



Stress in pregnancy

1 Hur MH et al 2005 Effects of delivery nursing care using essential oils on delivery stress response, anxiety during labor, and postpartum status anxiety Taehan Kanho Hakhoe Chi. 35(7):1277-84

This study aimed to investigate the effect of essential oils used in labour on maternal stress response and intrapartum and postpartum anxiety in 48 primigravidae, using non-equivalent control group pre-test-post-test methodology. The women were randomly assigned to two groups (n= 24) with a mean age of 27.9 years old and mean gestation period of 279.9 days. Essential oils were administered by nurse-midwives and epinephrine, norepinephrine and labour anxiety levels during labour were recorded, plus anxiety levels 24 hours post-delivery. although plasma epinephrine and norepinephrine were significantly lower in the group which received essential oils, there was no significant difference between the two groups in anxiety, either during or after labour.

2 Diego MA et al 2006 Maternal psychological distress, prenatal cortisol, and fetal weight Psychosom Med. 68(5):747-53

This study aimed to examine the effects of maternal psychological distress on estimated fetal weight during the second trimester and to explore maternal hypothalamic-pituitary axis and sympatho-adrenal dysregulation as potential risk factors. Fetal ultrasound measurements to estimate fetal weight, maternal socio-demographic characteristics, emotional distress symptoms, and early morning urine samples to test for cortisol and norepinephrine levels, were collected during ultrasound examination in 98 women between 16 and 29 weeks' pregnant. The study showed that maternal depression, and anxiety, cortisol and norepinephrine were negatively related to fetal ultrasound measurements and estimated fetal weights. When maternal socio-demographic factors, psychological distress and biochemistry measures were accounted for, cortisol

was the only significant predictor of fetal weight. This appeared to demonstrate that women who were psychologically distressed during pregnancy have raised cortisol levels in the second trimester that are related to lower fetal weight.

3 Tiran D Chummun H 2004 Complementary therapies to reduce physiological stress in pregnancy Complement Ther Nurs Midwifery. 10(3):162-7

Pregnancy is a period of enormous physio-pathological and psychosocial adaptation in a woman's life. While mild to moderate stress facilitates successful adjustment significant increases in stress hormone levels may compromise maternal and fetal health and wellbeing. Complementary therapies are increasingly popular with expectant mothers and are being integrated into maternity care but it is unclear whether they simply provide a form of relaxation or offer ways to deal constructively with physio-pathological stress. This paper considers the physiological effects of certain complementary therapies in reducing the impact of stress in pregnancy.

4 Field T et al 2004 Massage therapy effects on depressed pregnant women J Psychosom Obstet Gynaecol. 25(2):115-22.

84 depressed second trimester expectant mothers were randomly assigned to a massage therapy group, who received massage from their partner for 16 weeks, a self-induced progressive muscle relaxation group or a control group which received standard antenatal care only, and compared both to each other and to a non-depressed group at term. In the massage group, lower levels of anxiety and depressed mood and less leg and back pain were reported immediately after the first and last session and by the end of the study higher dopamine and serotonin levels and lower cortisol and norepinephrine levels were demonstrated, which may have contributed to reduced fetal activity and better neonatal outcomes for the massage group. This study suggests that depressed pregnant women and their offspring can benefit from massage therapy.

5 Bastani F et al 2005 A randomized controlled trial of the effects of applied relaxation training on reducing anxiety and perceived stress in pregnant women J Midwifery Womens Health. 50(4):e36-40

This randomised controlled study aimed to investigate effects of applied relaxation training on anxiety and stress in pregnant women, using a prospective

pre-test-post-test I design. 110 primigravidae in the second trimester received either applied relaxation training with routine antenatal care or routine antenatal care only. Significant reductions in anxiety and perceived stress were demonstrated for the experimental group, compared with the control group, suggesting beneficial effects of relaxation on stress and anxiety during pregnancy. Teaching relaxation techniques could serve as a resource for improving maternal psychological health.

6 Almeida NA et al 2005 Corticotrophin hormone serum levels of parturients submitted to nonpharmacologic anxiety and pain relief method during labor Rev Lat Am Enfermagem. 13(2):223-8

This randomly controlled study analysed plasma ACTH levels their correlation with pain and anxiety during labour. 17 women received standard care and 19 were guided to perform respiration and relaxation techniques. ACTH levels were shown to be lower at the beginning of labour, peaking at the end and decreasing immediately post delivery, and there was no significant statistical difference between the groups. Lower ACTH levels and partial stress relief in the experimental group suggest that breathing and relaxation techniques may be beneficial. ACTH levels did not correlate with anxiety or pain in either group.