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# Music Therapy in the Treatment of Adolescents with Emotional and Behavioral Disorder: A Systematic Review

Aubrie Roley

*St. Catherine University*, [aubrie.roley@gmail.com](mailto:aubrie.roley@gmail.com)

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Music Therapy in the Treatment of Adolescents with Emotional and Behavioral  
Disorder: A Systematic Review

by

Aubrie Jean Roley, B.A.

MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work  
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St. Paul, Minnesota  
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Committee Members  
Pa Der Vang, Ph.D., MSW, LICSW (Chair)  
Amanda Thooft, MSW, LICSW  
Sara Owens-Keenan, MSW, LICSW

The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

### **Abstract**

This systematic review examined existing research to answer the research question: how does music therapy affect academic supports in adolescents diagnosed with emotional and behavioral disorder? “Academic supports” will be operationalized through social skills, community involvement, and academic performance. Upon thorough review of the present literature, nine articles met criteria. Common themes identified throughout the reviewed articles include improved social functioning, improved self-esteem and self-expression, group music therapy, improvisational music therapy, and lack of research. Findings conclude that further research is needed to identify if music therapy has an effect on community involvement and academic performance within adolescents diagnosed EBD. In the area of social functioning, music therapy is shown to have a positive affect on social competencies of adolescents with EBD. However, the existing literature is not robust enough to create an evidence base for music therapy used as a treatment intervention among the population of adolescents with EBD.

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## **Introduction**

A growing amount of literature depicts that the prevalence and incidence of emotional and behavioral problems in young children is increasing. Children and adolescents with the label of emotional and behavioral disorder (EBD) face numerous challenges academically and socially. Often, youth with EBD have trouble maintaining interpersonal relationships and can exhibit aggressive and disruptive behaviors, both at school and in the community. More interventions are needed within this population, but often overlooked.

Music therapy has been utilized in a variety of settings among children and adolescents with an emotional or behavioral disorder. Research has shown music therapy to be an effective therapeutic intervention in a variety of populations facing challenges related to their mental health. According to the American Music Therapy Association, the interventions of music therapy, provided by a credentialed professional, can assist in promoting wellness, alleviating pain, managing stress, improve communication, and expressing feelings (2016). Students with emotional and behavioral disorders often lack in social and communication skills, whereas music therapy could serve as tool to improve these crucial life skills.

## **Literature Review**

### **Emotional and Behavioral Disorder**

In order to provide evidence-based practices in treating adolescents with emotional and behavioral disorder (EBD), it is imperative to understand the components of EBD and how these characteristics can manifest into young adulthood. Emotional and behavioral disorder is not a formal diagnosis under the DMS-5, but rather used administratively by state and federal agencies for a population of students requiring extra support and services. According to the Individual

with Disabilities Education Act (IDEA), a child with a serious emotional disturbance is decided for qualification under special education services using these five characteristics:

- a) an inability to learn which cannot be explained by intellectual, sensory, and health factors
- b) an inability to build or maintain satisfactory relationships with peers and teachers
- c) inappropriate types of behavior or feelings under normal circumstances
- d) a general pervasive mood of unhappiness or depression
- e) a tendency to develop physical symptoms or fears associated with personal or school problems

While examining these characteristics, the severity of the problem behaviors, frequency, and chronicity are factored in while making a decision if a student meets criteria or not (Clough, Garner, Pardeck, & Yuen, 2005). If decided that a student meets criteria for a disability listed under IDEA, accommodations, services, and goals will be implemented into their Individualized Educational Program (IEP). “Students labeled EBD make up about 1% of the school population, with one in five youth not receiving proper interventions for serious mental health issues (US Department of Health and Human Services, 2001). The US Department of Education (2005) accounts for this low percentage to the fact that students with EBD are both underidentified and underserved. One of the reasons for underreporting of EBD is that there is no standard definition for ‘serious emotional disturbance,’ which is often used interchangeably with ‘emotional disturbed’ and ‘emotional and behavioral disorder.’ The child or adolescent must be presenting symptoms of EBD both at home and school in order to qualify for special

education services; which can become difficult to establish if both school staff and guardians are not identifying the same type of behaviors.

Although underidentified, an array of literature indicates that the prevalence of emotional and behavioral problems in young children is increasing (Brauner & Stephens, 2006). “Research has also shown that the emergence of early onset emotional/behavioral problems in young children is related to a variety of health and behavior problems in adolescence, not to mention juvenile delinquency, school drop out, etc.” (Brauner & Stephens, 2006, p. 303). These various related problems are often why children and adolescents earn the label of “at-risk”, while also being labeled with EBD.

In the literature *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research* (as cited in, Pollard, Hawkins, & Arthur, 1999) risk factors have been broadly defined as “those characteristics, variables, or hazards that, if present for a given individual, make it more likely that this individual, rather than someone selected from the general population, will develop a disorder.” In the published book, *At Risk Youth*, these risk factors are described as a series of steps within a continuum. Authors McWhirter et. al (2012) break down the risk factors into four stressors on the continuum. The first stressor of socioeconomic status or demographics, is equated to not having adequate access to resources. The second step or stressor is the family and school environment. A safe and reliable environment, both at school and at home, can create more of a positive self-identity. Often times, having to endure a negative home and/or school experience can create barriers for the development of the students’ lives, not only academically but socially as well. The third stressor is experiencing environmental or psychosocial events, such as: divorce, death, suicide, teenage pregnancy, abuse, and incarceration. The final factor that constitutes a child as at-risk is the

psychological make-up. How a child handles conflict will determine the type of negative or positive affect to be had on them.

### **Challenges Faced in Adolescents with EBD**

As stated in the definition provided by IDEA, an inability to build or maintain satisfactory relationships with peers and teachers is a component of a student with EBD. Acquiring social competency is so critical, not only in the community, but in the school setting as well. Many students with EBD do not present as having proper social skills, which can cause a serious disruption to the learning environment of their peers, as well as for themselves. Results from a National Longitudinal Transition Study found that nearly half of students labeled ED are rated by their teachers and parents as having social skills at or below the 16<sup>th</sup> percentile (Cook, Gresham, Kern, Ramon, Thornton, & Crews, 2008). Because of the lack of social skills, often students with EBD will misinterpret neutral cues as hostile (Lane, Wehby, & Barton-Arwood, 2005).

Social competence deficits are fundamental in the diagnostic criteria for numerous childhood and adolescent disorders, according to the *Diagnostic and Statistical Manual of Mental Disorders* (Cook et. al, 2008). In addition to social and academic problems faced by students with EBD, many suffer from mental health issues and/or diagnoses such as: low self-esteem, low frustration tolerance, interpersonal and family conflict, schizophrenia, depression, anxiety, attention-deficit hyperactivity disorder, and autism (Sausser & Waller, 2006). As with underidentification and underservice of EBD, “data suggests that more than 20% of the school age population demonstrate deficits that would qualify them for a psychiatric diagnosis; however, only about 1% of the student population receives services under the category of ED” (Cook et. al, 2008).

Students with EBD can be difficult to teach due to their struggle to learn, negative emotional state, and difficulty in forming interpersonal relationships (Sausser & Waller, 2006). Often teachers and administration staff will not know how to effectively deal with such negative behaviors exhibited in the classroom. Academic deficits are often experienced with this population, which can include: low task completion rates, limited reading skills and content knowledge (Lane et. al, 2005). Because of the high behavioral levels and academic challenges faced by youth with EBD, they are often placed in a more restrictive setting than other students with disabilities. “Close to one third of students with ED ages 6-21 years are in a general education school but outside general education classes for more than 60% of the day” (Bradley, Henderson, & Monfore, 2004, p. 213). Isolation from peers in the general education setting can often cause added stress to this population, which can contribute to the already presenting negative behaviors. In addition to EBD having negative social impacts, “youth with behavioral disorders are less likely to complete high school than are their peers with or without disabilities” (Kortering, Braziel, & Tompkins, 2002, p. 142).

According to Bradley et. al (2004), the Bureau of Education for the Handicapped (BEH) noted that from an educational standpoint, little is known about students with emotional problems. They also discuss the need for more research in order to improve upon the development of education models needed to further assist this population. “Despite increased attention focused on students with emotional disorders, their educational, behavioral, and social outcomes continue to be the worst of any disability group” (Bradley et. al, 2004, p. 211). It is imperative that this disenfranchised population receive academic supports, but most importantly, mental health supports as well. Nationally, most schools are equipped with guidance counselors and school psychologists, medical personal and nurses. However, only about half of schools

nationwide are employed with social workers (Bradley et. al, 2004). This concerning statistic is the reality that many students with EBD have to face.

### **Music Therapy for Youth with EBD**

Music has been used as a method of healing since ancient times (Sze, 2006). The idea of music therapy as a profession dates back to just after World War II, “when musicians visited veterans in hospitals around the United States to ease the physical and emotional traumas of war” (Camilleri, 2000, p. 184). More formally, the *American Music Therapy Association* has defined music therapy as, “the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program” (2016). Music therapy can be used in a variety of settings, among numerous populations. Individual populations benefitting from music therapy noted from the *American Music Therapy Association* include: individuals in the military, individuals experiencing crisis and trauma, individuals in correctional and forensic settings, individuals receiving special education services and music therapy with young children (2016).

During the past ten years, there has been a sizable contribution of research on the impact of music for children with disabilities. Sze (2006) suggests that music can be used as a tool to encourage human development in cognitive, learning, perceptual, motor, social and emotional development. Fortunately, music therapy qualifies for a related service under IDEA, which can help in meeting the student’s educational and behavioral needs expressed in their IEP (Sausser & Waller, 2006). More specifically, behavior management techniques combined with music therapy interventions may provide an alternative way to teaching students with EBD in a more structured environment and allowing for a creative outlet (Sausser & Waller, 2006). According to Sze (2006), there are strategies a music therapist or teacher can implement in helping aid

students with disabilities through music. The strategies used specifically in students with EBD include: playing an instrument for on task behavior, using a small group setting to allow for interpersonal interactions, teaching turn taking, and sharing space while playing instruments to aid in impulse control (Sze, 2006). Impulse control and interpersonal interactions are two main skills that students with EBD commonly fall short on. Allowing a group setting to create a space for socialization and cohesion among members would aid in strengthening those skills.

Although there is a great source of literature about the positive outcomes of music therapy with adolescents, little is known about the application of music therapy with students with an emotional or behavioral disorder (Sausser & Waller, 2006). The theoretical orientation of the music therapist will determine how music therapy is utilized, in conjunction with the various practices of psychological paradigms (Camilleri, 2000). Various instruments and techniques are used by music therapists when designing a session, which can include but not be limited to: piano, guitar, drums, cymbals, storybooks, voice, musical games and stories, listening to recorded music and examining lyrical content (Camilleri, 2000).

In research presented by Camilleri (2000), nine different social and emotional goals were assessed using group music therapy in a community school setting in New York City. The first goal of participation was assessed looking at how a child relates to the music therapist and peers, relation to music and instruments, types of instruments used, and the uses of body and voice. The second goal of interaction was assessed by the students' ability to negotiate time and space sharing, ability to collaborate with peers, the quality of interactions made, and the ability to engage in cooperative music playing. The third goal of relationship formation examined the student's ability to develop and maintain appropriate boundaries and the depth of content that comes out in each session. The fourth goal of communication and expression assessed the

student's creative use of instruments, body language and expression, and response to group music. This particular goal is often a skill that students with EBD have difficulty with. In this instance of group music therapy, it is suggested that expression of feelings and/or experiences can be difficult to put into words with this population, so music therapy gives them a space to creatively share what they are thinking. Space sharing is the fifth goal that was examined, which consisted of the student's ability to share instruments, wait for their turn, and listen to others in the group. The six goal of problem solving assesses the students' abilities to follow directions, make various choices regarding instruments and activities, and initiative taking when interacting with others. An example of problem solving in this group setting could be through storytelling; where the group decides on an issue or concern they may be dealing with. The seventh goal of self-esteem assesses contributions to the group by their ability to take a leadership role, evaluate and take responsibility for their work, while being cognizant of other members. The eighth goal of respect examines the students' ability to give feedback to others and the ability to listen and create space for others. The final goal of awareness assesses the students' ability to use music as a way to express emotion and how body, language, and mood all are in connection with music. The social and emotional goals addressed can aid in the development of such skills that are lacking with this particular population (Camilleri, 2000).

A study conducted by Sausser & Waller (2006) examined the effects of music therapy with elementary, middle school, and high school students over a nine-week term. High school students met with a music therapist, either individually and/or by group for a 45-minute session weekly, throughout the school year. The music therapist, along with the treatment team, addressed the following eight goals: create a structured and safe musical experience for students, establish group cohesion, provide planned sessions to focus on group needs and individual IEP's,

facilitate group movement to enhance motor coordination and overall physical fitness, and allow for students to explore personal musical interests (Sausser & Waller, 2006).

The first week dedicates time for a referral and evaluation process. Weeks two through eight incorporate music therapy into a curriculum appropriately suited for each student. The last week is designed for an evaluation process, along with consultation between the music therapist and teacher (Sausser & Waller, 2006). This time can be utilized in discussing strategies from music therapy that can be incorporated when in the classroom. An example technique called lyric analysis, allows the teacher to select an age appropriate song to obtain the lyrics (Sausser & Waller, 2006).

The effects of music therapy on children and adolescents with EBD are vast. “Music therapy has been proven to contribute to cognitive, psychosocial and academic development” (Sze, 2006, p. 117). Music therapy can provide a creative and structured environment for a population that may not perform well in a conventional classroom setting. Due to the overwhelming stimuli school can produce for youth with EBD, a hands-on learning experience can aid in the motivation for such a group, in which music therapy can provide (Sausser & Waller, 2006).

## **Conceptual Framework**

### **Ecological Theory**

Urie Bronfenbrenner’s framework of ecological theory is comprised of a set of subsystems, ranging from school and family to economy, patterns of culture, and customs (Gauvain & Cole, 2005). Children and adolescents social ecology includes subsystems that are interconnected, which significantly impact their behaviors, both directly and indirectly. Examining these subsystems are critical when adolescents are exhibiting problematic behavior

and can provide pertinent information (White & Renk, 2012). Liu (2004) describes externalizing behaviors as overt disruptive, hyperactive, and aggressive behaviors. These are often behaviors that adolescents with EBD can exhibit. Looking at ecological theory will help in examining the basis behind these externalizing behaviors (White & Renk, 2012).

In a study done by White and Renk (2004), they examined three categories, all which contribute to externalizing behaviors exhibited by adolescents. The first category examined was characteristics presented by adolescents, such as self-esteem and social ability. What they found was that social competency and self-worth are valuable in measuring predictors of externalizing behaviors (Zenk & Renk, 2004).

Parent-child relationships are an important factor when considering externalizing behavior problems in adolescents, in relation to the ecological model (Zenk & Renk, 2004). Depending on parenting style and support, this relationship can contribute to the ways in which adolescents externally behave. The study shows that more nurturing, supportive, and responsive parenting techniques are associated with the emotional well-being of children and adolescents. Whereas, parents that tend to be more unsupportive and present a lack of involvement can contribute to aggression and externalizing behaviors (Zenk & Renk, 2004).

The final category the study presented on, in relation to adolescence and externalizing behaviors, was the sociocultural aspect, which includes the adolescent's neighborhood.

“Particular individuals in neighborhoods also may be in the lives of adolescents (Zenk & Renk, 2004, p. 160). For example, support from teachers can be related to positive adolescent outcomes such as: stronger school attendance, less problematic behavior, and higher school satisfaction (Zenk & Renk, 2004).

All of these categories play a key role in the examination of externalizing behaviors in youth. The school setting is where a lot of externalizing behavior problems play out for students with EBD. Because school is such a big part of an adolescents system, interventions must take place in order to create an outlet for students exhibiting such negative behaviors. “For various reasons, traditional behavior management and teaching strategies have proven to be inadequate in ameliorating academic and behavioural concerns of these students” (Taft, Hotchkiss, & Lee, 2016, p. 113). Creative art therapies, such as music therapy can be a useful unconventional therapeutic tool to benefit adolescents with EBD.

### **Professional Lens**

In my professional life, I have had five years of experience working as an education assistant in special education. The students that I worked with, ages 13-21, came from a variety of socioeconomic backgrounds and presented different levels of academic ability. I worked primarily with students who had the label of EBD. Having worked at an alternative school setting, I was able to witness the students at a lower time in their life. Unfortunately, in order to come to the alternative school program, students had to have committed some type of offense at their home school, which would in turn remove them from that setting for 45-90 days, depending on the offense. This setting allowed me to see the apparent need for unique therapeutic interventions, within the schools. Various literature suggest that music therapy in schools can be a very useful tool, especially for adolescents experiencing problematic behaviors.

### **Methods**

Due to the extensive amount of research on creative art therapies used with students with disabilities, a systematic review was necessary to obtain the most suitable interventions used and any themes presented. Due to the nature of the systematic review, no human subjects would be

needed, thus an IRB approval is unnecessary. The purpose of this systematic review is to further understand if music therapy can serve as an effective intervention in helping adolescents diagnosed with EBD improve academic supports. This research design was conducted with the intent of answering one main research question: How does music therapy affect academic supports in adolescents diagnosed with emotional and behavioral disorder? In this research question, “academic supports” will be operationalized by incorporating community involvement, social skills, and academic performance.

### **Selection Criteria**

Initially, all creative art therapies were examined in the search process, with the key words *creative art therapies* and *emotional and/or behavioral disorder*. Because creative art therapies included more than five different therapeutic interventions, the main search was to focus only on music therapy. The intervention studies reviewed under inclusion criteria included a combination of the following terms, adolescent(s), music therapy, emotion or emotional disorder, and behavior or behavioral disorder.

### **Search Criteria**

The systematic review was conducted from September 2016 to January 2017. Literature was gathered from electronic bibliographic databases JSTOR, Education Full Text, and Summon. Gray literature was extracted from the *American Music Therapy Association*. Studies considered for review included full text articles, peer-reviewed, and research dated 1998 to present. The preliminary search, using JSTOR, produced 285 articles, in which one article was included for review. Education Full Text produced 35 articles, in which one was included for review. In order to expand the search, the Summon database was used. The selection criteria was used, and additional subject terms were added to narrow search results. The additional

subject terms included music, music therapy, behavior, adolescents, special education, emotions, behavior problems, and mental disorders. This search produced 726 results, in which three were included for review. Five included articles were through personal search of literature cited in the included articles.

Intervention studies that met criteria included: adolescent age range from 11-18, emotional and/or behavioral disorder, and therapeutic intervention of music therapy. Studies that were related to the research question but did not meet systematic review criteria were not reviewed.

### **Data Analysis**

#### **Inclusion Criteria**

Intervention studies that met criteria included music therapy as an intervention for adolescents with an emotional and/or behavioral disorder. Articles included for review consisted of qualitative, quantitative, and empirically based studies. Nine articles met inclusion criteria.

#### **Exclusion Criteria**

Hundreds of publications regarding music therapy were found, but only studies including the specific age and population were included in the review. A number of studies examined one specific population with the intervention of music therapy. These studies were excluded in the review, as the population was not appropriate to the researcher's question.

**Table 1: Included Articles**

Database	Title	Author(s)
JSTOR	Music therapy groups: A path to social-emotional growth and academic success	Camilleri (2000)

Education Full Text	Effects of active versus passive group music therapy on preadolescents with emotional, learning, and behavioral disorders	Montello & Coons (1998)
Summon	A model for music therapy with students with emotional and behavioral disorders	Sausser & Waller (2006)
	Music therapy for children and adolescents with behavioural and emotional problems: A randomised controlled trail	Porter, McConnell, McLaughlin, Lynn, Cardwell, Braiden, Boylan & Holmes (2016)
	Empowering students with disabilities through music integration in the classroom: Music therapy on student	Sze (2006)
Noted in other articles	The consultant's corner: "Music therapy in the special education setting"	Pellitteri (2000)
	Effectiveness of music therapy for children and adolescents with psychopathology: A quasi-experimental study	Gold, Wilgram & Voracek (2007)
	Music therapy and music medicine for children and adolescents	Yinger & Gooding (2014)
	Creating order out of chaos: Music therapy with adolescent boys diagnosed with a behaviour disorder and/or emotional disorder	McIntyre (2007)

### Summary of Included Articles

**Camilleri (2000)** is a case study presented by a music therapist employed at a community school, REACH, in New York City. The student makeup of this REACH includes special education students and regular education students. Most students at REACH reside in the most disadvantaged neighborhoods in Manhattan and surrounding boroughs. Music therapy groups and individual sessions have been put in place to address social, emotional, and academic issues

faced by the students. Social and emotional goals addressed by music therapy at REACH include: participation, interaction, relationship formation, communication and expression, space sharing, problem solving, self-esteem, respect, and awareness. The author notes how music therapy can also address concentration, gross and fine motor skills, memory, focus, and coordination.

**Montello and Coons (1998)** conducted a qualitative study comparing behavioral effects of active, rhythm-based group music therapy versus passive (listening) music therapy on preadolescents with emotional, learning, and behavioral disorders. Twelve music therapy sessions were conducted over a four-month period. The participants included preadolescents ranging from 11-14 years of age, divided into three groups. Two groups participated in active music therapy, while the remaining group received passive music therapy. Results showed that participants improved significantly in both the active and passive music therapy intervention. The Achenbach's Teacher Report Form (TRF) was used by subjects' homeroom teachers to address any change in attention, motivation, and hostility. The most significant change was found on the aggression and hostility scale. Results from the study suggest that group music therapy can help aid the process of self-expression, and transform feelings of anger, frustration, and aggression into a creative outlet.

**Sausser and Waller (2006)** proposed a model for music therapy for students with emotional and behavioral disorders in a psychoeducational center in Athens, Georgia. The model presented utilizes music therapy services in order to create program goals for elementary, middle, and high school group sessions. Goals used in this particular model related to anger management skills, self-expression, self-esteem, resolving conflicts, and cooperation. The program outlined combines the process of music therapy with the nine-week long grading periods used at the

center. During week one, a referral, assessment, self-report, observation of class, target treatment focus, and the structuring of music therapy curriculum will take place. During weeks two through eight, the students will begin the curriculum, and data on participation and treatment focus will become ongoing. The final week will consist of review of curriculum and treatment focus, on-going consultation, review of treatment data, and participation scores for report cards will be administered. The authors suggest that the proper planning of activities and sessions within music therapy can serve as a therapeutic medium for many students with EBD.

**Porter, McConnell, McLaughlin, Lynn, Cardwell, Braiden, Boylan and Holmes (2016)**

conducted a randomized controlled trial to examine the efficacy of music therapy in clinical practice among children and adolescents with behavioral and emotional problems. Two hundred and fifty one participants were included in the study. The subjects consisted of children and adolescents aged 8-16, and parent dyads from six child and adolescent mental health service community care facilities in Northern Ireland. The subjects were randomized to 12 weekly sessions of music therapy plus usual care, or usual care alone. The primary outcome measured improvement in communication, which was assessed using the Social Skills Improvement System Rating Scales (SSIS). The secondary outcome measured social functioning, self-esteem, depression, and family functioning. Results concluded that self-esteem was significantly improved and depression scores were significantly lower at week 13. No significant difference was shown in family or social functioning at week 13. The study provided some evidence for the use of music therapy in clinical practice.

**Sze (2006)** explored the ways in which teachers can utilize music therapy interventions to encourage cognitive, perceptual, motor, and social and emotional learning of students with disabilities. More specifically, the author notes specific techniques used in music therapy for

students with emotional and behavioral disorders. For example, using a common musical beat can allow for group cohesion and the setting of group dynamic. The author discusses the use of turn taking and space sharing that can aid in controlling impulses. Implications are made for further research needed studying the effects of music therapy as in intervention used in special education.

**Pellitteri (2000)** describes how music therapy can be applied in the special education setting, through examining past research. Through the clinical treatment of music therapy, the author notes eight different applications music therapy can provide. The applications of music therapy listed include: multidisciplinary, speech and language, physical and kinesthetic, educational, psychological, social, aesthetic, and the use of music therapy in IEP's. The author concludes that through direct clinical contact and consultation with the multidisciplinary team, music therapy can facilitate development in many areas of functioning.

**Gold, Wigram and Voracek (2007)** conducted a quasi-experimental study examining the efficacy of individual music therapy for children and adolescents with psychopathology in an outpatient setting. The participants included 136 children and adolescents ranging from 3.5-19 years in age. Diagnoses included under psychopathology were adjustment and emotional disorders, behavioral disorders, and developmental disorders. The researchers assessed symptoms, competencies, and quality of life in the subjects before and after the weekly sessions. Findings indicated that music therapy is effective for some, but not all groups when provided routinely.

**Yinger and Gooding (2014)** summarize literature regarding differences between music therapy and music medicine for children and adolescents, and music therapy used as an intervention for various mental health needs. Results from the literature show music therapy to be effective in

the improvement of various social functioning skills and a decrease in aggression and motor activities.

**McIntyre (2007)** provides an overview of a government funded music therapy project implemented in three high schools in Sydney, Australia. Seven adolescent males, diagnosed with a behavioral/emotional disorder participated in weekly music therapy sessions for a full academic year. Various assessment and evaluation tools were used to track participants' change and progress.

### **Thematic Analysis**

Through the use of thematic analysis, five themes emerged from the peer-reviewed articles that addressed music therapy as an intervention in the treatment of adolescents with emotional and/or behavioral disorder. Four of the five themes addressed at least one of the three operationalized variables within the question the researcher was further exploring. Themes include: 1) improved social functioning, 2) improved self-esteem/self-worth, 3) group music therapy, 4) improvisational music therapy, and 5) lack of research available.

**Improved Social Functioning** as a result of music therapy interventions was mentioned in seven out of the nine articles reviewed. McIntyre (2007) provides an overview for a government-funded program providing music therapy to adolescents qualifying for BD/ED in an Australian high school. The program examines student's responses to music therapy, as well as approaches and methods used. Seven adolescent males from the BD/ED unit participated in thirty-minute weekly music therapy sessions. At the end of the project, lasting a full academic year, results showed significant changes in participants' behavior, attitude, academic achievements, and social interactions. Specific changes regarding social functioning noted, improvement in classroom relationships and group participation and respect for one another (McIntyre, 2007). In

a qualitative study, Camilleri (2000) notes the improvement of personal and interpersonal achievement through music therapy at a community school located in New York City. Through the social and emotional focused goals she implemented as a music therapist, she notes the improvement of one student in particular.

Helix is a hip and well-respected African American twelve year old. Despite his tough attitude, he has obviously erected walls to protect himself against his dangerous environment. Helix makes up for his lack of academic success through social means, often intimidating other children into admiration. Helix attended music therapy group twice a week. Six months into the school year, his participation transformed drastically from negativity and lack of interest to helpfulness and involvement. By this time, Helix would enter the music room and immediately go about setting up the instruments... through music, he found a positive and equal way to interact with peers (Camilleri, 2000, p. 189).

In one study, a randomized controlled trial was conducted to examine the efficacy of music therapy as an intervention for young people with mental health needs. The primary outcome measured improvement in communication through the Social Skills Improvement System Rating Scales (SSIS), while the secondary outcomes measures social functioning, self-esteem, depression and family functioning (Porter, McConnell, McLaughlin, Lynn, Cardwell, Braidon, Boylan, & Holmes, 2016). Findings concluded a small but clinically significant effect for improvement in communication and interaction skills in participants' aged 13 and over in the intervention group (Porter et. al, 2016). According to the American Music Therapy Association, "within the special education setting, music therapy interventions can facilitate development in cognitive, behavioral, physical, emotional, and social skills" (2003). Sausser and Waller (2006)

researched a proposed model for music therapy with students with EBD. They note the successful pairing of behavioral techniques with music therapy to elicit positive change in social skills.

**Improved Self-Esteem and Self-Expression** were shown to be a positive effect music therapy had on adolescents with social and/or emotional disorders. Seven of the nine articles reviewed noted self-esteem, self-worth, or a combination of both, to be positively impacted by the interventions of music therapy. In research conducted by Montello and Coons (1998), active and passive music therapy groups were examined to compare any behavioral effects between the two groups on adolescents with emotional, learning, and behavioral disorders. Changes in motivation, attention, and hostility were rated among the subjects' homeroom teachers. Research indicated subjects' in both groups improved significantly after receiving both music therapy intervention groups. The most significant change was noted on the hostility scale. These results suggest that group music therapy can help aid in the process of self-expression in students with EBD; and transform feelings of anger, frustration, and aggression into a creative outlet (Montello & Coons, 1998). Similarly, an article proposing a model for music therapy with adolescents with EBD stated, "active music therapy groups in which students participate in a hands-on manner encourage self-expression and may help channel frustrations in a positive and creative way" (Sausser & Waller, 2006, p. 8). McIntyre (2007) supplemented these findings through improvements seen in adolescents that underwent group therapy in an Australian high school for one full academic year. The observations made by the therapist and teacher evaluations found that "a stronger sense of "self" became evident," and "self expression and a development of creativity in music occurred" (McIntyre, 2007, p. 68). Camilleri (2000) provides ways in which self-esteem can be assessed through group music therapy, including but not

limited to: ability in taking leadership roles, approach to the music, appearance during music playing, and the ability to act independently. Other articles discussed the positive impact group music therapy has on self-esteem and self-expression (Gold, Wigram, & Voracek, 2007; Pellitteri, 2000; Yinger & Gooding, 2014).

**Group Music Therapy** as an intervention was mentioned in seven of the nine articles reviewed.

In the literature presented by Yinger and Gooding (2014), group music therapy has been suggested to be the predominant delivery model in mental health settings. “The social aspect of making music in a group enhances mood to a greater degree than individual music-making” (Yinger & Gooding, 2014, p. 539). McIntyre (2007) discusses positive impacts group music therapy can have on adolescent boys with an emotional or behavioral disorder. McIntyre (2007) accounts for this change through personal observations of group members, stating:

Initially the students involved lacked focus in their musical expression and lacked the ability to co-operate as a group. They were only interested in being heard as an individual and to be heard at the loudest volume possible. They often wandered around the room and could not keep concentration on one instrument for much longer than ten to twenty seconds. After six months of sessions, the boys were able to play in structured music making as well as individually improvise with the therapists and improvise as part of a group (p. 69).

Pellitteri (2000) discusses how group music therapy can facilitate socialization and interpersonal interaction. In playing music together, the common musical beat can cause unity within the group and contribute to group cohesion (Pellitteri, 2000). Sze (2006) suggests space sharing and turn taking while in group therapy to promote cohesion and concrete group dynamic. Camilleri (2000) also echoes the use of space sharing as a goal through group music therapy, along with

participation, interaction, relationship formation communication and expression, problem solving, self-esteem, respect and awareness. A study examining both passive and active group music therapy interventions found significant improvement in both intervention groups among adolescents with emotional, behavioral, and learning disorders (Montello & Coons, 1998). The remaining study proposed a model for individual and group music therapy sessions for students with emotional and behavioral disorders (Sausser & Waller, 2006).

**Improvisational Music Therapy** was mentioned in eight of the nine articles reviewed.

“Improvisation encourages the patient to create music and sound freely through voice, instrument or movement, while receiving support and encouragement tailored to suit their needs as assessed by their therapist” (Porter et. al, 2016). Improvisation used in music therapy is considered to be especially useful for those struggling with communication and interpersonal skills (Porter et. al, 2016). In a study comparing the behavioral effects of active (improvisational) group music therapy versus passive, listening-based group music therapy, results indicated active music therapy to be more beneficial to adolescents with externalizing problems. By participating in active interventions, the adolescents were able to influence each other in lessening aggressive behaviors and create a safe and exploratory setting in which to express their feelings (Montello & Coons, 1998). Often, adolescents with emotional and behavioral problems will feel uncomfortable or unsafe discussing such complications and frustrations within their lives. McIntyre (2007) describes how improvisation can aid in this process stating, “it provides a medium by which clients or students can dissipate frustration and anger and begin to process some of the emotional issues that affect them so strongly” (p. 61). One quasi-experimental study noted the use of clinical free and structured improvisation as the

primary medium for adolescents with psychopathology in individual music therapy sessions (Gold, Wigram, & Voracek, 2007).

**Lack of Research** is indicated in four of the nine articles reviewed. Porter et. al (2016) research suggests, “music therapy may improve mental health disorders in children and adolescents but the studies have been small and methodologically weak” (p. 7). McIntyre (2007) warrants the need for creating more of an evidence base in music therapy for adolescents with EBD by enriching quantitative studies. As evidence to the study aforementioned, only three studies of the nine reviewed by the researcher included quantitative data. Additional qualitative studies were mentioned in reviewed data, but did not include the population or age range the researcher was seeking. Yinger and Gooding (2014) address the need for more randomized controlled studies stating, “one weakness of music therapy treatment of children and adolescents is that the mechanism by which it is effective is not completely understood” (p. 548).

### **Discussion**

This systematic review found five themes regarding music therapy as an intervention with adolescents with an emotional behavioral disorder. Two of the themes, improved social functioning, and improved self-esteem/self-expression, addressed how music therapy can positively affect social skills in adolescents labeled EBD. In the literature presented, researchers have indicated the positive influences and improvements music therapy can have on adolescents’ self-esteem and self-expression. Included in the makeup of adolescents’ competencies, these two characteristics have shown to serve as protective factors against externalizing behavior problems, which students with EBD often exhibit (White & Renk, 2012). Research has shown that adolescents who are socially competent have a head start in acquiring accomplishments in the areas of education, occupation, and social relationships. A theme to note within the literature is

how music therapy can address competencies. As presented in a study by White and Renk (2014) “adolescents’ perceptions of their own competencies are correlated significantly and negatively with their externalizing behavior problems” (p.167). In regard to social functioning, seven of the nine articles discussed the role music therapy can have on improving social behaviors in adolescents with EBD. The majority of students with EBD do not perform well in a typical classroom, due to their disruptive problematic behaviors. Often, these behaviors can get in the way of experiencing positive social interactions with their peers. Music therapy, while performed in a group setting, has been shown to improve social functioning within this population. “The group setting in music therapy is ideal for facilitating socialization and interpersonal interactions (Pellitteri, 2000). In a qualitative study conducted in three high schools in Australia, group music therapy was shown to produce significant changes in social interactions among the adolescent males diagnosed with EBD. Four changes were noted in particular, which were assessed through the Nordoff and Robbins evaluation scale. The changes included, “change in school room behavior, improvement in classroom relationships, group participation and respect for each other, and the experience of playing and making music as a group” (McIntyre, 2007, p. 68).

Two themes found related to the service delivery of music therapy as an intervention. Much of the literature noted group music therapy to be the most effective delivery method. Researchers draw attention to the benefits this population can receive while working as part of a unit. Improvisational music therapy has shown to be an effective way to engage adolescents with more acting out or externalizing behaviors. The intent behind improvisational music therapy is an active way in which clients can express themselves through music. In a study by White and Renk (2014), they note the importance of prevention and intervention for adolescents

who exhibit externalizing behavior problems. Adolescents exhibiting such behaviors have been shown to have heightened risk for negative outcomes such as delinquency, violence and increase in risk-taking (White & Renk, 2014). “Prevention and interventions targeting children and adolescents who are at a high risk for the development of such behaviors is of the utmost importance for the well being of both the children and adolescents themselves, their families, and the community at large” (White & Renk, 2014, p. 167). Often, interventions with this population are addressed at the individual and familial level, while mezzo levels of intervention are overlooked. According to the presented literature, this seems to be true in regard to lack of therapeutic interventions offered within schools. The positive group experiences music therapy seems to provide for adolescents with EBD was not at all studied in relation to changes in community involvement. Further research needs be done to study if music therapy effects change within an adolescent’s mezzo system.

The final theme re-occurred throughout the literature, which stated the lack of research within the effectiveness of music therapy, within all settings and among all populations. The existing research shows positive effects music therapy can have on patients with mental health needs, especially in children and adolescents with autism. There was a sizable amount of research dedicated to music therapy used as an intervention in children with autism. Although autism is considered a disorder under EBD in special education, the researcher was not attempting to answer the question strictly based on this population. Music has been used as a tool in treating adolescents with psychiatric disorders, due to the various areas of the brain that are active during music listening. Active musical participation, paired with additional therapeutic interventions utilized by the music therapist can lead to successful outcomes in adolescents with various emotional, behavioral, social, academic, motor and verbal needs

(Yinger & Gooding, 2014). However, the existing literature is not robust enough to create an evidence base for music therapy used as a treatment intervention among the population of adolescents with EBD.

### **Limitations**

Two of the three operationalized variables within the researcher's question were not addressed adequately enough in the literature reviewed to indicate an effect. Further research is needed to identify if music therapy has an effect on community involvement and academic performance within adolescents diagnosed EBD. An effect within the adolescent's community involvement was not mentioned in the research reviewed. Academic progress was noted in two of the articles reviewed, but provided no significant data regarding music therapy used as an intervention to effect academic performance. Further research of music therapy used as an intervention is needed within the school setting. Two of the included quantitative studies examined music therapy in an outpatient setting and mental health community care facility. The remaining articles discussed music therapy in an education setting. However, these were qualitative studies on proposed models of music therapy that have already been implemented in a school setting. Global concern regarding the lack of therapeutic intervention for this population was indicated as a result of one quantitative study, "poor treatment compliance has been reported for young people with mental health disorders" (Porter et. al, 2016, p. 8). This evidence indicates the need for more effective interventions for youth, in which music therapy has the potential to provide.

### **Implications for Future Social Work Practice**

Future research is needed in the method that music therapy is delivered within schools, especially when provided by a school social worker. Although some studies presented in this systematic review showed the effectiveness music therapy can have within the adolescent population, there is not enough data to support school social workers utilizing music therapy as a therapeutic intervention. Future studies could include a larger sample size of students with EBD in a school setting, over time. Most studies reviewed for this systematic review only examined music therapy over the course of a few months to a year. Combining these components into future studies would allow for a better determination in the effectiveness of music therapy with adolescents with EBD.

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