The Effects of Maternal Depression on Social-Emotional Development

Approximately 5-25 percent of women experience clinically significant depressive symptoms during or shortly after pregnancy, depending on the study methodology [1]. This is not surprising given that women are twice as likely as men to suffer from depression and the period of greatest risk occurs during childbearing years [2, 3]. In 2001, Beck [4] reviewed several postpartum depression studies and concluded that the following factors significantly increase the risk of a women experiencing postpartum depression (the effect size is given in parentheses, where larger values indicate larger effects):

- Prenatal depression, i.e., during pregnancy (.44 to .46)
- Low self esteem (.45 to .47)
- Childcare stress (.45 to .46)
- Prenatal anxiety (.41 to .45)
- Life stress (.38 to .40)
- Low social support (.36 to .41)
- Poor marital relationship (.38 to .39)
- History of previous depression (.38 to .39)
- Infant temperament problems/colic (.33 to .34)
- Maternity blues (.25 to .31)
- Single parent (.21 to .35)
- Low socioeconomic status (.19 to .22)
- Unplanned/unwanted pregnancy (.14 to .17)

Both prenatal and postpartum depression place the children of depressed mothers at greater risk for developing psychological problems compared to children of non-depressed mothers. Pre- and postnatal depression have been associated with externalizing behavior problems, poor social competence, low adaptive functioning, lower vocabulary scores, and poorer cognitive functioning in children [5, 6]. Increased severity and chronicity of depressive symptoms, as well as being male, appear to increase a child’s risk for later problems [6, also see 7, for a review].

Newborns of prenatally depressed mothers show distinct patterns of biobehavioral “dysregulation” [8, 9] compared to those of non-depressed mothers. These newborns consistently
demonstrate poorer performances during neurobehavioral examinations, including less vigor, endurance, and activity, lower motor tone, greater irritability, abnormal reflexes, and impaired orienting abilities [10-13].

Infants of depressed mothers also show social and behavioral abnormalities. During mother-baby interactions, infants of depressed mothers lower proportions of positive facial expressions and higher proportions of negative facial expressions compared with offspring of non-depressed mothers [14]. They also demonstrate more gaze aversion (i.e., looking away), less vocalization (e.g., cooing, babbling, laughing), and lower activity levels [14]. During free play, infants of depressed mothers show less exploratory play and less interest in playing with their mothers. These behavioral abnormalities are partially explained by differences in maternal behavior during infant interactions when comparing depressed versus non-depressed mothers. Like their infants, depressed mothers show fewer positive facial expressions and more negative expressions; they also spend less time touching, talking to, and looking at their infants [15-17]. Such findings suggest that the depressed mother and infant may find interactions distressing.

Several studies have lent support to the notion that depressed mothers’ poor interactions during the child’s early development likely contribute to the behavioral abnormalities in these children noted later in development [9].

For further information regarding this article please contact Katrina C. Johnson, Ph.D. at the Maternal Substance Abuse and Child Development Project, Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, 1256 Briarcliff Road, N.E., Suite 309W, Atlanta, Georgia, 30306. You can also phone us at 404-712-9829 or visit our website at http://www.emory.edu/MSACD

The Maternal Substance Abuse and Child Development Project is funded in part by the Georgia Department of Behavioral Health & Developmental Disabilities (DBHDD).
References


**Women or family members that are concerned about postpartum depression are encouraged to visit the following WomensHealth.gov website sponsored by the U.S. Depart of Health and Human Services: [http://www.4woman.gov/faq/postpartum.htm](http://www.4woman.gov/faq/postpartum.htm)**