



Society for Research in Child Development
Office for Policy and Communications
750 First St., NE • Washington, DC 20002-4242
OFFICE: (202) 336-5926 • FAX: (202) 336-6184

PRESS RELEASE

Child Development (May/June issue)

EMBARGOED FOR RELEASE ON MAY 17, 2006 (12:01 AM)

Contact Information:

Andrea Browning
Society for Research in Child Development
Office for Policy and Communications
(202) 336-5926
abrowning@srcd.org

Moderate Stress During Pregnancy Does Not Harm Child Development

Many cultures hold that stress during pregnancy affects a woman's unborn child. However, there has been surprisingly little research on the topic. Now a study published in the May/June issue of the journal *Child Development* finds the folklore has scientific truth to it – although not in the way you might expect.

Researchers from Johns Hopkins University in Baltimore and the National Institute of Child Health Development (NICHD) asked 137 healthy, pregnant women with low-risk, normal pregnancies to report on their levels of anxiety and stress between the 24th and 32nd weeks of their pregnancy, as well as six weeks and two years after the birth. The researchers also assessed the women's feelings about the pregnancy. Two years later, the researchers evaluated the mental and motor development of the children born to those women, as well as the toddlers' ability to control their behavior and regulate their emotions.

The researchers found that the mothers' emotions during pregnancy were indeed associated with child development – but not in the expected direction. Women who reported more stress and anxiety during pregnancy had children who were somewhat *more* advanced in their mental and motor development at age 2. This remained true even after taking into account the women's stress and anxiety levels after birth, which can influence child rearing in other ways.

In addition, there were no effects of prenatal stress or anxiety on the children's ability to handle their own emotions or control their behavior with one exception: children of women who reported more negative feelings about being pregnant had somewhat poorer behavioral and emotional regulation. It's not known, however, if this is a specific biological effect or whether women who were highly negative about being pregnant treated their children differently after birth.

“While these findings may seem counterintuitive, chemicals that are produced by stress have a well-known influence on organ growth and development,” said lead author Janet A. DiPietro, PhD, a developmental psychologist and professor at the Johns Hopkins Bloomberg School of Public Health. “Mild to moderate stress has been proposed to be important to successful adaptation to the environment after birth and necessary for optimal brain development.”

She notes, however, that study participants were well-nourished, financially stable women who were not receiving psychiatric care. “These women experienced the typical types of

stresses and anxieties that accompany juggling the many roles and responsibilities of modern life,” she said. “It is possible that the results might be different if the study had included women undergoing more chronic, physical, or severe turmoil.”

Nonetheless, she concludes, the findings should put many pregnant women’s minds at ease and enable them to “stop worrying about worrying.”

###

Summarized from Child Development, Vol. 77, Issue 3, *Maternal psychological distress during pregnancy in relation to child development at age two* by DiPietro JA and Atella LD (Johns Hopkins School of Public Health) Novak M (National Institute of Child Health Development), Costigan KA (Johns Hopkins Medical Institutions) and Reusing SP (Johns Hopkins School of Medicine). Copyright 2006 The Society for Research in Child Development, Inc. All rights reserved.