

## 어머니로의 역할 전환 지원을 위한 음악중재 프로그램 사례연구

김수지\*

본 연구는 모성전환 지원의 일환으로 노래 부르기를 격려하기 위해 가정을 방문하여 음악중재 프로그램을 교육한 후 2주간 아이에게 노래 부르기를 실시한 어머니들의 경험과 의견에 대한 사례연구이다. 2개월에서 11개월 사이의 건강한 아이를 둔 어머니들 중 참여를 원하는 어머니들을 선정하여 어머니 유아에게 노래 부르기에 대한 교육적인 정보와 함께 노래 부르기를 쉽게 하실 수 있도록 여러 가지 방법을 제공 한 뒤 2주 동안 스스로 모자 상호작용 시 노래를 불렀을 때 느낀 경험과 의견 등을 종합하기 위한 인터뷰가 실시되었다. 구조적, 비구조적 인터뷰를 실시한 결과 매일 아이에게 노래를 부르면서 경험한 것과 실제 노래 부르기가 어떤 도움을 주었는가에 대한 분석이 이루어졌다. 그 결과, 네 명의 어머니 모두 긍정적인 경험과 노래 부르기를 통한 양육활동 및 부부관계의 도움을 보고하였으며 체계적인 프로그램의 가능성이 제시되었다. 모성 전환 시 도움이 필요한 여러 대상군의 어머니들에게로의 적용 가능성이 발견되었으며, 추후 연구를 통한 효과성 검증이 요구된다.

핵심어 : 어머니 노래 부르기, 가정 중심 음악 중재, 모성전환

---

\* 명지대학교 사회교육대학원 음악치료학과 조교수

## Case Study of Music Intervention for Supporting Maternal Transition

Kim, Soo Ji\*

As a means to support maternal transition, a home-based music intervention was employed to facilitate mothers' singing to their infants. Four mothers were recruited as volunteers for this study their typically developing infants ranged in age from 2 months to 11 months. Interviews were conducted after the completion of the intervention. An educational music intervention was used to introduce the benefits of mothers' singing to their infants and to encourage four mothers to perform regular singing to their infants for the two-week period. In the interview, mothers provided valuable information regarding their personal experiences, thoughts, abilities to carry out the daily singing, and additional support needs in singing. All mothers demonstrated positive experiences and needs for future intervention development. Overall, the results showed that music-involved educational intervention is beneficial for mothers to support their maternal transition. The need emerged for future studies to develop music-involved educational intervention to support maternal transition.

*Keywords : Mother's Singing, Home-Based Music Intervention, Maternal Transition*

---

\* Assistant Professor, Dept. of Music Therapy, Graduate School of Social Education, Myongji University  
(specare@mju.ac.kr)

## I. Introduction

While most researchers focused on infants' benefits and advantages in mother-infant interaction, particularly infants' responses to mothers' verbal or emotional stimulation, the mother's needs and supports for transition into her new role are relatively less studied. Considering the reciprocal nature of the mother-infant interaction, mothers' attitudes and emotional responses to their infants are significant in its development. Yet, some mothers may have difficulty interacting due to inexperience, poor education or emotional deficits due to depression (Aslin & Copper, 1994; Barnett, Don, Kowalenko, McMahon, & Tennant, 2001; Cooper, Murray, Romaniuk, & Wilson, 2003; Field, Garcia, Goldstein, Guy, Sandbert, & Vega-Lahr, 1985; Fleming, Flett, Ruble, & Shaul, 1988; Kurstjens & Wolke, 2001). Increased social support and reduced stress have been indicators of positive outcomes in maternal transition (Gottlieb & Mendelson, 1995; Reece, 1993).

Traditionally, music has been a familiar medium used by mothers when they interact with their babies. Researchers have investigated the use of music in mother-infant interaction focusing on infants' responses. As a part of sensory stimulation, the impact of mothers' voices and singing to their infants has been extensively investigated. Several researchers support the idea that infants prefer their own mothers' voices to those of other persons. Aslin and Cooper (1994) found a higher level of infants' responsiveness to natural maternal voices than to stimuli incorporating reduced spectral cues. In a series of studies by Trehub and his colleagues, different types of infant-directed musical genres were investigated, including lullabies (Trainor, Trehub, & Unyk, 1993a), playsongs (Trainor, Trehub & Unyk, 1993b; Henderson, Hill, Kamenetsky, Saraza, Trehub, Trainor, & Unyk, 1997), and songs modified from adult songs (Hill, Kamenesky, Trehub, 1997). Overall infants responded with more attention and affect when they listened to infant-directed singing by their mothers and higher emotional engagement with infants was observed.

In terms of characteristics of singing, mothers tend to use high pitches, slower tempi, and acoustic indicators of emotional status (Adams, Clark, Huntley, & Trainer, 1997; Trainor et al., 1993b). These characteristics may lend themselves to adjustment for age-appropriateness. Bergeson and Trehub (1999) found that mothers used a higher pitch level and less clear articulation in their singing for infants compared to singing for preschool children. Overall,

mothers' accommodation of their own speech and singing may be carried to their infants through these characteristics.

As an extension of infant-directed singing, Masataka (1999) tested 2-day old hearing infants of deaf parents to discover whether they preferred infant-directed singing versus adult-directed singing. While infants showed a preference for infant-directed singing, language did not produce any differences in infants' preference.

Premature infants as well as full-term infants have benefited from live singing. The use of music has been considered by many researchers as a means of providing appropriate stimulation for isolated premature neonates. Standley's extensive research has shown that music is effective in increasing non-nutritive sucking behaviors (Standley, 2000; 2003); improving oxy ap saturation levels (Moore & Standley, 1995); and enhancing mother-infant bonding (Standley, 1991; 1998). These findings showed that musical involvement in the Neonatal Intensive Care Unit (NICU) could both enhance the infant's physical growth and increase the quality of mother-infant attachment.

While researchers who worked with mother-infant dyads have focused on the effectiveness of singing to infants or characteristics of singing through observation, few researchers have considered the development of direct music intervention to guide parents in the use of infant-directed singing. In terms of training interventions, Whipple (2000) found that parents with training in music and multimodal stimulation demonstrated more appropriate responses to their infants in the NICU and fewer stress behaviors. A one-month post-discharge follow-up study, however, revealed no difference in interactions between trained and untrained parents.

In another study related to parents' musical training, a teaching program for the use of music and movement by mothers with their infants was examined (Bowes & Vlismas, 1999). This program included relaxation methods, kinesthetic, singing, visual contact and tactile stimulation. Researchers found that mothers reported successful experiences with relaxation to music and their use of rhythmical movement with their infants.

One researcher provided broad information regarding musical parenting of young children (Ilari, 2005). The researcher interviewed mothers and caretakers of infants aged between 7 and 9 months. Musical background, preferences, beliefs and ways of using music with infants were investigated. Singing was the primary musical activity, and a mother's musical background was a determinant in her use of music with her infant. No consensus was revealed in terms of

mothers' singing repertoire; however, most mothers stated the belief of the existence of music appropriate for their infants. It is obvious that the use of music in child-rearing is a familiar concept for mothers and that providing assistance to mothers in employing music in the mother-infant relationship can be beneficial.

Overall, many researchers revealed the significance of infants' responses and the characteristics of musical elements demonstrated by mothers, yet mothers' needs for achieving a successful parenting experience have been ignored. The researchers point that maternal support is significant in terms of maintaining mothers' psychological and emotional well-being, which is established through positive experiences in mother-infant interaction. Therefore, this study was to provide qualitative information provided by mothers with infants to establish the groundwork for future music-involved interventions corresponding to mothers' identified needs.

## II. Method

### 1. Participants

Four mothers were recruited as volunteers for this study from within the Korean community of a Midwestern city in U.S.A. Mothers showed demographic similarities with regard to age, educational level, religion, and attitudes toward using music with infants. All but one were separated from their extended families. Their infants ranged in age from 2 months to 11 months. Two infants were their mothers' first-born (age 2 months and age 7 months) and two were their mothers' second child (age 4 months and age 11 months).

### 2. Procedures

After the recruitment of participation, a semi-structured interview was performed with each participant. All interviews were either videotaped or audiotaped with the participants' approval. Mothers were given two weeks to use the demonstrated intervention procedures in daily interaction with their babies. When the two-week period was over, the researcher visited each mother and conducted an interview to acquire information regarding the use of singing and any

emotional changes that the mother might have observed in herself during the intervention. The interviews were videotaped or audiotaped with consents from mothers for later analysis.

### 3. Intervention description

The intervention consisted of two elements: 1) explanation regarding the benefits of using music, and 2) instruction on how to use singing with a baby. At first, the researcher explained the research findings from the literature with regard to using music in early childhood. During the explanation, mothers were allowed to ask questions at anytime they wished. The explanation included two major points: 1) benefits of infant-directed singing and 2) benefits of live singing to infants. These major points were chosen from a series of Trehub's studies and Standley's studies. The length of the explanation was approximately 15 minutes including mothers' questions and verbal comments.

Next, the researcher introduced music application with written materials (lyrics of children's songs and words for chants). With these materials the researcher assisted mothers in making a personalized list of songs that they felt comfortable singing. Songs that mothers chose included both familiar songs and unfamiliar songs that they wanted to learn, and the number of songs chosen ranged from 5 to 7 including both Korean and English songs. The researcher also provided simple nursery rhymes and traditional Korean chanting as mothers wished. After mothers completed a song list, the researcher demonstrated singing and asked the mother to join her in singing. For unfamiliar songs, mothers were allowed to adapt their singing, repeating a certain part of singing only the refrain. Rhythmic patting and other forms of physical contact (tapping and rubbing her baby) were encouraged while singing. With consideration for the variance in infants' developmental progression, more complicated hand movements were introduced for infants over 9-10 months old to facilitate their motor and cognitive development in appropriate ways, e.g., using physical hand cues to clap the baby's hands.

When the singing intervention was completed, the researcher requested mothers to use singing with her baby at least 10 minutes daily for two weeks. Mothers chose the duration and timing of singing.

#### 4. Instruments

In order to answer the research questions, mothers were interviewed after the intervention. the researcher used interview's questions to determine any emotional and personal changes after the completion of a two-week period of daily singing. the researcher constructed the interview questions incorporating the recommendations of a professional, experienced music therapist with an emphasis of music with early childhood.

#### 5. Interview analysis

All interview response data in Korean were transcribed and translated into English. To do the transcription, the researcher observed the videotapes and listened to the audiotapes repeatedly. Two external translators, one is a Korean-American doctoral student, and the other is a native Korean speaker who is a doctoral student at the University in U.S.A., checked for consistency in the translation. For the interview verbal data, all answers were reviewed several times to identify reoccurring themes. Three categories were identified: mothers' personal experience of singing, emotional changes, and support needs. As the transcripts were reread, if a response related to a particular category or theme, a tally was placed in the appropriate category.

#### 6. Description of mothers

##### 1) Mother A

A was a 30-year-old mother of two children, a 5-year-old daughter and a 4-month-old son. She was enrolled in an academic program at a university in the Midwest; however, due to the recent birth of her son, she was not currently taking courses. Her family lived nearby, and her parents often visited to care for the baby. She enjoyed singing; however, she did not know most of the songs on the list that the author provided. She reported that in her previous experiences with her first child, she rarely sang. She claimed she had little time to sing because she was a graduate student.

## 2) Mother B

B was a 27-year-old mother of one son, 4 months old. She was also currently enrolled in a graduate program at a Midwestern university. She had a little musical experience, having participated in a church choir, and she did not know any nursery rhymes or children's songs.

## 3) Mother C

C was a 33-year-old mother of two sons, 3 years old and 11 months old. She had teaching experience in early education in Korea, although at the time of the study she was a housewife who lived in student housing at the Midwestern university. She had completed a master's degree in the United States. This mother knew many Korean children's songs and demonstrates great interest in learning English songs.

## 4) Mother D

D was a 32-year-old mother of one daughter, 3 months old. She was a graduate student at the same university, on a temporary maternity leave for the semester. Her musical experience included singing in a church choir and playing the piano when she was young. She also showed a great interest in learning and singing songs.

# III. Results

## 1. Interview results

### 1) Initial interview results

Responses of participants were grouped into six categories: 1) feelings about being a mother, 2) maternal supports, 3) responses to baby's crying, 4) strategies for coping with maternal stress, 5) feelings about singing to baby, and 6) the current use of music in the mother-infant interaction. A summary of mothers' responses from the initial interview is presented in Table 1.

First of all, results with regard to maternal confidence differed between the first-time mothers and the second-time mothers. The first-time mothers (B and D) described feelings of excitement and anxiety at being a new mother. The second-time mothers (A and C) described feeling

happiness and awareness of the preciousness of the experience.

Second, maternal supports perceived by mothers were reported as satisfactory overall. Only one mother (C, a second-time mother) expressed her wish to have more help from her husband in terms of household tasks and emotional support. She said “I wish my husband could do more for me. He has been a good father and he has tried to spend more time with children. …… But I need him, too.” The other three mothers consistently indicated in their comments that they were satisfied with the support they received from their husbands. These responses were rather surprising considering their environmental factors, including isolation from other family members who were in Korea and their low-income status as students. However, these positive responses could be affected by cultural factors, and desire of the mother to preserve a positive social face. In other words, the mothers might have been reluctant to reveal any dissatisfaction they might have felt toward their spouses.

Third, the mothers’ responses to their babies’ crying demonstrated their confidence levels in association with their experience in infant-caring. Second-time mothers, as experienced mothers, did not express any anxiousness or frustration when their babies cried, whereas the first-time mothers said that their initial responses to their babies’ crying were to look anxiously for ways to address the baby’s needs. This result can be also interrelated to the infants’ ages. Infants of first-time mothers were relatively younger (2 and 4 months old), and therefore these mothers had decidedly less experience in infant-caring overall than the second-time mothers who participated in this study.

Fourth, mothers identified various coping strategies that they had been using to manage their maternal stress. Two major themes emerged from the mothers’ comments: 1) seeking physical comfort and 2) relying on personal religion. Forms of physical comfort for the mothers included sleeping, lying down, or allowing a temporary reduction in household responsibility. Religious behaviors included praying or reading the Bible. Despite these strategies, mothers still expressed difficulty managing stress. Mother C commented, “I usually sleep [to feel better], but it is almost impossible to have nice deep sleep with two children. So I end up lying down on a couch while my children are playing. Well, it is not a good idea, because my children often think that I am sick. Then, I feel worse [than before].” Mother B also stated, “I am so tired, so I can’t do anything. I want to feel better, but I haven’t found anything that makes me feel better yet.”

〈Table 1〉 Mothers' responses from the initial interview

Categories	Second-time mothers		First-time mothers	
	Mother A	Mother C	Mother B	Mother D
Feeling about being a mother	Challenging Special experience  Very happy	When my baby is in happy mood, I feel good.  I feel like I am very important person when I take care of my baby.	Hard Feel different  Feel joyful when my baby smiles	New life No personal life  Hard
Maternal supports perceived by mothers	Satisfied	Hope to have more spouse support from spouse.  Want to have more time with spouse	Satisfied	Satisfied My husband is a great helper.
Mothers' responses to babies' crying	Think about my baby's needs	Comfort immediately, but not as much as I had done with the first one.	Respond immediately Try to make him calm down  Walking around holding him in my arms	Wish she sleeps more Feel confused, in a hurry
Coping strategies	Talk to parents  Not much stress from a baby  Usually from other things such as household or study	Sleeping  Lying down Sometimes crying	Sleeping  Doing nothing	Praying  Reading Bible
Feelings about singing to baby	Fun Good way to spend time	I tried singing a lot, but I am not confident with my voice.	I don't know children songs I feel uncomfortable singing.	No problem with singing Use toys that have various sounds.
Using music in the interaction	Sing softly sometimes, but not regularly.	Believe it will be good my repertoire is short.	Use CD music or children's video products.  Lack of repertoire	I would like to use music. I haven't tried yet.  Lack of repertoire

With regard to singing and musical interaction used by mothers, all four mothers demonstrated belief in the positive influence of using music in mother-infant interactions. Positive comments included, “Singing is never harmful” “Music is good for babies” or “[I believe] all babies’ toys have some kinds of songs and music because it’s good for them.” However, compared to their unanimous belief in the benefits of using music with infants, mothers’ confidence levels in singing and utilizing music were low (i.e., “I don’t know many songs” “My repertoire is short” “I wish I could sing to my baby like my mom did for me”). Moreover, despite variance in parenting experience among the four mothers, none of them reported that regularly singing to her baby was already a part of her mother-infant interactions.

In summary, in the initial interview, participating mothers uncovered many needs for maternal support and for encouragement in using singing more actively. They also requested information regarding song repertoire, including a list of therapist-recommended songs. In particular, the mothers in this study showed some confusion about which language (Korean or English) they should choose for their children’s songs. Still, all of the mothers demonstrated a strong interest in developing singing interactions with their children.

## 2. Final interview results

The researcher found three themes -- mothers’ experience of singing, emotional changes, and support needs -- through the interview data analysis and illustrated below. The summary of interview results is presented in Table 2.

### 1) Theme 1: Mothers’ experience of singing

All four mothers gave the experimenter positive comments regarding the singing experiences in their final interviews. All the mothers indicated some degree of apprehension regarding their abilities to sing, due to their limited experience with singing to their infants. Although they all believed that there were benefits in singing to their infants, three mothers pointed out their lack of appropriate song repertoire and their reluctance to sing throughout the day, due to the rigors of their daily household routine and their own feelings of maternal stress.

All four mothers reported positive feelings associated with infant’s positive responses (i.e., smiling or vocalization). However, the mothers’ comfort with and competency in singing did not

always appear to correspond with these positive feelings. While experienced mothers (A and C) successfully completed the singing intervention and reported some extensive use of singing such as singing with hand gestures or physical contacts, the two first-time mothers expressed some difficulties in carrying it out. Due to the short extent of their experience with their babies, these mothers demonstrated a greater need for support in managing their infants' behaviors.

Overall, it seems that the amount of child care experience a mother has may play a role in her feeling that she is successfully performing singing, as manifested by the first-time mothers' preoccupations with managing their infants' behaviors while singing.

## **2) Theme 2: Emotional changes**

Positive mood changes emerged as a common characteristic in all four mothers' interviews. Regardless of their experience, perceived fatigue, or level of confidence in singing, all mothers indicated that their own moods were changed by singing to their babies.

Emotional outcomes were reviewed, and a relationship between feelings about being a mother and other emotional outcomes was revealed. Mothers who initially expressed confidence regarding their personal life changes as a mother (i.e., "It is my new life") used strong statements to describe their emotional changes during the final interview, e.g., "I felt great in singing to my baby." On the other hand, mothers who expressed maternal confidence with reference to their infants' behaviors (i.e., "When I see my baby's smiling, I feel good") used support-seeking statements during the final interview, e.g., "I felt good, but I feel like I need to use more gestures and songs in the interaction."

Overall, positive emotional changes were found in all participants after the completion of the two weeks of singing. In addition, mothers' high level of participation in spontaneous singing to their babies was observed.

## **3) Theme 3: Support needs**

The main intent of this study was to investigate how the mother as performer can benefit from her own singing. As observed in this study, participating mothers reported experiencing positive emotional changes throughout the singing intervention. This is likely due to the baby's positive behavioral and emotional responses toward the mother's attentive singing. Consequently, the mother, observing her infant's desirable responses, experienced positive mood changes, and

the singing behavior, along with its frequency, increased.

In looking at this cycle, it appears that the successful singing experience of the mother is the key. In this respect, the need for different levels of support between the experienced mothers and the first-time mothers was observed. First of all, first-time mothers expressed a need for more instruction and detailed tips about how to manage infants' behavior during the singing. When they sang to their babies during play time, these mothers expressed concerns about their abilities to sing and play at the same time with a durin The researcher believes that these mothers felt pressure to be successful in their interactions because they were conscious of participation in this study. It is also obvious that first-time mothers struggle in the beginning stages of building successful relationships with their babies which may pressure them to seek support.

In contrast with the first-time mothers, the experienced mothers expressed no reluctance in singing to their babies and requested more applications for such interaction. Even though both experienced and first-time mothers commonly expressed belief in the benefits and positive aspects of using music with babies, experienced mothers specifically requested more instruction and information with regard to multidimensional interventions (i.e., singing and instrumental playing or singing and movement). It may be natural for experienced mothers who are confident in

<Table 2> Mothers responses from the final interview

Categories	Contents	Mothers
Singing experience	Positive feeling associated with infant's positive responses (i.e., smiling or vocalization)	A, B, C, D
	Competency in singing	A, C
	Active use of singing (incorporated with physical contacts and hand gestures)	A, C
	Difficulties in managing infants' behaviors while singing	B
Emotional changes	Positive mood changes after two-week singing	A, B, C, D
	Feel stronger attachment after two-week singing	A, C
Support needs during singing	Management of infants' behaviors during singing	B, D
	Increase song repertoire	B, C, D
	Techniques to involved instrumental rhythm playing	A, C

managing infants' behaviors to desire more complex music applications to use with their babies.

#### IV. Discussion

The findings may differ according to the amount of prior maternal experience, and mothers' confidence in singing to baby may also affect individual experience. Nevertheless, the positive emotional changes reported by all participating mothers imply great possibilities for an intervention that provides support for mothers of young children to form meaningful relationships with their babies.

Of significance to this intervention was its integration into the mother's relationship with baby at home. The researcher chose the home visit as a method for this study in order to reduce any physical and psychological tiredness that the mothers might have incurred from making a special trip outside the home with their babies, and to demonstrate potential outcomes within the day-to-day home environment. Although home visits may be the most effective way to accommodate mothers' needs for convenience, they may be impractical for the therapist or health professionals.

The mothers' level of confidence in singing to their babies was another important aspects of. Mothers with less maternal and musical experience may not have the confidence to fully implement the intervention. Therefore, efforts to build meaningful experiences with the intervention in order to increase musical and maternal confidence are indicated. Experienced mothers in this study reported a more advanced level of musical and gestural activities, while first-time mothers were preoccupied with simple singing tasks and expressed need for more basic maternal support, such as instruction regarding behavioral management of infants during singing. Based on this outcome, the researcher think that a singing intervention may be developed to incorporate the musical skills and behavioral management competencies of mothers across a range of varying experiences.

In addition, it can be highlighted that the song repertoire for the intervention is important. The repertoire designed for this study required modification, since the mothers in this study demonstrated a lack of song repertoire appropriate for infants. This, coupled with low confidence in singing, compromised their singing abilities. Mothers in this study reported that they played

music on compact discs for their babies for the purpose of music stimulation. This involved the mothers in a very passive role, with little to no interaction, as their babies experienced music. But when mothers sang to their babies, they were actively engaged with them, which contributed more directly to relationship building. Therefore, in future music interventions, the benefits of live singing should be emphasized in order to support the growing relationship between mother and child.

In this preliminary study, mothers provided valuable information for the future development of music involved interventions for providing maternal support in the mother-infant interaction. Since mothers achieved positive emotional outcomes through singing to their babies, studies with additional mother-infant dyads are required to determine the intervention's effect on mothers' positive parenting experiences and abilities to manage stress. These dyads may include both mothers with biological and mothers with adopted infants. Because of the absence of physical relationship that is typical in the beginning stages of biological maternal experience (i.e., pregnancy and childbirth), adoptive mothers and their babies especially may benefit from a music therapy protocol which supports relationship-building.

Overall, mothers can learn the intervention and perform it in ways that enhance their sense of maternal confidence while satisfying their need for successful interaction with their babies. While the activities and stresses of motherhood often make singing seem difficult, ultimately a singing intervention built into a mother's busy daily schedule may prove beneficial both for her and for baby. Further research to strengthen music intervention to support mothers with babies is highly recommended.

## References

- Adams, B., Clark, E. D., Huntley, A., & Trainor, L. J. (1997). The acoustic basis of preferences for infant-directed singing. *Infant Behavior and Development, 20*, 383-396.
- Aslin, R. N. & Cooper, C. S. (1994). Developmental differences in infant attention to the spectral properties of infant-directed speech. *Child Development, 65*(6), 1663-1677.
- Asten, P., Hay, D. F., Kumar, R. Mills, A., Pawlby, S., & Sharp, D. (2001). Intellectual problems shown by 11-year-old children whose mothers had postnatal depression. *Journal of Child Psychological*

- Psychiatry*, 42(7), 871-889.
- Barnett, B., Don, N., Kowalenko, N., McMahon, C., & Tennant, C. (2001). Postnatal depression, anxiety and unsettled infant behavior. *Australian and New Zealand Journal of Psychiatry*, 35, 581-588.
- Bergeson, T. R., & Trehub, S. E. (1999). Mothers singing to infants and preschool children. *Infant Behavior and Development*, 22, 51-64.
- Bowes, J. & Vlismas, W. (1999). First-time mothers' use of music and movement with their young infants: The impact of a teaching program. *Early Child Development and Care*, 159, 43-51.
- Cooper, P. J., Murray, L., Romaniuk, H., & Wilson, A., (2003). Controlled trial of the short and long-term effect of psychological treatment of post-partum depression: 2. Impact on the mother-child relationship and child outcome. *British Journal of Psychiatry*, 182, 420-427.
- Field, T., Garcia, R., Goldstein, S., Guy, L., Sandbert, D., & Vega-Lahr, N. (1985). Pregnancy problems, postpartum depression, and early mother- infant interaction. *Developmental Psychology*, 21, 1152-1156.
- Fleming, A. S., Flett, G. L., Ruble, D. N., & Shaul, D. L. (1988). Postpartum adjustment in first-time mothers: Relations between mood, maternal attitudes, and mother-infant interactions. *Developmental Psychology*, 24(1), 71-81.
- Gottlieb, I. H., & Mendelson, M. J. (1995). Mothers' moods and social support when a second child is born. *Maternal-Child Nursing Journal*, 23(1), 3-14.
- Ilari, B. (2005). On musical parenting of young children: Musical beliefs and behaviors of mothers and infants. *Early Child Development and Care*, 175, 647-660.
- Kurstjens, S., & Wolke, D. (2001). Effects of maternal depression on cognitive development of children over the first 7 years of life. *Journal of Child Psychology and Psychiatry*, 42, 623-636.
- Masataka, N. (1999). Preference for infant-directed singing in 2-day-old hearing infants of deaf parents. *Developmental Psychology*, 35, 1001-1005.
- Moore, R. & Standley, J. (1995). Therapeutic effects of music and mother's voice on premature infants. *Pediatric Nursing*, 21(6), 509-512.
- Reece, S. M. (1993). Social support and the early maternal experience of primiparas over 35. *Maternal-Child Nursing Journal*, 21, 91-98.
- Standley, J. (1991). The role of music in pacification/stimulation of premature infant with low birthweight. *Music Therapy Perspectives*, 9, 19-25.
- Standley, J. (1998). The effect of music and multimodal stimulation on physiological and developmental responses of premature infants in neonatal intensive care. *Pediatric Nursing*, 24(6),

532-538.

- Standley, J. (2000). The effect of contingent music to increase non-nutritive sucking of premature infants. *Pediatric Nursing*, 26(5), 493-495.
- Standley, J. (2003). The effect of music-reinforced non-nutritive sucking on feeding rate of premature infants. *Journal of Pediatric Nursing*, 18(3), 169-173.
- Henderson, J. L., Hill, D. S., Kamenetsky, S. B., Saraza, M., Trehub, S. E., Trainor, L. J., & Unyk, A. M., (1997). Mothers and fathers singing to infants. *Developmental Psychology*, 33, 500-507.
- Hill, D. S., Kamenetsky, S. B., & Trehub, S. E. (1997). Parents' sung performance for infants. *Canadian Journal of Experimental Psychology*, 51, 385-396.
- Trainor, L. J., Trehub, S. E., & Unyk, A. M. (1993a). Adults identify infant-directed music across cultures. *Infant Behavior and Development*, 16, 193-211.
- Trainor, L. J., Trehub, S. E., & Unyk, A. M. (1993b). Maternal singing in cross-cultural perspectives. *Infant Behavior and Development*, 16, 285-295.
- Whipple, J. (2000). The effect of parent training in music and multimodal stimulation on parent-neonate interaction in the neonatal intensive care unit. *Journal of Music Therapy*, 37(4), 250-268.

- 게재신청일: 2010. 04. 05.
- 수정투고일: 2010. 04. 19.
- 게재확정일: 2010. 05. 03.