

# Postpartum Depression in the Mothers of Preterm Infants at Queen Sirikit National Institute of Child Health

Vinadda Piyasil MD\*,  
Pornpip Pichaiyut MD\*

\* Department of Child & Adolescent Psychiatry, Queen Sirikit National Institute of Child Health,  
College of Medicine, Rangsit University, Bangkok, Thailand

---

**Objective:** To study the prevalence of postpartum depression in the mothers of preterm infants at Queen Sirikit National Institute of Child Health.

**Study Design:** A cross-sectional descriptive study was conducted at 1 to 6 months after delivery in 41 postpartum women of healthy preterm infants at the high risk clinic, Queen Sirikit National Institute of Child Health during 1<sup>st</sup> January to 31<sup>st</sup> December 2006. Health-related, self-report (HRSR) scale and the diagnostic screening test for depression in a Thai population were used for evaluation. Prevalence rate was calculated and analyzed, using SPSS version 12.0. The results were presented in percentage.

**Results:** The authors found 41 postpartum women of healthy preterm infants at the high risk clinic, Queen Sirikit National Institute of Child Health. The prevalence of post-partum maternal depression of preterm infants was 22 percent. It was found that all of them (9 cases) met criteria of minor depressive disorders, which needed no emergency psychiatric treatment. The mean age of depressive mothers were under 20 years old. All of the depressive mothers, educational level was lower than bachelor degree.

**Conclusion:** The prevalence of postpartum depression in mothers of preterm infants was 22 percent. All of them suffered from mild depression, this should raise concerns with physicians to take care and be prepared for proper management.

**Keywords:** Postpartum depression, Mothers of preterm infants

**J Med Assoc Thai 2011; 94 (Suppl. 3): S91-S94**

**Full text. e-Journal:** <http://www.mat.or.th/journal>

---

The postpartum time is a period of hormonal imbalance and many adjustments to being a mother, which make a woman prone to depressive disorders<sup>(1-6)</sup>. The etiology of depression and postpartum depression is thought to be a combination of hormonal and social factors. If postpartum depression is not recognized by health professionals, it can affect the marital relationship and maternal-infant interaction<sup>(6-9)</sup>.

Postpartum depression (PPD), also called postnatal depression, is a form of clinical depression which happens in women after childbirth. It may happen in men though less frequently. The prevalence or incidence of postpartum depression is around 10-30%,

varying by country depending on diagnostic criteria, selected instruments, risk factors of different populations groups, and timing of detection<sup>(1-6)</sup>. The reported prevalence rate among women varied from 5% to 25%, but the differences in methodology among the studies made the actual prevalence rate confusing. Among men, in particular new fathers, the prevalence of postpartum depression has been estimated to be between 1.2% and 25.5%<sup>(2,3)</sup>. Post partum depression occurs in women after they carried their babies, usually in the first few months and may last up to several months or even a year. Symptoms include sadness, fatigue, changes in sleeping habit and eating patterns, reduced libido, crying episodes, anxiety and irritability<sup>(1-6)</sup>.

Adolescent mothers faced a high level of stress for adaptation to the new situation. The prevalence of postpartum depression in primiparous adolescent mothers is 15.3 percent<sup>(2-4)</sup>. After review articles in

---

**Correspondence to:**

Piyasil V, Department of Child Psychiatry, Queen Sirikit National Institute of Child Health, Bangkok 10400, Thailand.  
Phone: 0-2354-8439  
E-mail: [vpiyasil@yahoo.com](mailto:vpiyasil@yahoo.com)

Thailand, no data about prevalence of postpartum depression among mothers of healthy preterm infant was found.

### Objective

To study the prevalence of postpartum depression in mothers of normal preterm infants at Queen Sirikit National Institute of Child Health.

### Material and Method

A cross-sectional descriptive study was conducted at 1 to 6 months after delivery in postpartum women of healthy preterm infants at the high risk clinic, Queen Sirikit National Institute of Child Health during 1 January to 31 December 2006. Incomplete records were excluded from the present study.

Health-related, self-report (HRSR) scale and the diagnostic screening test for depression in a Thai population were used for evaluation. The diagnostic screening test for depression in a Thai population included 20 questions asking about the symptoms of depression such as social withdrawal, suicidal thought and suicidal idea, the positive thinking about life such as feeling comfortable, meaning of life, self value and self esteem. The Cronbach's reliability coefficient of this scale is 0.91; the cutoff point, at 30 scores, will be 90.2% specificity and 85.3% sensitivity. For the diagnostics of major depressive disorder, even thought, the cutoff point at 25 scores will be increasing specificity to 93.4% and decreasing sensitivity to 75.1%. The scores at 25-29 show the symptoms of minor depressive disorder which needs help and the scores > 30 shows the symptoms of major depressive disorder which needs psychiatric evaluation and treatment(10). Prevalence rate was calculated and analyzed, using SPSS version 12.0. The results are presented in percentages.

### Results

A cross-sectional descriptive study was conducted at 1 to 6 months after delivery during 1 January to 31 December 2006, the authors found 41 postpartum women of healthy preterm infants at high risk clinic, Queen Sirikit National Institute of Child Health.

Demographic data shows that the average age of mothers was 23 years old (16-39 years old). Sixty percent of the mothers were less than 20 years old. Twenty-one percent were 20-24 years old and 12 % were 25-29 years old. The remaining were 30 years old or more (Table 1). Ten percent of the mothers had education at bachelor degree, most mothers (73%) were

below bachelor's degree and 10 percent had no education at all (Table 2). Seventy-eight percent of the mothers were married. Seventeen percent were single mothers. Two point five percent were widows, separated or divorced. Eighteen mothers (43%) were house wives and 56% were working mothers. Eighty-eight percent of the mothers were healthy, 20% had a past history of asthma and allergy.

Health-related, self-report (HRSR) scale and the diagnostic screening test for depression in Thai population were used for evaluation. The scores at 25-29 showed the symptoms of minor depressive disorder which needed help. Scores > 30 showed the symptoms of major depressive disorder which needed psychiatric evaluation and treatment.

The prevalence of postpartum depression in mothers of preterm infants was 22 percent. All of them (9 cases) met the criteria of minor depressive disorders which needed no emergency psychiatric treatment. The mean age of these mothers was under 20 years old and all of them had educational level lower than bachelor degree.

### Discussion

The postpartum period is a time of great changes in the body. These changes can affect women's moods and behaviors for days or weeks. As the levels of estrogen and progesterone decrease sharply in the hours after childbirth, they may trigger depression in

**Table 1.** Age group

Age group	Number (cases)	Percent
<20	25	60.9
20-24	9	21.2
25-29	5	12.2
30-34	1	2.4
35-39	1	2.4
Total	41	100
Mean	19	23.3
Std. Deviation	2.6	4.7

**Table 2.** Educational level

Educational level	Number (cases)	Percent
No education	4	9.8
Under bachelor's degree	30	73.2
Bachelor's degree	7	17.1
Total	41	100

the same way as much smaller changes in hormone levels before menstrual periods. Some women are more affected by these changes than others; therefore, they are more likely to suffer from postpartum blues or depression. Postpartum depression is likely to result from combined factors which are body, mind and life style. No two women have the same biologic make up or life experiences. These differences may explain why some women suffer from postpartum depression and others do not<sup>(1,4,6-12)</sup>.

Many emotional factors can affect women's self-esteem and the way they cope with stress. These factors can lead to postpartum depression. Feelings of doubt about pregnancy are common in mothers. The pregnancy may not have been planned. Even when they are planned, 40 weeks may not be enough time for some couples to adjust to the extra effort of caring for babies. If the babies are born premature, the mothers are even more likely to have depression as their situations are more complicated and unexpected<sup>(3-7)</sup>.

Mixed feelings sometimes arise from their past. Some may have lost their own mothers early themselves or some may have a poor relationship with their mothers. These complicated situations might affect their feelings toward their new babies. Caring for the babies will lead to the feelings of pain, disappointment, or loss. Feelings of loss are common after having babies. This can add to depression. Their loss may be from many causes such as loss of freedom, loss of an old identity and loss of pre-pregnancy shape and sex appeal<sup>(2,4-6,12-14)</sup>.

The prevalence of postpartum depression is around 10-30%, varying by country depending on diagnostic criteria, selected instruments, risk factors of different populations groups and timing of detection<sup>(1-6)</sup>. Depressive disorders are classified as minor or major depending on the severity of the depressed mood. The use of self-reported and accurate screening instruments is essential for early detection and treatment of this illness. Beck, et al developed a psychometric test called the Postpartum Depression Screening Scale (PDSS) which has 7 categories (sleeping/eating disturbances, anxiety/insecurity, emotional lability, mental confusion, loss of self, guilt/shame and suicidal thoughts). The PDSS describes the symptoms the subject felt over the previous 2 weeks. Using PDSS in Thailand, the incidence of postpartum depression is 10 % among 400 postpartum women, aging around 15 to 43 years (mean  $\pm$  SD = 27.9  $\pm$  5.9). The result found minor depressive disorders (9%) and major depressive disorders (1%) according to DSM-IV

criteria<sup>(13)</sup>.

The diagnostic screening test for depression in the Thai population was used in the present study. The prevalence of postpartum depression in mothers of preterm infant was found to be 22% but all of them met the criteria of minor depressive disorders.

Taking care of a preterm baby is special and consumes a lot of time. If postpartum depression is not detected by health professionals, it can affect the marital relationship and maternal-infant interaction. This is the reason why screening tests for depression is important<sup>(1-3,7,9,12-14)</sup>.

The mean age of postpartum depressive mothers of preterm infant in the present study report was under 20 years old. All of the depressive mothers had an educational level lower than bachelor degree. The reports from Western countries found that there was correlation between post partum depression and marital status, educational level, occupation and depression during pregnancy<sup>(7-14)</sup>.

## Conclusion

The prevalence of post-partum maternal depression of preterm infants was 22 percent. All of them suffered from minor depressive disorders, this should raise concerns with physicians to take care and be prepared for proper management.

## Potential conflicts of interest

None.

## References

1. Seyfried LS, Marcus SM. Postpartum mood disorders. *Int Rev Psychiatry* 2003; 15: 231-42.
2. Cyranowski JM, Frank E, Young E, Shear MK. Adolescent onset of the gender difference in lifetime rates of major depression: a theoretical model. *Arch Gen Psychiatry* 2000; 57: 21-7.
3. Gaynes BN, Gavin N, Meltzer-Brody S, Lohr KN, Swinson T, Gartlehner G, et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. *Evid Rep Technol Assess (Summ)* 2005; (119): 1-8.
4. Munk-Olsen T, Laursen TM, Pedersen CB, Mors O, Mortensen PB. New parents and mental disorders: a population-based register study. *JAMA* 2006; 296: 2582-9.
5. Wisner KL, Parry BL, Piontek CM. Clinical practice. Postpartum depression. *N Engl J Med* 2002; 347: 194-9.
6. Sadock BJ, Sadock VA. *Psychiatry and reproduc-*

- tive medicine. In: Sadock BJ, Sadock VA, editors. Kaplan & Sadock's synopsis of psychiatry: behavioral science/clinical psychiatry. 10th ed. Philadelphia: Lippincott Williams & Wilkins; 2007: 865-6.
7. Bloch M, Rotenberg N, Koren D, Klein E. Risk factors for early postpartum depressive symptoms. *Gen Hosp Psychiatry* 2006; 28: 3-8.
  8. Schmidt PJ, Haq N, Rubinow DR. A longitudinal evaluation of the relationship between reproductive status and mood in perimenopausal women. *Am J Psychiatry* 2004; 161: 2238-44.
  9. Swain JE, Lorberbaum JP, Kose S, Strathearn L. Brain basis of early parent-infant interactions: psychology, physiology, and in vivo functional neuroimaging studies. *J Child Psychol Psychiatry* 2007; 48: 262-87.
  10. Kasantikul D, Karnjanathanalers N, Limsuwan N, Thongtang O, Vuthiganond S, Khuangsirikul V, et al. Health-related self-report (HRSR) scale: the diagnostic screening test for depression in Thai population. *J Med Assoc Thai* 1997; 80: 647-57.
  11. Rubinow DR, Schmidt M. Reproductive hormonal therapy: theory and practice. In: Sadock BJ, Sadock VA, Ruiz P, editors. *Comprehensive textbook of psychiatry*. 9th ed. Philadelphia: Lippincott Williams & Wilkins; 2009: 2553-4.
  12. Berga SL. Disorders of gonadotropin secretion. In: Wass J, Shalet S, editors. *Oxford textbook of endocrinology and diabetes*. Oxford: Oxford University Press; 2002: 1119-29.
  13. Vittayanont A, Liabsuetrakul T, Pitanupong J. Development of Postpartum Depression Screening Scale (PDSS): a Thai version for screening postpartum depression. *J Med Assoc Thai* 2006; 89: 1-7.
  14. American Academy of Pediatrics. Committee on Fetus and Newborn. Hospital discharge of the high-risk neonate-proposed guidelines. *Pediatrics* 1998; 102: 411-7.

---

## ภาวะซึมเศร้าหลังคลอดในมารดาที่ให้น้ำนมบุตรคลอดก่อนกำหนดที่สถาบันสุขภาพเด็กแห่งชาติมหาราชินี

วันัดดา ปิยะศิลป์, พรทิพย์ พิชัยยุทธ

**วัตถุประสงค์:** เพื่อศึกษาหาความชุกของภาวะซึมเศร้าในมารดาหลังคลอดที่มีบุตรคลอดก่อนกำหนดโดยที่บุตรไม่มีโรคแทรกซ้อนอื่น

**วัสดุและวิธีการ:** ศึกษาโดยใช้แบบ Cross sectional descriptive study ในมารดาหลังคลอดที่ให้น้ำนมบุตรคลอดก่อนกำหนด และมาทำการติดตามที่คลินิก high risk ณ สถาบันสุขภาพเด็กแห่งชาติมหาราชินี ในช่วงวันที่ 1 มกราคม พ.ศ. 2550 ถึง 31 ธันวาคม พ.ศ. 2550 การศึกษาในมารดาหลังคลอดไม่เกิน 6 เดือน โดยใช้แบบประเมินภาวะซึมเศร้าของ Children Hospital Anxiety Depression Scales

**ผลการศึกษา:** มีผู้ป่วยจำนวนทั้งสิ้น 41 ราย พบมารดามีภาวะเครียดซึมเศร้าหลังคลอด (Postpartum depression) จำนวน 9 คน หรือร้อยละ 22 ไม่พบมารดาที่เครียดซึมเศร้ารุนแรง อายุเฉลี่ยของมารดา 23 ปี มารดามีระดับการศึกษาต่ำกว่าระดับปริญญาตรี ร้อยละ 73.2 แต่งงานร้อยละ 78.1 อาชีพเป็นแม่บ้านร้อยละ 43.9 ในกลุ่มมารดาที่มีภาวะซึมเศร้า 9 คน พบว่าทั้งหมดมีภาวะซึมเศร้าชนิดไม่รุนแรงและมีระดับการศึกษาต่ำกว่า ชั้นมัธยมศึกษาปีที่ 6

**สรุป:** พบมารดามีภาวะเครียดซึมเศร้าหลังคลอด (Postpartum depression) จำนวน 9 คน คิดเป็นร้อยละ 22 มารดาทุกรายมีระดับการศึกษาต่ำกว่าชั้นมัธยมศึกษาปีที่ 6 และที่มีภาวะซึมเศวาระดับไม่รุนแรงแต่ต้องการการดูแลจากแพทย์ใกล้ชิดทุกราย

---