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# THE STOCKHOLM NEONATAL FAMILY-CENTERED CARE STUDY: EFFECTS ON SALIVARY CORTISOL IN INFANTS AND THEIR MOTHERS

**E. Mörelius**[1], E. Berggren Broström[2], B. Westrup[2], I. Sarman[3], A. Örtenstrand[2]

*[1]Department of Social and Welfare Studies, Faculty of Health Sciences, Linköping University, Norrköping, [2]Department of Woman and Child Health, Karolinska Institutet and University Hospital, [3]Department of Clinical Science and Education, Södersjukhuset, Karolinska Institute, Stockholm, Sweden*

**Objective:** Parental involvement in the care of preterm infants in neonatal intensive care units (NICUs) is common, but little is known about stress responses in mothers and infants.

**Aim:** To evaluate the effect of family-centered care on salivary cortisol reactivity in mothers and infants and the correlation between the mothers' and the infants' salivary cortisol.

**Method:** This study is part of a randomized controlled trial conducted at two level-II NICUs, including Family Care (FC), where parents were able to stay 24 hours/day from admission to discharge, and Standard Care (SC). To investigate the cortisol response, saliva was collected from 289 preterm infants and their mothers before and after a diaper change at the time of discharge.

**Result:** No significant differences were found between the two groups in baseline or response cortisol concentrations, either in mothers or in infants. The results revealed a correlation between preterm infants' and their mothers' baseline and response cortisol in the FC group: $r=0.31$ ($p=0.001$) and $r=0.24$ ($p=0.01$), respectively. Such correlation was not observed in the SC group: $r=0.14$ ($p=0.14$) and $r=0.18$ ($p=0.07$), respectively.

**Conclusion:** Parents' presence throughout the hospital stay may accelerate the relationship of the mother-infant dyad and improve their ability to follow each other's cortisol rhythm. The significance of the measured cortisol levels is still unclear, but this model of FC may have a positive impact on the attachment process.