Impact of postpartum depressive symptoms on mother and her 18-month-old infant

Abstract Background Postpartum depression (PPD) is known to have important negative effects on mother, infant and mother-child relationship. Methods We present a case-control study of 35 mothers and their 18-month-old infants. These mothers suffered from postpartum depressive symptoms (PDS) when the infants were three months old, as rated with the Edinburgh Postnatal Depression Scale (EPDS, Cox 1987). A control group of 35 mothers without postpartum depressive symptoms (NPDS) with their 18-month-old infants was also evaluated. The infants were assessed using the Infant Behavior Record of the Bayley Scales of Infant Development, the Strange Situation and an object concept task. Results 15 months later, the PDS mothers were less affectionate and more anxious than the NPDS mothers. The PDS dyads demonstrated less verbal interaction and less playing interaction. 18-month-old infants of PDS mothers performed less well on object concept tasks, and were more often insecurely attached to their mothers. Only some results were linked to the mothers' depressive state (D-mothers) diagnosed at 18 months (e.g. responsiveness to persons). Conclusions The important negative effects observed at 18 months on mother and infant of maternal PDS at 3 months confirm the need for early identification and therapeutic or preventive interventions.

Key words postpartum depressive symptoms – child development – mother-child relationship

Introduction

Effects of postpartum depression

Childbearing years represent a time when new mothers are particularly vulnerable to developing mood disorders. Postpartum depression (PPD) occurs in approximately 10 to 15% of all recently delivered mothers.

It is known that PPD can have adverse consequences for both mother and infant. The postpartum depressed mother is less positive, less contingent, and shows less vocal and play interaction [7, 12]. The infants show, like their mothers, less positive affect, less contingent behavior [7]. As early as two months, Whiffen and Gotlib [36] found that they had lower cognitive skills. A meta-analysis presented by Beck [4] indicates that PPD has a moderate to large effect on maternal-infant interaction. An
important fact seems to be that the mother presents depressive symptoms at a vulnerable moment in the life of her infant, which implies adaptative difficulties for both partners [23, 25].

Our previous results concerning PPD [22, 29] also showed that the mother’s depressive state has important negative effects on the infant resulting in symptoms such as eating and sleeping disorders, and increased crying. The “depressed” dyads presented less vocal and visual communication, less corporal interactions and less smiling. Primiparous mothers presenting postpartum depressive symptoms (PDS-mothers) had more difficulties bathing their infant, whereas multiparous PDS-mothers were more tired.

The difficulties due to PPD may last longer than the first three to four months after delivery. Cox [9] found that half of the PPD-mothers were still depressed one year later. Whereas there are many studies concerning the impact of PPD during the first months of the infant’s life, few long-term studies are available. Cogill et al. [8] found that 4-year-old children of PPD-mothers showed significant delay in cognitive development, compared to children of non-postpartum depressed (NPPD) mothers. There was no link between concurrent maternal depression and the child’s cognitive level. Stein et al. [32] found an impact on affective development 19 months after child-birth with reduced quality of interaction in PPD dyads than in dyads where the mothers had not suffered from PPD; the children showed reduced affective sharing. This was true both for the mothers who were still depressed (18.4%) and for those who had recovered. According to Murray [23, 24] PPD has significant impact on the infant’s development at 18 months in specific fields, such as object concept tasks and the child’s attachment to its mother; children of PPD-mothers present more minor behavioral problems compared to children of NPPD-mothers. She also found that lower social class and male gender increased infants’ vulnerability to maternal depression.

On the contrary, according to Fleming et al. [14], the behavioral differences between PPD and NPPD mother-child pairs observed at one and three months, disappeared at 16 months.

Several authors pointed out that children and adolescents of parents with affective disorders are more likely to experience affective disorders themselves than offspring of parents with no such disorder [3, 35].

Quality of attachment

It has already been well documented that infant attachment patterns can be predicted from adult attachment status [5, 34]. The quality of attachment in the mother-child relationship plays an important role in the child’s development. In accordance with Ainsworth et al. [1], several authors found that high maternal sensitivity during the first year is associated later on with a secure pattern of attachment [30].

Egeland [11] described some differences in the quality of attachment between boys and girls. Male infants assessed at 12 and 18 months were more vulnerable to qualitative differences in caretaking, whereas the girls’ security of attachment showed to be more influenced by their mother’s personality. Lynne Murray [23] also found an effect of infant gender: girls of PPD-mothers were more often securely attached to their mother than boys.

Our study is part of a longitudinal prospective study concerning postpartum depression [22, 28, 29]. Three months after delivery, mothers were interviewed and distributed into two groups, presenting or not presenting postpartum depressive symptoms. The primary aim of this paper is to determine the impact of depressive postpartum symptomatology 15 months later, when the infant is 18 months old.

Method

Sample

A community sample of 570 pregnant women was assessed in an epidemiologic, prospective study concerning PPD during the last trimester of pregnancy (T1), 3 months (T2) and 18 months after delivery (T3). The interviews were conducted by previously trained midwives whose natural contact with pregnant women motivated our choice. It was also motivated by the fact that pregnant women with mild depressive symptoms do not consult a psychiatrist. The interviewers were trained by the authors to administer the questionnaires and to observe the mothers and the infants. Interrater reliability was tested; agreement reached between 90 and 95%. Detailed descriptions of instruments and assessments at T1 and T2 have been presented elsewhere [28, 29].

At T2, 58 women (10.2% of the research sample) were considered as presenting depressive symptoms, according to the Edinburgh Postnatal Depression Scale (EPDS; 10) (58 PDS-mothers). The other women constituted our control group (512 NPDS-mothers).

Of these 58 PDS-mothers, only those with a score above 12 on the EPDS were selected at T3, giving us a sample of 50 PDS-mothers. The final group of index cases comprised only 35 mothers. Ten women could not be traced, probably because they moved away from Geneva; two women refused to participate. The same midwife interviewed the mothers at all three stages of the study. Three mothers had to be eliminated because the midwife who interviewed them at T1 and T2 was no longer in the research team.

Each index case (PDS-mother) was matched for