

Linköping University Medical Dissertation  
No. 781

## **Postpartum Depression – Epidemiological and Biological Aspects**

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### **Akademisk avhandling**

som för avläggande av medicine doktorsexamen kommer att offentligt försvaras i Berzeliussalen, Hälsouniversitetet,  
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### **Abstract**

Postpartum depression is by definition a major depression with an onset during the first weeks after delivery. In practice, however, the term, postpartum depression is used to characterize all kinds of depressive symptoms after childbirth. The aims of this thesis were to investigate the prevalence of depressive symptoms during late pregnancy, in the puerperium and four years after delivery, and to analyze the mothers' estimation of personal health and their children's behavior at the age of four. Additional goals were to test the predictive power of potential associated factors of postpartum depression during pregnancy and the puerperium and finally, to elucidate possible genetic or neuropeptidergic explanatory variables behind the development of postpartum depression. A population-based sample of 1489 women was screened with the Edinburgh Postnatal Depression Scale and the prevalence of depressive symptoms was 17% in late pregnancy and 13% postpartum. Antenatal depressed mood was related to postpartum depression. In a cross-sectional study we later found that postpartum depression was associated with subsequent depressive symptoms and current health problems four years after childbirth. Four-year-old boys of postpartum depressed mothers and children of mothers with a subsequent depressive status had more behavior problems than children of non-symptomatic mothers did, according to the mothers' opinion. The strongest associated factors for postpartum depression, in a case-control study, were sick leave during pregnancy mainly due to pregnancy complications, e.g. hyperemesis and premature contractions and a high number of visits to the antenatal care clinic. There was no association between delivery complications or complications in the perinatal period and postpartum depression. The theory that depressive symptoms in late pregnancy or postpartum are connected with CYP2D6 genotype could not be confirmed.

In a rat model, we found that pregnancy and parturition influence the concentrations of neuropeptide Y, cholecystokinin, substance P and galanin in the rat brain. This result supports the hypothesis that neuropeptidergic systems in the brain influence the mood changes around childbirth. In conclusion, postpartum depression is a common feature with influence on both maternal and child well being.

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