



THE EFFECT OF MUSIC THERAPY IN CHILDREN'S HEALTH

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Abstract

Music therapy is a therapeutic intervention that can be used for patients of all age groups, such as infants, children, adults and the elderly. Music therapy is a method that improves hearing, positively affects children's nervous and endocrine systems, and helps the child to be treated. Music therapy is used therapeutically in palliative care, in painful situations where medical procedures are performed, and in improving quality of life. It is stated in the literature that music therapy is an effective method to increase anxiety and pain in children, to increase cognitive and behavioral functions, to improve feelings of wellbeing and morale. It is also stated that music therapy is an effective treatment modality in reducing the aggressive attitudes and stress levels of adolescents in improving children's learning and achievement levels. Therefore, music therapy positively affects children's physiological/psychological/emotional well-being and increases their health.

Keywords: Child, music, health.

INTRODUCTION

Music therapy is a therapeutic method that improves hearing and helps to treat. In the West, this treatment is called "music therapy" or "music therapy" (Çoban, 2005; Birkan, 2014). Music therapy creates positive effects on the nervous and endocrine system of the human, thus providing meaningful reactions to feelings and thoughts (Karamızrak, 2014). Although music therapy has existed in different forms in many cultures for centuries, music therapy developed in the mid 20th century. In recent years, the use of music as a treatment method has increased.

Music therapy is a method that can be used for all age groups, such as infants, children, adults and the elderly. Music can be used therapeutically in palliative care, in intensive care, surgical operations, psychiatry, oncology, gynecology, pediatrics, coronary care, radiation, chemotherapy treatment, mechanical ventilator treatment, symptom treatment such as pain and anxiety. Music therapy improves quality of life and spiritual healing (Gençel, 2006; Hartling et al., 2009; Dehaene-Lambertz et al., 2009; Gilad & Arnon 2010). Randomized trials have suggested positive effects of music therapy on social interaction, joint attention, and parent-child relationships (Geretsegger et al., 2014). In the study of using music, it was found that music therapy has helped to minimize distress experienced by pediatric patients during the intervention. These results underscore the importance music therapy interventions in reducing distress in pediatric patients during common medical procedures (Ortiz et al., 2017). Music has been used not only in hospitals, but also in the community and in major health care areas to achieve success in many outcomes.

Music therapy has been shown to be effective in decreasing the stress of newborns / children, decreasing stress, increasing daily weight gain, positive effects on growth, reducing energy expenditures, facilitating sleep transition, positive change in vital values, positively affecting hospital stay and preterms stimulating effect (Kemper, 2005; Gooding, 2010; Gilad & Arnon, 2010; Hodges & Wilson, 2010; Lubetzky et al., 2010; Mazer, 2010; Thiel et al., 2011; Standley et al., 2011; Standley et al., 2012; Tosun ve ark., 2014). Additionally, it was determined that music therapy positively affected the behaviors of pediatric patients and provided pharmacological sedation (Loewy et al., 2013).

Music has been used in children's health for a variety of reasons, from past to present. Research has shown that music therapy is a safe treatment and effective therapeutic method that can be used in children's health. In one study, it was determined that nurses recommended music therapy to their patients (Cirk et al., 2017). Music therapy is under the responsibility of pediatric nurses in hospitals. Music therapy can be used as an independent nursing intervention to improve children/infants health. In this article, the effect of music therapy on child health was emphasized. It is also stated that music therapy is an important application in pediatric nursing.

Music Treatment

Music therapy has been used since the early days of history. The music stimulates emotions that characterize with many autonomous changes. Kohlea converts acoustic knowledge into neural activity that reaches the auditory brain area. All these processes, body reactions and immune system responses are governed by the autonomic nervous system. Studies have shown that music therapy is effective on heart rate, breathing depth, blood pressure and EEG. Music decreases ACTH / cortisol / prolactin and increases dopamine / noradrenaline / endorphin / enkephalin / phenylethylamine (Birkan, 2014). Music can change the motivation and behavior of the individual. Standley has discussed the importance of using music in calming and stimulating preterm babies. Standley suggests that music masks disgusting voices and facilitates the homeostasis that enhances the neurological development of the baby (Standley, 2001; Standley, 2002; Standley, 2003).

As in Figure 1, music therapy affects the neuroendocrine system and the autonomic nervous system. Listening to music at low volume and low temp, it affects the brain's limbic system, a center of emotion, by reducing its neural transition ability to regulate disturbing emotions. Music affects the neuroendocrine system and the autonomic nervous system. As a result, physiological and psychological changes occur in the body. Music activates the parasympathetic nervous system and causes a decrease in physiological findings such as blood pressure, pulse, respiration (Updike, 1990; McCaffrey & Locsin, 2002; Kemper & Danhauer, 2005).

Development of Hearing During Children

While the newborns are in their uterus, they hear the sound of blood and the swinging motion. When newborn hear these high frequency voices after birth, the newborn feels safe as a uterus. Therefore, the frequencies and characteristics of sounds for newborns are very important. It was determined that newborn babies who listened to the uterus with voice tape slept and calmed earlier. This is a sign that newborns have begun to acquire a certain sensitivity to music before they are born (Standley, 2001; Ovalı, 2005).

The low-frequency sounds in the environment reach the fetus more. For this reason, the fetus can learn music played outside easily (Standley, 2001; Yıldız, 2002; Ovalı, 2005; Neal, 2008). The fetus usually gives negative physiological responses to excessive noise. The negative physiological responses include diastolic and blood pressure, catecholamine, adrenocorticotropin, hormone and cortisol levels, blood sugar, gastrointestinal motility, increased muscle tone, vasoconstriction, changes in immunoreactivity, sleep disorders. Newborns and children give behavioral and emotional responses against noise from birth (Ovalı, 2005). Noise control affects the baby's physiological stability, age-appropriate sensory development, and communication with family as well as growth (Stewart, 2009).

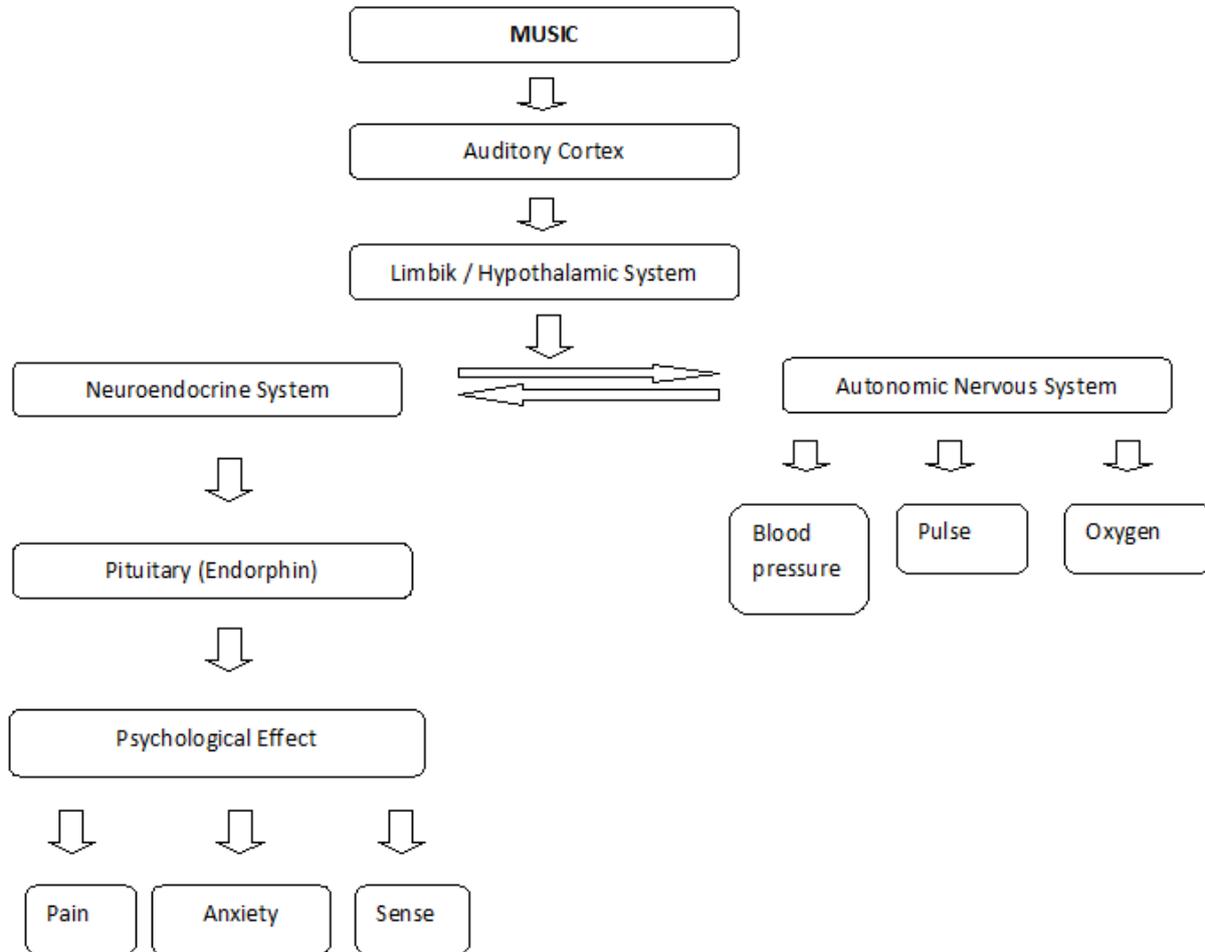


Figure 1: Physiological Effect of Music Therapy (Updike; 1990).

The Importance of The Pediatric Nurse in The Use of Music Therapy

Light, sound, touch, and painful interventions in the environment negatively affect the physiological, sensory, mental, emotional and social development of children / neonates who rapid brain development (Hodges & Wilson ,2010; Meeks et al., 2012).

Pediatric nurses need to give importance to music therapy in order to control the physiological and psychological problems of children. Because music is an effective method for increasing pain tolerance, calming and influencing sleep periods positively in painful nursing interventions (Standley, 2012).

In one study, nurses working in pediatric clinics reported that music therapy should be practiced daily in pediatric clinics (Dündar, 2011). According to pediatric nurses, music has positive effects on premature infants and their families (Pölkki et al., 2012). In another study, a large majority of pediatric nurses stated that it was important to have music therapy in hospitals during certain hours of the day. Additionally, pediatric nurses also stated that it is sedative and nonpharmacological effect of music (Barboras & Ucu, 2013).

According to the legal situation in Turkey on this topic, nurses taking certificates related to music therapy method can use this method as an expert (Cirik & Efe, 2017). Therefore, it is extremely important that pediatric nurses receive the necessary training and certification in music therapy.



Pediatric nurses need to be aware that music therapy is an important therapy in healthy and sick children.

CONCLUSION

In conclusion, music therapy is very important in the development and promotion of child health. Therefore, music therapy needs to be applied to children by a music expert. Music therapy may be an additional, non pharmacological, effective treatment for children and parents. Additionally, future research should examine the effects of music therapy on children/infants and their parents.

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