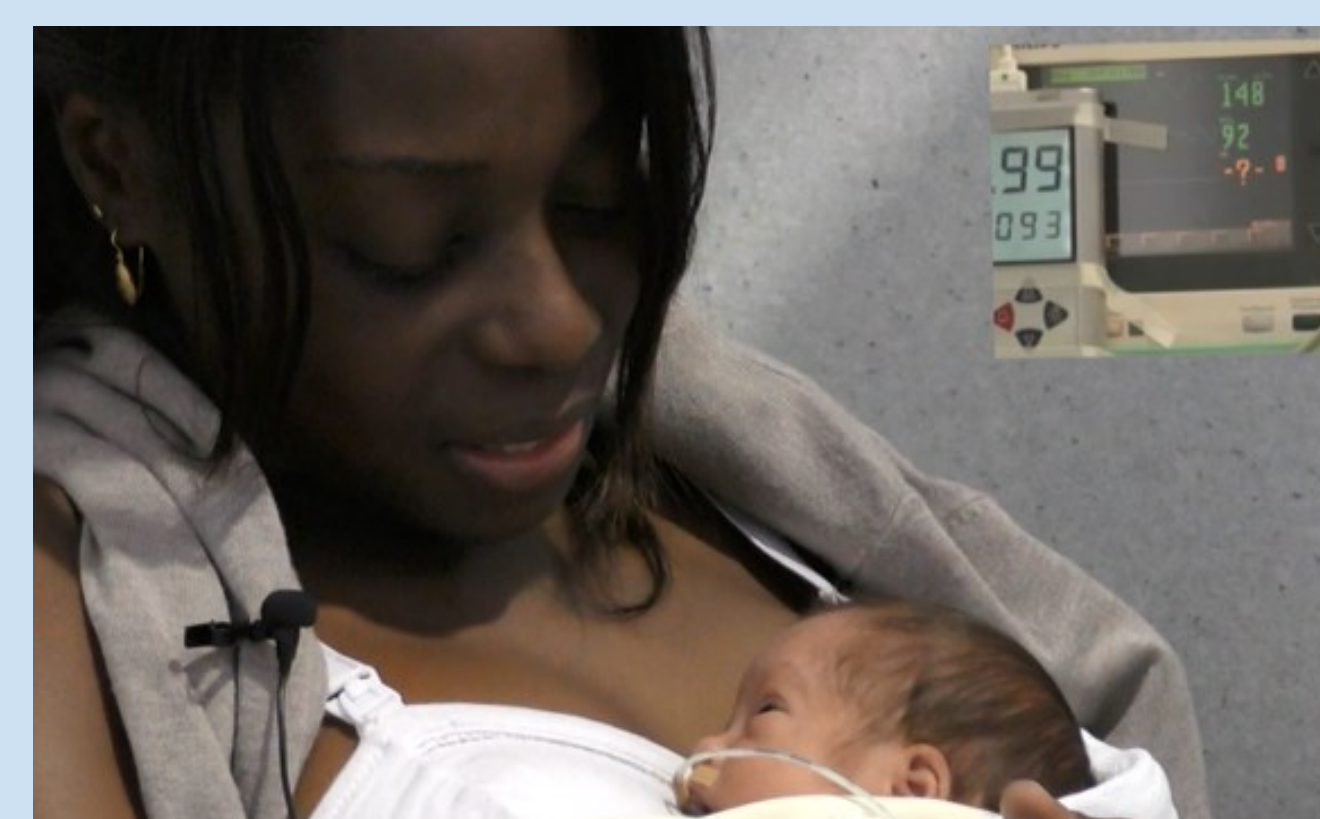
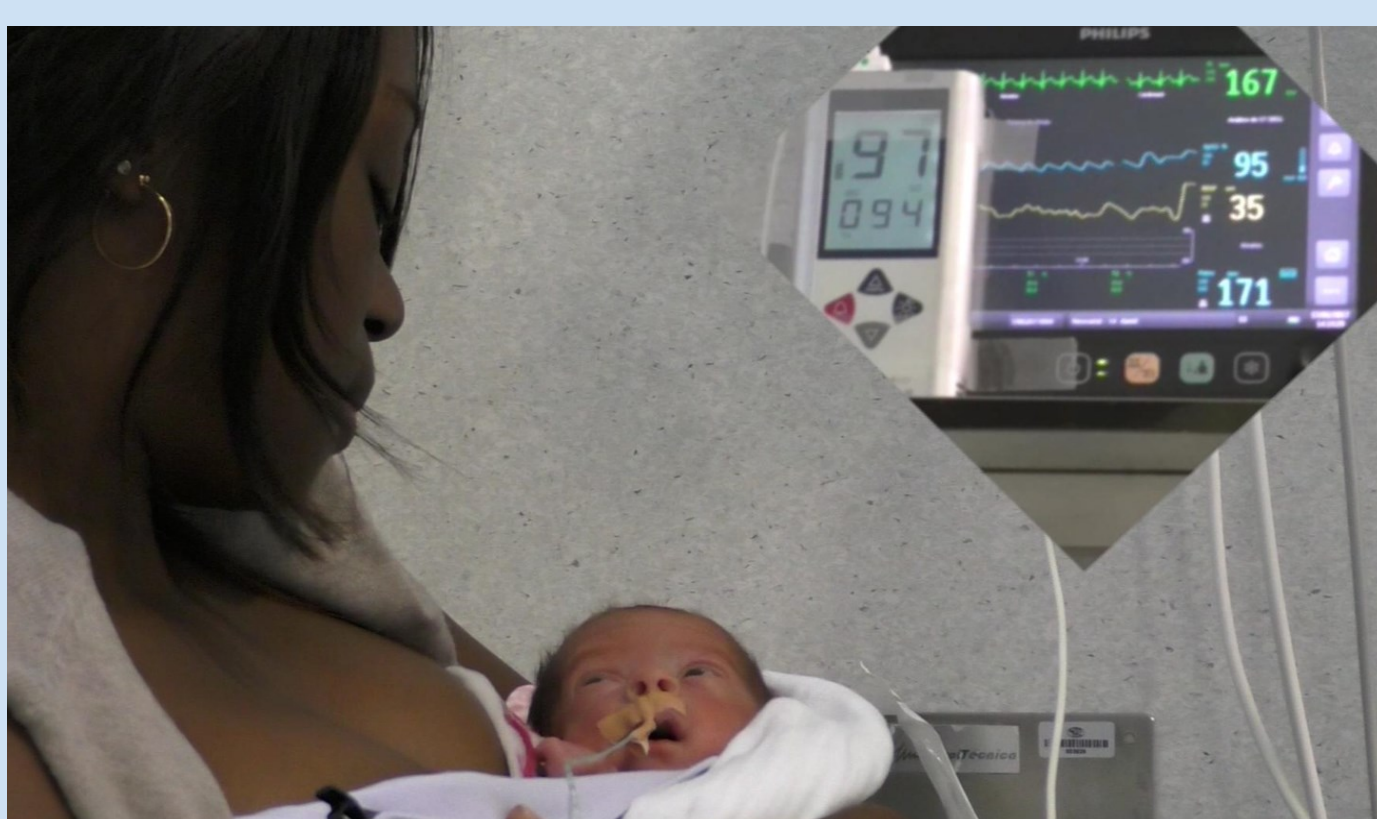


Vocal and visual responses of preterm infants during maternal speech and singing condition in kangaroo care: a study case of twins with different gender

Background

Maternal singing directed to the infant term has been referenced in the literature and there is a need for further studies with preterm dyads. Singing seems to raise a more favorable condition than speech for attunement, while speech seems to facilitate an experience of alternating vocal interaction in preterm dyads (Carvalho et. Al, 2019).

Little is known about the impact of the gender variable on the musical characteristics of infant directed singing. It is also importante to observe how the baby's gaze, vocal responses and their gender condition regarding speech and maternal singing.



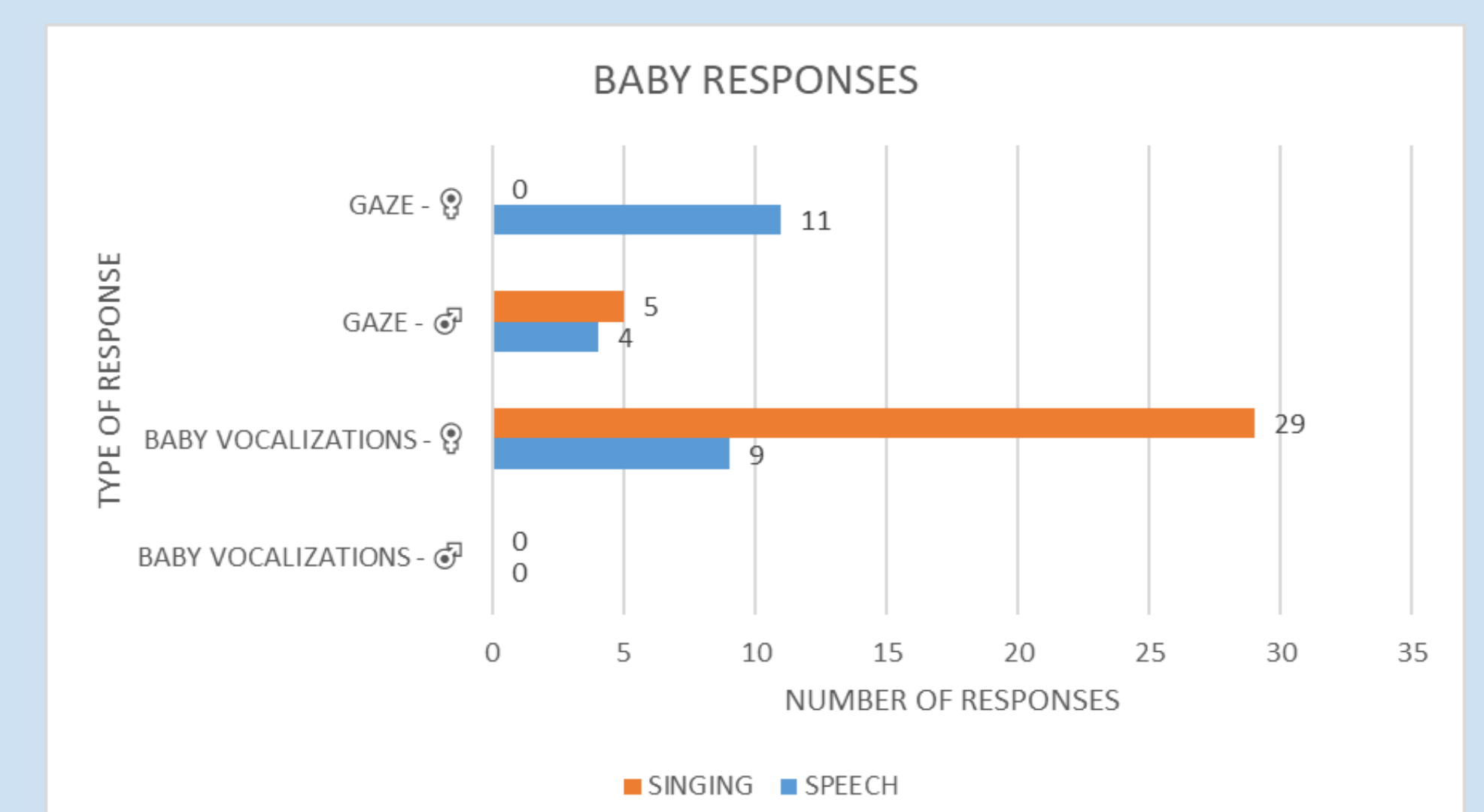
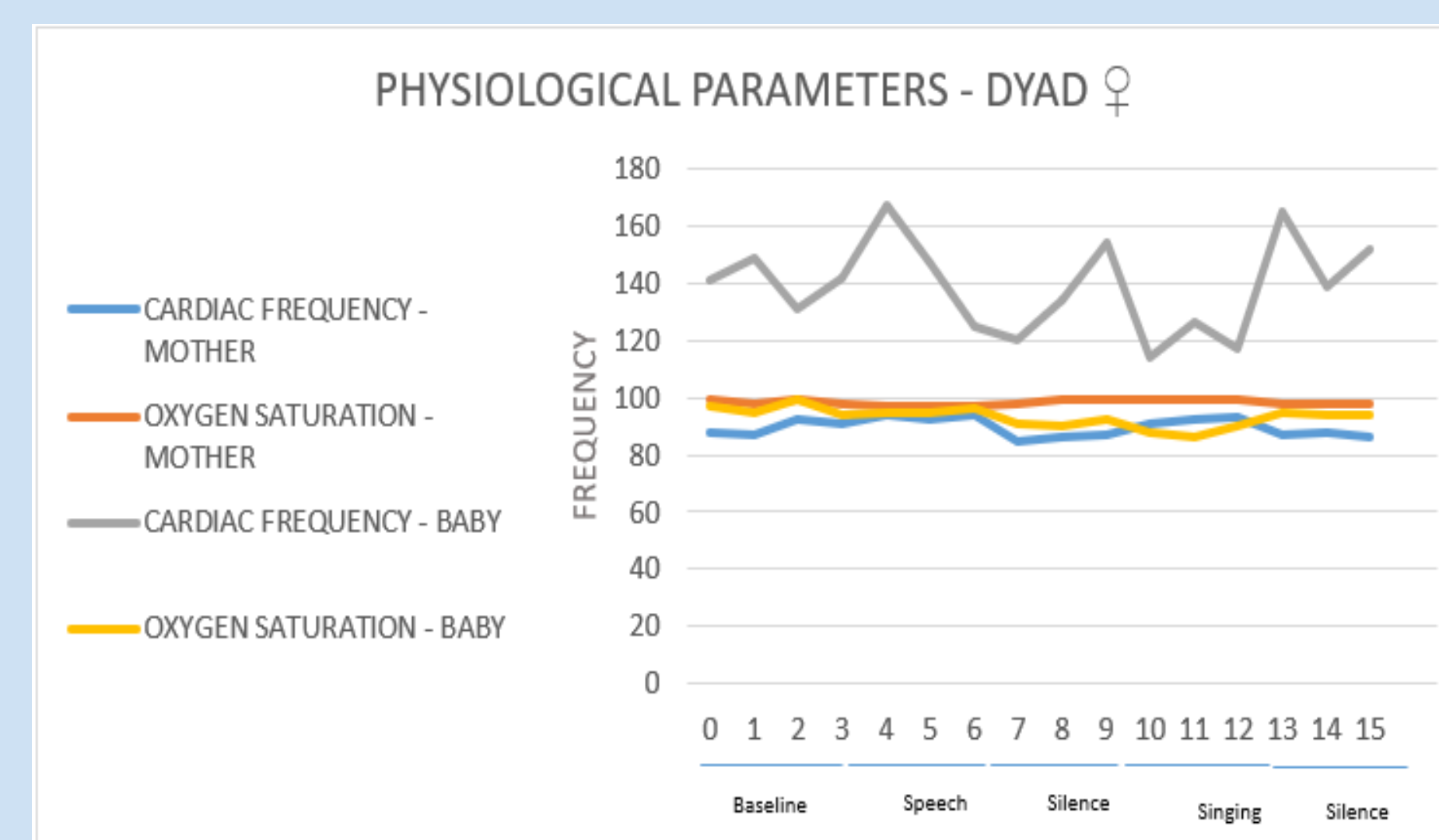
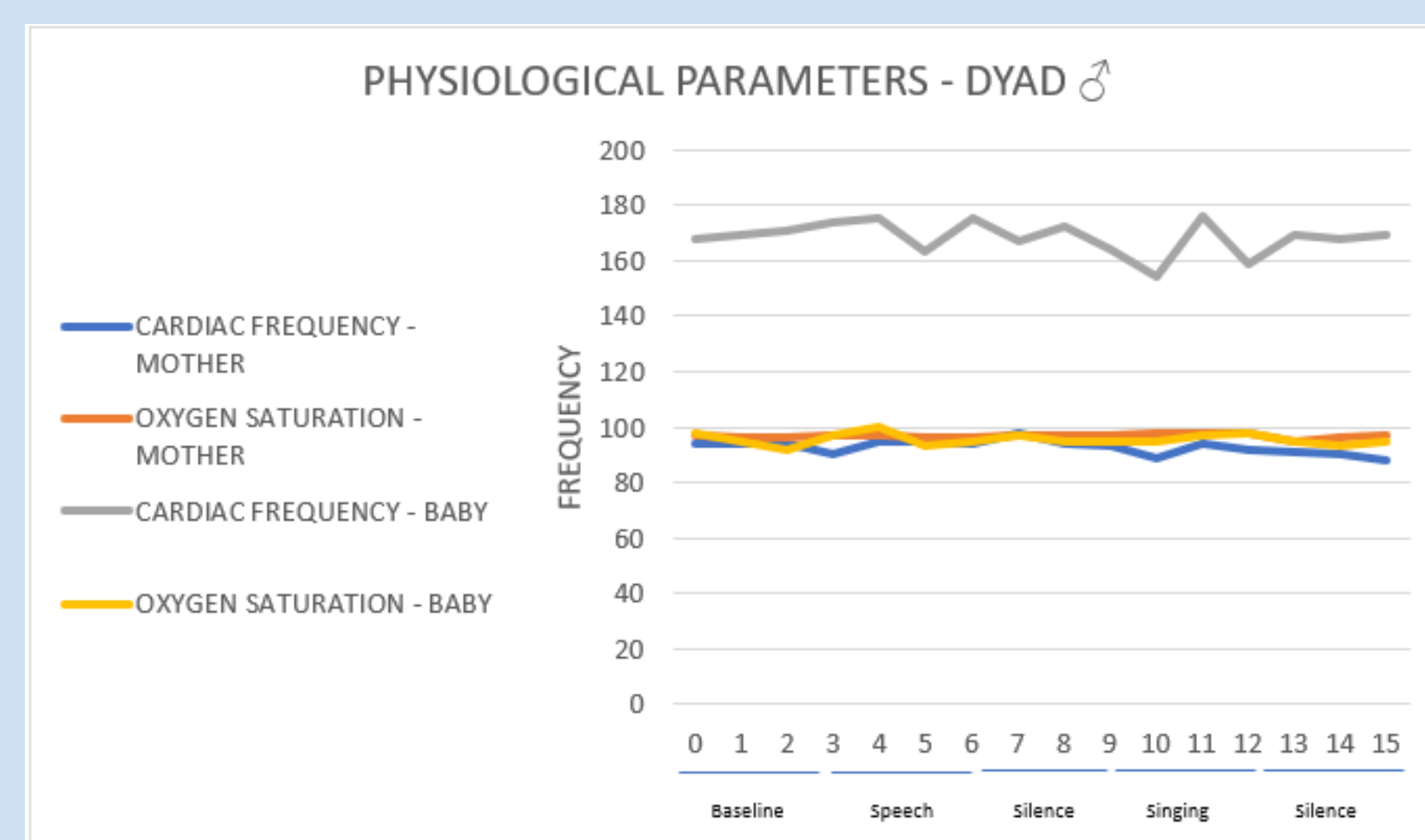
Method

A case study of preterm twins' interaction with their mother will be subjected to microanalysis. A musical transcript of maternal singing for each of the two babies will be analyzed. Aims: to analyze the modalities of vocal and visual responses of babies during a protocol of speech and singing conditions.

Protocol Sequence

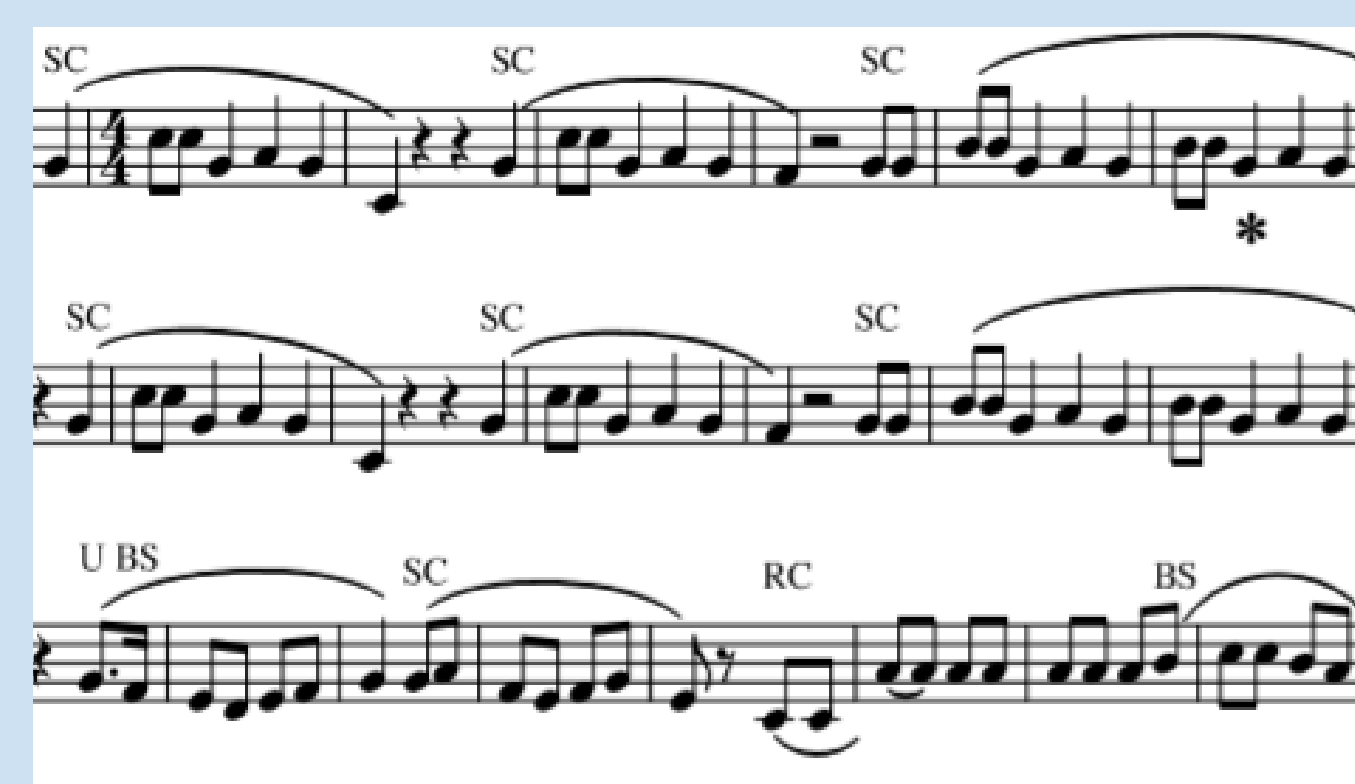
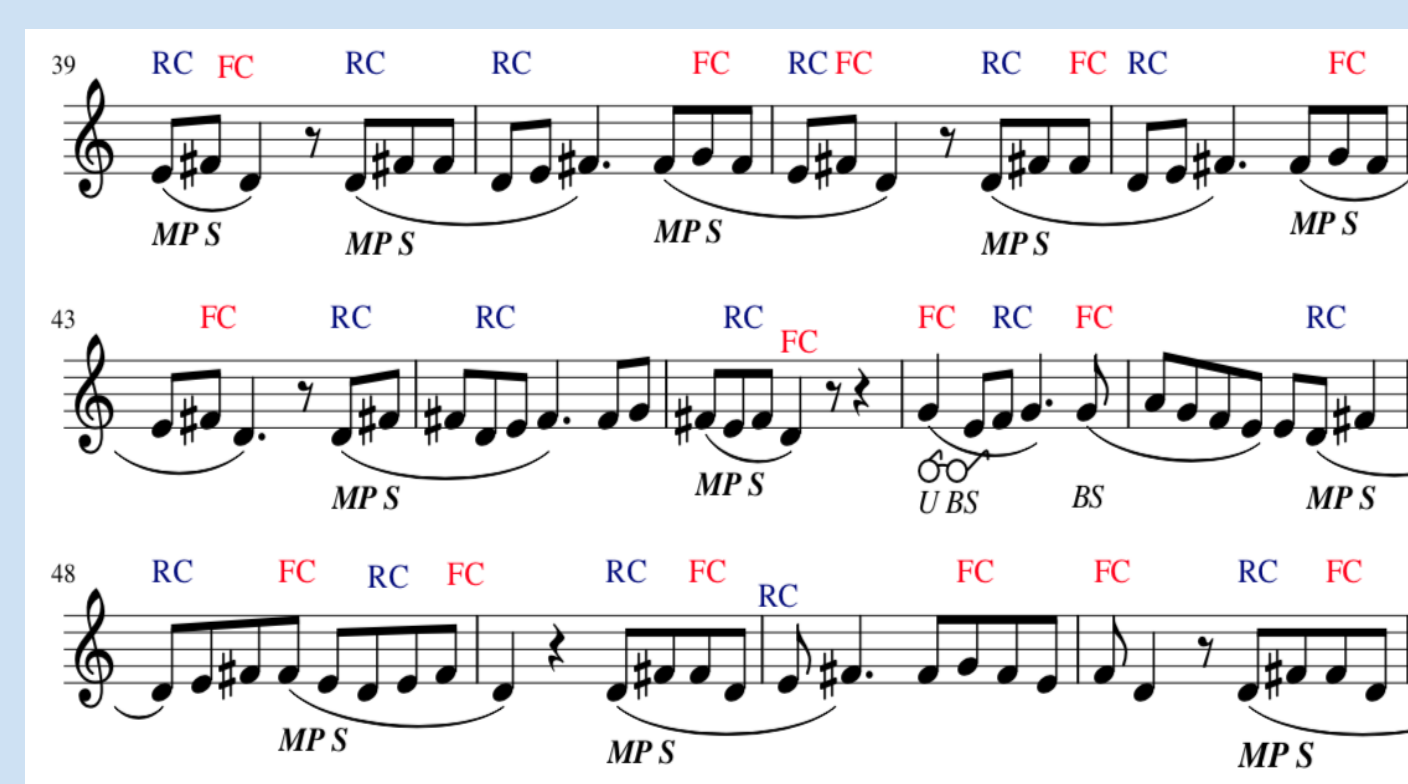


Results



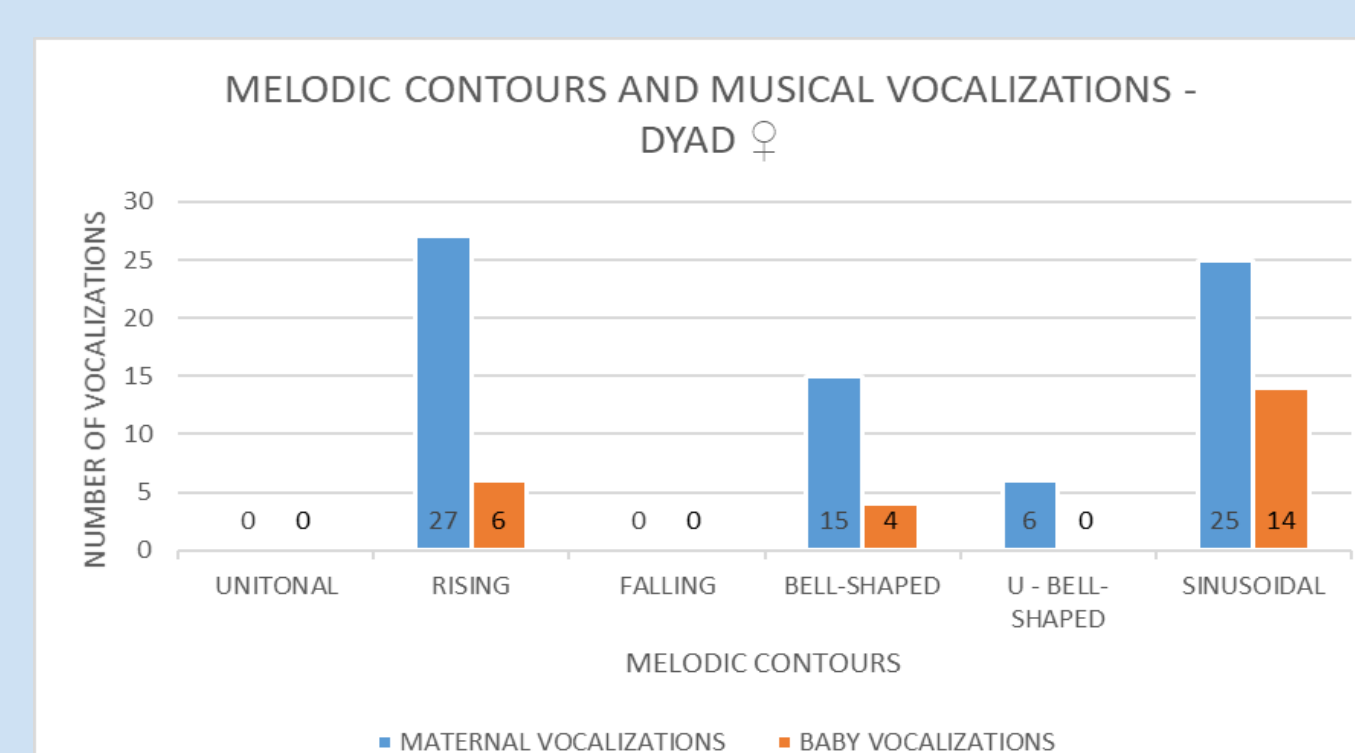
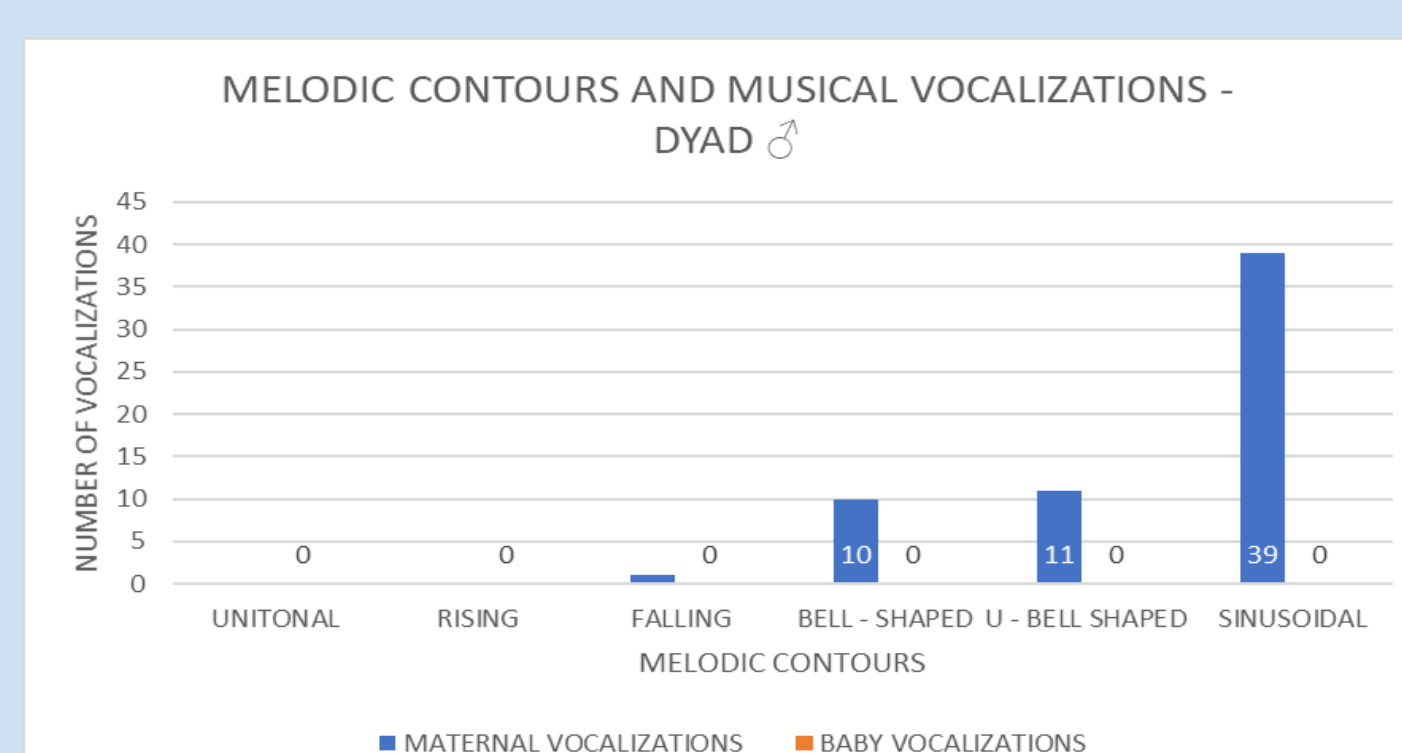
• More variability of infant cardiac frequency.

• More variability of infant cardiac frequency;
• Higher cardiac frequency in speech than in singing.



RC - Rising contour ; FC - Falling contour ; BS - Bell shaped ; U BS - U bell shaped ; SC - Sinusoidal contour ; MPS-Musical phrase sinusoidal

* - Infant's Vocalization ;  - Infant's gaze



Conclusion

- In this study was found that the melodic contours of maternal singing shows different features when directed to female or male infants.
- More visual responses were found in the male infant while more vocal responses were found in the female infant.
- More variability of infant cardiac frequency were found during the protocol.

Differences in melodic contours were observed. Female directed singing shows more variability of melodic phrases, while male directed singing is characterized by greater melodic regularity.

Keywords

Prematurity, gender differences, communicative musicality, vocal interactions, sensorial multi-modality, twin babies