Good example of how does music affect premature infants literature review

Technology, Development



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Abstract

Healthcare professionals caring for preterm infants in neonatal intensive care unit (NICU) agree that there is a need to reduce noise in NICU as it affects neurological and behavioral development of premature infants. Healthcare professionals have embraced medical technologies and other interventions to address this issue; an aspect that has reduce neonatal and childhood mortality rate and increased survival of premature infants. Music is one of the effective intervention strategies employed in NICU, but there is a controversy about its effects on the development of preterm infants. Despite this controversy, empirical studies affirm that music enhances alert responses, growth and development, oxygen saturation level and reduce respiratory rate and stress in preterm infants. The implications about the use of music on preterm infants asserts that nurses should avoid the use of an undocumented music in music therapy sessions, educate and guide parents

on how to select favorable music for their children and individualize music therapy to enhance alert responses among premature infants.

Introduction

In the last few years, healthcare practitioners taking care for preterm infants in neonatal intensive care unit (NICU) have introduced and applied different practices and strategies to enhance and promote behavioral and neurological development of premature infants. As a result of high neonatal mortality rate, the healthcare practitioners have embraced medical technologies in the care of premature infants in NICU; an aspect that has reduced childhood mortality rate and increased survival of premature infants. However, the healthcare practitioners have noted that the environment within the NICU is marked with intensive stimulation, constant noise, interruptions and disturbances, which interfere with the development of preterm infants. Various intervention strategies including massaging of infants, grouping of nurses' activities, positioning of infants and music therapy have been introduced to alleviate the situation (Neal & Linkede, 2008). Documented studies have affirmed that music therapy is an effective intervention and strategy among preterm infants in NICU as it reduces stress, promotes neurological and behavioral development, lowers metabolic and respiratory rate, increases infant growth and enhances alert responses. However, criticism has been leveled against the use of music therapy in NICU as it interrupts the sleeping pattern of preterm infants, interferes with the development of auditory structures and leads to auditory and language processing malfunctions. Although most of these criticisms lack empirical

evidence, there is scientific prove that music is useful and beneficial for the development of preterm infants.

Discussion

The article entitled, "Live music's charms. Soothing premature hearts", by Pam Belluck provides a detailed account on the effect of music on premature infants thus enhancing its validity, reliability and accuracy in line with other scholarly articles. Citing a study done by Beth Israel Medical Centre in New York, Pam affirms that live music is beneficial for premature infants as it increases their oxygen saturation level, sucking and feeding behavior, reduces their respiratory rate, promotes alert responses and enhances the sleeping patterns (Belluck, 2013). The author affirms that a music that is characterized with rhyme, lyrics and ambient sound is effective in promoting neurological and behavioral development in preterm infants. The same research findings were replicated in Ashley Hodges study. Citing another study published in the journal of Pediatrics, Pam asserts that music therapy catalyzes the recovery and healing process among preterm infants. The article reveals that premature infants who receive music therapy in NICU recover faster than premature infants not subjected to music therapy. This variance arises from the fact that music is an organized and purposeful sound that reduces stress and allows premature infants to conserve most of their energy for behavioral and neurological development (Keith, Russell & Weaver, 2009). Based on this assertion, it is clear that music is beneficial and useful to preterm infants.

Implication on the nursing practice and recommendation

Documented studies reveal that the music intervention has numerous implications on premature infants and nursing practices and there is a need to conduct further research on this topic and educate parents. The fact that music is useful and beneficial to behavioral and neurological development of premature infants, parents should be guided and educated on how to select effective music for their children. In essence, parents should avoid live and instrumental music that is marked with transient dynamism in tempo, aptitude, and tonal variation, and instead employ music that has a soft tone, gentle lyrics and melodies and flowing harmonics (Hodges & Wilson, 2010). Nurses should avoid any instrumental and live music that is not listed in the medical literature in their music therapy sessions. In the same breath, researchers recommend that there be a need to individualize music therapy among preterm infants to enhance the outcomes. This fact is premised on the idea that different people have different threshold intensity; an aspect that affects individuals' response and development.

Conclusion

The high neonatal and childhood mortality rate has influenced healthcare practitioners caring for preterm infants in NICU to use effective strategies and practices to promote behavioral and neurological development. Music therapy is one of the interventions, which has reduced neonatal mortality rate, stress in NICU, respiratory rate, enhance alert responses and increase oxygen saturation level among premature infants. However, parents should be guided on how to select favorable music and nurses should individualize

the music therapy intervention and avoid the use of an undocumented music in their therapy treatment.

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