

## PSYCHOSOCIAL SUPPORT

### *Negative reactivity in toddlers born prematurely: Indirect and moderated pathways considering self-regulation, neonatal distress and parenting stress*

#### Background

Existing studies provide evidence for an increased prevalence for emotional problems in toddlerhood for the population of former preterm infants. This emotional morbidity is believed to hinder children to adapt in educational and social contexts – an interrelation, that could explain the increasing risk for academic underachievement of children born preterm.

#### Summary of results

Sample consists of 146 preterm children and 86 healthy full-term children. Groups do not differ in regard to the frequency of negative emotions in infancy and toddlerhood (12 and 24 months corrected age; parents report), even after distinguishing between very vs. moderately to late preterm children. There is no clear evidence of an indirect link between prematurity and negative affectivity through self-regulation, whereby moderator effects of parenting differences were discussed. Thereby, the relation between neonatal distress and negative affectivity is of particular interest, with a buffering effect of low parenting stress at the first years of children's life on the negative influence of neonatal distress on self-regulatory behavior.

#### Strength

Measuring negative affectivity and parenting stress twice, in infancy and toddlerhood, provides some insight in the modulated pathways of distress-related effects through psychosocial factors in early emotional development. These results emphasize the significance of environmental conditions beyond perinatal risk factors. Additionally, a divergence between parental ratings and behavioral tasks in relation of measures of children's self-regulation abilities to prematurity and emotional outcome point out a possible bias in parents' ratings and thereby a greater sensitivity of laboratory tasks for prematurity related differences in self-regulation.

#### Limitations

The subsample of preterm children consists of a homogenous group by recruiting them from a monocentric convenience sample and including only children without severe neuronal complications. This may have limited not only the range of observed frequency of neonatal distress and pain, but also the observed range of self-regulatory behavior and negative affectivity. Measurement of neonatal distress was rather conservative by concerning mainly distress-related tactile experiences and not including other stressors as, for example, maternal separation. Recording data for parenting stress only by self-reports and first at 12 months of child's age does not address the dynamics between parenting behavior and self-regulatory abilities of the child. More observational data at various points in time is needed.

#### Practical conclusion

Further studies of limitations in self-regulatory abilities of former preterm children need to consider, beside diverse perinatal stressors, the interrelation with psychosocial factors as parenting environment. Therefore, early measures of regulatory impairments and parent-child interactions should be developed for the identification of potential risk groups, which require professional follow-up care.

**Voigt B et al.**, Negative reactivity in toddlers born prematurely: Indirect and moderated pathways considering self-regulation, neonatal distress and parenting stress. *Infant Behavior & Development* 36 (2013) 124– 138.

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