



Infant-Directed Speech to preterm infants in the first year postpartum: the influence of severe premature birth and maternal postnatal depression

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Abstract

Introduction: Preterm birth could negatively influence the quality of mother-infant interactions during the first year of life. To date, few studies have investigated the effects of prematurity on the features of maternal input during interactive patterns, especially considering the role played by the severity of prematurity and maternal postnatal depression (PND). This study aimed to describe functional and morpho-syntactic features of maternal Infant-Directed Speech (IDS) in preterm dyads, exploring the influence of maternal PND and severity of prematurity, comparing dyads of Extremely Low Birth Weight (ELBW; <1000 gr.), Very Low Birth Weight (VLBW; 1000-1500 gr), and Full-Term (FT) babies. *Methods:* At 3 and 9 months postpartum (corrected age for preterm infants), sixty mother-infant dyads (15 ELBW, 15 VLBW, 30 FT) freely interacted for 5 minutes. Lexical, syntactic, and functional features of maternal input produced during the interaction were analyzed using the CHILDES software. Moreover, maternal PND symptomatology was assessed using the Edinburgh Postnatal Depression Scale. *Results:* At 3 months, maternal IDS in high-risk conditions (PND or ELBW preterm condition) showed a lower frequency of affect-salient speech ($F(2,49)=10.83, p=.002$; $F(2,49)=3.60, p=.034$, respectively) and a higher proportion of questions ($F(2,49)=6.61, p=.013$; $F(2,49)=3.32, p=.043$, respectively) and directives (PND: $F(2,49)=4.39, p=.040$) compared to IDS produced by non-depressed mothers and those of FT and VLBW infants, respectively. At 9 months, mothers with higher levels of PND showed an IDS characterized by lower verbosity ($F(2,49)=4.602; p=.032$) and higher frequency of attention-getter utterances ($F(2,49)=6.911; p=.009$) than mothers with lower levels of PND. *Discussion:* Despite preliminary, these findings highlighted that maternal IDS might be influenced by both the presence of depressive symptoms and severe prematurity. Moreover, IDS features seemed to change during the first year postpartum, suggesting the need to monitor the influence of both the severity of preterm birth and the presence of PND on the features of maternal input directed to the infant.