

Background and aim

Parental participation during the NICU stay is essential for the neurodevelopment of preterm infants. However, parenting in the NICU is challenging. The aim of this study was to characterize parental participation and identify predictors of parental presence and holding in the NICU.

Method

- Retrospective single-center study from August 2018 to July 2019. Sixty-five infants born before 37 weeks' gestation were included.
- **Exclusion criteria:** death during the NICU stay, transfer to another unit within 24h of life, transfer to another hospital
- **Data collected:** demographics, perinatal data, parental visits, and parental holding

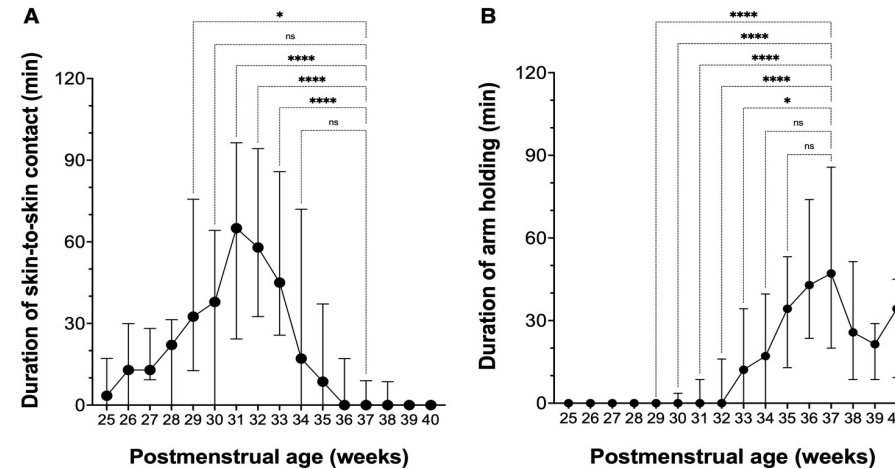
Discussion

In this study, striking differences were identified between mothers and fathers. Predictors of poorer maternal participation were lower incomes, siblings and neonatal comorbidities. Besides, hospital environment, the lack of consideration by the medical staff or the fear of disturbing a fragile infant could be other factors influencing parental participation. Despite the importance of early skin-to-skin contact at extremely low gestational age, lower duration of holding was seen in this cohort for infants born before 28 weeks' gestation.

Modèle

Results

Evolution of skin-to-skin contact (A) and arm holding (B) during the NICU stay



Predictors of maternal participation

Variable	P value
Neonatal comorbidities	0.0008
Siblings	0.0002
Incomes	0.0002
Invasive ventilation	0.29
Gestational age	0.6

Low income, siblings and neonatal comorbidities are correlated with lower parental participation

Parental participation during the NICU stay

Variable	Total	Mother (n = 58)	Father (n = 54)	P value
Parental visits per week, median (P25–P75)	5 (4–6)	6 (6–7)	3 (2–4)	<0.0001
Duration of arm holding per day (minutes), median (P25–P75)	30 (20–45)	27 (18–40)	4 (0–8)	<0.0001
Duration of skin-to-skin per day (minutes), median (P25–P75)	30 (20–52)	29 (19–41)	1 (0–5)	<0.0001
Duration of total holding (minutes), median (P25–P75)	66 (41–102)	43 (20–70)	2 (0–10)	<0.0001

Conclusion

Socio-demographic and medical factors contribute, at least in part, to parental presence and holding of preterm infants in the NICU. This study also highlights the importance of including fathers, supporting families with siblings, and encouraging skin-to-skin contact until the end of the NICU stay.

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