

Gallagher, SP and Kryzanowska, R (1999). The Pilates Method of Body Conditioning. Philadelphia, Bain Bridge Books.

Bernardo, L. M. (2007). 'The effectiveness of Pilates training in healthy adults: An appraisal of the research literature.' J Body Mov Ther 11: 106-110.

### **INFLUENCE OF PHYSICAL ACTIVITY IN WEIGHT GAIN, BLOOD GLUCOSE LEVELS AND BLOOD PRESSURE IN PREGNANT WOMEN**

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#### **Aims**

The purpose of our study was to understand the influence of physical activity (PA) in weight gain, blood glucose levels, blood pressure in pregnancy and parity.

#### **Methods**

Cross-sectional evaluation analysis of 100 women, aged between 17 to 42, from Santo Antonio General Hospital was done. PA was assessed using the Pregnancy Physical Activity Questionnaire (PPAQ).

#### **Results**

We found that levels of PA and total weight gain of pregnant women were not associated ( $p = 0.352$ ), and there was no linear correlation between the total score for PA and blood glucose levels ( $p = 0.849$  for fasting glucose levels and  $p = 0.438$  for blood sugar levels after 50 g glucose). In addition PA and blood pressure values were also not correlated ( $p = 0.166$  for systolic blood pressure;  $p = 0.233$  for diastolic). It was found a correlation between PA and parity (multiparous had higher levels of PA:  $p = 0.020$ ). The statistical tests used were the Spearman's  $\rho$  and chi-square ( $p < 0.05$ ).

#### **Conclusion**

In this study we did not find associations among PA and the following variables: gain weight, blood glucose and blood pressure. However we saw that PA levels were higher in multiparous compared to primiparous.

**Keywords:** physical activity, pregnancy, blood glucose levels, weight gain, blood pressure, PPAQ.

#### **References**

1. Althuisen E, Van Poppel MNM, Seidell JC, Van Der Wijden, Van Mechelen W. Design of the New Life(style) study: a randomised controlled trial to optimise maternal weight development during pregnancy. BMC Public Health 2006; 6(168).
2. Buchanan TA, Xiang AH. Gestational diabetes mellitus. J Clin Invest 2005; 115: 485-491.
3. Chasan-Taber L, Schmidt MD, Roberts DE, Hosmer D, Markenson G, Freedson P. Development and Validation of a Pregnancy Physical Activity Questionnaire. Medicine & Science in Sports & Exercise 2004.
4. Oken E, Ning Y, Rifas-Shiman SL, Radesky JS, Rich-Edwards JW, Gillman MW. Associations of Physical Activity and Inactivity Before and During Pregnancy With Glucose Tolerance. Obstet Gynecol 2006; 108(5): 1200-1207.

### **INFLUENCE OF PHYSICAL ACTIVITY ON ANXIETY LEVELS IN PREGNANCY**

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The aims of this study were twofold. First to evaluate the influence of physical activity (PA) on anxiety levels on pregnancy. Second to analyse the influence of parity and a history of previous miscarriage in PA.

In this observational, analytic and cross sectional study, it was used a sample of 100 women, aged 17 to 42 years, from Santo Antonio General Hospital. PA and anxiety were assessed using the Pregnancy Physical Activity Questionnaire (PPAQ) and the Zung Self-Rating Anxiety Scale.

It was found that levels of PA were not linearly correlated with the anxiety levels  $p = 0.144$ . It was also found an association between PA and parity, whereby multiparous women had higher levels of PA ( $p = 0.020$ ) and between PA and previous miscarriage women with levels of physical activity higher had fewer previous miscarriages ( $p = 0.032$ ). The statistical test used was the Spearman's  $\rho$  and chi-square. In all tests it was considered a significance level of 0,05.

In conclusion, through this study it was not possible to verify that PA during pregnancy is related to anxiety. We concluded that there are only associations between, PA and number of births and PA and a history of previous miscarriage.

**Keywords:** physical activity, anxiety, pregnancy.

#### **References**

1. Chasan-Taber L, Schmidt M, Roberts D, Hosmer D, Markenson G, Freedson P. Development and validation of pregnancy physical activity questionnaire. Medicine & Science in Sports & Exercise 2004.
2. DaCosta D, Rippen N, Dritsa M, Ring A. Self-reported leisure time physical activity during pregnancy and relationship to psychological well-being. J Psychosom Obstet Gynaecol 2003; 24: 111-119.
3. Field T, Diego M, Hernandez-Reif M. Pregnancy anxiety and comorbid depression and anger: effects on the fetus and neonate, Depress Anxiety 2003; 17:140-151.