

# Parental Mental Health & Infant Neurobehavioral Outcomes Related to Co-Occupational Engagement in the NICU

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**BACKGROUND:** Parents and infants in the NICU engage in co-occupations such as skin-to-skin care, massage, diapering, bathing, and feeding. However, occupations in the NICU may be altered due to infant medical factors and developmental capacities, and/or parent mental health.<sup>1</sup> When parents are not present in the NICU, co-occupations may also occur between infants and healthcare professionals/volunteers.

**PURPOSE:** To explore differences in parent mental health and infant neurodevelopmental outcomes based on whether parents or others (volunteers/healthcare professionals) engaged in more sensory-based co-occupations with infants in the NICU.

**METHOD:** The Supporting and Enhancing NICU Sensory Experiences (SENSE)<sup>2</sup> program was trialed with thirty-five parent-infant dyads of preterm infants (born <32 weeks gestation). Co-occupational engagement in multisensory activities between infants and parent or healthcare team members were tracked on bedside logs throughout hospitalization. At term equivalent age, infant neurobehavior was assessed using the NICU Network Neurobehavioral Scale (NNNS) and parents completed self-report measures of mental health.

**RESULTS:** Eighty percent (n=28) of the infants engaged mostly in parent-infant co-occupations, while 20% (n=7) participated in more co-occupations with volunteers/healthcare professionals. Infants in the parent-infant co-occupations group had lower NNNS lethargy scores (p=0.036). Parents in the parent-infant co-occupations group had lower state anxiety scores (p=0.047), Parental Stress Scale and Parenting Stress Index (PSI) Stress subscale scores (p=0.003, p=0.012), and lower challenges on PSI parent-infant dysfunctional interaction subscale (p=0.021).<sup>3</sup>

**CONCLUSION:** Parent and infant outcomes seem to be influenced by the amount of parent-infant co-occupational engagement during NICU admission. Future research on NICU engagement related to family outcomes is warranted to inform clinical practice.

## References

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