## **PSYCHOLOGY**



### THEMATIC PROJECTS

# POSTPARTUM DEPRESSION (PPD) AS A RISK FACTOR FOR INFANT DEVELOPMENT: AN INTERDISCIPLINARY STUDY OF FACTORS INVOLVED IN ITS GENESIS AND OUTCOME

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Mother-infant interaction at 12 months – Strange Situation Procedure

Postpartum depression (PPD) affects millions of women worldwide and is believed to cause a series of child developmental problems as well as impairment in mother-infant interactions. The prevalence of PPD around the world varies from 3.6% in a German sample to 36.8% in Brazil. Brazilian studies using the Edinburgh Postnatal Depression Scale (EPDS) reveal that the prevalence ranges from 12% to 36.8%.

This project involves a longitudinal study that aims to assess the prevalence and impact of PPD on infant development. The sample consists of Brazilian women recruited during their third trimester of pregnancy from public health centers in São Paulo. The Edinburgh Postnatal Depressive Scale (EPDS) was administered between the 9<sup>th</sup> and 16<sup>th</sup> weeks after delivery and again at 8 months postpartum. Women who scored 12 or higher on the EPDS were considered 'depressed.'

Factors such as dyadic (mother-infant) interaction, social support, the father's involvement with the dyad, the mother and child's attachment style, hormonal levels in the mother and child, breastfeeding and the child's development were assessed for both groups to evaluate their correlation with PPD and to identify risk factors for PPD and for infant development.

Semi-structured interviews and video recordings were used to collect data. Measures were taken on eight different

#### occasions:

- In the third trimester of pregnancy (first questionnaire)
- Just after delivery (video recording of the mother and infant's first encounter followed by a second set of questionnaires and a 1st hormonal assessment)
- Around the 12th week postpartum (EPDS)
- At 4, 8, 12, 24 and 36 months postpartum (hormonal assessment related to stress and reproductive function and video recordings of mother-child interactions followed by questionnaires, developmental scales and clinical examination of the child)

The instruments used were the EPDS, the Social Support Scale, the Adult Attachment Scale (AAS), the Denver Development Scale, semi-structured interviews, the Emotional Availability Scale to analyze the video recordings, the Strange Situation assessment of the child's attachment style, the teddy bear test to assess empathy and the mirror self-recognition test.

# SUMMARY OF RESULTS TO DATE AND PERSPECTIVES

- The prevalence of PPD was 27.6%.
- Predictive factors: Higher scores for PPD were associated with previous depressive episodes, anxiety in relationships according to the Adult Attachment Scale (AAS), the number of people living at home (the higher the number, the higher the probability of scoring high on the EPDS), perceived family stress during childhood, parental concerns during childhood (lower reports of parental concern were correlated with higher scores on the EPDS), lack of confidence (according to the AAS) and marital conflict.
- No significant correlation was found between PPD and the mother's and/or infant's behavioral scores at delivery. In addition, from 2 days to 2-4 months postpartum, depressed mothers reported more negative emotions about themselves and the infant's father than did non-depressed mothers.
- The analysis of the Emotional Availability Scale for mother-infant interactions at 4 months showed a tendency toward lower sensitivity in depressed mothers; however, no significant correlation was found between PPD and the mother's intrusiveness or hostility or the child's responsiveness.
- When mothers were invited to show different types of objects to their 8-month-old babies, PPD mothers were more apathetic about showing these objects, and their babies had less behavioral diversity in exploring the objects.
- Depressed mothers breast-fed their babies for shorter periods of time.
- Last year, data about children's attachment were collected at 12 months postpartum using the Ainsworth's Strange Situation assessment. The results indicated that children from mothers who had postpartum depression displayed more anxious behaviors at the time of separation and took longer to reassure at the time of the mother's return. No difference was found between attachment styles among the group of mothers with postpartum depression and the control group.
- Empathy and self-recognition were assessed using the teddy bear test and the mirror test at 24 months, and understanding of intentions and eye-gaze were assessed at the 36-month interview.

The high PPD prevalence reinforces this syndrome as a public health problem and highlights the importance of longitudinal research to identify risk factors and developmental consequences.

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