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Research Update for Professionals

Early Autonomy Support, Executive Functions, and Academic Achievement

Selected Research Article:

Bindman, S. W., Pomerantz, E. M., & Roisman, G. I. (2015, January 19). Do children's executive functions account for associations between early autonomy-supportive parenting and achievement through high school? *Journal of Educational Psychology*. Advance online publication. doi:<http://dx.doi.org/10.1037/edu0000017>

What were they trying to find out?

- Prior studies have suggested a relationship between parents' support for child's autonomy (for example: flexibility, letting the child take the lead, and going at a child's pace during activities) and better achievement (reading and math test scores) for the child, but there is less evidence as to why this association occurs.
- The authors sought to examine whether parents' promotion of executive functions (children's skills that relate to handling attention and behavior, like ignoring distractions or changing focus easily) help explain this correlation.

What did they do?

- This study took place with 1,306 mother-child dyads during four phases from birth through high school. In the first phase, mothers' parenting was observed via videotape when the child was 6, 15, 24, and 36 months. Phase 2 involved measuring the child's executive functions, personality, cognitive skills, and achievement at 54 months of age in a lab setting. Phase 3 measured the child's achievement in elementary school (1st, 3rd, and 5th grade) in a lab setting, and Phase 4 measured the child's achievement in high school, at about age 15.
- Mothers' behaviors were observed and coded for autonomy vs. control, warmth vs. hostility, and cognitive stimulation in the first phase only.

What did they find?

- Mothers' autonomy supportive behaviors (such as recognizing a child's needs and desires or letting a child solve problems on his/her own) influenced children's executive functions (such as delay of gratification, sustained attention, and inhibition).
- In turn, children's executive functioning was positively related to their subsequent elementary and high school achievement.

What does it mean for parenting educators?

- As parent educators, we can help parents increase early autonomy support by encouraging parents to ask their child questions, provide choices to the child (e.g. what outfit they want to wear), or persevere through difficult activities, such as a difficult math problem or understanding new concepts.

