

A Review of the Literature on the Relationship of Music Education to the Development of Socio-Emotional Learning

SAGE Open
January-March 2022: 1–11
© The Author(s) 2022
DOI: 10.1177/21582440211068501
journals.sagepub.com/home/sgo

Judit Váradi¹

Abstract

Social-emotional learning (SEL) is a topic of increasing focus in the education sector. SEL is the process by which children acquire the knowledge, skills, and attitudes to effectively recognize and manage emotions, to formulate positive goals, to feel empathy for others, to establish and maintain functioning social relationships. It develops to take responsible decisions, determine students' successful academic performance, transformation into adulthood, useful work, a good quality of life, and well-being. By the end of the 20th century the educational role of music has come into the spotlight, and in addition to the impact of music on the development of general skills, its social and emotional effects are also the subject of research. This paper undertakes to explore the literature about the connections between music education and social-emotional skill development. For the collection and analysis of information, online sources of peer-reviewed scientific journals in addition to the university library were used. The study also examined the relationship between social-emotional learning and the world-wide well-known Kodály Concept and the effect of Kodály's vision of music education as a forerunner of socio-emotional skills development. The relationship between social-emotional skills and music was explored by reviewing the international music-specific literature from music psychology, music education, music therapy, and music for health and wellbeing. In order to illuminate the problem and to develop a holistic approach, the 100 studies presented here summarize research findings made and presented in different countries around the world.

Keywords

emotional development, Kodály Concept, music education, social-emotional learning, social-emotional competence

Introduction

In recent decades, research has focused on whether it is possible to transfer values in education and if so, how exactly. At the turn of the 20th century, the common feature of approaches to pedagogical reform lay in the great importance attributed to the development of artistic, physical, and social skills (Váradi, 2019). In addition to respecting children's need for freedom, a coherent system of pedagogical theories and practices was later enriched by the need to create a sense of community (Pukánszky & Németh, 1996). In addition to the transfer of knowledge, schools also play a significant role in the process of socialization. Socialization is the process of integration into society, during which individuals learn, among other things, about themselves, their environment, the rules of social coexistence, socially acceptable behavior, values and norms, the basic rules of institutional and community behavior, as well as the necessary skills for the integration into adult society (Meszaros et al., 2003; Németh, 1997). In other words, children learn to live and behave as humans

(Bagdy, 1986). The question thus arises as to how we as a music educators can help this process, and what possibilities and methods are available to us to that end.

The educational role of music in addition to the impact of music on the development of general skills, and its social and emotional effects have also become a topics of research. The concept of art education, in particular education through art, was defined by Read (Kiss, 2017) who contended that the innermost self can manifest itself through art, which also helps in achieving harmony and a balanced life. Art pedagogy could therefore be a solution to develop harmonious selfhood while shaping and enriching students' personalities.

¹University of Debrecen Faculty of Music, Hungary

Corresponding Author:

Judit Váradi, University of Debrecen Faculty of Music, Nagyerdei krt. 82, Debrecen 4032, Hungary.
Email: judit.varadi.06@gmail.com



However, practice shows that research results, even though they have held up for decades and centuries, are difficult to incorporate into the world of everyday pedagogy. Seligman et al. (2009) surveyed parents on what they wanted for their children. The response (happiness, trust, contentment, balance, good things, kindness, health, satisfaction, self-confidence) suggest that parents value well-being the most. In comparison, they were asked what they thought the school prepared their children for. The responses (performance, thinking skills, success orientation, discipline, and sciences) reveal no overlap between the two sets of expectations. Inglehart et al. (2008) analyzed five surveys carried out between 1981 and 2007 in the framework of the World Values Survey and the European Values Study. According to a regression analysis of a database people feel increasingly happy, yet their satisfaction with life has declined significantly in recent decades.

The synergy between learning and positive emotions demonstrates that happiness and well-being can and should be taught in school (Fodor & Korényi, 2019). Positive emotions make students open and creative, encouraging them to begin exploring while learning, and help them overcome challenges, thus generating further positive emotions as a result of experienced success (Oláh, 2004). Happiness is divided into different fields by positive psychology, all of which are skill-based, teachable, and measurable (Seligman, 2002). One such aspect is the state of flow, wherein one is completely dissolved and immersed in what one is doing. People experiencing flow are filled with joy. As a result of the flow state, we do not perceive much of the activity which we find interesting and challenging as “work.” Difficulties do not appear as obstacles but rather inspire us to find adequate solutions. A successful solution and its implementation fill us with joy and pride (Csikszentmihalyi, 1990).

The Concept of Social and Emotional Learning

Children face countless social and emotional challenges affecting their daily functioning (Edgar, 2013). Several studies have suggested that school education does not adequately prepare children for the challenges and expectations of life, and mastering the curriculum is not enough to make students into successful adults with life skills (Fodor & Korényi, 2019; Friedlaender et al., 2014; Seligman, 2002). Social and emotional development, including the recognition and understanding of others’ and one’s own emotions as well as socio-cultural effects regarding the expression and regulation of emotions, exerts a substantial influence on children’s development through the complex interactions between emotions, personality and social relationships (Thomson & Virmani, 2012).

Social and emotional learning is the process by which children (and adults) acquire the knowledge, skills, and

attitudes to recognize and manage emotions effectively, to formulate positive goals, to feel and show empathy for others, to establish and maintain functioning social relationships, and to make responsible decisions (Jones & Bouffard, 2012). The term social emotional learning was first used in 1994 (Edgar, 2013). SEL focuses on positive youth development, health promotion, and prevention of problematic behaviors (Collaborative for Academic Social and Emotional Learning [CASEL], 2006a). As opposed to unilateral cognitive development at school, social and emotional learning (SEL) draws attention to the development of emotional and social skills, which determine students’ successful academic performance (Friedlaender et al., 2014; Greenberg et al., 2003). They also ensure the healthy transformation into adulthood, useful work, a good quality of life, and well-being. In developing social and emotional skills, people must learn to interpret and understand emotions, manage impulses, motivate themselves, and accept the context of community (Pianta & La Paro, 2003; Raver, 2002).

Research Method, Research Questions and Hypotheses

In this study, we draw from of previous research and literature to explore how music education can contribute to the role of socialization by assisting emotional development.

We have examined what kind of effect participatory musical activity has on the recognition of emotions (i.e., in the preceding section). Two further question now arise:

1. Does music education affect the development of self-knowledge and self-esteem?
2. Is there a relationship between music education and the formation of social awareness and social connections?

For our research, in addition to books available at the university and our own personal library, we consulted topical studies from peer-reviewed scientific journals available in Internet databases. The studies were selected using the Google Scholar and Web of Science database. Using appropriate keywords (the relationship between music education and social-emotional learning), we classified the search results by topic and organized them through the method of document exploration. According to our hypothesis, the emotional impact of music has a positive influence on the social and emotional development of children who participate in music education, making it easier for them to recognize their own emotions, which they can express and experience better through music. We hypothesize that music education in a group setting helps develop acceptance of and interactions with others, and that the social experience surplus of joint activities also has a positive influence on empathy.

Discussion

Links Between Music Education and the Development of Social and Emotional Competencies

The aim of music education is to enrich one's personality as much as possible through the process of emotional sensitization. Scholars, religious leaders, politicians, and philosophers, including Plato, Aristotle, St. Augustine, Boethius, Martin Luther, John Calvin, Comenius, Pestalozzi, and Spencer recognize the importance and social necessity of music education were recognized centuries ago by In their experience, the issue of music education is of social significance, because its personality-improving and community-building potential helps achieve and maintain the desired and expected social norm (Mark, 1999) and has a strong effect on mood and emotions (Sloboda & Juslin, 2001). Music and dance are considered effective in creating and maintaining social bonds and prosocial engagement among members of social groups (Cirelli, Wan et al., 2014; Huron, 2001; McNeill, 1995; Roederer, 1984; Wiltermuth & Heath, 2009).

Exploring the dynamics of musical development, Blacking (1967) has found that the main effects of childhood commitment to music lie in the field of sociality. "Knowledge of the children's songs is a social asset, and in some cases a social necessity for any child who wishes to be an accepted member of his own age group" (Blacking, 1967, p. 31, cited by Cross, 2007, p. 26). People have different views on the essence of music, but what is clear is that it is embedded in social activities through its role in managing social relationships and developing social skills. Music is a centuries-old method of communication based on nonverbal foundations, while it is at the same time a time-bound, symbolic form of expression, which is realized in a pattern of experience, is ubiquitous, affects personality as well as behavior, and forms part of identity (MacDonald et al., 2012). According to Koelsch (2014), the social and emotional power of music is based on the fact that music activity (such as singing) represents a multifaceted realm of experiences.

In the international literature, several studies address the positive effects of different branches of art (music, dance, theater, visual arts, media art) on the social-emotional development of children and adolescents. Artistic activities and related activities such as choir or orchestral rehearsals, instrumental practice, rehearsals for a play, and creating a picture or graffiti all include social and emotional components (Foster & Marcus Jenkins, 2017; Freeman et al., 2003). The experience of community, a special form of self-expression, and the promise of success allow children to reflect on feelings related to events in their lives, incorporating or displaying them in artistic activity. The social and emotional components of long-term artistic competencies include the development of emotional self-regulation, responsibility,

empathy, self-expression, and self-criticism (Costa-Giomi, 1999; Gold et al., 2017; McFerran & Saarikallio, 2014; Thompson et al., 2004).

It is a well-established practice in music education to omit certain lines or expressions while singing a well-known song, whereby we continue to sing internally the lines which we do not sing out loud. The task contributes to the development of musical imagination, but also provides excellent practice for the improvement of self-control and self-discipline (Kokas, 1972). It is also an excellent practice for the development of self-confidence and leadership skills to let children lead the singing. We should not correct their mistakes at all costs but should let them improvise and create freely.

Listening to music can positively affect mental health because it increases the amount of dopamine in the brain, thus helping to overcome stress (Linnemann et al., 2016).

Music education gives children the opportunity to get to know other cultures and to learn to accept differences by becoming familiar with different musical traditions. A musical performance is a good occasion for children to practice a wide range of social and emotional skills. Performing in front of others provides an opportunity to overcome stage fright and stress, while they also learn to deal with success or possible failure (Ilari et al., 2013).

A successful performance improves self-esteem and becomes a positive experience. Joint musical productions establish social relationships, help children accept others, and build trust. Through practicing effective communication, collaboration, and problem solving, leadership competencies are developed (Harland et al., 2000).

Whether children perform music together with one parent or the whole family, they can experience an associated sense of community. Group performance builds trust in children, who can recognize each other's achievements, exercise sympathy, and forgive mistakes through cooperation. They learn to respect one another. Their individual self-expression develops through the experience of belonging to a community. Respect, cooperation, and community activity all constitute important social skills, the development of which is very important from an early age (Davidson & Good, 2002).

Group performance also prepares children to attend to their surroundings and to the people around them, to adapt to the environment, and even to perceive and adjust to the subtle cues of volume and expressiveness, which helps them recognize emotions. Musical communication and associated cues through the development of emotional intelligence contribute to the recognition of verbal communication and human facial expressions. The referential expressive potential of music (Fitch, 2006) has been shown to effectively communicate mood, affect, and various emotions between performers and listeners (Juslin & Västfjäll, 2008; Sloboda & Juslin, 2001).

The Effect of Music Education in the Kodály Concept on Social and Emotional Competencies

Zoltán Kodály was among the many who recognized the importance and educational nature of music. The Kodály concept, which is the most significant contribution of Hungarian music pedagogy, is known to be effective all over the world. The concept is based on “associating a value-based higher approach to art with active musicality” (Bácskai et al., 1972, p. 112).

Kodály suggested the use of singing games during early childhood. These are part of folk tradition, and children learn them as easily as their mother tongue. Singing games provide opportunities for social interactions, such as turn-taking, choosing partners, and role-play. They learn unconsciously and spontaneously through being actively involved in a structured play situation. It places the primary focus of children’s education on art education, in particular music education. Active music performance and singing constitute the basis of attentive musical skill development.

Singing together in a choir for example, is a community activity, whereby the individual feels responsible for the success of the community. The joint performance shapes children’s personalities and offers an experience of shared joy, which in turn reinforces the positive experience of belonging to a group. Although the Kodály concept is based on music, its educational aims are much broader, its universal goal is to educate people in physical and mental harmony. According to Kodály’s philosophy, everyone has the human voice and singing at their disposal. Communal singing not only improves musical skills, but also strengthens the sense of belonging to the community. Art education is based on experience-focused teaching, which is as much affected by local conditions and the cultural and economic environment as by the teacher’s ability and personality.

Bácskai et al. (1972) examined the effects of this type of education. The research took place decades ago, but its conclusions are still relevant, as the study examines an educational model which was created directly under the guidance of its founder, Zoltán Kodály, without any subsequent additions or distortions. The sample was made up of former students who had finished school 4 years before. Of the 409 young people, 186 attended schools specialized in singing and music, while 223 were taught in regular schools without music specialization. Four years after leaving the school, 27% of former pupils of music-focused schools still sang in a choir, as opposed to the control group, where only 6% remained choir members.

The treatment group showed outstanding results in the field of instrumental music: 93% of the treatment group but only 33% of the control group had attended extracurricular sessions to learn to play instruments in their free time, thus ensuring an active experience of musical self-expression. The research also showed that children who attended a primary school with singing and music specialization shared a

closer connection with their peers, which the authors attributed to the effect of musical performance in a community. The community was found to be strengthened by participation in both the choir and orchestra. School friendships turned out to be more lasting among children at music-focused schools. Children who received specialized singing and music training also enjoyed performing at other community events (school trips, summer camps). “One of the most distinctive features of the attitude-forming effect of schools with a singing and music specialization is that they can construct a value-oriented love toward music in their pupils” (Bácskai et al., 1972, p. 66).

Among the young people interviewed, there was a significant divergence between career plans and their fulfilment. The study also revealed that higher education and other ambitious goals were indeed attainable, resulting in the positive impact of social mobility. In disseminating their research findings, the authors highlighted socio-intellectual mobility as a general educational effect of music pedagogy.

Kokas (1972), who applied the methods of Kodály’s music education to children in state custody, further emphasized the emotional impact of music education. According to her theory, music provides patterns of experience, which experiences include knowledge and discovery that are later reflected in other experiences of life. Creating a harmonious sense of life presupposes an active receptive attitude toward art.

Barkóczi and Pléh (1977), who studied children at primary schools with singing and music specialization, examined the psychological effect of Kodály’s method of music education. In the course of their research, they found that the teacher’s personality, character, interest, and sense of vocation significantly influenced children’s personality development. They also showed that in addition to musical abilities, music education according to the Kodály concept also had a positive effect on performance in other disciplines, in particular on movement skills and creativity, improved memory, length of concentration, and the ability to collaborate. Children exposed to music specialization worked independently in a reliable manner, were better integrated into the community, maintained good relations with their peers, felt the goals of the group were their own, and made voluntary efforts to achieve these goals. In summarizing the results of the research, the authors highlighted that creativity related to emotional sensitivity and internal control.

Kalmar and Benis (1979) examined the community connection of classes with music specialization. Their research revealed that 86% of children in music-focused classes had balanced and reciprocal social relationships, while in the control group the figure stood at 69%. In another sample the difference was even larger: 82% of children exposed to music and singing specialization were not lonely, as opposed to 50% of the control group. The study corroborates the hypothesis that music education has a demonstrable community development effect.

Nádassy-Karres (1981) examined the ability to empathize in the context of music education among music and engineer students. It was found that a certain proportion of musicians possessed advanced empathic abilities, while a certain share of technical college students, who made up the control group, demonstrated less empathy.

During this period, the effect of the Kodály concept was examined not only in Hungary but also in the United States and Australia, where findings by Herbert and his research group revealed that children taught according to Kodály's guidance performed better on intelligence tests. Singing has a positive effect upon the child's physical, social, emotional, and intellectual development (Rowse, 2003).

Musical education according to the Kodály concept is still in the focus of researchers today, in the rest of the study, however, I do not explore this in further detail; instead, I explore the relationship between social-emotional skills and music by reviewing the international literature. In order to shed light on the problem and to develop a holistic approach, the 100 studies presented here summarize research findings made and presented in different countries around the world.

Results

In our research, I used the competencies defined by the Collaborative for Academic, Social, and Emotional Learning program to determine socio-emotional skills. The *Collaborative for Academic, Social, and Emotional Learning* (CASEL) program identifies five key competencies which define social and emotional skills (Mahoney et al., 2020).

1. Self-awareness: a character trait that enables the recognition of emotions (including emotional stress) and plays a significant role in understanding the relationship between emotions, thoughts, and behavior.
2. Self-management: conscious self-regulation and self-control combined with goal-oriented, systematic, and successful problem-solving, through which children are able to regulate our emotions, thoughts, and behavior. It also includes the ability to be reliable and adaptable.
3. Social awareness: the ability to empathize and the readiness to identify with others, including those from diverse backgrounds, cultures, and context. It also includes the ability to sense emotional tensions. Among ancient Greeks, empathy originally meant the understanding of works of art (Buda, 1978).
4. Relationship skills: the ability to establish and maintain healthy relationships, including social skills such as influencing, communicating, conflict management, collaboration, team spirit, listening to and respecting the opinions of others.
5. Responsible decision-making: a key leadership skill, defined as the ability to make good choices while taking into account the behavior of others and social interactions.

The development of social and emotional skills is of primary importance, as these abilities enable children to cope with challenging tasks, recognize and control their emotions, regulate their behavior, seek help effectively when needed, and show prudence in their decisions (Humphrey, 2013). Competencies may developed in childhood determine later skills in social, emotional, academic, professional, and career-related fields (Greenberg et al., 2003; Zsolnai, 1998).

An increasing body of research concludes that art education positively affects academic and social-emotional competencies (Edgar, 2013; Hallam, 2010). Whether in school or in an extracurricular manner, artistic activity contributes to the completion of personality, successful cooperation between peers, and the extensive development of social and emotional skills, as it requires perseverance and discipline and provides positive experiences of self-expression (Broh, 2002; Campayo–Muñoz & Cabedo–Mas, 2017).

A Review of the Literature on the Role of Music Education in Social and Emotional Learning

Musical activities span a wide spectrum including solo instrumental performance, which has been an integral part of music education for years, as well as communal music activities, affecting people in all walks of life from kindergarten music sessions to professional training and adult education. Accordingly, music-related research also covers a wide spectrum. MacDonald et al. (2012) demonstrate a clear effect of music on health and well-being. Some view music as a means of inducing emotions and mood regulation (Mas-Herrero et al., 2013), which contributes significantly to adolescents' interpersonal development and mental health (Laiho, 2004). Music is also known to have a sleep-enhancing effect (Groarke & Hogan, 2020) and to assist in overcoming loneliness (Greb et al., 2018). According to empirical results by Koelsch (2014), music activates brain structures at multiple levels simultaneously, so its effects are multilayered. Gabrielsson (1995) views the intense experience of music as a cognitive, perceptual, and emotional process, whose effects can be traced in behavioral and psychophysiological changes. When examining the effect of music, several studies support the relationship between music education and social-emotional competencies, which are presented in the next chapter.

Self-awareness and the recognition of emotions. Communicating emotions is key to social relationships and survival (Ekman, 1992). Musical emotions are processed at three different levels: biological, psychosocial, and cultural (Eerola et al., 2018). Studies exploring the relationship between social-emotional abilities and music have focused on the recognition of emotions (Thompson et al., 2004), the understanding of emotions (Schellenberg & Mankarious, 2012), and alexithymia, the difficulty of identifying emotions and describing them to others (Theorell et al., 2019).

In a special communication process, music transforms feelings into an “audible landscape” (Juslin & Laukka, 2003). As a result of music education, emotional intelligence is measurably higher (Petrides et al., 2006). Mood regulation and the desire to experience the emotional scale were identified as the primary reason why people listen to music (Juslin & Västfjäll, 2008; Schäfer et al., 2013). Musically educated adults recognize emotion in spoken language more easily than their peers without music education (Thompson et al., 2004). The emotions evoked by music are given a therapeutic role in achieving desired health outcomes. Västfjäll et al. (2012) argue that music may be uniquely suited to treat stress or regulate emotions in everyday life. According to a qualitative study, depressed individuals listen to music more often to express their emotions than people who are not depressed (Wilhelm et al., 2013). However, when inappropriately used as a therapeutic tool, listening to music might become counterproductive, contributing to harmful emotional outbursts (Marik & Stegemann, 2016). As cognitive neuroscience research by Suda et al. (2008) demonstrates, the major scale reduces stress, while the appropriate musical material could revive one from a state of mental exhaustion.

Self-management and self-assessment. In a study of 89 children aged 3 and 4, Winsler et al. (2011) found that children in music education became more self-disciplined as a result of structured musical experience.

Costa-Giomi (1999) found that one piano lesson per week over a 3-year period resulted in a positive development in school children’s self-esteem. Examining the impact of music education, he found that creative participation improves self-image and self-awareness, musical success can increase confidence and self-esteem and overall maturity, increase learning motivation, results that have been shown in disadvantaged children.

In a study on the effect of preventive group music receptive therapy among depressed adolescents, it was found that music increased awareness and helped develop healthy self-esteem in the treatment group compared to the control group (Gold et al., 2017; McFerran & Saarikallio, 2014). Sakka and Juslin (2018) examined the musical context of depression associated with deteriorating emotional regulation abilities. In their study, they compared depressed and unpressed individuals. Their findings revealed that the most common effect of listening to music was to enhance positive emotions, and suppression was not typical during the experiment. According to researchers the reason can be found in it, that because music experiences offer a non-threatening context, this may help listeners to regulate emotions in a more adaptive manner.

The effect of music on both depressed and unpressed individuals was significant. Among students, the practice of actively listening to music enhanced positive feelings, decreased negative emotions, and regulated arousal levels (Juslin et al., 2011). According to Saarikallio’s (2011) study,

one of the most important effects of music lies in the development of emotional self-regulation, which exerts its effects on all ages. Groarke and Hogan’s structural models demonstrated adaptive links between listening to music and well-being. Older adults cited eudemonic happiness, which is a kind of happiness is caused by intrinsic motivational factors, like personal development, community support or nurturing meaningful relationships. Emphasizing personal development based on listening to music is consistent with another study that examined the cause of listening to music among elementary school children. About 64.3% of children aged 8 to 12 surveyed listen to music because it makes them happy (Váradi, 2019).

Similarly, Broh (2002) showed that students who participated in musical activities are more open, better and more willing to communicate with their parents and teachers, and that their parents were more likely to talk with friends’ parents. She concluded that these social benefits were likely to lead to higher self-esteem in children, leading in turn to increased motivation and self-efficacy.

Social awareness and empathy. Although there are many individual differences in the perception and reception of music, they are strongly related to empathic ability (Egermann & McAdams, 2013). Williams et al. (2015) examined the effect of parent-child shared music activity at home among 3,031 Australian children. According to their regression analysis based on longitudinal research spanning 2 years, the frequency of shared home music activities is positively linked to the level of children’s vocabulary, numeracy, attention control, emotional regulation, and prosocial abilities.

In their study, Kirschner and Tomasello (2010) examined 4-year-olds from 16 different cities from varied socioeconomic backgrounds. The sample consisted of 96 preschoolers with a balanced gender distribution. During the selection, special attention was paid to choose pairs of children from the same class so that they knew each other from previous peer interactions. It was found that spontaneous help increased after joint music making, with both boys and girls assisting each other more frequently than in nonmusical interactions. The study also showed that children who participated in joint music but did not help their partner still showed greater empathy toward their partner than members of the control group. They found that joint music making enhances prosocial behavior in 4-year-olds, implying that music has a positive effect on sociality. The significant contribution of Kirschner and Tomasello’s study is that they isolated the specific influence of music, which rises above a social and verbal connection.

The development of signs indicating prosocial behavior was also studied by van Baaren et al. (2004). As a result of a joint interactions, children in the treatment and control groups of the study coordinated their actions and imitated each other’s mimicry and movements. Rabinowitch et al. (2013) implemented a program of interactive music games

for primary school children over an entire academic year. By comparing pre- and post-measurements, it was found that the program contributed to an increased capacity for empathy, which was also observable outside the musical context.

Social relationships. Recent theories suggest that music is actually perceived as a sonic trace of social relationships between a group of real or virtual agents. Musical collaborations (Klorman, 2016), which are part of stereotypical musical behavior such as a relation between soloist and accompanist, are often interpreted as a practice of social control by other musicians. Music provides a way of effective expressive communication which can also communicate social intentions. Aucouturier and Canonne (2017) focused on whether people were able to use the acoustic features of musical material to determine the affiliative or controlling nature of social intent. A novel experimental situation was created, in which subjects were asked to improvise a message solely by musical interaction. Five different types of non-musical social intentions had to be communicated; participants were asked to be dominant, contemptuous, or conciliatory, for example. In decoding the acoustic signals of temporal and harmonic coordination, both musically trained and musically untrained students recognized the intention encoded in music. The individuals in the sample also used metaphors of social relationships when interpreting musical statements.

Personal relationships. Anshel and Kipper (1988) examined the effects of activity-based group singing, joint poetry reading, the practice of passively listening to music, and watching movies without musical accompaniment on the development of trust and cooperation among men aged 22 to 41 ($N=96$). According to their results, subjects who sang in a group or listened to music scored higher on the measure of trust than those who engaged in nonmusical activities such as reading poems and watching movies. It was shown that participation in a joint musical activity encouraged and fostered trust and cooperation among the participants.

When examining interactions between music and dance activities, researchers found that positive emotions evoked by artistic activity strengthened interpersonal synchrony and harmonious rhythmic coordination between individuals, which brought the boundaries between the individual and the group closer, while the sense of collective joy strengthened the group's cohesive power (Hove & Risen, 2009; Wiltermuth & Heath, 2009).

Gerry et al. (2012) studied 6-month-old infants. For one group, active music lessons were held according to the Suzuki pedagogy with the involvement of parents, they learned different songs, accompanied by percussion instruments. For the other group, background music from a recording was played while they performed various other activities. When comparing the two groups after half a year, it was found that there was a significant difference between the two

groups in the acquisition of knowledge about social behavior and communicative gestures. After attending active music lessons, infants smiled much more, showing lower anxiety than after attending passive music lessons. Early music education led to increased emotional and social coordination and connection. In addition, an emotionally closer relationship developed between the parent and the child. The research suggests that joint musical activities in the family help the development of self-regulation, self-confidence, leadership skills, social skills, and social-emotional intelligence.

According to Gerry et al., this may support an infant's early ability to engage in positive social interaction with others.

Richert et al. argue that the same experiment would not have been so successful without parental involvement. In a study of children aged 12 to 25 months, $N=96$, using substitution for busy parents with small children, music recordings made specifically for children were played for 6 weeks. The findings confirmed that active parental participation is crucial to fully realize the musical, communicational, and social benefits of musical experiences during early development (Richert et al., 2010).

There are many studies on group dynamics in the literature which suggest that both trust and cooperation contribute to the development of group cohesion, which is the foundation for constructive cooperation among group members (Cartwright & Zander, 1968; Sampson, 1977). Cooperation was measurably affected by active exercises such as singing together and performing music together, while passive activities such as watching movies and listening to music resulted in a significantly lower willingness to cooperate. Research on singing in groups (Clift, 2012; Kreutz, 2014) has revealed a relationship between musical activity, communication, and social attachment.

In their study, Kirschner and Tomasello (2009) examined the extent to which drumming children can adapt and form synchrony with the rhythms sounded by electronic devices or in joint activities with their peers. They found that children growing up in cultures with active musical practices exhibited more developed social adaptation skills than their peers whose musical stimuli came from electronic devices.

Cirelli, Einarson et al. (2014), studying the consequences of the socialization of early childhood behavior, found that children who moved in synchrony with their caregivers to a previously given rhythm were more likely to help these adults later on, even in an altruistic manner. Their results support the hypothesis that interpersonal motor synchrony may be one of the key elements in music which help build social bonds among group members.

Conclusion

In recent decades, an increasing body of research has addressed arts education as well as music education in particular. The positive effects of music and music education

have been known for a very long time, dating back to antiquity (Mark, 1999; Váradi, 2010). As we have read in previous chapters the results have pointed to the same conclusion for decades and even centuries, regardless of age, geographical location, social status, and nation (Altenmüller, 2006; Anderson et al., 2010; François et al., 2013; Kraus et al., 2014; Moreno et al., 2011).

Research on the transfer of music education has also revealed, in addition to effects on cognitive areas, a significant impact on social and emotional competencies. The development of social and emotional skills can be achieved through reproducible and teachable models and through experience-based practical methods (CASEL, 2006b). Music is a peculiar, time-bound, symbolic, and artistic form of expression, which moves on a preverbal level and is accessible to anyone. According to Kodály's guidelines, children's musical education must begin before birth. The primary space of socialization is the family, in which common musical influences, in addition to providing advantages in the development of musical skills, offer an enjoyable activity and experience, the effect of which can also be put to use in other areas of life. Engaging the Kodály oriented musical activities leads to a marked increase in the powers of concentration, a rise in levels of achievement and an increase in social harmony in and out of the classroom (Geoghegan, 2006).

In the past decade, the focus of research has shifted to the theoretical concept of life-span development, according to which personality development can be interpreted as a set of hierarchically interdependent levels rather than as successive stages (MacLean, 1993). Although we focused on the age group of children in our literature review, it is not surprising that other age groups also appeared in the samples of certain studies.

Nowadays, as we increasingly struggle with violence, insensitivity to other person, personality disorders, and educational problems, why is it that art education, in addition to scientific knowledge, does not receive as much emphasis in integrated personality development as it deserves?

Music education does not teach music exclusively. The literature explored in our study also convincingly demonstrates its social and emotional impact. The social and emotional components of music education include the development of emotion recognition (Thompson et al., 2001), understanding emotion (Schellenberg & Mankarious, 2012), music activity develops emotional self-regulation (Sakka & Juslin, 2018), responsibility (Anshel & Kipper, 1988; Davidson & Good, 2002), empathy (Egermann & McAdams, 2013), social relations (Broh, 2002; Pitts, 2007), self-expression, and self-criticism (Costa-Giomi, 1999; Gold et al., 2017; McFerran & Saarikallio, 2014; Thompson et al., 2004)).

One important role of music education among others is to help younger generations become emotionally balanced and productive adults who do well in life, so art education and music education should receive primary importance in our

pedagogical practice. This investment may not bring immediate economic benefits but could be the foundation of the future of humanity.

The results of the research based on the literature suggest that music education contributes to and enhances children's social and emotional development. In addition, the findings encourage further research to examine the link between music education and SEL with special regard not only to the alleviation of children's problems but also for the development of strategies for the improvement of their well-being and performance.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Hungarian Academy of Arts.

ORCID iD

Judit Váradi  <https://orcid.org/0000-0002-4072-2687>

References

- Altenmüller, E. (2006). *Musikalisches Lernen und Hirnentwicklung*. http://www.clubofrome.de/schulen/schulen/downloads/altenmueller_musikalisches_lernen_hirnentwicklung.pdf
- Anderson, S., Skoe, E., Chandrasekaran, B., & Kraus, N. (2010). Neural timing is linked to speech perception in noise. *Journal of Neuroscience*, 30, 4922–4926. <https://doi.org/10.1523/JNEUROSCI.0107-10.2010>
- Anshel, A., & Kipper, D. A. (1988). The influence of group singing on trust and cooperation. *Journal of Music Therapy*, 25, 145–155.
- Aucouturier, J.-J., & Canonne, C. (2017). Musical friends and foes: The social cognition of affiliation and control in improvised interactions. *Cognition*, 161, 94–108. <https://doi.org/10.1016/j.cognition.2017.01.019>
- Bácskai, E., Manchin, R., Sági, M., & Vitányi, I. (1972). *Énekzenei iskolába jártak*. [They went to singing music school]. Zeneműkiadó.
- Bagdy, E. (1986). *Családi szocializáció és személyiségzavarok*. [Family socialization and personality disorders]. Tankönyvkiadó.
- Barkóczi, I., & Pléh, C. S. (1977). *Kodály zenei nevelési módszerének pszichológiai hatásvizsgálata*. [Psychological impact assessment of Kodály's method of music education]. Bács megyei Lapkiadó Vállalat.
- Blacking, J. (1967). *Venda children's songs: A study in ethnomusicological analysis*. Witwatersrand University Press.
- Broh, B. A. (2002). Linking extracurricular programming to academic achievement: Who benefits and why? *Sociology of Education*, 75, 69–95.
- Buda, B. (1978). *Empátia - A beleélés lélektana* [Empathy - The psychology of empathy]. L'Harmattan Kiadó.

- Campayo-Muñoz, E., & Cabedo-Mas, A. (2017). The role of emotional skills in music education. *British Journal of Music Education*, 34(3), 243–258. <https://doi.org/10.1017/S0265051717000067>
- Cartwright, D., & Zander, A. (1968). *Group dynamics* (3rd ed.). Harper + Row.
- Cirelli, L. K., Einarson, K. M., & Trainor, L. J. (2014). Interpersonal synchrony increases prosocial behavior in infants. *Developmental Science*, 17(6), 1003–1011. <https://doi.org/10.1111/desc.12193>
- Cirelli, L. K., Wan, S. J., & Trainor, L. J. (2014). Fourteen-month-old infants use interpersonal synchrony as a cue to direct helpfulness. *Philosophical Transactions of the Royal Society A*, 369, 20130400. <https://doi.org/10.1098/rstb.2013.0400>
- Clift, S. (2012). Creative arts as a public health resource: Moving from practice-based research to evidence-based practice. *Perspectives in Public Health*, 132(3), 120–127. <https://doi.org/10.1177/1757913912442269>
- Collaborative for Academic, Social, and Emotional Learning. (2006a). *What is SEL?* <http://casel.org/why-it-matters/what-is-sel/>
- Collaborative for Academic, Social, and Emotional Learning. (2006b). *What is the CASEL framework?* <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/>
- Costa-Giomi, E. (1999). The effects of three years of piano instruction on children's cognitive development. *Journal of Research in Music Education*, 47(3), 198–212. <https://doi.org/10.2307/3345779>
- Cross, I. (2007). Music and cognitive evolution. In R. Dunbar & L. Barrett (Eds.), *Handbook of evolutionary psychology* (pp. 649–667). Oxford University Press.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.
- Davidson, J. W., & Good, J. M. M. (2002). Social and musical coordination between members of a string quartet: An exploratory study. *Psychology of Music*, 30(2), 186–201. <https://doi.org/10.1177/0305735602302005>
- Edgar, S. N. (2013). Introducing social emotional learning to music education professional development. *Update Applications of Research in Music Education*, 31(2), 28–36. <https://doi.org/10.1177/8755123313480508>
- Eerola, T., Vuoskoski, J., Peltola, H., Putkinen, V., & Schäfer, K. (2018). An integrative review of the enjoyment of sadness associated with music. *Physics of Life Reviews*, 25, 100–121. <https://doi.org/10.1016/j.plrev.2017.11.016>
- Egermann, H., & McAdams, S. (2013). Empathy and emotional contagion as a link between recognized and felt emotions in music listening. *Music Perception*, 31(2), 139–156. <https://doi.org/10.1525/mp.2013.31.2.139>
- Ekman, P. (1992). An argument for basic emotions. *Cognition & Emotion*, 6(3–4), 169–200. <https://doi.org/10.1080/02699939208411068>
- Fitch, W. T. (2006). The biology and evolution of music: A comparative perspective. *Cognition*, 100, 173–215. <https://doi.org/10.1016/j.cognition.2005.11.009>
- Fodor, S. Z., & Korényi, R. (2019). Jóllét és teljesítmény az iskolában - A kibékíthető ellentét [Well-being and school performance – a manageable conflict]. In T. Polonyi, K. Abari, & F. Szabó (Eds.), *Innováció az oktatásban. [Innovation in education]* (pp. 83–103). Oriold és Társai Kiadó.
- Foster, E. M., & Marcus Jenkins, J. V. (2017). Does participation in music and performing arts influence child development? *American Educational Research Journal*, 54(3), 399–443. <https://doi.org/10.3102/0002831217701830>
- François, C., Chobert, J., Besson, M., & Schön, D. (2013). Music training for the development of speech segmentation. *Cerebral Cortex*, 23, 2038–2043. <https://doi.org/10.1093/cercor/bhs180>
- Freeman, G. D., Sullivan, K., & Fulton, C. R. (2003). Effects of creative drama on self-concept, social skills, and problem behavior. *Educational Research eJournal*, 96(3), 131–138. <https://doi.org/10.1080/00220670309598801>
- Friedlaender, D., Burns, D., Lewis-Charp, H., Cook-Harvey, C. M., Zheng, X., & Darling-Hammond, L. (2014). *Student-centered schools: Closing the opportunity gap*. Stanford Center for Opportunity Policy in Education. <https://edpolicy.stanford.edu/sites/default/files/scope-pub-student-centered-cross-case.pdf>
- Gabrielsson, A. (1995). The study of music experience in music psychology. In M. Manturzewska, K. Miklaszewski, A. Białkowski, & R. Burke (Eds.), *Psychology of music today* (pp. 85–90). Fryderyk Chopin Academy of Music.
- Geoghegan, L. (2006). *Why musicianship training according to the principles of Zoltán Kodály*. <https://kodaly.org.uk/wp-content/uploads/2015/09/Why-Kodaly-LG-2006.pdf>
- Gerry, D., Unrau, A., & Trainor, L. J. (2012). Active music classes in infancy enhance musical, communicative and social development. *Developmental Science*, 15(3), 398–407. <https://doi.org/10.1111/j.1467-7687.2012.01142.x>
- Gold, C., Saarikallio, S., Crooke, A. H. D., & McFerran, K. S. (2017). Group music therapy as a preventive intervention for young people at risk: Cluster-randomized trial. *Journal of Music Therapy*, 54, 133–160.
- Greb, F., Schlotz, W., & Steffens, J. (2018). Personal and situational influences on the functions of music listening. *Psychology of Music*, 46, 763–794. <https://doi.org/10.1177/0305735617724883>
- Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, 58(6–7), 466–474. <https://doi.org/10.1037/0003-066x.58.6-7.466>
- Groarke, J. M., & Hogan, M. J. (2020). The eudaimonic functions of music listening scale: An instrument to measure transcendence, flow and peak experience in music. *Frontiers in Psychology*, 11, 566296. <https://doi.org/10.3389/fpsyg.2020.566296>
- Hallam, S. (2010). The power of music: Its impact on the intellectual, social and personal development of children and young people. *International Journal of Music Education*, 28(3), 269–289. <https://doi.org/10.1177/0255761410370658>
- Harland, J., Kinder, K., Lord, P., Stott, A., Schagen, I., & Haynes, J. (2000). *Arts education in secondary schools: Effects and effectiveness*. NFER/The Arts Council of England, RSA.
- Hove, M. J., & Risen, J. L. (2009). It's all in the timing: Interpersonal synchrony increases affiliation. *Social Cognition*, 27, 949–960. <https://doi.org/10.1521/soco.2009.27.6.949>
- Humphrey, N. (2013). *Social and emotional learning: A critical appraisal*. SAGE.

- Huron, D. (2001). Is music an evolutionary adaptation? *Annals of the New York Academy of Sciences*, 930, 43–61. <https://doi.org/10.1111/j.1749-6632.2001.tb05724.x>
- Ilari, B., Chen-Hafteck, L., & Crawford, L. (2013). Singing and cultural understanding: A music education perspective. *International Journal of Music Education*, 31(2), 202–216. <https://doi.org/10.1177/0255761413487281>
- Inglehart, R., Foa, R., Peterson, C., & Welzel, C. (2008). Development, freedom, and rising happiness: A global perspective (1981–2007). *Perspectives on Psychological Science*, 3(4), 264–285. <https://doi.org/10.1111/j.1745-6924.2008.00078.x>
- Jones, S. M., & Bouffard, S. M. (2012). Social and emotional learning in schools: From programs to strategies and commentaries. *Social Policy Report/Society for Research in Child Development*, 26(4), 1–33. <https://doi.org/10.1002/j.2379-3988.2012.tb00073.x>
- Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological Bulletin*, 129, 770–814. <https://doi.org/10.1037/0033-2909.129.5.770>
- Juslin, P. N., Liljeström, S., Laukka, P., Västfjäll, D., & Lundqvist, L. O. (2011). Emotional reactions to music in a nationally representative sample of Swedish adults: Prevalence and causal influences. *Musicae Scientiae*, 15(2), 174–207. <https://doi.org/10.1177/102986491101500204>
- Juslin, P. N., & Västfjäll, D. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and Brain Sciences*, 31(5), 559–575. <https://doi.org/10.1017/S0140525X08005293>
- Kalmár, M. & Benis, M. (1979). Zenei fejlesztés hatása minőség fogalomkörök alakulására óvodáskorban. [The effect of musical development on the development of quality concepts in preschool]. *Magyar Pszichológiai Szemle*, 35(1), 25–37.
- Kirschner, S., & Tomasello, M. (2009). Joint drumming: Social context facilitates synchronization in preschool children. *Journal of Experimental Child Psychology*, 102(3), 299–314. <https://doi.org/10.1016/j.jecp.2008.07.005>
- Kirschner, S., & Tomasello, M. (2010). Joint music making promotes prosocial behavior in 4-year-old children. *Evolution and Human Behavior*, 31(5), 354–364. <https://doi.org/10.1016/j.evolhumbehav.2010.04.004>
- Kiss, V. (2017). A művészet, mint nevelés, a nevelés mint művészet [Art as education, education as art]. *Parlando*, 3. https://www.parlando.hu/2017/2017-3/Tanitas-Kiss_Virag.pdf
- Klorman, E. (2016). Contents. In *Mozart's music of friends: Social interplay in the chamber works* (p. Vii). Cambridge University Press.
- Koelsch, S. (2014). Brain correlates of music-evoked emotions. *Nature Reviews Neuroscience*, 15, 170–180. <https://doi.org/10.1038/nrn3666>
- Kokas, K. (1972). *Képességfejlesztés zenei neveléssel [Skill development through music education]*. Zeneműkiadó Vállalat.
- Kraus, N., Slater, J., Thompson, E. C., Hornickel, J., Strait, D. L., Nicol, T., & White-Schwoch, T. (2014). Music enrichment programs improve the neural encoding of speech in at-risk children. *Journal of Neuroscience*, 34, 11913–11918.
- Kreutz, G. (2014). Does singing facilitate social bonding? *Music and Medicine*, 6(2), 51–60. <https://doi.org/10.47513/mmd.v6i2.180>
- Laiho, S. (2004). The psychological functions of music in adolescence. *Nordic Journal of Music Therapy*, 13, 47–63. <https://doi.org/10.1080/08098130409478097>
- Linnemann, A., Strahler, J., & Nater, U. M. (2016). The stress-reducing effect of music listening varies depending on the social context. *Psychoneuroendocrinology*, 72, 97–105. <https://doi.org/10.1016/j.psyneuen.2016.06.003>
- MacDonald, R. A., Kreutz, G., & Mitchell, L. (2012). What is music, health and wellbeing and why is it important? In R. A. MacDonald, G. Kreutz, & L. Mitchell (Eds.), *Music, health and wellbeing* (pp. 3–12). Oxford University Press.
- MacLean, P. D. (1993). Cerebral evolution of emotion. In M. Lewis & J. M. Haviland (Eds.), *Handbook of Emotion* (pp. 67–83). Guilford Press.
- Mahoney, J. L., Weissberg, R. P., Greenberg, M. T., Dusenbury, L., Jagers, R. J., Niemi, K., Schlenger, M., Schlund, J., Shriver, T. P., VanAusdal, K., & Yoder, N. (2020). Systemic social and emotional learning: Promoting educational success for all preschool to high school students. *American Psychologist*. Advance online publication. <https://doi.org/10.1037/amp0000701>
- Marik, M., & Stegemann, T. (2016). Introducing a new model of emotion dysregulation with implications for everyday use of music and music therapy. *Musicae Scientiae*, 20(1), 53–67. <https://doi.org/10.1177/1029864915622055>
- Mark, M. L. (1999). A historical interpretation of aesthetic education. *Journal of Aesthetic Education*, 33, 7–15.
- Mas-Herrero, E., Marco-Pallares, J., Lorenzo-Seva, U., Zatorre, R. J., & Rodriguez-Fornells, A. (2013). Individual differences in music reward experiences. *Music Perception*, 31(2), 118–138. <https://doi.org/10.1525/mp.2013.31.2.118>
- McFerran, K. S., & Saarikallio, S. (2014). Depending on music to feel better: Being conscious of responsibility when appropriating the power of music. *The Arts in Psychotherapy*, 41(1), 89–97. <https://doi.org/10.1016/j.aip.2013.11.007>
- McNeill, W. (1995). *Keeping together in time: Dance and drill in human history*. Harvard University Press.
- Mészáros, I., Németh, A. & Pukánszky, B. (2003). Neveléstörténet. [History of Education]. Osiris, pp. 197–202.
- Moreno, S., Bialystok, E., Barac, R., Schellenberg, E. G., Cepeda, N. J., & Chau, T. (2011). Short-term music training enhances verbal intelligence and executive function. *Psychological Science*, 22, 1425–1433. <https://doi.org/10.1177/0956797611416999>
- Nádassy-Karres, M. (1981). Az intenzív zenei nevelés hatása a gyermek személyiségének fejlődésére [The effect of intensive music education on the development of a child's personality] [PhD dissertation]. Szeged. <http://doktori.bibl.u-szeged.hu/id/eprint/3642>
- Németh, A. (1997). *Nevelés, gyermek, iskola. [Education, children, school]*. Budapest, Eötvös József Könyvkiadó.
- Oláh, A. (2004). Mi a pozitívuma a pozitív pszichológiának? [What is the positive of positive psychology]. *Iskolakultúra*, 11, 39–47.
- Petrides, K. V., Niven, L., & Mouskounti, T. (2006). The trait emotional intelligence of ballet dancers and musicians. *Psicothema*, 18(Suppl), 101–107.
- Pianta, R. C., & La Paro, K. (2003). Improving early school success. *Educational Leadership: Journal of the Department of Supervision and Curriculum Development, N.E.A.*, 60(7), 24–29. <http://www.ascd.org/publications/educational-leadership/apr03/vol60/num07/Improving-Early-School-Success.aspx>

- Pitts, S. E. (2007). Anything goes: A case study of extra-curricular musical participation in an English secondary school. *Music Education Research*, 9(1), 145–165. <https://doi.org/10.1080/14613800601127627>
- Pukánszky, B., & Németh, A. (1996). *Neveléstörténet [History of education]*. Tankönyvkiadó.
- Rabinowitch, T.-C., Cross, I., & Burnard, P. (2013). Long-term musical group interaction has a positive influence on empathy in children. *Psychology of Music*, 41(4), 484–498. <https://doi.org/10.1177/0305735612440609>
- Raver, C. C. (2002). Emotions matter: Making the case for the role of young Children's emotional development for early school readiness. *Social Policy Report/Society for Research in Child Development*, 16(3), 1–20. <https://doi.org/10.1002/j.2379-3988.2002.tb00041.x>
- Richert, R. A., Robb, M. B., Fender, J. G., & Wartella, E. (2010). Word learning from baby videos. *Archives of Pediatrics & Adolescent Medicine*, 164(5), 432–437. <https://doi.org/10.1001/archpediatrics.2010.24>
- Roederer, J. G. (1984). The search for a survival value of music. *Music Perception*, 1, 350–356. <https://doi.org/10.2307/40285265>
- Rowell, C. (2003). The Kodály experience. *Libretto, Journal of the Associated Board of the Royal Schools of Music*, <https://kodaly.org.uk/blog/the-kodaly-experience-by-cyrilla-rowell/>
- Saarikallio, S. (2011). Music as emotional self-regulation throughout adulthood. *Psychology of Music*, 39, 307–327. <https://doi.org/10.1177/0305735610374894>
- Sakka, L. S., & Juslin, P. N. (2018). Emotion regulation with music in depressed and non-depressed individuals: Goals, strategies, and mechanisms. *Music & Science*, 1, 1–12. <https://doi.org/10.1177/2059204318755023>
- Sampson, E. E. (1977). Psychology and the American ideal. *Journal of Personality and Social Psychology*, 35(11), 767–782. <https://doi.org/10.1037/0022-3514.35.11.767>
- Schäfer, T., Sedlmeier, P., Städtler, C., & Huron, D. (2013). The psychological functions of music listening. *Frontiers in Psychology*, 4, 511. <https://doi.org/10.3389/fpsyg.2013.00511>
- Schellenberg, E. G., & Mankariou, M. (2012). Music training and emotion comprehension in childhood. *Emotion*, 12(5), 887–891. <https://doi.org/10.1037/a0027971>
- Seligman, M. E. P. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Free Press.
- Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education*, 35(3), 293–311. <https://doi.org/10.1080/03054980902934563>
- Sloboda, J. A., & Juslin, P. N. (2001). Psychological perspectives on music and emotion. In P. N. Juslin & J. A. Sloboda (Eds.), *Series in affective science. Music and emotion: Theory and research* (pp. 71–104). Oxford University Press.
- Suda, M., Morimoto, K., Obata, A., Koizumi, H., & Maki, A. (2008). Emotional responses to music: Towards scientific perspectives on music therapy. *Neuroreport*, 19(1), 75–78. <https://doi.org/10.1097/WNR.0b013e3282f3476f>
- Theorell, T., Madison, G., & Ullén, F. (2019). Associations between musical aptitude, alexithymia, and working in a creative occupation. *Psychology of Aesthetics Creativity and the Arts*, 13(1), 49–57. <https://doi.org/10.1037/aca0000158>
- Thompson, W. F., Schellenberg, E. G., & Husain, G. (2001). Arousal, mood, and the Mozart effect. *Psychological Science*, 12(3), 248–251. <https://doi.org/10.1111/1467-9280.00345>
- Thompson, W. F., Schellenberg, E. G., & Husain, G. (2004). Decoding speech prosody: Do music lessons help? *Emotion*, 4(1), 46–64. <https://doi.org/10.1037/1528-3542.4.1.46>
- Thomson, R. A., & Virmani, E. A. (2012). Socioemotional development. In V. S. Ramachandran (Ed.), *Encyclopedia of Human Behavior* (pp. 514–511). Academic Press.
- van Baaren, R. B., Holland, R. W., Kawakami, K., & van Knippenberg, A. (2004). Mimicry and prosocial behavior. *Psychological Science*, 15(1), 71–74. <https://doi.org/10.1111/j.0963-7214.2004.01501012.x>
- Várad, J. (2010). *Hogyan neveljünk értő közönséget a komolyzenének [How to educate an audience to acquire a taste for classical music]*. Jyväskylä. <https://jyx.jyu.fi/bitstream/handle/123456789/24968/9789513938987.pdf?sequence=1>
- Várad, J. (2019). Az élménypedagógia szerepe a művészeti nevelésben [The role of experiential pedagogy in art education]. *Magyar Művészet*, 7(3), 59–66.
- Västfjäll, D., Juslin, P. N., & Hartig, T. (2012). Music, subjective well-being, and health: The role of everyday emotions. In R. MacDonald, G. Kreutz, & L. Mitchell (Eds.), *Music, health, and wellbeing* (pp. 405–423). Oxford University Press.
- Wilhelm, K., Gillis, I., Schubert, E., & Whittle, E. L. (2013). On a blue note: Depressed peoples' reasons for listening to music. *Music and Medicine*, 5(2), 76–83. <https://doi.org/10.1177/1943862113482143>
- Williams, K. E., Barrett, M. S., Welch, G. F., Abad, V., & Broughton, M. (2015). Associations between early shared music activities in the home and later child outcomes: Findings from the longitudinal study of Australian children. *Early Childhood Research Quarterly*, 31, 113–124. <https://doi.org/10.1016/j.ecresq.2015.01.004>
- Wiltermuth, S. S., & Heath, C. (2009). Synchrony and cooperation. *Psychological Science*, 20(1), 1–5. <https://doi.org/10.1111/j.1467-9280.2008.02253.x>
- Winsler, A., Ducenne, L., & Koury, A. (2011). Singing one's way to self-regulation: The role of early music and movement curricula and private speech. *Early Education and Development*, 22(2), 274–304. <https://doi.org/10.1080/10409280903585739>
- Zsolnai, A. (1998). A szociális kompetencia kapcsolata az iskolai teljesítménnyel [The relationship between social competence and school performance]. *Magyar Pedagógia*, 98(4), 339–362.