## The Impacts Of Postpartum Depression On Children

Postpartum Depresyonun Çocuklar Üzerine Etkileri

Filiz Şimşek Orhon

Ankara Üniversitesi Tıp Fakültesi, Sosyal Pediatri Bilim Dalı

Postpartum depression is a common and important health problem of the mothers. The consequences of postpartum depression have important implications for the health and care of both the mothers and their child. Unrecognized and untreated postpartum depression may not only negatively affect the health of the mother, but also influence the health, care, and development of her children. The symptoms of depressive mothers may lead negative mother-infant interactions, and thus, they may define more problems in relation to their infants. Further, depressive mothers' unfavorable parenting behaviors and concerns regarding care-giving may lead the poor child outcomes. Therefore, the infants of depressive mothers may have various problems regarding their development, feeding, sleeping, temperament, behavior, and growth outcomes. Early management of maternal postpartum depression is crucial for preventing adverse effects on both mother and infant health and care. For this purpose, well-child visits during the first year of life may be an appropriate setting for maternal postpartum-depression evaluations, screening tests, early diagnosis and treatment.

Key Words: postpartum depression, impact, children

Doğum sonrası depresyon, annelerin sık görülen ve önemli bir sağlık sorunudur. Doğum sonrası depresyonun sonuçları, anneler ve çocukları için önemli yansımalar içermektedir. Tanı konulamayan ve tedavi edilemeyen depresyon sadece annenin sağlığı üzerine değil, o annenin çocuğunun sağlık, bakım ve gelişimi üzerine de olumsuz etki yapabilir. Depresif annelerin semptomları anne-bebek arasındaki olumsuz etkileşime neden olabilir, ve böylece bu anneler bebekleri ile ilgili daha çok sorun tanımlayabilirler. Ayrıca, depresif annelerin uygun olmayan ebeveyn davranışları ve bebek bakımı ile ilgili kaygıları çocukta yetersiz durumlara neden olabilir. Böylece depresif annelerin çocuklarında gelişim, beslenme, uyku, mizaç, davranış ve büyüme ile ilgili birçok sorun görülebilir. Annede gelişen doğum sonrası depresyona erken müdahale anne ve bebeklerinin sağlık ve bakımı üzerine olan olumsuz etkilerden korunmada gereklidir. Bu amaçla, yaşamın ilk yılında uygulanan sağlıklı çocuk vizitleri doğum sonrası depresyon değerlendirilmesi, tarama testlerinin yapılması, erken tanı ve tedavi için uygun bir ortam olabilir.

Anahtar Kelimeler: doğum sonrası depresyon, etki, çocuklar

Postpartum depression describes a heterogeneous group of depressive symptoms and syndromes of women that occurs during the first year following childbirth (1,2). The American Psychiatric Association *Diagnostic and Statistical Manual of Mental Health Disorders-IV* (DSM-IV) uses the term "postpartum" more specifically to describe symptoms of major depressive disorder beginning within 4 weeks of delivery (1,3,4). The peak prevalence for postpartum depression is at 10 to 14 weeks after delivery, however, new-onset cases occur throughout the year (1,3). Postpartum depression affects 10 to 20% of new mothers each year, and this prevalence appears to be consistent across a variety of cultural and ethnic groups (3-5).

The consequences of postpartum depression have important implications for the health and care of both the mothers and their child (2). Thus, unrecognized and un-

Received: 07.02.2007 • Accepted: 07.02.2007

Corresponding author

Filiz Şimşek Orhon

Ankara Üniversitesi Tıp Fakültesi, Çocuk Sağlığı ve Hastalıkları Anabilim Dalı, Sosyal Pediatri Bilim Dalı, Dikimevi, 06100 Ankara, TURKEY Phone : +90 (312) 595 72 92 Fax : +90 (312) 319 14 40 E-mail address : simsekfiliz@hotmail.com treated postpartum depression may not only negatively affect the health of the mother, but also influence the health, care, and development of her children (2,5).

# The impacts of postpartum depression on mother behaviors

Depressed mothers as a caregiver may be less sensitive, less confident, less affectionate and more neglectful toward their infants than nondepressed mothers (6,7). Consequently, these findings of depressive mothers may lead negative motherinfant interactions and a way for attributing negative characteristics to their babies and, these mothers may define more problems in relation to their infants (8,9). Depressed mothers may also demonstrate lower activity levels and decreased range of emotion and speak less and differently to their infants than nondepressed mothers (2,6). Furthermore, they may experience anxiety that is focused on the welfare of the child and concerns about their parenting ability, and depression does adversely affect a mother's capacity to care well for her infant (7). Therefore, depressive mothers' unfavorable parenting behaviors and attitudes regarding care-giving and health-related behaviors may lead the poor child outcomes including development, feeding, sleeping, temperament, behavior, and growth outcomes (2,3). However, as an important point, these negative behaviors or concerns did not occur in all mothers with postpartum depressive symptoms, and additionally, these difficulties did not occur in all children whose mothers have been postnatally depressed (1).

# The impacts of postpartum depression on infants and children

### Child development

There is a large and compelling body

of evidence implicating postpartum depression with adverse child development outcomes. From these studies, it is found that developmental impacts of maternal depression are generally associated with the long-term maternal depression and infant difficulty, and are significant in the populations with poor social support, low parental education and low socioeconomic status (10-12). Generally, maternal depression may have negative impacts on the cognitive, social, linguistic and behavioral development of infants and toddlers that may have longlasting results (6,12). For instance, Murray et al (13) show that depression in the early postpartum months and associated disturbances in the mother-infant relationship can pose a risk to the longer-term behavioral and social development of the child. Previous studies also show that infants of depressive mothers may be more likely to exhibit insecure attachment patterns (8,9). Older children and adolescents of depressed mothers may be more likely to experience depression, substance abuse, and conduct disorder during their adolescence (14,15).

## Infant growth

Maternal depression was associated with infant growth impairment, and malnutrition in previous studies from low-income developing countries (16-18). For instance, Rahman et al show that (18) infants of depressed mothers have poorer growth compared with infants of psychologically well mothers. Similar findings were found in the previous studies conducted in developed countries. For example, O'Brien et al (19) showed that depression in mothers of children with faltering growth during the first 2 years of life is significantly greater than in mothers of children who are gaining weight appropriately.

### Infant feeding

Mothers with postpartum depression may cease breastfeeding prematurely, and externalized more troubles and displeasures in relation to lactation (20-22). Previous studies indicate that postpartum depression may negatively affect the duration of breastfeeding (22,24). For example, Henderson et al (21) show that median duration of breastfeeding was 26 weeks for women with early-onset depression, 28 weeks for women with late-onset depression, and 39 weeks for women without depression.

#### Infant illness

Maternal depression may be associated with higher risk of infections and hospitalization in low-income countries. Rahman et al show that (18) infants of depressed mothers have an increased risk of diarrheal infection compared with infants of psychologically well mothers. Previous studies also indicate that children whose mothers reported depressive symptoms had increased use emergency department visits compared with those whose mothers did not have symptoms (25-27). It is suggested that it might be expected that in developing countries maternal depressive symptoms could influence maternal care behaviors, which, in turn, could increase the susceptibility to illness and non-organic failure to thrive (24).

#### Infant sleeping

Maternal depressive symptoms could contribute to child sleep disturbances, and the depressive mothers were more inclined to report sleep problems for their infants (28-30). For example; Dennis et al (28) show that mothers exhibiting depressive symptomatology were significantly more likely to report that their baby cried often, be have received less sleep time, indicate that their baby did not sleep well. Maternal report of infant sleep problems can be a result of the circumstance that the lower sleep times of mothers with or due to depression could recognize their infants' night awakening more frequently, as compared to mothers without depression, so having longer nightly sleep periods (29).

#### Child temperament

Some depressed mothers may perceive more difficulties in their infants' temperament (6,8). Previous studies show that maternal depression were related to fussy/difficult infant temperament such as colic symptoms and more parenting stress (31,32). Similarly, the infant colic or cry-fuss problems were found associated with postpartum depressive symptoms in other studies (33,34). Wake et al (35) showed that persistent cry-fuss problems were most strongly associated with maternal depression. With regard to older children, Civic and Holt (36) show that women with depressive symptoms were more likely to report that their children had to frequent temper tantrums or difficulty getting along with other children, and were difficult to manage, unhappy, or fearful.

#### **Child abuse and neglect**

Depressed mothers may demonstrate aggressive parenting behavior including inconsistent discipline and control, and abusing behavior toward their children. (37, 38) Maternal depression may be directly associated with aggressive parenting behavior, corporal punishment and spanking (9,39,40). Hay et al (41) show that children of depressive mothers were at elevated risk for violence at age 11, especially if the mothers became depressed again.

Maternal depression has been shown to negatively affect receiving ageappropriate health-maintenance visits and up-to-date vaccinations in previous studies (29,35). Further, it is found that depressive mothers were less likely to apply preventative practices such as using a car seat, using electrical plug covers, using smoke alarm and administering vitamins (39,42,43).

# Management of postpartum depression

- Postpartum depression is a prevalent and treatable mental health problem. The recognition and treatment of postpartum psychiatric disorders is important in avoiding possible adverse outcomes with respect to both mother and infant (2). Screening of the mothers with an instrument may be appropriate way for diagnosis of postpartum depression in primary care clinics. Currently, three depression screening tools are designed and validated specifically to detect postpartum depression effectively: The Edinburgh Postnatal Depression Scale (EPDS), Postpartum Checklist and the Postpartum Depression Screening Scale (1).
- Well-child follow-up visits during the first year of life may be an appropriate setting for early recognition and management of postpartum depression (2,44). Because pediatricians of a well-child clinic repeatedly encounter mothers during their postpartum year, it is important that they recognize postpartum depression using simple scales and appropriately advise and refer mothers for evaluation and treatment (2,44).

- The treatment approaches of postpartum mood disorders do not differ from other mood disorders unrelated to childbearing (3,45). In this respect, pharmacologic or non-pharmacologic treatments may be used alone or in combination for the treatment of postpartum depression (5,46,47). Currently, psychotherapy remains the treatment of choice for mild-tomoderate postpartum depression (46,47). Some antidepressants such as paroxetine, sertaline, and nortriptiline were found to be efficacious and well tolerated antidepressants in lactating mothers, which do not cause any significant adverse effects on breastfeeding infants (3,47,48).
- In summary; postpartum depression is a common problem and the consequences of postpartum depression have important implications for the health and care of both the mothers and their child. Unrecognized and untreated postpartum depression may not only negatively affect the health of the mother, but also influence the health, care, and development of her children. Depressive mothers' unfavorable parenting behaviors and concerns regarding care-giving may lead the poor child outcomes including development, feeding, sleeping, temperament, behavior, and growth outcomes. Therefore, early management of maternal postpartum depression is crucial for preventing adverse effects on both mother and infant health and care. For this purpose, well-child visits during the first year of life may be an appropriate setting for maternal postpartumdepression evaluations, screening tests, early diagnosis and treatment.

#### REFERENCES

- Chaudron LH. Postpartum depression: What pediatricians need to know. Pediatrics in Review 2003; 24: 154-161.
- 2. Currie ML, Rademacher ML, Rademacher R. The pediatrician's role in recognizing and intervening in postpartum depression. Pediatr Clin N Am 2004; 51: 785-801.
- Seyfried LS, Marcus LS, Marcus SM. Postpartum mood disorders. International Reviews of Psychiatry 2003; 15: 231-242.
- Gold LH. Postpartum disorders in primary care. Diagnosis and treatment. Women's Mental Health 2002; 29: 27-41.
- 5. Brockington I. Postpartum psychiatric disorders. The Lancet 2004; 363: 303-310.
- Weinberg MK, Tronick EZ. The impact of maternal psychiatric illness on infant development. J Clin Psychiatry 1998; 59(suppl 2): 53-6.
- Murray L, Cooper, P, Hipwell A. Mental health of parents caring for infants. Arch Womens Ment Health 2003; 6:71-77.
- 8. Mc Mahon C, Barnett B, Kowalenko N, et al. Psychological factors associated with persistent postnatal depression. Past and current relationships, defense styles and the mediating role of insecure attachment style. J Affect Dis 2005; 84: 15-24.
- Coyl DD, Roggman LA, Newland LA. Stress, maternal depression, and negative mother-infant interactions in relation to infant attachment. Infant Mental Health Journal 2002; 23: 145-163.
- Petterson SM, Albers AB. Effects of poverty and maternal depression on early child development. Child Development 2001; 72: 1794-1813.
- 11. Murray L, Stanley C, Hooper R, et al. The role of infant factors in postnatal depression and mother-infant interactions. Dev Med Child Neurol 1996; 38: 109-119.
- Murray L, Cooper PJ. Postpartum depression and child development. Psychological Medicine 1997; 27: 253-260.
- Murray L, Sinclair D, Cooper P, et al. The socioemotional development of 5-year-old children of postnatally depressed mothers. J Child Psychol Psychiat 1999; 40: 1259-1271.
- Downey G, Coyne JC. Children of depressed parents: an integrative review. Psychol Bull 1990; 108: 50-76.
- Schwartz CE, Dorer DJ, Beardslee WR, et al. Maternal expressed emotion and parental affective disorder: risk for childhood depressive disorder, substance abuse, or conduct disorder. J Psychiatr Res 1990; 24: 231-250.
- Patel V, Jacob KS, Hughes M. Effect of maternal mental health on infant growth in low income countries: new evidence from South Asia. BMJ 2004; 328: 820-823.
- 17. Rahman A, Harrington R, Bunn J. Can maternal depression increase infant risk of

illness and growth impairment in developing countries? Child:Care, Health and Development 2002; 28: 51-56.

- Rahman A, Iqbal Z, Bunn J, et al. Impact of maternal depression on infant nutritional status and illness. Arch Gen Psychiatry 2004; 61: 946-952.
- O'Brien LM, Heycock EG, Hanna M, et al. Postnatal depression and faltering growth: A community study. Pediatrics 2004; 113: 1242-1247.
- Taveras EM, Capra AM, Braveman PA, et al. Clinician support and psychosocial risk factors associated with breastfeeding discontinuation. Pediatrics 2003; 112: 108-115.
- Henderson JJ, Evans S, Straton JAY, et al. Impact of postnatal depression on breastfeeding duration. Birth 2003; 30: 175-180.
- 22. Falceto OG, Giugliani ERJ, Fernandes LC. Influence of parental mental health on early termination of breast-feeding. A case control study. J Am Board Fam Pract 2004; 17: 173-183.
- 23. Hatton DC, Harrison-Hohner J, Coste S, et al. Symptoms of postpartum depression and breastfeeding. J Hum Lact 2005; 21: 444-449.
- McLearn KT, Minkowitz CS, Strobino DM, et al. Maternal depressive symptoms at 2 to 4 months post partum and early parenting practices. Arch Ped Adol Med 2006; 160: 279-284.
- 25. Guttmann A, Dick P, To T. Infant hospitalization and maternal depression, poverty and single parenthood-a population-based study. Child, Care, Health & Development 2004; 30: 67-75.
- Minkovitz CS, Strobino D, Scharfstein D, et al. Maternal depressive symptoms and children's receipt of health care in the first 3 years of life. Pediatrics 2005; 115: 306-314.
- Mandl KD, Tronick EZ, Brennan TA, et al. Infant health care use and maternal depression. Arch Pediatr Adolesc Med 1999; 153: 808-813.
- Dennis CL, Ross L. Relationships among infant sleep patterns, maternal fatigue, and development of depressive symptomatology. Birth 2005; 32: 187-193.
- 29. Hiscock H, Wake M. Infant sleep problems and postnatal depression: a community based study. Pediatrics 2001; 107: 1317-1322.
- Keren M, Feldman R, Tyano S. Diagnoses and interactive patterns of infants referred to a community-based infant mental health clinic. J Am Acad Child Adolesc Psychiatry 2001; 40: 27-35.
- Séguin L, Potvin L, St-Denis M, et al. Depressive symptoms in the late postpartum among low socioeconomic status women. Birth. 1999; 26: 157-163.
- Maxted AE, Dickstein S, Miller-Loncar C, et al. Infant colic and maternal depression. Infant Mental Health Journal. 2005; 26: 56-68.

- Howell EA, Mora P, Leventhal H. Correlates of early postpartum depressive symptoms. Maternal and Child Health Journal. 2005; 10: 1-9.
- Akman I, Kuscu K, Ozdemir N, et al. Mothers' postpartum psychological adjustment and infantile colic. Arch Dis Child. 2006; 91: 417-9.
- 35. Wake M, Morton-Allen E, Poulakis Z, et al. Prevalence, stability, and outcomes of cryfuss and sleep problems in the first 2 years of life: Prospective community-based study. Pediatrics 2006; 117: 836-842.
- Civic D, Holt VL. Maternal depressive symptoms and child behavior problems in a nationally representative normal birthweight sample. Maternal and Child Health Journal 2000; 4: 215-221.
- Cummings EM, Davies PT. Maternal depression and child development. J Child Psychol Psychiat 1994; 35: 73-112.
- Beck CT. Postpartum depressed mothers' experiences interacting with their children. Nursing Research 1996; 45: 98-104.
- Chung EK, McCollum KF, Elo IT, et al. Maternal depressive symptoms and infant health practices among low-income women. Pediatrics 2004; 113: e523-e529.
- 40. Sagami A, Kayama M, Senoo E. The relationship between posstpartum depression and abusive parenting behavior of Japanese mothers: a survey of mothers with a child less than one year old. Bulletin of Menninger Clinic 2004; 68: 174-187.
- 41. Hay DF, Pawlby S, Angold A, et al. Pathways to violence in the children of mothers who were depressed postpartum. Dev Psychol 2003; 39(6): 1083-1094.
- 42. Leiferman J. The effect of maternal depressive symptomatology on maternal behaviors associated with child health. Health Education & Behavior 2002; 29: 596-607.
- 43. McLennan JD, Kotelchuck M. Parental prevention practices for young children in the context of maternal depression. Pediatrics 2000; 105:1090-1095.
- 44. Chaudran LH, Szilagyi PG, Kitzman HJ, et al. Detection of postpartum depressive symptoms by screening at well-child visits. Pediatrics 2004; 113:551-558.
- 45. Hendrick V, Altshuler L, Strouse T, et al. Postpartum and nonpostpartum depression: differences in presentation and response to pharmacologic treatment. Depression and Anxiety 2000; 11: 66-72.
- Wisner KL, Parry BL, Piontek CM. Postpartum depression. N Eng J Med 2002; 347: 194-199.
- 47. Epperson CE. Postpartum major depression: detection and treatment. American Family Physician 1999; 59: 2247-2254.
- Weissman AM, Levy BT, Hartz AJ, et al. Pooled analysis of antidepressant levels in lactating mothers, breast milk, and nursing infants. Am J Psychiatry 2004; 161: 1066-1078.