Maternal Stress Can Affect Fetal Neurobehavioral Functioning

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We know that stress can eventually have a negative effect on physical well-being. However, there is increasing evidence that the psychological state of the pregnant woman can have an effect on fetal physiological functioning. Recently, researchers found maternal stress during pregnancy to be associated with a decrease in fetal heart rate variability (DiPietro, Hodgson, Costigan, Hilton & Johnson, 1996; Shupe, 1998). In addition, Shupe (1998) found chronic maternal stress to be associated with increased time between the onset of a fetal movement and the corresponding change in heart rate (latency). This is preliminary research, so we do not know exactly what it means in terms of outcome for the newborn. However, we are safe in telling women that chronic stress during pregnancy is not good for the fetus. Childbirth educators are in a position to assess women for chronic and pregnancy related stress. Referrals for counseling or ancillary services can get women the help they need to reduce the stress in their lives.

References

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- Shupe, A. (1998). The impact of maternal stress and affect intensity of fetal neurobehavioral functioning. Post presentation. 21st Annual Perinatal Conference: Perinatal Care: 1998 Updates and Controversies. Ft. Collins, Colorado, October 16 & 17, 1998.

Early Intervention Program for Low Birthweight Premature Infants Gets Results

Children who had participated in a randomized clinical trial of specialized services for low birthweight (LBW)

infants during the first 3 years of life were re-evaluated when they were 8 years old. Children classified as “heavier low-birth weight” who received specialized services (home visits, child development center services, and parent group meetings) had higher scores in the following areas: full-scale IQ, verbal IQ, performance IQ, mathematical achievement, and receptive vocabulary (McCarton, et al., 1997). Although the findings in this study are limited to the heavier LBW infants, this piece of information is valuable to the parents of premature infants in that the parents could request specialized services for their child.

Reference

McCarton, Brooks-Gunn, J., Wallace, I, Bauer, C., Bennett, F., Bernbaum, J., Broyles, R., Casey, P., McCormick, M, Scott, D., Tyson, J., Tonascia, J. & Meinert, C. (1997). Results at 8 years of early intervention for low-birth-weight premature infants. *The Infant Health and Development Program. Journal of the American Medical Association*, 277(2), 126-132.

Prenatal Acupuncture Reduces the Duration of Labor

Although acupuncture is an ancient technique, we in the United States are just beginning to appreciate its worth.

Tempfer and colleagues (1998) found that acupuncture during the prenatal period (35–39 weeks gestation) was effective in shortening the first stage of labor by an average of 136.5 minutes. Forty women received acupuncture once a week during 20-minute sessions. The needles were positioned bilaterally at the posterior fontanel, the distal wrist crease, and proximal to the wrist crease (du-20 bai hui, he 7 shen men, and Ex 6 nei guan). Although research related to the use of acupuncture for pain relief during labor is controversial and has resulted in mixed results (Lyrenas, et al., 1990), Tempfer’s study provides strong evidence that acupuncture has a role in reducing the length of first stage labor.

References

Lyrenas, S., Lutsch, H., Hetta, J., Nuyberg, F., Willdeck-Lundh, H. & Lindberg, B. (1990). Acupuncture before delivery: Effect on pain perception and the need for analgesics. *Obstetrics and Gynecology*, 29, 118-124.

Tempfer, C., Zewisler, H., Heinzl, H., Hefler, L, Husselein, P. & Kainz, C. (1998). Influence of acupuncture on maternal serum levels of interleukin-8, prostaglandin F_{2alpha}, and beta-endorphin: A matched pair study. *Obstetrics and Gynecology*, 92(2), 245-248.

Exploring the Truth

What concerns me is not the way things are, but rather the way people think things are.
—Epitetus

The trouble with most people is that they think with their hopes and fears rather than with their minds.
—Will Durrant

By nature’s kindly disposition most questions which it is beyond a man’s power to answer do not occur to him at all.
—George Santayanna