The Use of Music Therapy in the Development of Socio-Emotional Skills in Children: A Literature Review

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Literature Review

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Abstract

Socio-emotional development is an important domain of childhood development. Research indicates that the development of socio-emotional skills can have both short-term and long-term outcomes in other areas of a child’s life (Jones et al., 2015; Hamme at el., 2018). The most widely used approach in teaching social and emotional skills in children currently is through a social emotional learning (SEL) program. Music therapy is a commonly used modality with children to reach a variety of different goals. This paper explores current ways music is being implemented for improving socio-emotional skills, both within social emotional learning and in music therapy contexts. The implications of these findings support the inclusion of music therapy within SEL programs to increase engagement and effectiveness and the development of a music therapy-based SEL program.

Keywords: socio-emotional development, music therapy, social emotional learning
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Introduction

Child development includes many different goals surrounding learning and maintaining certain skills. Nicole Edwards (2018) listed several important areas in which children develop including fine and gross motor skills, expressive and receptive language skills, cognitive, adaptive, and social-emotional domains. One aspect of music therapy that makes it stand out is that it can be used to meet a variety of different therapeutic and educational goals one may have. According to the American Music Therapy Association (n.d.), “with young children, music therapy provides a unique variety of music experiences in an intentional and developmentally appropriate manner to effect changes in a child’s behavior and facilitate development of his/her communication, social/emotional, sensori-motor, and/or cognitive skills” (para. 1). Although the use of music therapy with children may help them with several developmental skills, this paper will focus primarily on the skills of socio-emotional development. Mejah et al. (2019) defined socio-emotional development broadly as “emotion control and matured social skills” (p. 2). Both skills are important competencies children need to be successful. Music therapy may be an inviting and motivating approach in helping to promote these skills in children.

For this paper, I will use the definition of music therapy as described by the American Music Therapy Association (2005). “Music Therapy is the clinical and evidenced-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” (para. 1). Music interventions can consist of listening to, moving to, composing, re-creating, or improvising music or other activities such as musical games. There can be many different
specific approaches and techniques within the scope of music therapy, which makes it an interesting modality. With this versatility, many different goals can be addressed within many different communities. This paper explores which music therapy approaches, techniques, and methods are currently being used in the field of socio-emotional development, and which may be best suited for social and emotional learning programs.

As for defining social-emotional development, Edwards (2018) defined it in more detail as, “one’s emerging ability to effectively label, express, and regulate emotions, and to interact meaningfully with others by engaging in activities such as sharing, taking turns, delaying gratification, and smoothly making transitions between tasks” (p. 18). As this domain contains both social and emotional aspects, it covers a wide range of skills. Edwards (2018) noted that although there are “typical developmental milestones” (p. 20) for each domain at certain ages, there can also be much variability. Consideration of cultural backgrounds, strengths, and needs is important when addressing children’s socio-emotional skills. In the sections that focus on social emotional learning (SEL) as opposed to socio-emotional development in a broader context, I will provide a specific definition for this, and the skills related to the framework presented. However, the definition provided here gives a general sense of socio-emotional development skills in children.

While researching this topic, I gained a deeper understanding of the development of socio-emotional skills in children, especially regarding the importance of these skills and the effects they have on other aspects of one’s life. Additionally, I learned about different approaches that are currently in use to assist in the development of both neurodivergent and neurotypical children, particularly social emotional learning programs. As someone who hopes to work with children, this will be valuable knowledge, as this is a critical domain in childhood
development. This could be the basis for the development of a music therapy-based social emotional learning program. I could also use this research to show how to incorporate music therapy into an existing SEL program to increase engagement and effectiveness. Researching other domains of childhood development and how music therapy could be useful in promoting growth throughout these domains is another possibility. It is also my hope that this research will become a resource for those working with children and those who may be new to the music therapy field. As someone who is interning in a rural area, where music therapy is not widely known, this paper may provide a useful resource. It could help with understanding the benefits of music therapy in socio-emotional development in children, be informative as to what information is available, and what still needs to be studied. This paper describes the importance of the development of socio-emotional skills, and how music therapy could be incorporated in promoting these skills in children both neurotypical and neurodivergent.

To begin, this paper explores the literature on the importance of socio-emotional development on other life aspects and current findings and areas for further research across cultures. Next, I will review the literature on current approaches for promoting socio-emotional development, specifically social emotional learning programs. I have included research on why music may be beneficial to SEL, and the current ways music is being implemented into SEL programs. To further understand the current use of music therapy with children, perspectives and current uses will be discussed to understand why this may be a potentially useful approach in promoting socio-emotional development. In the final portion of the literature review, I explore current research on the use of music therapy to promote different skills that may fall into the category of socio-emotional development. To conclude, I discuss recommendations based on the findings of this literature review and areas to further explore.
Literature Review

Socio-Emotional Development in Children

Socio-emotional development has been an area of growing focus over the past few years as research begins to show connections between socio-emotional development and different life outcomes (Jones et al., 2015; Hammer et al., 2018). Jones et al. (2015) made the point that improving noncognitive skills, such as behavioral characteristics, emotion regulation, attention, self-regulation, and social skills (p. 2283), “…can have an impact in multiple areas and therefore has potential for positively affecting individuals as well as community public health substantially” (p. 2289). Identifying and promoting early socio-emotional skills may be impactful in other areas of an individual’s life and the community.

Jones et al. (2015) explored the association between kindergarten prosocial skills and adolescent and adult outcomes in education, employment, criminal activity, substance use, and mental health. Data was used from a subsample of the Fast Track Project. The Fast Track Project included an intervention and a control group both comprised of high-risk children and a normative sample, which were considered non-high risk and did not receive Fast Track prevention services. The Fast Track Project is “an intervention program designed to reduce aggression in children as identified as at high risk for long-term behavioral problems and conduct disorders” (p. 2284). The study of present focus only used a subset of this data, just the high-risk control sample and the normative sample (N = 753), both of which did not receive services from the Fast Track program. Participants were from low-socio-economic status neighborhoods, including three urban sites and one rural site. 58% of participants were boys, 50% were White, 46% were African American, and 4% were from other racial and ethnic backgrounds. Social competence was measured in kindergarten using the Prosocial-Communication Skills subscale of
the Social Competence Scale. Nineteen years later, when participants were around 25 years old, follow-up data was collected on each of the outcomes using a variety of different surveys. The results did show statistically significant associations for all outcome measures. For example, kindergarten prosocial skills were predictive of “whether participants graduated from high school on time,” the “likelihood of receiving public assistance,” the “number of days of binge drinking in the past month,” and the “predicted number of years on medication for emotional or behavioral issues through school” (p. 2286). The findings of this study were enhanced by several factors. The authors used a variety of different sources for information, they controlled for relevant background variables (such as socioeconomic status), and utilized a large sample size. These findings “suggest that perceived early social competence at least serves as a marker for important long-term outcomes and at most is instrumental in influencing other developmental factors that collectively affect the life course” (p. 2289). This suggests the importance of noncognitive skills, as well as a need for early screening and intervention of social-emotional skills. One limitation of this study may be the use of just one measurement at one time to assess social competence. Multiple measures over time may give a better picture of an individual’s overall social competence. More research needs to be done to consider a causal relationship. However, the evidence for the impact that social emotional skills may have on later life outcomes makes a convincing argument for the importance of socio-emotional development.

Another aspect of life that may be associated with early socio-emotional development is academic achievement. Hammer et al. (2018) examined the relationship between social-emotional development and academic development, extending previous research. A subsample of data (N = 10,080) was used from the longitudinal Millennium Cohort Study (MCS). Participants in the MCS were randomly selected from electoral wards across the United
Kingdom using government child benefit records. The subsample used in the current study consisted of children from England specifically, as data was available on educational attainment, and was 49.9% girls. Data was collected at ages 3, 5, and 7, and 76% had complete outcome data at the end of the study. Using structural equation modeling, the following variables were evaluated concurrently in three possible a priori models as predictive of academic outcomes in literacy and numeracy: socioemotional development (hyperactivity and peer problems), behavioral self-regulation, parenting, home learning environment, and demographic and contextual antecedents (family income, parent education level, child’s gender). Other demographic information provided was that there was an overrepresentation of Black and Asian families, therefore, the results should be taken with consideration of the fact that both groups of people have been systemically oppressed within education systems. Key findings showed that Model 1 confirmed previous research on hyperactivity, peer problems, socioeconomic status, and gender as predictors of academic development. It is unclear if genders outside the male/female binary were included within this study. With the addition of a home learning environment and self-regulation, Model 2 suggested relationships between both variables with academic outcomes as well. Lower hyperactivity and peer problems as well as better self-regulation at age 5 was found to be related to a more positive home learning environment (p. 112). Finally, Model 3 suggested “the possibility of a common core of hyperactivity, peer problems, and self-regulation that influences academic achievement” (p. 112) by evaluating a latent self-regulation variable. Results found that modeling these factors independently was a better fit for academic outcomes. The findings from this study support that some factors of social-emotional development can be predictors of academic outcomes. This study utilizes a large sample size, however, more
information on the participants would help assess the generalizability of these findings. The authors also acknowledge the limiting nature of using data from a pre-existing set.

These two studies acknowledge the potential impact socio-emotional development can have in other areas of children’s lives. Jones et al. (2015) showed the relationship between later life outcomes such as education, employment, criminal activity, substance use, and mental health and early childhood prosocial skills, although more research needs to be done to determine a causal relationship. Hammer et al. (2018) demonstrated the relationship between early-social-emotional development and academic outcomes. Both studies bring to the forefront the importance of socio-emotional development. Early assessment and utilizing methods that help with the development of socio-emotional skills may be beneficial to potentially increasing the quality of these children’s lives, both in the long and short term.

Adding to these findings and presenting a larger scope, Miyamoto et al. (2015) presented information from Organisation for Economic Co-operation and Development (OECD) countries and partner economies on the importance of social and emotional skills, current approaches to how schools and policymakers are supporting and measuring these skills, and suggestions for how education stakeholders can do more. The authors used information from a longitudinal study of data from 9 different countries conducted by OECD in 2015. As the previous literature suggests, the authors begin by stating the vital role that social and emotional skills, along with cognitive, play in long-term outcomes. Social and emotional skills promoted social outcomes, while cognitive skills promoted education and the labor market, however, the two skills also complement each other. In this study, conscientiousness, sociability, and emotional stability were found to be key factors in children’s future labor market and social possibilities. Data was found to be consistent across the nine different countries, however, impacts varied. For example, the
authors noted that “having more of a particular skill does not necessarily help to improve all socio-economic outcomes” (p. 149) and “while some skills may be effective in improving one outcome in a particular country, they may not be as effective in another” (p. 149). The authors then discussed how there are a variety of approaches to promoting social and emotional skills across countries, such as curriculum frameworks, extra-curricular activities, and independent programs, however, assessments of these skills often do not use standardized measures. To further these understandings, the OECD planned to complete an international longitudinal study and create useful frameworks. To conclude, the authors suggested the systemic exchange of information, increasing knowledge, expectation, and capabilities awareness of facilitating social and emotional skills in stakeholders, widely shared evidence-based guidelines, and “coherence across learning contexts… and stages of school progression” (p. 157). The information presented in this meta-analysis gives insights into some of the findings and concerns regarding social and emotional skills across countries, providing context for the growing interest in socio-emotional development and the need to address skills associated with this domain. The collective concepts seen within these studies make a convincing argument for the importance of socio-emotional development, as well as insight into current developments in the field, despite the impacts of systemic oppression which may have influenced the results of individual studies.

**Current Approaches in the Development of Socio-Emotional Skills in Children**

One of the most current and widely used approaches to addressing socio-emotional development in children is through a social emotional learning (SEL) program. National University (n.d.) defined SEL as “a methodology that helps students of all ages to better comprehend their emotions, to feel those emotions fully, and demonstrate empathy for others” (para. 5). There are several different frameworks of SEL. According to Berg et al. (2019), these
frameworks help to “identify standards and key competencies, provide guidelines for measurement, develop theory or research, or guide applied practice” (p. 3) and can help state education agencies create and explain SEL standards. These frameworks can help guide specific interventions, programs, or curriculums in SEL.

One of the most popular frameworks is the Collaborative for Academic, Social, and Emotional Learning (CASEL). This framework focuses on five competencies of social emotional learning: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. There are four areas in which it can be implemented: classrooms, schools, homes, and communities (Borowski, 2019).

Van de Sande et al. (2019) utilized the CASEL framework to gain insight into SEL programs used for secondary school students. The study examined the competencies targeted, and the effects of these programs on competencies and psychosocial health. To do this, the authors conducted a systematic review of the literature using the PICOS (Population, Intervention, Comparison, Outcome, Study) strategy. A total of 40 studies were utilized with the following inclusion criteria of: “(a) universal secondary education, (b) a school-based program, (c) intervention participants who were adolescents aged between 11 and 19, and (d) an intervention that was part of a program that targeted two or more SEL competencies” (pp. 1548-1549). Additionally, the study had to “(e) measure effects based on a randomized control trial or a quasi-experimental or pre-/posttest design including a control group and (f) be published in a scientific journal in English, Dutch, or German” (p. 1549). Outcome measures included those that corresponded to the five SEL domains outlined in the CASEL framework as well as measures related to psychosocial health. Utilizing the operationalized definitions of the five competencies described in the CASEL framework, the SEL targets addressed in the programs
were coded. Of the 40 studies included, 32 implemented different school programs. Results showed several interesting findings. First, most of the programs in these studies utilized four or five of the competencies, with relationship skills and self-management being the most prevalent. The main reason to enhance SEL competencies in most of the studies was to protect students from psychosocial health issues, while some studies’ goals were simply to enhance the SEL competencies. One interesting finding of this study was that most of the studies examined did not measure effects for all the competencies they targeted, but most reported measures for psychosocial outcomes. Finally, it was found that SEL competencies were enhanced by SEL programs, with the largest summary effect sizes for self-awareness and social awareness. Additionally, those who participated in SEL programs showed a decrease in psychosocial health problems. This supports the findings in the previous section. One limitation of this study may be that the interpretation of the operationalizations of the SEL targets in each study as well as the definitions of the five domains of SEL competencies in the CASEL framework may differ between researchers and/or those who implement the SEL program. More research would need to be done to determine the generalizability of these findings to children outside of the secondary school age range. Despite this, the systemic review offers some valuable insights on the use of SEL programs with secondary students. First, it demonstrated the usefulness of the CASEL framework in interpreting the effectiveness of addressing SEL competencies. Second, it supports the use of SEL programs in both enhancing specific competencies and decreasing psychosocial health problems. Third, the lack of specific measures for the competencies targeted in the studies makes it difficult to determine the individual relationships of each competency on other competencies and each competency on psychosocial health. Finally, the finding that although self-management and relationship skills were the most targeted competencies, the competencies
with the largest effect sizes were self-awareness and social awareness. This raises the possibility that “some SEL competencies…precedes the development of other competencies” (p. 1561). These findings help identify key factors that need to be implemented when considering how to best implement music therapy into SEL.

There is much research on the use of SEL programs that show its effectiveness, potential benefits, and usability. Taylor et al. (2017) conducted a meta-analysis in which they examined 82 school based, universal SEL interventions, to get a better understanding of the follow-up effects of positive youth development (PYD). The authors had three main hypotheses regarding: how the SEL programs compared to a control group, whether SEL interventions were effective with diverse populations, and the long-term benefits of SEL (pp. 1159-1160). The study sample involved a total of 97,406 students ranging from kindergarten through high school and “represented ethnically, socioeconomically, and regionally diverse samples” (p. 1160). For inclusion, the program had to focus on at least one of the five SEL domains of self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (p. 1157). Although not stated explicitly, these domains appear to align with the CASEL framework. Other inclusion criteria included: using a universal SEL program for kindergarten through high school, follow-up data for control and intervention groups at least 6 months postintervention (with enough data to calculate effect size), and for the study to have appeared by December 2014. The SEL interventions examined varied in the overall course of actions, on which competency was focused, and outcomes used for measuring the influence of the program. Forty-one of the studies were done within the United States, while 38 took place outside of the United States. School settings included urban, suburban, rural, and a combination of these. Dependent variables included: social and emotional skills; attitudes towards self, others, and school; positive
social behavior; academic performance; conduct problems; emotional distress; and substance use. Most of these were self-reports, except for school records. Using Hedge’s $g$, an effect size was calculated for each dependent variable and was analyzed using a series of meta-regressions. Overall results showed, “SEL program participants benefitting significantly more than controls” (p. 1162) across all seven of the outcome variables at follow-up (56-195 weeks). Trim-and-fill analyses were used to account for possible publication bias. Additionally, SEL interventions were found to be effective across demographic groups. It is important to note that this may be influenced by a lack of data on demographics in a lot of the studies utilized. Finally, “a positive relationship between stronger social and emotional assets at post and higher levels of well-being at follow-up” (p. 1166) were found. Although the findings of this study strongly support the use of SEL interventions in many aspects, many of the studies used mostly self-report measures. Incorporating other measures may enhance the findings. Even though the studies may be outdated by this point, this meta-analysis offers great insights into trends of SEL interventions. This is useful to consider when thinking about how to incorporate music therapy into socio-emotional development, or more specifically, into an already established SEL program.

Both studies highlight the benefits of using SEL interventions. As different programs may have been used across studies within both the meta-analysis and the systematic review, it gives the reader a general overview of the usefulness of SEL programs. This research also supports the domains outlined in the CASEL framework, demonstrating its relevance in the field of SEL. Using an established framework for addressing socio-emotional skills in children, such as CASEL, may be a good place to start incorporating music therapy interventions that address the same domains and goals. The work by Van de Sande et al. (2019) also highlights some important factors to consider when implementing music therapy interventions into an SEL
program. For example, being clear in what competencies are being addressed through the intervention and how they are being measured. Further research into the possibility of some competencies preceding others may be useful in determining which competencies to focus on first within the program.

**Social Emotional Learning and Equity**

Another important area of research in social and emotional learning is equity. The CASEL framework aligns nicely with transformative social and emotional learning presented by Jagers et al. (2019). Transformative social and emotional learning is focused on “fostering more equitable learning environments and producing equitable outcomes for children and young people furthest from opportunity” (p. 163). The authors start by pointing out the relationship between SEL and equity. They stated how the focus on individualism in Western societies can have an impact on aspects that further these inequities, particularly in a school setting where social and emotional learning often takes place. Next, the authors highlight the long-term developmental outcome of engaged citizenship of the CASEL framework, stating that it is important for both individual well-being and democratic societies. They stated, “the field of SEL could aim to prepare students for not only engaged but also critical citizenship” (p. 164). This may be particularly true through the transformative form, as “it prepares youth to analyze and oppose the reality that those rights and responsibilities are denied to some segments of the population and encourages disenfranchised groups to strive for self-determination within the democratic project” (p. 166). Using the five CASEL competencies, the authors offered revised definitions through an equitable lens. This shows how the CASEL framework is set up to promote equity. Following these revised definitions, the authors highlighted the importance of identity, agency, belonging, and engagement in transformative SEL, and how they can be
reflected within the SEL competencies. To close, they offered project-based learning, youth participatory action research, culturally relevant education, and student-centered and student-led approaches as ways to promote transformative SEL (pp. 172-175). The authors presented useful approaches to SEL that would promote equity, especially within the CASEL framework. When considering the development of music therapy-based SEL programs within the CASEL framework, these approaches would be important factors.

**Social Emotional Learning and Music**

Although not music therapy, there is some research on social emotional learning programs that incorporate music. One of these programs is called DRUMBEAT (Discovering Relationships Using Music, Beliefs, Emotions, Attitudes and Thoughts), led by an accredited facilitator. DRUMBEAT “uses group drumming processes and cognitive behaviour therapy principles in order to foster adolescents’ self-esteem, social skills and sense of belonging” (StGeorge & Freeman, 2020, p. 32).

StGeorge and Freeman (2020) examined the impact of the DRUMBEAT program across six schools in Australia for ten weeks. Seventy-five students took part in the study across the schools, 65% of children were male (the study reported only a male/female binary), 59% of students were in primary school, and 18% were Indigenous. During the first and final sessions, questionnaires were administered to students and teachers. Student questionnaires included scales on music interest, self-esteem, and well-being. Teacher questionnaires focused on the social development of the child. Both teachers and students reported on strengths and difficulties, and this questionnaire was only completed once. Data was analyzed using SPSS, Version 21, using linear mixed model analyses comparing each measure’s pre and post-score. Between-subjects factors of gender (male/female), school (primary/high) and a within-subjects factor of
time (pre/post) were included. Results provided several interesting points. First, a positive change for most students (93%) was indicated for the social development scale. Additionally, no significant results were found for interest in music being affected by the DRUMBEAT intervention. In terms of well-being, students in primary school had higher scores than high school students, and no change over time was noted in scores for primary school students, but there was for high school students. Significant results for self-esteem included increased self-esteem after participation in the program, higher scores for those in primary school than high school, and “a larger difference between Primary School and High School girls’ self-esteem, than there was between Primary and High School boys” (p. 37). Overall strengths and difficulties indicated that teachers reported fewer Total Problems in primary school than high school. These problems increased over time in primary school, but decreased in high school students, and decreased over time for boys and girls, with a larger decrease for girls. Student’s reports showed fewer Total Problems in primary school than in high school at both times, and there was a larger decrease in problems for high school students than primary school students after participating in the program. Additionally, externalizing scores decreased over time, with a larger decrease for high school students than primary school students, “were lower for girls than boys, and were lower in Primary compared to High School students” (p. 37). Internalizing scores also decreased over time, with boys and primary school students reporting fewer problems than girls and high school students, respectively. Although the location, facilitators, and implementation of the program may have differed over the six sites, results indicate an overall positive effect of the DRUMBEAT program. It also offers insights into factors of gender and school level, although only the gender binary is considered. Including a control group in future studies with this program may enhance the results. Despite these limitations, this study indicates support for
music in developing socio-emotional skills. Although this program is not music therapy, the techniques used may be useful to incorporate into music therapy interventions under an SEL framework.

Additionally, Váradi (2022) explored the relationship between music education and socio-emotional learning. Conducting a review of the literature on music psychology, music education, music therapy and music for health and wellbeing, 100 studies from different countries were included. Studies were presented on several different music activities that contributed to the different skills presented in the CASEL framework, such as self-awareness and recognition of emotions, self-management and self-assessment, social awareness and empathy, and social and personal relationships (pp. 5-7). The author stated that “music is a peculiar, timebound, symbolic, and artistic form of expression, which moves on a preverbal level and is accessible to anyone” (p. 8). Music may be a more engaging and approachable method for SEL than some of the others. Further, the author discussed specifically the Kodály concept, an approach to music education, and how it supports socio-emotional development. The concept is based on music but “its education aims are much broader, its universal goal is to educate people in physical and mental harmony” (p. 4). Although this research was meant to support music education in socio-emotional learning, it highlights the impact music can have on socio-emotional development, further supporting the use of music therapy. As presented by the author, the music activities used within the studies address several of the skills in the CASEL framework, supporting the idea of a music therapy SEL program utilizing this framework. Additionally, drawing from aspects of the Kodály concept, such as singing games and communal singing, may be useful in a music therapy program as well. This could promote the importance of community that is stressed within this concept.
The studies presented in this section present the role music can play in the development of socio-emotional skills and the way it is currently being utilized within SEL. Although neither of these studies focuses on music therapy, the research shows support for music and offers potentially useful insights into creating a music therapy SEL program.

Music Therapy and Children

There is an abundance of research on the use of music therapy with children. This research covers a variety of topics, addressing many different goals, utilizing many methods and techniques, and explores music therapy with children of all ages and abilities. When considering the use of music therapy to further develop socio-emotional skills, it’s important to understand current perspectives on the use of music therapy with children and the current uses of utilizing this modality with this population.

Epstein et al. (2020) conducted semi-structured interviews to gather data to analyze the way music therapists implement music and understand its therapeutic potential specifically with children with autism who possess verbal skills. Participants interviewed were six female music therapists from Israel between the ages of 30 and 48 with varying years of experience working with this population. Using interpretive phenomenological analysis (IPA) guidelines, three main themes were identified: musical infrastructure, the meeting point between musical and verbal playfulness, and musical responses (p. 75). Musical infrastructure refers to “how the music therapists use music and perceive its therapeutic potential to facilitate musical experiences to support the child’s different forms of self-regulation” (p. 75). The meeting point between musical and verbal playfulness is described as “the music therapists’ perception of music’s therapeutic potential in musical experiences adding vitality and supporting the development of both verbal and nonverbal imaginative play” (p. 75). Finally, musical responses are “the different
ways the music therapists use their voice and songs to interact musically with verbal children” (p. 75). The credibility of this study was strengthened through intersubjectivity (consultation and mentoring by second and third authors), as well as through reflexivity done by the first author. A lack of diversity among the participants interviewed may have impacted the results of this study. Additionally, the authors’ worldview may have influenced the themes, especially since the only peers consulted were also authors of this study. The findings of this study show an understanding of how some music therapists implement music and realize its therapeutic potential. These findings may be useful when considering music’s therapeutic use and aspects to be thoughtful of when considering the use of music therapy to promote socio-emotional skills.

Annesley et al. (2020) utilized semi-structured interviews to gather data to analyze parents’ thoughts on the music therapy their child received. To recruit participants, letters were sent to parents/carers whose child was receiving music therapy services at the community health center in London where the researcher practiced. In total, ten parents participated, nine mothers and one father. Their children ranged in age from six to eleven and had a variety of referral reasons. Using inductive thematic analysis procedures and the use of NVivo 11, five themes were identified. These included parental concerns about their child’s well-being, disengagement from music therapy felt by parents, recognition of music therapy as a “nurturing environment” (p. 102) and as providing beneficial results, and a perceived acknowledgment that music therapy is an evolving process (p. 102). The authors acknowledged reflexivity through the process and did not include parents of children that they directly worked with. However, they did not mention any other credibility-enhancing mechanisms, such as peer debriefing. Although the study offers some interesting insights, the authors mentioned other limitations of the study. These included the influence of authority and power on participants’ responses and the fear of
insufficient anonymity, leading to restriction of responses. Despite these limitations, this study shows that music therapy is generally perceived as a positive therapeutic means, to reach children’s goals, by parents. Positive parent or guardian perspectives on music therapy would be important support behind using it to support their child’s socio-emotional development.

These studies both offer insight into current understandings of the use of music therapy with children from different perspectives. Epstein et al. (2020) demonstrated different ways music is used specifically in children with autism who are verbal and their perceived helpfulness. These findings may be useful when considering treatment interventions for the development of socio-emotional skills. Further research is needed to understand if these findings are sustained within other populations of children. The findings from the study by Annesley et al. (2020) provide readers with an understanding of parents’ perspectives on music therapy. Not only does this study demonstrate that parents see positive outcomes from music therapy, but it may also be a useful tool for music therapists in helping them to collaborate more effectively with the parents of the children they serve. Parents’ perspectives of positive outcomes from music therapy are a good indicator that music therapy may be a beneficial method of promoting the development of socio-emotional skills.

Carr and Wigram (2009) examined the use of music therapy within mainstream schools by conducting a literature review. Excluded from the study was: literature on preschool children or with work involving psychiatry, severe psychosis, severe learning disabilities, or medicine. After review, a total of 60 papers were included from varying countries and were coded in the categories of focus for intervention, setting, type of intervention, methods used, and research methodology. Regarding the focus on intervention, “children without medical diagnoses were the main subject of such work within the schools, followed by work to integrate children with
special needs” (p. 6). Work in other areas of focus included deprived, bereaved, and at-risk children, children with emotional or behavioral problems, and refugees. Children that received music therapy in mainstream school settings often had mild emotional, behavioral, or social problems, with one of the main focuses on behaviors in the classroom. Most of the literature in this review was qualitative. Although a wide variety of music therapy approaches were used, the use of structure was common in most of the studies. It was found that many different types of activities were used as well, with the most common one being songwriting. The use of rap, music technology, and child preferred music was also highlighted within the literature. Other important themes that resulted from this review include the importance of collaboration between music therapists and those who work in the school, clearly defined goals, interventions and methods, the importance of the therapeutic relationship, and the potential possibilities of using music therapy within a mainstream school setting of addressing the whole child. The findings of this study offer insights into how music therapy is being integrated into mainstream schools; however, it does not address the effectiveness of it. Although dated, the information highlighted demonstrates that music therapy has been used in mainstream schools for some time. School settings are typically where SEL takes place as well, therefore, integrating music therapy into this setting for an SEL program appears to be attainable.

**Music Therapy and Socio-Emotional Development in Children**

There is some research on the use of music therapy specifically and socio-emotional development, however, much of it is research on specific skills that may fall within the domain of socio-emotional development, such as social skills broadly or joint attention. As challenges in social communication and interaction skills are often reported in individuals with autism spectrum disorder (ASD) (Centers for Disease Control and Prevention, 2021), there have been
numerous studies looking at the efficacy of music therapy in promoting these skills within this population.

Bharathi et al. (2019) studied the effects of music therapy on the social skills of children aged six to twelve with mild to severe autism (N = 52) from Coimbatore city in India. Children were selected through convenience sampling and were further separated into two groups: an active music therapy group and a passive music therapy group. The passive group involved simply listening to music, while the active group, which utilized an Orff Schulwerk approach to music therapy, involved actively singing, dancing, and playing along with the music. The Orff Schulwerk teaching method is a child-centered approach to music education that involves “singing, body percussion, playing on a variety of both tuned and untuned music devices, movement and dancing, and communication activities to help children with developmental delays and disabilities” (para. 2). To measure social skills, the TRIAD Special Skills Assessment (TSSA) was given three times throughout the study: once before the intervention, after the last session of the intervention, and three months after the intervention had concluded. Results showed that children in both groups showed an improvement in social skills after the post-test. Compared to the passive group, the active group showed significant improvement (p < 0.05) in total social skill ability. The t test analysis also indicated that the effectiveness of music therapy in the active group was apparent after three months. While the results of this study suggest an improvement in social skills with the use of music therapy, the participants of this study were limited to a specific area and age range so these results may not be generalizable.

Kim et al. (2008) examined the effect of improvisational music therapy as compared to play sessions on joint attention behaviors in children with autism aged three to five. The participants (N = 10) partook in both 30-minute improvisational music therapy sessions and 30-
minute play sessions and were randomly assigned to either a group that had music therapy first followed by a play session or a play session first followed by a music therapy session. Pre, post, and in between treatment results were measured with the Pervasive Developmental Disorder Behavior Inventory-C (PDDBI), which was completed by both the mother of the child and professionals working with the child, as well as the Early Social Communication Scales (ESCS). Sessions were also recorded and analyzed. Results from the PDDBI presented no significant results, however, the ESCS ANOVA findings did show a significant result (p = 0.01) that presented music therapy as being more effective than play sessions in addressing joint attention. Analysis of the sessions indicated that eye contact and turn-taking duration lasted longer during music therapy sessions than within the play sessions. Although the initial findings of this study support the use of improvisational music therapy in joint attention, the small sample size of this study limits its generalizability. Additionally, there is room for personal bias within the completion of the PDDBI done by the mother of the child, affecting the reliability of this measure.

These studies present two different music therapy approaches, improvisational and Orff-Schulwerk, that may be potentially useful in helping address socio-emotional skills in children with autism, however, more research needs to be done on the generalizability. Although conducted several years ago, the study by Kim et al. (2008) offers a perspective into the history of the use of music therapy for social skills such as joint attention, and the study design presented may be useful for future studies with larger sample sizes. Bharathi et al. (2019) presented more recent findings that initially support the use of music therapy for addressing social skills, specifically in children with ASD. Although these studies focus on children with autism, the skills addressed in each of them are skills that any child may need further improvement on when
considering their socio-emotional development. Therefore, with further research, the music therapy interventions utilized in these studies may be useful for any child’s development of socio-emotional skills. When considering how these interventions may fit into the CASEL framework, the skills of joint attention and social skills may fit well under the domain of relationship skills. These studies also bring attention to the variability of music therapy approaches, showing its versatility.

Examining a broader population of children and adolescents with social skills deficits, Gooding (2011) explored the effects of a music therapy-based intervention program on improving social competence, specifically peer relations and self-management skills. The program was used in three different settings, producing three separate studies: one in school (n = 12), one in residential (n = 13), and one in an after-school care setting (n = 20). Children ranged in age from 6 to 17 years old, some were considered typically developing while others had a range of diagnoses and deficits. The same curriculum was used at each site, although adapted to be age-appropriate. The curriculum consisted of five 50-minute group sessions over about five weeks, using movement to music, drumming, instrument playing, improvisation activities, singing, and music with poetic techniques. Also used were different cognitive-behavioral techniques. Social functioning data was collected before, during, and after the music therapy intervention and was collected from different sources such as teachers or case managers, researchers, and participants, as well as through behavioral observations. As three different sites were used, the design and measures used differed between sites. Between the three studies “of the 13 individual measures collected, seven indicated significant improvement for those participating in the music therapy-based intervention, and one approached significance” (para. 37). Additionally, behavioral observations were the only consistently significant data at all three
sites, and one measure indicated a decrease in functioning. There are several limitations of this study including a small sample size, limited participant information, and the use of different measures and designs at each site. Despite these limitations, this study showed a primarily positive outcome for the use of music therapy interventions with cognitive behavioral techniques to promote social competence. Although the study was published several years ago, the curriculum utilized may be useful for future research on this topic to get a better understanding of its impacts. The use of music therapy interventions with cognitive behavioral techniques also offers a specific method used in promoting social functioning in this population. This study highlights the potential effectiveness of using music therapy to promote social competence. The skills addressed in this study, peer relations and self-management, align nicely with the CASEL framework domains of relationship skills and self-management.

More recently, Pasiali and Clark (2018) evaluated the benefits of a music therapy social skills development program with school-aged children specifically those with limited resources. Participants were aged five to eleven years old and were enrolled in an afterschool program offered by a nonprofit community agency that took place at their apartment complex. Five students withdrew because they moved out of the apartment complex, and one student attended fewer than six sessions, so the sample size analyzed was 14 students. Students in the sample were typically developing and “were exposed to various social, economic, and cultural stressors” (p. 286). Gender (male or female) was the only other demographic information provided. A pre/post-test design was used using the Home and Community Social Behavioral Scale (HCSBS), completed by the afterschool teacher, and the Social Skills Improvement System (SSIS), completed by both the teacher and the parent. A teacher interview was also conducted three weeks after the intervention was finished. The intervention, designed by the author,
consisted of eight 50-minute music therapy sessions over a period of ten weeks and focused on improving social skills and reducing problem behaviors. The music therapy sessions, guided by intervention guide programs and scores on the HCSBS, incorporated “movement to music, active music-making, Orff-based musical exercises, improvisation, songwriting, role-play, music performance, and music-assisted relaxation” (pp. 290, 293). Results for the HCSBS showed a significant decrease in average numbers of low performance/high-risk behaviors. As for the SSSIS, teacher ratings showed significant decreases in overall problem behaviors, hyperactivity/inattentiveness, and autistic tendencies. Parent ratings showed significant decreases in overall problem behaviors and internalizing behaviors. A surprising finding in both parent and teacher ratings was an overall decrease in academic performance. A few limitations exist for this study, for example, confounding variables could not be ruled out. Despite the limitations, the findings offer support for a music therapy program in decreasing problem behaviors regarding social development. The program design used in this study may be useful for future researchers or music therapists looking to develop music therapy SEL programs in a school setting.

Uhlig et al. (2018) examined music as a tool for emotional self-regulation using Rap&SingMT in a school setting. Structured around aspects of cognitive behavior therapy, Rap&SingMT consists of rhythm, vocalizations (singing or rapping), and the creation of song lyrics through rhyming words. Participants in this study attended a public Jena plan school in the Netherlands, were aged between 8 and 12, and included children both with and without behavioral or developmental delays. Of the 250 children, 190 were deemed eligible for the trial. They were randomly allocated into the experimental Rap&SingMT group, a control group that received the regular class intervention, and a pilot study, which was excluded from the main study. By the end of the study, data from 95 participants were analyzed. The projects took place
within the children’s class: 3 classes were experimental groups and 2 were control groups. All children were able to participate, however, data was only collected on those who had given informed consent. Parents provided demographic data “consisting of age, gender, marital status of parents and family structure, parents’ working status, parents’ education, parents’ interests and hobbies, family activities and former music education of parents and adolescents” (p. 571). Both the intervention and control groups were completed around once a week for four weeks for 45 minutes. Pre- and post-measures were completed by children, parents, and teachers and included the Strength and Difficulty Questionnaire (SDQ), Difficulties Emotion Regulation Scale (DERS), and Self-Perception Profile Children (SPPC), as well as an interview with the participants on how music affected them. SPSS 23 was used to analyze the data. Given the demographic information by parents, there were no significant differences found between the control and intervention group. Significant results were found for the SDQ teacher test for the subscales of emotional symptoms and hyperactivity/inattention, showing no change for the intervention group and an increase in problem scores for the control. Results from the DERS, particularly within the subscale around goal-directed behavior, also indicated a permanence of problems within the control group. Although other scales favored the intervention group, the results were not significant. Within subjects, problem scores declined over time in both groups, however, significance was only found within the intervention group. Interviews indicated a generally positive experience of the Rap&SingMT group. The authors reported a limitation of this study as being that students reported having a difficult time translating what had happened in the music into words, causing questions of the text-based questionnaires. Despite this, results indicated sustained and improved emotion regulation within the music therapy group as opposed
to the control group, supporting the use of music therapy in the development of socio-emotional skills. The skill of emotion regulation could fit into the CASEL domain of self-management.

The studies presented in this section offer some positive outcomes for the use of music therapy in promoting socio-emotional development. The first two focused on specific social skills deficits in children with autism; Gooding (2011) and Pasiali and Clark (2018) examined social functioning and music therapy in a more diverse population. Uhlig et al. (2018) demonstrated positive outcomes in a school setting, where SEL often takes place. These studies also highlight the different music therapy methods and interventions that may be used, offering many different avenues to promote socio-emotional development. The skills addressed within these studies are skills that may be worked on under the domains of the CASEL framework, indicating that music therapy interventions may be easily implemented within this framework.

**Discussion**

This paper examined the potential use of music therapy in promoting socio-emotional development through a literature review. To get a better understanding of socio-emotional development research was presented on its importance for children as well as areas of focus within this domain around the world. Next, current approaches to socio-emotional development were discussed, specifically social emotional learning programs and the CASEL framework. To understand music therapy, research was reviewed on perspectives and uses with children. Finally, music therapy literature that addresses different skills within socio-emotional development was reviewed.

Socio-emotional development in children has been a growing area of interest in many countries (Miyamoto et al. 2015). Research shows that promoting socio-emotional development is important in children, as it may have an impact on later life outcomes, as well as academic
achievement (Jones et al., 2015; Hammer et al., 2018). Currently, social emotional learning programs implemented within a school setting are commonly used to promote the development of socio-emotional skills. The CASEL framework for social emotional learning provides a structure that can accommodate many different approaches, as well as support a program through an equitable lens (Jagers et al., 2019). Different social emotional learning programs and interventions have shown to be effective and can inform other programs, such as one grounded in music therapy techniques (Van de Sande et al., 2019; Taylor et al., 2017). Váradi (2022) argued for the importance of music in social emotional learning, and the SEL program DRUMBEAT, incorporating musical aspects, was found to be effective in promoting social and emotional skills (StGeorge & Freeman, 2020). Music therapy is an engaging and noninvasive modality that parents have found to be a generally positive means to reach their children’s goals and is already used in schools for a variety of reasons (Annesley et al., 2020; Carr & Wigram, 2009).

Additionally, there’s an abundance of research on music therapy already being utilized to address different skills within the domain of socio-emotional development (Bharathi et al., 2019; Kim et al., 2008; Gooding, 2011; Pasiali & Clark, 2018; Uhlig et al., 2018). Information from these studies as well as perspectives from music therapists (Epstein et al. 2020) may be used to inform music therapy within SEL. Based on these findings, music therapy may be a useful modality in promoting the development of socio-emotional skills, especially when implemented through an already established framework such as CASEL and in a school-based SEL program.

If I were to integrate music therapy into a social emotional learning program, I would begin by examining the definitions of the CASEL competencies presented by Jagers et al. (2019). As the five competencies of this framework cover several skills, I think the use of several different music therapy techniques and interventions would be most useful. For example,
incorporating music listening, re-creation, composing, and improvisation, using voice, movement, and instruments. Using diverse interventions may also be beneficial when working with diverse groups of children, providing the opportunity to explore their many different strengths and preferences. Several different interventions and techniques are shown within the literature presented here that I would consider implementing into an SEL program (Bharathi et al, 2019; Kim et al., 2008; Gooding, 2011; Pasiali & Clark, 2018; Uhlig et al., 2018). In developing this program, I would need to do more research on interventions that may be useful in the competencies not addressed within this research and consider creating original interventions and examining their effectiveness as well. Additionally, although not music therapy, there may be elements from the DRUMBEAT program (StGeorge & Freeman, 2020) that could fit into a music therapy setting as well. I would also utilize the perspectives gleaned from Epstein et al. (2020) when creating, planning, and implementing interventions to get the most out of the therapeutic potential of music. I believe that implementing an SEL music therapy program in a school would be the most advantageous, as it has the potential to reach many children and there is a history of music therapy being used as a common approach in the school setting (Carr & Wigram, 2009). One final and important aspect I would include in this program is the involvement of family and community. One finding from Annesley et al. (2020) was that parents felt disengaged from music therapy. The CASEL framework also highlights the importance of these factors as it “recommends coordinating strategies across classrooms, schools, homes, and communities” (Borowski, 2019, p. 3). Therefore, communication and coordination between settings, as well as communication between members of each of these settings would be vital to a program’s success. To structure this program, more research would
need to be done on the structure of other SEL programs as well as music therapy curriculums that have been found to be effective.

Further research should focus on the efficacy of music therapy incorporated into SEL programs or music therapy programs designed specifically within an SEL framework. Additionally, more research should be considered on the impact of culture on socio-emotional development to incorporate a culturally sensitive approach within music therapy. As these skills may differ between cultures, how they are taught, measured, and evaluated should be considered within a cultural context. Additional information on the demographics of the participants would be important. For example, some of the studies presented did not offer much of a demographic background on the participants, or the information was limited. Most of the studies only presented gender as a male/female binary. Further, as music is processed in many parts of the brain (JB Music Therapy, 2021), music therapy may be a useful tool in other areas of childhood development as well. Therefore, further research into how music therapy can be used to address the whole child could be beneficial. Finally, future research should include a variety of reliable measures as well as a control group when possible, making results more valid. Although there are many areas for future research regarding this topic, the findings from this literature review provide a positive foundation for the future research and use of music therapy and social emotional learning.
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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

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