

What About The Children?

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RESEARCH SUMMARY

The effects of live parental infant-directed singing on infants, parents, and the parent-infant dyad: A systematic review of the literature

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Infant Behaviour and Development 72 (2023) 101859

Singing is widely accepted as an enjoyable, positive, and beneficial interaction between parents and infants across cultures. Singing, alongside speech and other forms of non-verbal vocalizing, is a tool commonly used by parents and caregivers to respond to infants' needs such as discomfort, hunger, and interaction. The infant expresses those needs by crying or vocalizing and this dyadic interaction strengthens the parent-infant bond. **Infant-directed singing (IDSg)**, the subject of this research, is defined as song, including melodies sung with or without lyrics, directed towards an infant with consistent pitch, a beat-based tempo, and repetition. IDSg has some similarities with infant-directed speech in that the characteristics of higher pitch and slower tempo are considered to make it appealing and memorable for the infant. The literature suggests that live IDSg impacts significantly on the infant, also on the parent doing the singing, and on the dyadic relationship, in powerful ways. The research, published in *Infant Behaviour and Development*, presents a systematic review of the evidence in the existing literature. It then explores the implications of the findings.
(refer to original article for detail of how the screening and analysis process was conducted)

Importantly, the reviewers filtered the research material based on the infants' ages, only using research conducted with children up to 18 months. This was to ensure that the singing was purely parent-led because, after that age, it is likely that the singing would most likely be a shared enterprise as the child's communicative repertoire increases. In addition, the literature suggests that children show an attentional preference for IDSg over adult-directed singing up to about 12 months of age. The researchers inferred that there may be key developmental periods in which IDSg has the greatest impact on infants, hence the cap at 18 months. They also removed research which included IDSg done by someone other than parent/caregiver, for example a therapist or carer, or which had a focus on combination of singing with rocking or other activity. Most of the studies related to the mother, although some also included the father.

Summary of Research Findings

A) The Infant

All the studies demonstrating an impact found that IDSg affected infants' *emotional* regulation. Parents had used singing to alter the infants' level of arousal in different ways - for example, activity, alertness or relaxation. These effects were likely to be associated with the nature of the song and the function of the singing. For example, in relation to attention, the review found that IDSg captured the attention of the infant, particularly with more playful songs and rhymes.

Some studies concluded that IDSg reduced distress in infants and that songs, especially familiar songs, were more effective than speech in reducing distress (measured by children's cortisol levels). There was also positive evidence related to infant sleep. Of particular note is that in 2 studies where parents were encouraged to sing to their babies during pregnancy and who continued the habit after birth, the findings indicated that IDSg helped these infants to sleep for longer periods and with greater quality.

However, studies with preterm or medically unstable infants showed inconsistent results and therefore needed to be interpreted with caution.

B) The Parent

Eight of the studies considered the effect of IDSg on the parent doing the singing. These parents – mostly mothers - described how engaging in IDSg validated their role in three ways: increasing confidence in their ability to interpret and respond to the needs of their infant; facilitating their infants' learning and development and enhancing their own maternal wellbeing. It was the qualitative studies using interview methodology which explicitly focused on the use of IDSg as a key parenting tool. The studies showed that mothers felt satisfied when they were able to support their child to regulate their emotions, whether that be to make their child happy, relaxed, or ready for sleep. Being able to effectively meet the needs of their child using IDSg validated the sense of being a good mother. One of the qualitative studies also explored how mothers used IDSg to specifically teach the infant about their culture and encourage language development

Overall, parents who sang to their infants daily reported higher levels of self-esteem and bonding, and lower levels of depression, compared to parents who sang less often.

(C) Parent-Infant dyad

This systematic review found that IDSg promotes emotional attunement within the dyad which, in turn, strengthens the parent-infant bond, promoting attachment. Several of the studies reported how the reciprocal exchange between parent and infant during IDSg provides opportunities for shared experiences, mutual responses, and simultaneous exchanges. Even infants as young as three months of age 'participated' in IDSg with their parents by making rhythmic head, hand, leg, and body movements on the beats emphasised by their parents, highlighting the joint participation in the moment. The face-to-face interactions promoted by IDSg resulted in closeness and pleasure in proximity and a mirroring of emotion. Overall, the studies found a correlation between IDSg and positive affect in both the parent and infant, promoting a quiet, calm state in both partners.

Limitations and developments

The reviewers identified some limitations in the studies reviewed. Firstly, there was a lack of a specific definition of '*singing*' so any interaction using melodic vocalization, with or without words was deemed to be acceptable. Secondly, several studies excluded babies who were described as "fussy" at the time of the study which could have affected the results. Finally, whilst there was a lack of detailed demographic data, it was known that the participants were primarily from Caucasian, middle class groups so were not fully representative.

Notwithstanding some limitations, the studies reviewed by the researchers strongly suggest that Infant Directed Singing (IDSg) has a range of positive effects: promoting the development of the infant, the responsiveness of the parent, and the strength of the dyadic relationship. Additionally, IDSg by parents communicates social and emotional information that teaches their infants about themselves, their family, their culture and the world around them.

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