Toddler temperament, cognition and caregiver interaction predict impulsive functioning


QUESTION: What are the infancy and toddler-age precursors of inattention and impulsivity in school-age children?

Design
Longitudinal cohort study.

Setting
USA.

Participants
89 children participating in the Bloomington Longitudinal Study since infancy. Families were recruited using birth announcements when infants were 5–6 months old; 57% male; 51% first born.

Main outcome measures
Self regulatory competence at 8 years of age was measured using observation and laboratory tests of inhibitory control, behavioural control and attentional disengagement. Draw a Star Slowly and Matching Familiar Figures tests were used to assess inhibitory control. Task engagement and timing were monitored during a free play session to examine attentional disengagement. Behavioural control was assessed during restricted and unrestricted periods of a semi-structured work task.

Main results
Care-giver child interaction, child temperament and cognitive competence during infancy predicted variations in later impulsive functioning.

Conclusions
While child impulsivity is multidimensional, there are toddler-age precursors of later self regulatory competence.

Assessment of risk factors
Demographic and family factors, child-parent interaction, child cognition and temperament were assessed at 6, 13 and 24 months and between 3–8 years of age using home observation, maternal report and laboratory tests. Mother-infant interaction and child characteristics were assessed during 3-hour home visits using naturalistic observation, the Mother Affectionate Contact scale, the Object Stimulation scale, the Child Characteristics questionnaire and the Bayley Mental Health scale.

Assessment of risk factors
Demographic and family factors, child-parent interaction, child cognition and temperament were assessed at 6, 13 and 24 months and between 3–8 years of age using home observation, maternal report and laboratory tests. Mother-infant interaction and child characteristics were assessed during 3-hour home visits using naturalistic observation, the Mother Affectionate Contact scale, the Object Stimulation scale, the Child Characteristics questionnaire and the Bayley Mental Health scale.

Main outcome measures
Self regulatory competence at 8 years of age was measured using observation and laboratory tests of inhibitory control, behavioural control and attentional disengagement. Draw a Star Slowly and Matching Familiar Figures tests were used to assess inhibitory control. Task engagement and timing were monitored during a free play session to examine attentional disengagement. Behavioural control was assessed during restricted and unrestricted periods of a semi-structured work task.

Main results
Care-giver child interaction, child temperament and cognitive competence during infancy predicted variations in later impulsive functioning.

Conclusions
While child impulsivity is multidimensional, there are toddler-age precursors of later self regulatory competence.

Assessment of risk factors
Demographic and family factors, child-parent interaction, child cognition and temperament were assessed at 6, 13 and 24 months and between 3–8 years of age using home observation, maternal report and laboratory tests. Mother-infant interaction and child characteristics were assessed during 3-hour home visits using naturalistic observation, the Mother Affectionate Contact scale, the Object Stimulation scale, the Child Characteristics questionnaire and the Bayley Mental Health scale.

Main outcome measures
Self regulatory competence at 8 years of age was measured using observation and laboratory tests of inhibitory control, behavioural control and attentional disengagement. Draw a Star Slowly and Matching Familiar Figures tests were used to assess inhibitory control. Task engagement and timing were monitored during a free play session to examine attentional disengagement. Behavioural control was assessed during restricted and unrestricted periods of a semi-structured work task.

Main results
Care-giver child interaction, child temperament and cognitive competence during infancy predicted variations in later impulsive functioning.

Conclusions
While child impulsivity is multidimensional, there are toddler-age precursors of later self regulatory competence.

Assessment of risk factors
Demographic and family factors, child-parent interaction, child cognition and temperament were assessed at 6, 13 and 24 months and between 3–8 years of age using home observation, maternal report and laboratory tests. Mother-infant interaction and child characteristics were assessed during 3-hour home visits using naturalistic observation, the Mother Affectionate Contact scale, the Object Stimulation scale, the Child Characteristics questionnaire and the Bayley Mental Health scale.

Main outcome measures
Self regulatory competence at 8 years of age was measured using observation and laboratory tests of inhibitory control, behavioural control and attentional disengagement. Draw a Star Slowly and Matching Familiar Figures tests were used to assess inhibitory control. Task engagement and timing were monitored during a free play session to examine attentional disengagement. Behavioural control was assessed during restricted and unrestricted periods of a semi-structured work task.

Main results
Care-giver child interaction, child temperament and cognitive competence during infancy predicted variations in later impulsive functioning.

Conclusions
While child impulsivity is multidimensional, there are toddler-age precursors of later self regulatory competence.