



## **Clinical Pilates and Prenatal Education: A Prospective Cohort Study on Mitigating Postpartum Depression and Improving Maternal Outcomes**

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## **Abstract**

**Background:** Depression affects 13-15% of pregnant and postpartum women, impacting maternal and child health. This study evaluated Clinical Pregnancy Exercise (CPE) and Prenatal Education (PE) as interventions to mitigate depressive symptoms and enhance childbirth outcomes

**Methods:** The study included 85 pregnant women aged 18-35, without systemic diseases, and at 16-28 weeks of gestation. Participants were divided into two groups: the study group (n=41), which received CPE and PE, and the control group (n=44), which received standard prenatal care. The obstetric and neonatal outcomes, the Edinburgh Postnatal Depression Scale (EPDS), Visual Analogue Scale (VAS) scores for childbirth pain, presence of low back pain (LBP) were compared between the groups.

**Results:** The EPDS scores at <28 weeks of gestation ( $7,37 \pm 2,38$  vs.  $9,77 \pm 3,4$ ), at 32nd weeks ( $6,51 \pm 2,16$  vs.  $9,34 \pm 2,75$ ) and postpartum 6th month ( $5,59 \pm 2,05$  vs.  $9,7 \pm 3,43$ ) were lower in the study group than the control group ( $p = 0.001$ ). The LBP rate at 32nd gestational week was lower in the study group than the control (14.6% vs. 86.4%,  $p < 0.001$ ). The shorter labor duration ( $6,88 \pm 1,4h$  vs.  $8,11 \pm 3,02h$ ) and the lower VAS score ( $7,46 \pm 0,84$  vs.  $8,98 \pm 1,11$ ) was also found in the study group than the control ( $p < 0.05$ ).

**Conclusion:** Findings revealed that the intervention group had significantly lower EPDS scores at all time points, indicating a reduction in depressive symptoms. The shorter labor duration and less pain during childbirth, as reflected in lower VAS scores, were also observed. These improvements suggest the potential of CPE and PE in enhancing prenatal and postnatal health.

## **Short Biography**

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Experienced Obstetrician and Gynecologist with a strong focus on infertility, contraception, and family planning. Graduated from Ankara University, Faculty of Medicine in 2017.

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