

SINGING AND LISTENING TO MUSIC WITH INFANTS: AN INTERVIEW STUDY WITH CANADIAN MOTHERS

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ABSTRACT

Background. For many centuries, parents and caregivers across the world have been singing to their babies. The way parents and caregivers sing to their infants is distinct from other performances and is often called infant-directed-singing or IDS. Lullabies and playsongs are often cited as the two most common forms of infant-directed-singing. The literature suggests infant-directed-singing to be important in the development of attachment between infant-caregiver dyads, and also in the reduction of infant stress levels. Nowadays, listening is also said to be part of infant-mother routines. Despite the growing interest for music in early infancy, little is currently known about the uses of music in the lives of infants and their caregivers in naturalistic settings.

Aims . The aim of this study was to investigate the current status of musical practices of infant-mother dyads, including a full report of singing and listening activities.

Method. Semi-structured interviews were conducted with 100 mothers of infants aged between 7 and 9 months in Montreal, Canada. Interviews were conducted in English, French, Spanish and Portuguese. Mothers answered questions on their educational and musical background, musical preferences, beliefs regarding the uses of music with infants, singing and passive listening behaviours with their infants.

Results. Most mothers reported singing and listening to music with their infants, although singing was more popular than listening. Occupation, previous musical experiences, and culture emerged as determinant factors in mothers' uses of music with their preverbal infants. Lullabies and playsongs emerged as the favourite styles sung and heard by mothers and their babies.

Conclusion. Contrary to the notion that the overuse of background music, modernization, and changes in lifestyles have reduced maternal singing activities to infants (see Papousek, 1996), this study found singing to be the preferred musical activity of infant-mother dyads. Overall, maternal beliefs and uses of music with infants seemed to be quite stable and stereotyped, as well as dependent upon mothers' previous musical experiences, occupation and cultural background. Early childhood music educators could consider these issues to prepare their lessons more adequately.

1. BACKGROUND

Uses of music with infants and young children have been documented since antiquity (West, 2000) and in many cultures (Trehub & Schellenberg, 1995). For long have parents and caretakers used music to either lull their infants to sleep or to arouse and entertain them (Trehub & Schellenberg, 1995).

Lullabies and playsongs are often cited as the two most common musical styles used with infants (see Trainor, 1996; Trainor, Clark, Huntley & Adams, 1997; Trehub, Hill & Kamenetsky, 1997; Trehub & Schellenberg, 1995). These types of songs exist in most cultures across the world (for a discussion see Ilari & Majlis, 2002)

Interestingly, parents and caregivers sing in a distinct way to their infants. This singing mode is often called infant-directed singing or IDS (Trainor, 1996), and is characterized by the use of high pitches, slow tempo, and an expressive singing quality (Trehub et al, 1997). Types of songs (Rock, Trainor & Addison, 1999), the different contexts in which these songs are being used (Rock, Trainor & Addison, 1999), infant gender (Trehub, Hill & Kamenetsky, 1997), and parental role (Trehub et al., 1997) are likely to influence parents and caregiver's singing modes. The infant's presence or absence also affects the expressiveness of caregiver/parental singing (see Trainor, Clark, Huntley & Adams, 1997). Interestingly, these subtleties in the singing do not go unnoticed in the ears of the preverbal child. The latter modulates its behaviours accordingly to the characteristics of infant-directed singing.

Not surprisingly, some parallels are often drawn between infant-directed-singing and infant-directed-speech. Several pieces of research have confirmed the worldwide use of infant-directed-speech or *motherese* with young infants (See Fernald, 1985; 1989). The literature on motherese suggests that the prosody or melody of speech is not only vital in the communication of affect between caregivers and infants (Trainor, Austin & Desjardins, 2000), but has some clear implications for the development of attachment in infants (Rock, Trainor & Addison, 1999). Perhaps one of the main commonalities between music and language (i.e., two primary forms of human communication through sounds) in infancy, is the role of sung and spoken melodies in the communication of affect in infant-caregiver relationships.

The uses of infant-directed singing extend far beyond the everyday life infant-caregiver relationships in common households. Musical interventions with sick infants in NICUs (Neonatal Intensive Care Units) have helped to stabilize respiratory levels, reduce stress levels and benefit days of discharge (for a review see Standley, 2002). Music has also helped reduce colic in young babies (Larson & Alyson, 1990). Interestingly, most of these musical interventions used recordings of or live infant-directed lullabies in the care of sick babies. Although further research in the area is still needed, there is some evidence to suggest that infant-directed-singing might be a powerful tool in infant therapeutic care.

Infant-directed- singing has been said to be powerful in the regulation of infant arousal states including in the reduction of

stress levels (for examples see Standley, 2002; Shenfield, Trehub & Nakata, 2002), and also in the strengthening of emotional ties between infants and caregivers (Trainor, 1996). Yet, despite the growing interest for music in early infancy (for a review see Ilari, 2002), little is currently known about the uses of music in the lives of infants and their caregivers in naturalistic settings. The current literature illustrates dubious scenarios of parental/caregiver musical behaviours with their infants. In several studies (for an example see Trehub et al., 1997), when mothers were asked to sing a lullaby, they often sang a playsong (e.g., Twinkle Twinkle Little Star) or a religious song (e.g., Amazing Grace) instead. Why did that occur? Perhaps, as Papousek (1996) suggested, the overuse of background music in our current times, has influenced caregiver/parent's knowledge and use of repertoire, and reduced singing behaviours with infants.

The aim of this study was to investigate the current status of musical practices of infant-mother dyads, including a full report of singing and listening activities.

2. METHOD

2.1 Participants

One hundred mothers (N=100) of 7- to 9-month-old infants, ranging from 18 to 44 years of age (mean age = 32) were recruited in Montreal and composed the final sample. Participating mothers were students (7%), housewives (33%), and workers and professionals from different fields undergoing maternity leave. There were more primipari (65%) than multipari (35%) women in the sample, and approximately half of the sample (47%) was composed of first generation Canadian born and recently immigrated women.

2.2 Data collection procedure

The data collection method used was the semi-structured interview procedure in which questions are set beforehand and in a particular order. Each interview lasted an average of 30 minutes and was conducted either in the McGill Infant Speech Perception Lab or at each woman's house. Because women are usually more at ease talking to female than male researchers (Finch, 1993), each mother in the sample was interviewed by a female researcher. Two female researchers conducted all interviews. Interviews were conducted in English, French, Spanish and Portuguese. Mothers answered questions on their educational and musical background, musical preferences, beliefs regarding the uses of music with infants, singing and passive listening behaviours with their infants.

2.3 Research questions

1. Do mothers sing or play music for their infants?
2. Which types of music, if any, do mothers choose to sing and play for their infants?
3. Does maternal occupation affect mothers' musical behaviours with their infants?

4. Does maternal experience affect mothers' musical behaviours with their infants?
5. Does maternal previous musical experience, including ensemble experience, affect mothers' musical behaviours with their infants?
6. Do mothers believe in the existence of appropriate music for babies? If so, what sorts of music do they deem appropriate and inappropriate for their babies to listen to?
7. Do mothers agree that there is a specific, 'best time' for musical activities to take place within their babies' routine?
8. Overall, are mothers' beliefs and uses of music with their infants similar or different across families?

3. DATA ANALYSIS AND RESULTS

3.1 Observer and translator reliability

Maternal responses in French, Portuguese and Spanish were translated into the English language. Two external translators, one familiar with French and English and a second one familiar with English, Portuguese and Spanish checked for inconsistencies in the translations. Translator reliability was calculated by dividing the number of agreements by agreements plus disagreements. Reliability was computed at .94 for the French language translations, and .96 for the Portuguese and Spanish translation.

One external observer analyzed and categorized responses to 6 open-ended questions in about 30% of the interview data. Observer reliability was computed in the same way as the translator reliability, and yielded a .84 result for the categorization of open-ended maternal responses.

3.2 Results

Because of the categorical nature of responses, data were analyzed using Chi-square tests and descriptive statistics. Main results were as follows:

1. Maternal occupation affected mothers' time spent with baby ($X^2 = 10.437$, $df=4$, $p=.034$) and singing behaviours ($X^2=8.871$, $df=2$, $p=.012$). Although working mothers reported spending comparatively less time with their babies than student mothers and housewives, they also reported singing to their babies more often than the aforementioned group.
2. Maternal previous musical experiences affected their music playing behaviours with infants ($X^2 = 5.130$, $df=1$, $p=.024$). Mothers, who had had some previous musical training, reported playing music to their babies more often than mothers who had never had any previous musical training.

3. Mothers with previous ensemble participation experiences reported listening to more classical music [$X^2 = 14.395$, $df = 5$, $p = .013$] than mothers who had never participated in musical ensembles. The latter, reported listening to pop music more than to other styles.
4. Mothers were the primary caregivers of their infants. Seventy-five percent said that they spent 24 hours with their infants. Caretaking was shared in 65% of the families with fathers, partners and grandparents, although most women saw themselves as the primary caregiver.
5. Seventy-nine percent of women reported playing music for their babies and 21% stated that they did not. Figure 1 shows musical styles played by mothers to infants:

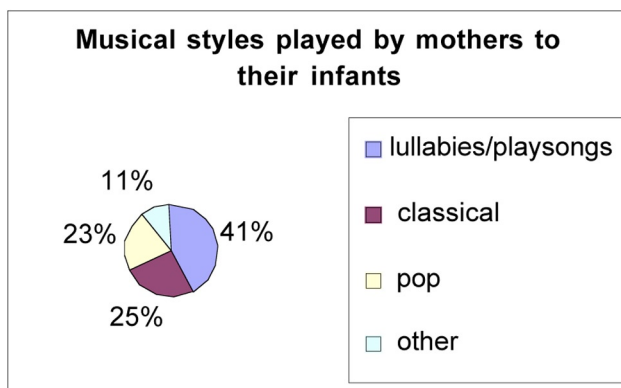


Figure 1.

6. Singing was far more popular than playing music for babies [$X^2 = 7.018$, $df=1$, $p < .02$]. While 93% reported singing to their babies, only 7% of the mothers said that they did not sing at all. These mothers explained that they did not sing to their babies due to a lack of knowledge of repertoire, shyness or lack and confidence in their singing voices. It should also be noted that immigrant women reported singing in their own language more often than in English or French. Preferred singing styles are summarized in Figure 2.

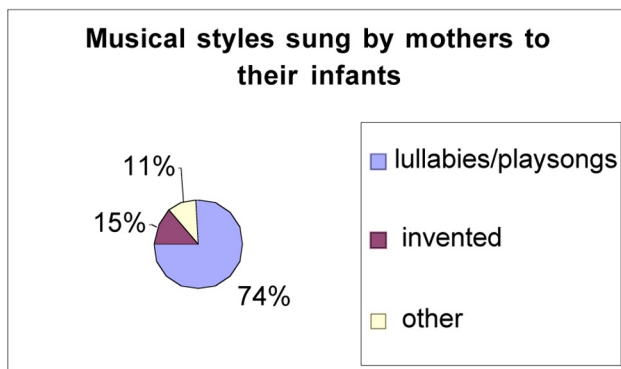


Figure 2.

7. Interestingly, 72% of the women argued for the existence of appropriate music for babies, 22% said that there is no such a thing, and 6% did not have an answer to the question. Although most mothers believed in the existence of appropriate music for babies, there was no real agreement as to what appropriate music is. It was also notable that 16% claimed hard rock, rap and loud music inappropriate for their babies.
8. There was no consensus as to what the best time for babies to be exposed to music was. Best time for music varied across families and was dependent upon the routine and mood of each individual infant.

4. DISCUSSION

Contrary to some beliefs that modernisation and changes in lifestyles may have reduced maternal musical activities with their infants (see Papousek, 1996), this study found music to be a prominent activity in most households. The majority of interviewed mothers reported using some music with their infants, in the forms of singing and listening. Despite the increased use of background music, singing still seems to be the primary musical activity of infant-mother dyads.

However, it was startling how stereotyped and somewhat predictable mothers' choices of repertoire were. Concurrent with the literature, lullabies and playsongs emerged as the most popular styles used by mothers and their infants (see Custodero, Britto & Xin, 2002). This was quite clear for singing behaviours and less clear for playing behaviours. What was unclear, however, was whether this choice of repertoire reflected some aspects of intuitive parenting (Papousek, 1996) or was in fact a byproduct of some stereotype of appropriate music / musical behaviours with infants. Whereas some behaviours are said to be natural to pregnancy and motherhood, expecting women and new mothers are often influenced by their communities. Nowadays, they are constantly "bombarded" with information on what behaviours (i.e., including musical ones) should and should not be used with infants (for a discussion see Bertsch, 200; Schoenstein, 2002). These two elements appear to play a role on mothers' beliefs and uses of music with their babies.

Music seems to be part of the cultural "torch" that mothers pass on to their infants. In this study, mothers held beliefs of musical appropriateness in the case of infants, although these were specific to each family. It remains unclear how these beliefs were shaped and consequently transformed into musical behaviours. It is somewhat clear, however, that previous musical experiences seem to influence women's later musical experiences as mothers of infants. Not just specific repertoire, but previous musical experiences seemed to be important in determining the participants' uses of music with their babies. Musical knowledge and confidence in singing were found to directly impact maternal uses of music with their infants. Thus, learning music early in life seems to have some carry-over effects later on in a woman's life.

Overall, singing appears to be a natural activity between mothers and infants. Perhaps singing to a baby is inherent to being a mother; part of intuitive parenting. Despite the amount

of musical training they have, mothers select repertoire, adjust their singing, make judgements of appropriateness, use previous knowledge, and modulate their musical experiences to interact and communicate with the new child. Future studies are needed to determine the extent to which musical behaviours with babies are intuitive or cultural. For now, it is clear that music still plays an important role in the routine of mothers and their babies, despite modernisation, acculturation levels and changes in lifestyles.

5. REFERENCES

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