

Emotional self-regulation through music in 3-8-year-old children

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ABSTRACT

The current study explored the role of music in children's emotional self-regulation. Music is shown to be a common and effective way of self-regulating emotions in adolescence and adulthood. It is also widely known that parents use music to regulate the emotions of their babies, for instance in calming them down by lullabies. However, very little is known about how children themselves use music for emotional needs, and how the self-regulatory emotional engagement develops. A survey study was conducted with parents of 63 children including 37 boys and 26 girls, aged between 2.9 to 8.1 years. The parents answered questions about their child's musical activities, preferences, and emotion-regulatory uses of music. Open-ended questions had a significant role due to the exploratory nature of the study, and the answers were analyzed through qualitative content analysis. Four emotion-regulatory uses of music were identified: music helped the children to calm down, to keep concentrated and interested, to express and enhance happiness and energy level, and to fantasize through mental imagery. The emotional use of music developed from parent-directed regulation to the child's self-directed regulation through family examples, learning, and self-development. The study provided preliminary information about the main functions and characteristics of emotional self-regulation through music in childhood, strengthening our understanding of how the foundations for the music-related emotional self-regulation are built.

I. BACKGROUND AND AIM

The human ability to perceive emotion in music develops at a very early age. Already infants are able to interpret the emotional content of their caregivers' auditory expression (Schubert & McPherson, 2006). They prefer emotional "motherese" over normal non-emotional adult speech (Trehub & Nakata, 2001), consonant musical intervals over dissonant intervals (at 2 months of age) (Trainor et al., 2002), and happy expression over sad expression (at 5-7 months of age) (Nawrot, 2003). The abilities to recognize emotion in music and express emotion through music develop across childhood years. Already three-year-olds are able to distinguish happy and sad music (Kastner & Crowder, 1990), and 4-6-year olds are able to correctly identify happiness, sadness, anger and fear in music (Dolgin & Adelson, 1990; Cunningham & Sterling, 1988). However, children often confuse anger and fear in music (Robazza et al., 1994; Terwogt & Van Grinsven, 1991; Boone & Cunningham, 2001). Four-year-olds are able to express sadness and happiness by manipulating tempo, dynamics, and pitch (Adachi & Trehub, 1998), but the connotation between major mode - happiness and minor mode - sadness only becomes gradually learned by the age of 6-9 years (Dalla Bella et al., 2001; Gregory et al. 1996; Nieminen, 2007). The increasing complexity of emotional understanding is also reflected in the way children describe music. From age 3 to 8 children's descriptions develop from simple (e.g. loud,

fast), to more complex, including adjectives, metaphor, and character (e. g. liquid, funny, romantic) (Gardner, 1973; Sloboda, 1992).

The ability to recognize emotion is essential also for the ability to regulate emotions. Emotional self-regulation can be defined as processes directed towards modification of the occurrence, duration and intensity of various emotions, and it may be targeted to the subjective experience, physiological responses, or behavioral expression of the emotion (e.g. Gross, 1998). As regards to music, parents' use of music to regulate their child's emotions is widely noted in the early childhood literature (Dissanayake, 1988; Trehub & Trainor, 1998). Mothers' singing, for instance, is shown to be effective in helping a baby to stop crying, calm down, and focus attention (Tafari, & Villa, 2002). Music helps to strengthen the emotional connection between the parent and the child, as it serves as a safe and joyful means for non-verbal emotional communication between them (e.g. Oldfield, 1993). Parents' sensitive and consistent emotional responding and communication is essential for the development of the child's own abilities for emotion recognition, emotion expression, and emotional self-regulation. For instance, maternal positive guidance, responsiveness, and sensitivity in the emotional communication are shown to predict children's positive emotion regulation abilities (Conway & McDonough, 2006; Hahn et al., 2006).

The use of music for emotional self-regulation is widely studied in adolescents (Behne, 1997; North et al., 2000; Roe, 1985; Saarikallio & Erkkilä, 2007; Wells & Hakanen, 1991), and music is also used for emotional self-regulation in adulthood and old age (DeNora, 1999; Hays & Minichiello, 2005; Laukka, 2006). Emotional self-regulation through music includes maintenance and enhancement of positive emotional states, as well as discharging, diverting away from, and contemplating over negative emotional states. Emotional self-regulation also often includes elements of biographical work and regulation of energy levels (e.g. DeNora, 1999; Saarikallio & Erkkilä, 2007).

Children as young as 11, have been shown to be relatively skillful at regulating their emotions through music (Ashley & Durbin, 2006; Saarikallio, 2008). Yet, there has been no systematic exploration of how the self-regulatory use of music develops during childhood years. Little is known about how children themselves use music for emotional needs. There is a gap in understanding how parents' use of music for regulating their children's emotions, develops into the child's self-directed regulation of emotions through music. Therefore, the current study aimed to explore the nature of music-related emotional self-regulation during early childhood. The purpose was to shed light on questions such as through what music, in what kind of situations, in relation to which emotions, for what kind of regulatory purposes, and with what kind of level of

self-directedness does the emotional regulation through music occur in children.

II. METHOD

Data collection was conducted with a questionnaire. Participants were parents of 63 children. In 54 cases the respondent was the mother, in 7 cases the father, and in 2 cases mother and father had responded together. As regards to the children, there were 37 boys and 26 girls. The age range of the children was between 2.9 to 8.1 years, with a mean age of 5.7 years. The children did not have any serious long-term illnesses, despite 6 children having asthma or allergies. Approximately half of the children (n=28) did not have music as any kind of hobby, and half (n=35) had been involved with some kind of extra musical activities (had been in music kindergarten, taken music lessons, or just playing at home).

The questionnaire included questions about the child's musical activities, emotional experiences, and use of music for emotional self-regulation. Open-ended questions about emotion regulation had a significant role due to the exploratory nature of the study, and the answers were analyzed through qualitative content analysis. In the analysis, 60 codes related to emotion regulation were identified. The codes were then grouped under broader thematic categories, expressing different types of regulatory functions and other characteristics of children's emotion regulation through music.

III. RESULTS

A. Regulatory functions

Music appeared to serve four main regulatory functions in the children's lives. These functions were labeled as 1. *Calming down*, 2. *Concentrated interest*, 3. *Happy energy*, and 4. *Fantasy imagery*. Below, each function is described in more detail and some examples of the parents' descriptions are provided.

1) *Calming down*

Using music to calm down was a very typical function, especially in relation to going to sleep. Music helped the child to calm down, relax, and feel soothed. The music to be used in this purpose was described by the parents to be calm and relaxing. Some parents mentioned styles such as classical or spiritual, and some talked about "bedtime music" or "baby music". Often the same familiar music was repeatedly used for this purpose.

"In the evenings peaceful music helps the child to fall a sleep more easily."

"When the children were smaller we played them classical music when they were going to sleep. The peaceful music calmed the children down and it was easier to fall a sleep."

"When going to sleep the children ask us to play a tranquil baby music CD. That makes them calm down."

2) *Concentrated interest*

Concentrated interest reflected a regulatory function of getting away from restlessness and boredom towards increased

concentration and interest on some activity. A typical situation was using music to fight boredom and restlessness in a car. The parents also mentioned that music helped the child to concentrate on some activities at home, and that the child could spend relatively long periods of time concentrated and being interested in the music, without getting restless. In terms of regulating energy levels, this function was very close to the function of calming down, as the result was often the reduction of restlessness.

"Music has a great importance especially in a car in order to be able to travel. If the child starts to get impatient or cry, music helps."

"During long car rides the child is able to listen to music peacefully for long periods of time, sometimes singing along."

If there are no friends around, or other things to do, the child likes to just listen to music, and stays entertained by the music for long periods of time."

3) *Happy energy*

Music was also very typically used for expressing and enhancing happiness and positive energy. The parents described, that happy music makes the child happy, energetic, and puts him/her to sing, move, dance, and play along with the music. Children could make "own instruments" of some household objects, to play with the music. The music used in this purpose was typically described as happy, energetic, rhythmic, and familiar. This type of music use served the purpose of having fun, expressing joy, and sharing happiness with other family members.

"Sometimes rhythmic music makes him to play his own instruments (guitar, maracas, drums made of kitchen pans). Sometimes he happily sings along (especially pirate songs)."

"The child gets happy and exited especially about familiar songs – he sings along, drums, and "plays" various instruments."

"Rhythmic music makes her move, dance, and sing, happy music makes happy."

"Good music makes him dance."

4) *Fantasy imagery*

The children also sometimes really put their soul fully into the music, and lived through the emotions and stories expressed by the music. This function was often described by the parents with a Finnish verb "eläytyä", which could be translated as experiencing strong immersion, emotional contagion and mental imagery in relation to something: to "live" it. In essence, the children experienced music strongly at the level of fantasy, imagery, and emotion. One typical example was that after listening to some children's music the child started to play the roles of the fairytale characters in the song. Also, the parents mentioned, that the child could get really touched by a song or lyrics, music could provide strong memories, or the child would act roles while listening to music. As a regulatory function, this type of music use served the purpose of strongly experiencing and living through various

emotional experiences and episodes within musical framework.

“The child really puts her soul to the music by dancing for instance with the “Ti-Ti Bear” music, and also otherwise plays what the bears do.”

“The child strongly lives through almost all music he sings, for instance “butch gestures” appear when there is proper rock on the radio.”

““Los Piratos”, “Fröbelin palikat” and “Rufus and the magic instruments”: The child often plays fantasy play while listening to these, or immediately after listening.”

“Music makes her dance and play roles (princesses, fairies, birds...).”

B. Characteristics of regulation

Two additional noteworthy features of children's emotion regulation through music were identified. Firstly, the children showed a clear preference for happy and positive music over sad music. The parents commented that their children did not want to listen to music that made them sad. They also said that rock music, for instance, made the children feel bad or the child experienced it to be scary. Instead, the parents told that their children liked happy, fast and rhythmic music.

“Melancholic music (melody and/or lyrics) makes her sad, and she does not want those songs to be listened to and/or sung.”

“There was the new Nightwish playing on the radio, and the child said that it was scary, and wanted it to be stopped.”

“For instance, at church, the hymns make him sad, and he wonders why in the world do we need to have so sad songs.”

Another salient feature was the child's emerging transformation from being regulated towards taking agency in regulation. Many comments (especially about early childhood) included descriptions of how the *parent* would use music to regulate the child's emotions, such as calming the child down, or helping the child to concentrate by using music.

“When he was baby I calmed him down by singing to him while I was putting clothes on him, changing his diapers or putting him to sleep.”

“During (long) car rides we get children to stay entertained by singing familiar songs together.”

However, there were also several descriptions about more child-directed behaviors, for instance, in relation to what kind of music the child wanted to listen to. Several parents mentioned that the child himself/herself wanted to select the music for listening. The child could have also decided that he/she no longer likes to listen to “small children's music”. However, the child's own musical preferences, the personal engagement in various musical activities, and the ways of using music were still often strongly influenced by the example of the siblings and parents. For instance, one mother said that the

child often becomes inspired about dancing when she herself first shows example of dancing. The importance of family engagement was also reflected in the parents' descriptions about music being a shared activity, something that was fun especially because it was done together. Indeed, most situations included guidance and example by the parents (or older siblings) at first. However, the control seemed to gradually shift towards self-directedness through imitating parents and siblings and learning from their example. For instance, the child could have learned to ask for certain music in certain situations, such as for certain bedtime music when going to sleep, if that had been a habit in the family. One example of an activity which encouraged more independent musical engagement were also the children's own musical hobbies, within which the children begun to have more say in their own musical behavior.

“Often he puts a CD on, and goes on the sofa just to listen to the music, sitting peacefully.”

““Sleepmusic” is important to her. She has her own routine. Every night she puts some record to play when she is going to sleep and falls asleep while listening. The music may be rock or classical, no difference.”

“Her big brother listens to classical music while doing homework. The little sister has now also adopted this habit. The effect is relaxing.”

IV. CONCLUSIONS

The current study explored the role of music in emotional self-regulation in childhood. Four different regulatory functions were identified: music helped the children to calm down, to keep concentrated and interested, to express and enhance happiness and energy level, and to fantasize through mental imagery. All of these functions could be initiated by the parents or by the children themselves. That is, the parents often used music to calm the child down, to make the child happy, or to keep the child concentrated especially when the child was very young. However, as the child grew older, the personal use of music, personal preferences, and self-initiated requests for certain music at certain times begun to emerge. The results thus suggest that the emotional use of music develops from parental regulation to self-directed regulation through family examples, learning, and self-development. An important notion to be made here, however, is that the current data was collected solely from the parents, thus representing only their views of the regulatory activity. It would also be important in further studies to explore the same issues from the viewpoint of the children. Interviewing or observing directly the children would provide more detailed insight of how the children themselves experience the role of music and their own agency in relation to emotion regulation.

The emotion regulatory functions of music found in the current study strongly resemble the functions that music also serves in the lives of adolescents and adults, who also use music for energizing, calming down and relaxing, concentrating, and promoting mental imagery (e.g. DeNora, 1999; Saarikallio & Erkkilä, 2007). One interesting difference was that the children did not seem to want to listen to sad music.

However, if we look at what we know about adolescents and adults, the melancholic music actually is relatively important in providing comfort, solace, and means for working through sorrows in life. Thus, a question arises, at what age and why, do we learn to enjoy sadness in music? Does that perhaps require further development of abstract and symbolic thinking, or better self-regulatory skills for dealing with sadness?

The current study provides preliminary information about the role of music as a means for emotion regulation in the lives of children. Understanding the processes of this childhood development is of great importance, since the childhood years lay foundations for the later development of emotional self-regulation in adolescence and adulthood.

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