



The influence of adolescent postpartum women's psychosocial condition on mother-infant bonding

Ariani Fatmawati, Imami Nur Rachmawati* and Tri Budiati

Faculty of Nursing, Universitas Indonesia, West Java, Indonesia

KEYWORDS

Attachment;
Adolescent;
Bonding;
Infant;
Postpartum;
Psychosocial

Abstract

Objective: To identify the correlation between the psychosocial condition of adolescent women in the postpartum period and mother-infant bonding.

Method: This study used a cross-sectional design. Using a consecutive sampling method, 103 adolescent women with a 1- to 12-week-old baby were recruited. Participants completed the postpartum bonding questionnaire to identify mother-infant bonding. This questionnaire included four dimensions: the relationship between mother and baby, baby acceptance, readiness to perform maintenance, and delivery of comfort.

Results: We identified that 45.6% of the teen mothers in this study were at risk of psychosocial problems and that 67% of them had insufficient mother-infant bonding. There was a statistically significant correlation between the psychosocial condition of adolescent postpartum women and mother-infant bonding ($p = 0.000$; $OR = 5.143$; $95\%CI, 0.195$ to 135.662).

Conclusions: Adolescent mothers require special attention during the perinatal period. They also require infant care education and preparation to become a successful mother. Maternity nurses play a very important role in providing education for adolescent mothers and the elderly. Maternity nursing services must be expanded to include psychosocial assessments for teen mothers throughout the pregnancy, childbirth, and postpartum periods.

© 2018 Elsevier España, S.L.U. Todos los derechos reservados.

Introduction

Every human being goes through stages of life that have their own developmental tasks. The developmental tasks of adolescence, for example, are different than those associated with motherhood. Indeed, pregnancy in adolescent is an uncommon phenomenon. Being a mother during one's adolescent stage may lead to many psychological issues, such as anger, anxiety, and negligence to the baby¹. Adolescent mothers tend to experience volatile emotions, irritability, and distress². Moreover, the egocentric nature of an

adolescent may cause an adolescent mother to be less compassionate and empathetic to her baby³. These conditions may make the adolescent mother feel unready to assume the role of motherhood⁴. This is distressing for the mother but even worse for the baby, who may feel socially isolated, rejected, or sad⁵.

Maternal and infant bonding is initiated in the first 30-60 minutes after birth and continues with the development of a loving relationship between the mother and baby⁶. This interaction during the postpartum period is the key process of the individual relationship between the mother and baby,

*Corresponding author.

Email: inrachma@ui.ac.id (I.N. Rachmawati).

which will last through the future⁷. Maternal and infant bonding manifests with gentle touches, gazing, and close physical contact, which nourishes the positive emotional state of the baby. This is essential to the baby's growth and development. Conversely, poor mother-infant bonding negatively impacts the child's development and trust.

The bonding quality of the mother and baby plays an essential role in their wellness. Positive or negative outcomes of the mother-infant interaction will sustain over time in the baby's life⁸. The interpersonal, cognitive, and affective relationships of an adult are rooted in mother-infant bonding during early life. Insufficient mother-infant bonding may have serious long-term impacts on parenting and on the child's development and psychological condition⁹. Lack of mother-infant bonding is indicated by the mother's grumpy attitude and her rejecting of the baby, which may eventually lead to neglect, avoidance, and abuse of the baby¹⁰. This study aimed to identify the relations between the psychosocial condition of the postpartum adolescent mother and mother-infant bonding.

Method

This was a correlational study with a cross-sectional design. A total of 103 respondents were recruited using a consecutive sampling method in the service area of six community health centers in West Java, Indonesia. These six areas have a markedly higher number of adolescent mothers in West Java province. A woman was considered to be eligible as a respondent for this study if she was a postpartum mother aged 14-19 years; in the 1- to 12-week period after birth; had spontaneous vaginal delivery; was married; and could read and write. The exclusion criteria were having current or a history of psychiatric, alcohol consumption, or substance abuse problems.

Data were collated from May to June 2016 after the study permit from the Provincial Health Office was granted. We approached the respondents to fill out the questionnaires during the Integrated Health Service (*Pos Pelayanan Terpadu*) activity, which is an Indonesian government program for maternal and child public health.

We used a postpartum bonding questionnaire to measure mother-infant bonding. This is a 25-item questionnaire with four dimensions: disturbed bonding, rejection and pathological anger, anxiety about the infant and incipient abuse. The validity and reliability test yielded scores of 0.545-0.922 and a reliability score of 0.971. Hence, the tool is valid and reliable. We also used a postnatal risk questionnaire to assess the psychosocial condition of the postpartum mothers. This questionnaire is a self-report tool consisting of 12 questions regarding perinatal problems, perinatal depression, and anxiety. This tool also assesses the history of mental health problems, physical trauma (i.e., domestic violence), sexual abuse, and emotional abuse. Prior tests showed a validity score of 0.630-0.963 and a reliability score of 0.938.

A univariate analysis was done to describe the psychosocial condition of adolescent mothers during the postpartum period and during mother-infant bonding. Furthermore, we carried out a chi-square analysis to answer the following research hypothesis: is there any relationship between the psychosocial condition of the adolescent postpartum moth-

Table 1 Respondent characteristics (n = 103)

Characteristic	Median	Min-Max
Mother's age	18	14-19
Baby's age	10	1-12
Husband or family's revenue (in Indonesian Rupiah)	1 000 000	500 000-5 200 000

er and mother-infant bonding? We used SPSS statistical program version 15 to facilitate the statistical data treatment.

This study was approved by the Ethical Committee of Faculty of Nursing, Universitas Indonesia. All respondents signed the informed consent form after a thorough explanation about the study was given.

Results

Respondent characteristics are described in Table 1.

A description of adolescent mothers' psychosocial conditions during postpartum and mother-infant bonding is summarized in Table 2. Adolescent mothers' psychosocial conditions during the postpartum period were mostly at risk (45%), with the majority (67%) reporting poor mother-infant bonding.

A bivariate analysis to identify the correlation between psychosocial conditions of adolescent mothers during the postpartum period and during mother-infant bonding is presented in Table 3.

As shown in Table 3, there was a statistically significant correlation between the psychosocial conditions of adolescent mothers during postpartum periods and during mother-infant bonding ($p = 0.000$). Adolescent mothers whose psychosocial condition was at risk during the postpartum period were more likely to have poorer mother-infant bonding (5.320 times lower) than those without risk, with a 95% confidence interval between 2.039 and 13.880 (OR = 5.320; 95%CI, 2.039-13.880).

Discussion

Adolescence, on the other hand, is the transitional phase to adulthood in which individuals strive for self-identity. Unfulfilled adolescents' developmental tasks will complicate adolescent mothers' ability to accept their new role as mothers, resulting in insensitivity towards their babies' needs. Lacking ability in newborn care leads to insufficient interaction and care, thus loosening the bond between the mother and her baby⁴.

Results showed that most mother-infant bonding was poor. The majority of mothers at psychosocial risk had poor bonding. Mothers' psychosocial condition during the postpartum period contributes to changes such as anxiety, fatigue, and physical alterations¹¹. Postpartum mothers are prone to experiencing anxiety¹². Other psychosocial conditions include past psychological history, physical trauma, abuse by in-laws and one's husband, and emotional prob-

Table 2 Psychosocial condition and mother-infant bonding (n = 103)

Characteristic	Frequency (n)	Percentage (%)
<i>Psychosocial condition of adolescent postpartum mothers</i>		
At risk	47	45.6
Not at risk	56	54.4
<i>Mother-infant bonding</i>		
Poor bonding	69	67
Good bonding	34	33

Table 3 Correlation between psychosocial conditions of adolescent mothers during postpartum periods and mother-infant bonding (n = 103)

Independent variable	Mother-infant bonding variable					
	Poor		Good		OR (95%CI)	p value
	n	%	n	%		
<i>Psychosocial condition during postpartum period</i>					5.320 (2.039-13.880)	0.000*
At risk	40	85.1	7	14.9		
Not at risk	29	51.8	27	48.2		

*p value < 0.05.

lems¹³. These conditions will result in negative consequences that will negatively affect the mother-infant bond¹⁴. A negative bond between a mother and her baby may manifest as irritability, hostility, and rejecting the baby, which leads to negligence, avoidance, and abuse¹⁰. This will cause emotional disturbances that lead to avoidance and neglect in infants. The number of teenage mothers in Indonesia is high, suggesting a potential increase in the occurrence of infant and child neglect.

Mothers with conditions such as stress, anxiety, and depression are often less active and less responsive and rarely play or communicate with their babies¹⁵. Mothers with impaired psychosocial conditions may not feel good when dealing with their babies. Finally, mothers may feel that the presence of a baby is a burden and will experience less confidence in caring for their babies.

The study revealed that adolescent mothers with psychosocial problem experience degraded mother-infant bonding¹⁶. Mothers with psychosocial problem such as depression during the 2-3 month postpartum period experience emotional problems in mother-infant bonding¹⁷. Similarly, anxiety degrades mother-infant bonding¹⁸, and altered psychological conditions may also cause impaired mother-infant interactions. Therefore, mothers with postpartum depression are at a heightened risk for having impaired mother-infant bonding compared to those without such a condition¹⁹. Teenage mothers are also at risk of developing an anxiety disorder, especially if they do not receive support from their husbands or families. Fam-

ily support for a teen mother comes from her husband and her family.

This study on mother-infant bonding in Indonesia showed that there was correlation between mothers with psychosocial problems and mother-infant bonding²⁰. Impaired psychosocial conditions will affect the emotional and physical health of the mother and her baby²¹ and result in the mother's hesitancy to care for her baby¹⁸. Mothers with psychosocial problems such as depression during the 2-3 month postpartum period will experience emotional problems related to mother-infant bonding¹⁷. This is because a disturbed psychosocial condition will affect the emotional and physical aspects of the mother and her baby and will result in the mother's hesitancy to care for her own baby, thus degrading their bond.

These results are also in line with Kurniawati's study²⁰, which demonstrated that the psychosocial conditions of a postpartum mother have the greatest correlation to mother-infant bonding. Psychosocial conditions that degrade mother-infant bonding include past psychological history, physical trauma, abuse by in-laws and one's husband, and emotional problems²². This may contribute to the emotional and behavioral development issues in the baby, leading to the child's poor sense of self and adaptability²³. Infant behavior tends to be fussy, irritable, and sad, for example, and infants tend to struggle to adapt to new environments. Forms of mother-infant bonding, such as mentoring, calm touches, and attentiveness, cultivate positive emotions in the baby and have important implications for growth.

Acknowledgement

This study was funded by the Direktorat Penelitian dan Pengabdian Masyarakat of Universitas Indonesia.

Conflicts of interest

There are no conflicts of interest to declare.

References

- Long MS. Disorganized attachment relationships in infants of adolescent mothers and factors that may augment positive outcomes. *Adolescents*. 2009;44(175):621-33.
- Santy, Setyowati, Novieastari E. Pengalaman remaja perempuan single parent di wilayah kerja Puskesmas Kecamatan Panjang Kota Bandar Lampung. Universitas Indonesia; 2011.
- Stiles AS. Case study of an intervention to enhance maternal sensitivity in adolescent mothers. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. 2010 Nov 1;39(6):723-33.
- Khan SA. Baby steps: A bonding program for adolescent mothers and their infants. [Internet series]. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 2011. Available at: <https://search.proquest.com/docview/1103346632>.
- Zimmer-Gembeck MJ, Waters AM, Kindermann T. A social relations analysis of liking for and by peers: Associations with gender, depression, peer perception, and worry. *Journal of adolescence*. 2010 Feb 28;33(1):69-81.
- Brockington I. Maternal rejection of the young child: Present status of the clinical syndrome. *Psychopathology*. 2011 Jul 7;44(5):329-36.
- Vaughn BE, Verissimo M, Coppola G, Bost KK, Shin N, McBride B, Krzysik L, Korth B. Maternal attachment script representations: Longitudinal stability and associations with stylistic features of maternal narratives. *Attachment & Human Development*. 2006 Sep 1;8(3):199-208.
- Deutscher B, Fewell RR, Gross M. Enhancing the Interactions of Teenage Mothers and Their At-Risk Children: Effectiveness of a Maternal-Focused Intervention. *Tecse [Internet series]*. 2013;26(4):194-205. Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=24765572&site=ehost-live>.
- Feldman R, Gordon I, Zagoory-Sharon O. Maternal and paternal plasma, salivary, and urinary oxytocin and parent-infant synchrony: Considering stress and affiliation components of human bonding. *Dev Sci*. 2011;14(4):752-61.
- Bicking Kinsey C, Hupcey JE. State of the science of maternal-infant bonding: A principle-based concept analysis. *Midwifery [Internet series]*. Elsevier; 2013;29(12):1314-20. doi: <http://dx.doi.org/10.1016/j.midw.2012.12.019>.
- Young R. The Importance of Bonding. *International journal of childbirth education*. 2013 Jul 1;28(3).
- Tietz A, Zietlow AL, Reck C. Maternal bonding in mothers with postpartum anxiety disorder: the crucial role of subclinical depressive symptoms and maternal avoidance behaviour. *Archives of women's mental health*. 2014 Oct 1;17(5):433-42.
- Christl B, Reilly N, Smith M, Sims D, Chavasse F, Austin MP. The mental health of mothers of unsettled infants: Is there value in routine psychosocial assessment in this context? *Arch Womens Ment Health*. 2013;16(5):391-9.
- Ruswanti, Rachmawati IN, Budiati T. Maternal Self Efficacy Remaja dan Faktor-Faktor yang Mempengaruhi. 2013.
- Austin MP, Priest SR. Clinical issues in perinatal mental health: new developments in the detection and treatment of perinatal mood and anxiety disorders. *Acta Psychiatr Scand [Internet]*. 2005;112(2):97-104. doi: <http://doi.wiley.com/10.1111/j.1600-0447.2005.00549.x>.
- Cremona SE. Antenatal predictors of maternal bonding for adolescent mothers. *Review Literature And Arts Of The Americas*. 2008.
- Edhborg M, Nasreen HE, Kabir ZN. Impact of postpartum depressive and anxiety symptoms on mothers' emotional tie to their infants 2-3 months postpartum: A population-based study from rural Bangladesh. *Arch Womens Ment Health*. 2011;14(4): 307-16.
- Moynihan M. Maternal Attachment in Close Relationships, Mother-Infant Postpartum Bonding, and Mentalization Megan Moynihan Villanova University in partial fulfillment of the requirements for the degree of Master of Science in Counseling Education and Counseling Dep. 2014.
- Smith-Nielsen J, Tharner A, Steele H, Cordes K, Mehlhase H, Vaever MS. Postpartum depression and infant-mother attachment security at one year: The impact of co-morbid maternal personality disorders. *Infant Behav Dev [Internet]*. Elsevier Inc.; 2016;44:148-58. doi: <http://dx.doi.org/10.1016/j.infbeh.2016.06.002>.
- Kurniawati D, Rachmawati IN, Budiati T. Hubungan antara Kondisi Psikososial Ibu pada Masa Postpartum dan Kepuasan Ibu terhadap Pelayanan Persalinan dengan Ikatan antara Ibu dan Bayi. 2015.
- Drewett RF, Blair P, Emmett P, Emond A. Failure to thrive in the term and preterm infants of mothers depressed in the postnatal period: A population-based birth cohort study. *J Child Psychol Psychiatry Allied Discip [Internet]*. 2004;45(2):359-66. Available at: <http://sfx.scholarsportal.info/mcmaster?sid=OVID:embase&id=pmid&id=doi:10.1111/j.1469-7610.2004.00226.x&issn=0021-9630&isbn=&volume=45&issue=2&spage=359&pages=359-366&date=2004&title=Journal+of+Child+Psychology+and+Psychiatry+and+Allie>.
- Raj A, Sabarwal S, Decker MR, Nair S, Jethva M, Krishnan S, Donta B, Saggurti N, Silverman JG. Abuse from in-laws during pregnancy and post-partum: qualitative and quantitative findings from low-income mothers of infants in Mumbai, India. *Maternal and child health journal*. 2011 Aug 1;15(6):700-12.
- Lowe JR, Coulombe P, Moss NC, Rieger RE, Aragón C, MacLean PC, Caprihan A, Phillips JP, Handal AJ. Maternal touch and infant affect in the Still Face Paradigm: A cross-cultural examination. *Infant Behavior and Development*. 2016 Aug 31;44:110-20. doi: <http://dx.doi.org/10.1016/j.infbeh.2016.06.009>.