content in teacher preparation programs.

Historical Foundations

It is unclear when music made its transition into the therapeutic domain because it has been seen as having possible healing components since the times of Aristotle and Plato (Petruta-Maria, 2015). People throughout the world use music on a daily basis to relax, motivate, and provide an emotional outlet. However, until the mid-1900s, there were not any established organizations in the United States to develop the scientific use of music therapy or provide the education and training to future music therapists (Chow, 2018). However, in 1998 the AMTA was formed with the mission of promoting public knowledge of the benefits of music therapy and increasing access to music therapy across the globe.

While the broad history of music and therapy is difficult to trace, the history of music therapy in schools has followed a clearer historical path. The use of music therapy began to emerge in the United States education system during the 1970s along with use in nursing homes, rehabilitation centers, and prisons. The 1997 reauthorization of the Individuals with Disabilities Education Act (IDEA), further advanced music therapy in the public school setting because it was now classified as a related service.

As time has progressed, music therapists have become more and more involved in special and general education classrooms. In 2016, The AMTA reported that 12% of its members were working in children’s facilities and schools which was an increase of 5% since 2005. Looking at statistics from the U.S. Department of Education National Center for Education Statistics (Snyder, 2014), the presence and growth of music therapists in schools correspond with the increase of students who are served under IDEA. By the 2013-2014 school year, 13% of students enrolled in public schools qualified and received services under IDEA (Snyder, 2014).

Even though music therapy is more frequently used than it has been historically, there are still several prominent misconceptions about the profession and its practices. Myths involving licensing of therapists, goals of therapy, and implementation of therapeutic strategies will be discussed. The first myth is that music therapists are not licensed professionals. In actuality, music therapists in the United States are certified and hold a bachelor’s degree in their field that includes an extensive clinical experience and a board certification exam (Goodman,

2011). Music therapists are licensed therapists whose practice is a blend of physiological and psychological therapy. An example of a physiological therapy would be occupational or physical therapy and psychological therapy could be counseling.

The second myth is that music therapists and music educators are synonymous occupations. While some forms of music therapy do involve the playing of an instrument or singing, music therapists are not considered the same as music educators (Patterson, 2003). A music therapist's job is to address and enhance nonmusical skills (motor, social, cognitive, and communication skills) through the use of musical activities while a music educator focuses on teaching the skills and knowledge about music as an art (Patterson, 2003).

The third myth is that music therapy consists of simply listening to calming songs on a media player. While some aspects do use recorded music as a means to achieve goals, there is a strategy behind the music that is played. Music therapists employ a wide range of therapeutic strategies such as vibroacoustic therapy, singing therapy, and the Bonny method of guided imagery and music (Bonde, 2011).

Theoretical Foundations

Before diving into the goals of music therapy, it is important to understand how music therapy works and the theoretical support behind it. The key to successful music therapy, with a licensed professional, is being able to understand the influence music has on the mind and body. Music can help people relate to and understand their emotions as well as identify, control, and gain awareness of them (Petruta-Maria, 2015). The mind can be tricky because unlike physiological therapies such as occupational therapy and physical therapy, the effects of music therapy cannot be physically felt or seen. Like the saying "I'll believe it when I see it," the true value of music therapy can get lost in the inability to physically see and understand how music therapy works. Explaining the psychological theories behind music therapy and the processes it employs provides an understanding of why it exists and why it should be considered a potentially beneficial related service for eligible students.

The Polyvagal Theory

Music intertwines with our emotions, self-regulation, social behaviors, and other psychological processes that exhibit basic human responses to environmental, interpersonal, and our own self experiences (Porges, 2001). These processes shape our self-identities, social abilities, and with whom or where we feel safe. Although these processes cannot be seen physically or described concretely, they signify a complex relationship between the mind, experiences, and biological physiology (Porges, 2001). The polyvagal theory, developed by Stephen W. Porges (2001), provides an approach to understand the mechanisms behind music therapy and the processes in our autonomic nervous system that support the benefits of music therapy. This theory analyzes music therapy by the interpersonal relationship between the therapist and the client and the effects of the sounds of music used in therapy sessions (Porges, 2001). It is one of the main theories used to validate music therapy because it proposes a clear connection between our autonomic nervous system and our bodies' innate reactions to music. One of the key components of the theory is the social engagement system (SES). The SES interprets cues from our social environment such as eye contact, vocal patterns, and facial gestures to determine our perceived level of safety.

To analyze the concepts behind social relationships and music, Porges and Furman (2011) used the SES in their experiment to see if musical stimuli could improve one's neural control. This, in turn,

enhances social behaviors in many ways— one being improved vocal communication. The social engagement system regulates our fight-or-flight nerve system to stimulate association and attention in the environment, potentially creating emotional bonds and social relationships (Salvador, 2014). In their study, Porges and Furman (2011) revealed a connection between nerve regulations between the heart and social engagement behaviors thus proving that it is possible to improve social behaviors and lower heart rate. This was triggered by using computer altered music to stimulate specific responses. In summary, their results provide a biological connection that explains how music may change facial expressions and calm a person's behavior.

The same neural circuits that decide our reaction to stimuli in the environment are the same circuits used in our reactions to specific sound frequencies in the music we listen to (Porges & Buczynski, 2011). Many of these reactions are hardwired into our nervous system and imitate adaptive strategies. For example, low frequency sounds elicit a sense of danger and anticipation linked with stalking predators. This same feeling of anticipation is felt with the low-frequency sounds of kettledrums (Porges & Buczynski, 2011). High pitched frequencies elicit a cause for concern and urgency associated with screams from pain or injury. These examples are not to be taken too literally when thinking in the context of our reaction to music, but thinking about the way certain tempos, pitches, and melodies can make us feel correlate with these examples. Understandable, music therapy used in an educational context can help calm or excite students and influence the responses in their nervous system. Utilizing the right frequencies based on Porges' studies, music therapists and teachers could influence the overall mood of the classroom or individual. If the child or class is struggling with focusing, the appropriately selected music can be used to calm them and bring them back to the task at hand.

The Biopsychosocial Model

In addition to the polyvagal theory, there is a similar model that psychologists have used for decades called the biopsychosocial model to understand how different stimuli affects the human mind and body. George L. Engel developed the first draft of this model in 1977, he and other researchers have since refreshed the ideals, the central ideas and connections have not changed. This model focuses on the relationships found between our biological makeup, our psychological processes, and the interaction with others (Engel, 1977). In the case of music therapy, there is a progressive relationship between each component. There is a direct biological effect from music on the same autonomic nerve processes discussed in the polyvagal theory. Using the same ideas proposed in Porges' connections with the Social Engagement System, this, in turn, links the biological effects to a social component. To further build off the polyvagal theory, the continued exposure and reaction to music can have promising lasting psychological benefits on memory, attention, and mood due to the processes in which biological and social systems are affected by music. These are difficulties that many individuals face and have seen successful results after participating in music therapy.

Therapy Goals Across Ages

Music therapists are described as teachers of academics, social skills, kinesthetics, and speech. Like other therapies, there is no age limit of who can benefit from music therapy (Kern, 2014). While music therapy helps each age differently, the benefits are all similar in nature. Essentially, the goal is to build off of skills learned in previous phases of music therapy, but this does not limit someone from engaging in music therapy as they age. To understand what abilities and areas a music therapist may focus on in each age group, the following paragraphs will provide a detailed explanation of goals for each age as well as techniques to reach those goals.

In very young children music therapy is used primarily for language and motor development (Hallam, 2010; Bunt 2012). The goal is to improve vocalization and language skills, and this is often accomplished by singing simple nursery rhymes and identifying objects in a song. One of the biggest struggles with music therapy in young children is the need to sustain attention. Utilizing nursery rhymes is an effective way to bring the therapy to a level that does not feel like a task to the child but rather feels like play. Therapists are able to use the engaging nature of music to heighten children's interest and keep their attention longer (Pellitteri, 2000; Clift et al., 2010; Mendelson et al., 2016). Singing three to four lines in a song with the child helps them learn how to form words and basic sentence structure (Pellitteri, 2000). Music therapists also have children identify objects in the songs so they can clearly hear the words and provides them a visual point of reference to relate to in the songs. This is particularly helpful if they have difficulty recognizing objects and struggle with verbal expression. Sometimes, the problem is not with their speaking skills, but with their abilities to readily recognize objects. Music therapy can create opportunities for the child to give names to objects that they see in everyday life which assists with naming and recognizing objects. To address motor development, music therapists use the recreative approach to improve aspects like coordination and general movement (Pellitteri, 2000). The recreative approach utilizes the actual playing of an instrument to encourage learning from a hands-on perspective (Meadows, 1997). For young children, this could be learning to beat a drum or strumming a guitar rhythmically. The therapist does this by beating the drum themselves while encouraging the child to model their movement. This gives the child the opportunity to learn how to control their movements, but it also provides a chance to teach social behaviors. Mimicking behaviors is a skill that children begin to develop at this time and plays a role in their development of language, motor, and social abilities (Broh, 2002; Berk, 2013). The stimulation of beating the drum and hearing the sound of the guitar heightens the child's senses which encourages them to interact with the therapist and reach the desired goals (Pellitteri, 2000).

In pre-school age children, music therapy builds on the skills addressed in their younger years to directly improve language, daily living, and social skills (Register, 2001). To improve language skills, therapists will use activities that incorporate syntax and grammar patterns by using different melodies. Looking at each sentence as a different song helps stimulate the child's brain to focus on the differences and similarities that are seen in each. Music therapy also provides the opportunity to learn letter/sound identification (Wolfe & Hom, 1993). From around six months of age, children are able to differentiate between sounds in all languages, not just their own. If they are able to use their tongues to mimic that sound, improvisational music therapy helps them by creating sounds to further distinguish between letters and sounds more effectively with the added stimuli of the music (Berk, 2013). To improve daily skills, therapies relate everyday activities such as washing hands, getting dressed, practicing good manners, and memorizing important items like phone numbers and addresses to a song or rhythmic form (Thaut, Peterson, & McIntosh, 2005). Each of these helps the child learn to be more independent on their own and also how to function in today's society. Using music therapy to memorize phone numbers and addresses is valuable because putting information in song form enhances the ability to recall the information. The same way companies use jingles as a marketing technique is the same way music therapy can be used to enhance memorization (Schellenberg, 2003; Norton, 2005). To improve social skills, it is more beneficial if music therapy is used in a group setting (Hallam & Prince, 2000; Harland et al., 2000). In order to truly reflect real-life social scenarios, group sessions include peers to initiate conversations and encourage interaction. In this service delivery model, it is easier to demonstrate socially appropriate behaviors such as turn-taking, greetings, and compromising (Standley & Hughes, 1997). The pre-school age is an important age to provide interventions because of the significant verbal and social development that occurs during this stage.

According to the American Music Therapy Associations “Snapshot of the Profession” (2011), 15% of music therapists report serving in a children’s facility or school environment which indicates they work with school-age children. At this age, music therapy predominantly addresses social and academic skills (Hallam, 2010). Children are beginning to learn how to interact with each other and music therapy helps with learning prosocial behavior and enhances positive communication skills. To aide behavior, music therapy is seen in one of its most common forms, receptive music therapy, or listening. Recent studies and observations have shown that certain types of music have specific influences on behavior (Coyne, Dwyer, Kennedy, & Petter, 2000). Playing calmer music, such as classical music, helps people to focus and ease tension and hyperactive tendencies (Coffman & Adamek, 1999; Hallam, 2010). Additionally, music therapists can use their knowledge of the effects of music to help teachers in everyday classroom activities. One of the most difficult times for teachers is at the beginning of the school year, so music therapists have developed systems to educate teachers on incorporating the practices into simple activities, such as learning classroom rules, encouraging good behavior, and fostering classroom engagement (Gillespie, 2018). On a more specific note, music therapy is used to further build on the communication skills that have been previously taught (Brooks, 1989). Similar to the previous ages, music helps to develop students’ vocabulary by learning new words and the structure of those words (Piro & Ortiz, 2009). In elementary classrooms, music therapists can improve overall learning by creating fun academic activities (activity music therapy) to teach math concepts, science, time-telling, and many other topics. This same type of music therapy can also be used with other methods to improve reading and writing skills such as phonics, sight words, and story elements (Hallam, 2010)

Finally, music therapy can be used past childhood into each stage of adulthood. For teenagers, music therapy promotes healthy emotional expression as a release from the stressors that are prevalent in that age group (North, Hargreaves, & O’Neill, 2000; McFerran, Roberts, & O’Grady, 2010). Music therapy also helps to keep students involved and invested in their academics which also gives a sense of self-concept (Tarrant, North, & Hargreaves, 2000). For adults, music therapy can help balance emotions and anxieties of keeping up with the struggles of independent, daily life (Goldstein, 1980). In both of these age groups, music therapists may intervene in a more psychological way by incorporating songwriting to express stressors. While many people phase-out of music therapy as they age, the benefits are still prevalent and by this point, are more likely already incorporated into the person’s daily routine (Stige, 2002).

Music Therapy in a School Context

As mentioned before, music therapy entered the school setting with the 1997 amendments to the Individuals with Disabilities Education Act (IDEA). This set of amendments further mandated the inclusion of students with disabilities by providing them with the availability of related services in schools (Adamek, 2002). Related services are support services that help the child reach their Individualized Education Plan (IEP) goals. Therapies such as occupational therapy and physical therapy are some of the more common types of related services. Offering these resources for the child through the education system ensures every possible step is taken to truly accommodate and serve students with disabilities (The IRIS Center, 2011). While music therapy may be perceived as a rare service, the effectiveness of music therapy reaches beyond the realms of therapy itself and offers a wide array of benefits that could be of help to a variety of students with IEPs (Pellitteri, 2000). Benefits of music therapy can be seen in all aspects of life – communications, academics, and daily living skills (Mendelson et al., 2016). Understanding where and how music therapy, as explained before, can help at each age is important in truly grasping the concept. While music therapy is currently a suggested related service, the service is not always easily accessible to rural, underdeveloped areas which are problematic for students that would benefit

from the service. The following sections will discuss the benefits of music therapy in an educational context, particularly as it applied to special and general education classrooms.

Special Education Application

Bringing the focus back to the classroom, the main place to find music therapy in the education setting is as a related service provided to students with a documented disability per IDEA. Like other therapies, music therapy is tailored to meet individual needs and provide appropriate supports. Whether in a group or individual setting, one child may be doing recreative therapy to improve motor skills while another child may be working on behavior or verbal skills through receptive music therapy. Not every type of music therapy will work the same way for each student, so it is up to the therapist and the student's IEP team to ensure the student is reaching their goals in the most efficient way possible. To qualify for music therapy services, a parent or school representative must specifically request the services to be included in the IEP (Salvador & Pasiali, 2017). Like in all other IEP related services, a board-certified music therapist must conduct a comprehensive clinical assessment (Salvador & Pasiali, 2017). If the therapist deems music therapy essential in obtaining the child's goals, it will then be provided in a "direct" or "consult-to-student" format (Salvador & Pasiali, 2017). If the therapist believes a direct delivery model is required then the music therapist will see the student outside of the classroom to provide a one-on-one session (Salvador & Pasiali, 2017). For a consult-to-student model, the therapist will assist the child in the classroom by creating structured interventions and discuss strategies that should be employed with the classroom teacher (Salvador & Pasiali, 2017). In both of these delivery models, it is crucial for the therapist to provide progress updates and follow-up with the other professionals on the student's IEP team to ensure the child is on track with his or her IEP goals (Salvador & Pasiali, 2017). To further see the benefits of music therapy, it is helpful to examine it from the position of one of the more common disabilities found in the special education classroom—autism.

Music therapy and autism. The literature involving music therapy and autism is more prevalent because music therapy is deemed effective service for students with communication needs which is a defining characteristic of students on the autism spectrum (Geretsegger, Elefant, Mossler, & Gold, 2014). Students with autism often exhibit mild to severe issues when it comes to behavior, social skills, and language (Cardella, 2014). The American Psychiatric Association (2018) deemed impaired social and language skills as one of the most clinically defining symptoms of autism. Music therapy is also a potentially good fit for those with autism because of the sensory impact it can have. In many cases, music therapy can mediate autistic tendencies while allowing the student to work on overcoming needs that may be holding them back.

In language function, individuals with autism typically range from a slight deficiency in social abilities to being entirely nonverbal. In both cases, music therapy provides services that support students with autism. Early studies examining the effects of music therapy when improving communication and social skills suggests that the therapy may be a crucial component in aiding verbal and nonverbal communication development and enhancing overall social engagement (Wigram, Gold, & Elefant, 2006). Referring back to the polyvagal theory and the relationship to the biopsychosocial model, the effects of music therapy can be directly tied to helping individuals with social behaviors and interactions which makes music therapy a good fit for those with autism. For many with autism, the time of diagnosis is around the preschool age. At this age, music therapy has lasting effects on language development by providing an alternate route to learning sounds and general sentence structure (Whipple, 2012). The type

of music therapy used here is typically recreative, receptive, or activity therapy. Each of these methods engages the child and feeds into the sensory processes which help the therapist ensure the child is benefitting from the therapy. These skills can then be incorporated into the coming years by continuing therapy in a group setting.

Group therapy is a great resource for individuals with autism because it focuses on both academic and social skill development with similar peers. This helps the individual learn how to interact with others and build relationships (Cardella, 2014). Another way to employ the benefits of group therapy is for students to participate in inclusive music ensembles. An ensemble setting creates an opportunity for students with autism to be able to develop peer relationships by producing structured opportunities for peer to peer interactions that are focused on a common interest or goal. Evidence suggests that inclusive opportunities, like musical ensembles, improve the likelihood that students with autism will be more likely to develop positive social relationships (Kasari, Rotheram-Fuller, Locke & Gulsrud, 2012).

Individuals with autism often experience a lack of joint attention skills, an inability to focus on tasks when working with others, and potentially an increase in aggressive behaviors (Cardella, 2014). These characteristics often lead to difficulty in forming positive peer relationships. Additionally, children with autism are more likely to be bullied than those without autism (Cardella, 2014). For those on the spectrum, tendencies such as sound outbursts, fidgeting, and overall social behavior cause additional barriers to creating healthy peer friendships. Bullying and isolation further frustrate the child which creates a domino-effect that lessens their chances of successfully establishing relationships with their peers. Along with group therapy to improve social skills, music therapy also helps to address behavior by providing either an emotional outlet for the child or a direct relaxation method (Cardella, 2014). With recreative music therapy, this is the exact goal. With expression of feelings, a difficult area for those with autism, music therapy provides a way to process emotions without having to express them verbally.

Another route to help calm an individual, not just those with autism, is simply listening to music. To relate back to the polyvagal theory, this reaction comes from the crossed connections that music stimulation has with our fight-or-flight nerve responses. Understanding how music therapy works can significantly impact the nervous system. While it is best for a licensed music therapist to structure these activities to maximize the therapeutic benefit, the simple practices, such as playing music, can easily be incorporated by teachers into educational settings for students with any disability – not just those with autism.

Individuals with autism, especially children, are more likely to be diagnosed with anxiety and depression in part relating to the frustrations of unsatisfying social engagement (McPheeters, Davis, Navarre, & Scott, 2011). Forty percent of children with autism in the United States experience depression or anxiety (McPheeters et al., 2011). This number could be even higher due to the difficulty to diagnose depression and anxiety in patients with autism because of the complexity of their already prevalent autistic characteristics (McPheeters et al., 2011). In a study of 74 boys with high functioning autism, 83% percent reported feeling lonely and wanting to establish a friendship (Lasgaard, Nielsen, Eriksen, & Goossens, 2010). Implementing music therapy, particularly group therapy, could reduce the high statistic because social behaviors and emotional needs would correspond. Recreative music therapy provides an outlet for built-up feelings that individuals may struggle to verbally express. It would also give them an opportunity to interact with others in a setting in which they are comfortable and understand the social and relational dynamics because they are guided by a therapist.

General Education Application

Incorporating music therapy in schools does not have to be only as a related service for students with IEPs. While its benefits are typically needed more in special education, its impact is not lessened by its inclusion in general education settings. In general education classrooms, music therapy can help students who are “at-risk” and students with behavior or emotional issues. While it is important not to confuse music therapy with music education, the effects of music therapy can still be accessed through general music education classes – with the right instruction of how to do so.

For students “at-risk” for academic failure, music therapy can be helpful by utilizing all of the aforementioned benefits as well as providing that extra motivation for learning. Many of the students who are considered “at-risk” are considered so due to financial stressors, issues at home, or even a learning disability that has not yet been diagnosed (Gardstrom, 2002). These students may seem distant and uninterested in material and may even act out but music therapy gives the student something fun and engaging to be able to relate to so they are able to engage more fully with the curriculum.

The same techniques can be used for students with behavioral issues. Often, the issue behind typical behaviors is stress, motivation, or external factors. Utilizing music to engage students as much as possible could lessen the impact of these issues. Many studies have been done on the effects of music therapy and music overall in the classroom and the majority indicate a positive correlation between music and the ability to calm behaviors and reduce noise levels (Coyne et al., 2000). Again, the benefits of music therapy can all be attributed to the connection made with the polyvagal theory (Porges, 2001). Sometimes it just takes an appropriate amount of stimulation to get students focused and engaged.

Finally, to help with all the stressors and issues that can occur for all students, music therapy can be used in all of the ways previously discussed to help with relationships, behaviors, and academics. Interacting with a music therapist or engaging in music therapy activities can improve the overall attitude and prevent burnout for teachers and administrators (Patterson, 2003; Jones, 2015; Salvador, 2017). There are countless demands educators face, so using a music therapist and the techniques discussed can help alleviate many of these stressors and create a better learning and work environment for all.

Recommendations for Teacher Education Preparation Programs

Since music therapy is an education related service that has been empirically shown to promote learning and skill acquisition, the authors suggest that teacher preparation programs mindfully include training and content to teacher candidates about the evidence-based practices that could be employed in their future classrooms. Even though the teacher candidates may not be seeking licensure to teach music, there are many strategies that can be employed to promote learning and enhance prosocial behaviors. The AMTA (2015) published a document titled “Special Education: Music Therapy Research and Evidence Based Practice Support” which provides an overview of the research and outcomes related to use of music therapy and its strategies within the special education context. Prior literature has found that the utilization of music therapy strategies has the following impact on students in the classroom: promotes positive emotional/ behavioral skills (Montello & Coons, 1998; Ulfarsdottir & Erwin, 1999; Krakouer, Houghton, Douglas, & West, 2001), fosters tolerance for change and flexibility (Wigram, 2002), enhances communication and speech development (Braiwithwaite & Sigafos, 1998; Perry, 2003), increases on-task behavior (Standley & Hughes, 1997), improves literary skills (Standley & Hughes, 1997; Register, 2001),

and increases ability to memorization (Wolfe & Home, 1993; Thaut, Peterson, & McIntosh, 2005). Given the vast amount of research supporting the various benefits of music and music therapy, teacher preparation programs inclusion of this knowledge would be a valuable addition to their current curricula.

Additionally, since IEP teams are comprised of a multidisciplinary team of educational professionals and caregivers, it is important for teacher candidates to be prepared to engage in conversations pertaining to the benefits and drawbacks of including music therapy as a related service in the child's IEP. Incorporating music and music therapy strategies into the teacher preparation curriculum will equip the candidates with a cadre of techniques that can be used for improving the lives and educational performance of students with disabilities and music therapy should be on that list.

Conclusion

To conclude, a music therapist takes on many roles as a consultant, a teacher, and a skill developer. The impact of music therapy goes far beyond its own domain of music and touches many facets of life for students. The five types of music therapy (recreative, compositional, improvisational, receptive, and activity) offer a multitude of options to meet individuals' unique needs and has strong theoretical backing as found in the polyvagal theory (Porges, 2001) and biopsychosocial Model (Engel, 1977). The research that has stemmed from these two models give credence to support more extensive implementation of the therapy in educational settings. The use of music therapy and music-focused strategies, particularly for students with disabilities could have a positive impact on students' language, socialization, emotions, and motor development. Given the potential benefits, music therapy strategies should be more readily considered as viable service to support their individual needs and mediate their challenges. Additionally, it is recommended that general and special education teacher candidates should be trained and equipped during their teacher preparation programs so they can employ these methods in their future classroom.

To reference Plato, "[music... gives soul to the universe, wings to the mind, flight to the imagination, and life to everything]" (Watson, 1991, p. 45). Embracing these words is a great parallel for what music therapy plans to accomplish. The mission of music therapy is to advance awareness of its benefits and increase access to these benefits and while this is an ongoing endeavor, bringing awareness regarding the value of music therapy starts with providing information to all educational stakeholders.

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