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Prenatal depression in Gestational Diabetes Mellitus and the exercise effect

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Background: Recent studies revealed that the prevalence of depression during pregnancy was higher in women with gestational diabetes mellitus (GDM) than in uncomplicated pregnancies. Exercise is an important aspect in the management of both depression and GDM. Nevertheless, very few studies have examined the effect of exercise in the management of depression during pregnancy. The aim of this randomized control trial was to measure the prevalence of antenatal depression in women diagnosed with GDM, who exercised systematically or not during pregnancy.

Methods: Thirty-four pregnant women with GDM, attending a University Clinic of Endocrine and Metabolic Disorders in pregnancy, participated in the study. Twenty-one women (group "Exercise") were randomly engaged in an 6-8 week program of regular aerobic exercise, 3-4 times per week. Thirteen women (group "Advice") were randomly assigned to receive the typical care for GDM, without participating in an exercise program. Beck Depression Inventory (BDI) was used to measure depression. The questionnaires were completed twice, in 26-30 weeks of gestation (following diagnosis of GDM) and 37-38 weeks (delivery).

Findings: There was no significant difference at week 26-30, between "Exercise" and "Advice" groups $(9.9 \pm 4.8 \text{ vs. } 9.3 \pm 4.7 \text{ p} = 0738)$ on the contrary there was significant difference at week 37-38 $(8.7 \pm 3.9 \text{ vs. } 11.9 \pm 3.6 \text{, respectively, p} = 0.015)$. In addition, there was significant decrease in the "Exercise" group between the two appliances of the questionnaire $(9.9 \pm 4.8 \text{ vs. } 8.7 \pm 3.9 \text{ p} = 0.008)$, as well as significant increase in the "Advice" group $(9.3 \pm 4.7 \text{ vs. } 11.9 \pm 3.6 \text{, p} = 0.025)$.

Conclusion: Participating in a regular aerobic exercise program has a protective role in the prevention of depression in women with GDM. Midwives and Health care professionals should encourage women with GDM to include exercise as an important part of their treatment plan.

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Notes:

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