



# Effect of Depression During Pregnancy on Anthropometric Indicators of Newborns: A Cohort Study

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## ABSTRACT

**Introduction:** Depression is one of the most prevalent health problems of women that is suspected to affect fetus growth, besides other maternal complications. Recent studies confirm that depression during pregnancy is even more prevalent than postpartum depression among women. Therefore, the present study examines the effect of depression during pregnancy on anthropometric indicators of newborns.

**Methods and Materials:** A cohort of 466 pregnant women referring to Rafsanjan Health Centers was recruited. The subjects were divided into two groups, considering their state of exposure/non-exposure to depression during pregnancy. All expecting mothers were followed up during their pregnancy, and their demographic information, along with the depression scores, were recorded using the standard Beck Depression Inventory (BDI) test every trimester. The researcher at the maternity also completed the baby growth checklist. The data were analyzed using SPSS; parametric (e.g., T-test) and non-parametric (e.g., Chi-square) statistical methods were applied where appropriate. The relative risk (RR) and 95% confidence interval (CI) were reported.

**Results:** Based on the BDI scores, 155 mothers were exposed to pregnancy depression, and 311 mothers were not exposed to this situation. Age, education, unplanned pregnancy, employment status, fear of childbirth, number of pregnancies, and history of abortion had no significant difference in the two depressed and non-depressed groups, showing homogeneity of the two groups based on these variables. The mean weight at birth, head circumference, height, and Apgar score at 1 minute after birth were higher in newborns of non-depressed mothers comparing the other group. However, there was no significant relationship between Apgar score at 5 minutes after birth and depression ( $p = 0.05$ ).

**Conclusion and Discussion:** According to our findings, efforts to decrease the incidence of pregnancy depression in mothers would result in the developing anthropometric indices of newborns. However, further investigations are recommended to produce more documentation for convincing health services to invest in pregnancy depression among mothers. Furthermore, it is proposed that health service providers make arrangements for early diagnosis of pregnant depressed women and refer severely depressed cases to physicians.

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