

Pattern and influencing factors of breastfeeding of working mothers in several areas in Jakarta

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Abstract

Background Breast milk contains many essential nutrition factors best for babies. The 1997 Indonesian Health Demography found that the proportion of exclusive breastfeeding was still low (52%) and increased to 55.1% in 2002. Due to increasing number of working mothers, promoting breast feeding among them should be performed properly. There are no data on exclusive breastfeeding rate and pattern among working mothers in Indonesia.

Objective To describe exclusive breastfeeding rate and pattern among working mothers in several areas in Jakarta and the influencing factors.

Methods A descriptive study using a questionnaire was conducted from October 2005 to February 2006. Subjects were working mothers who had 6 to 12 month old baby and breastfed and the baby had no congenital or chronic disease.

Results Among 290 mothers interviewed, 40% worked at banks or insurance business, 34% were private employees, 25% medical staffs, and 2% were teachers. Almost 80% have exclusively breastfed for less than 4 months, 17% for 4 months, and only 4% for 6 months. Maternal leave, family support, mothers' knowledge, facilities at workplace, media influences, and working hours seemed to have no relations to breastfeeding rate. There were 122 (42%) mothers who had good knowledge about physiology of lactation, 155 of them (53%) had fair knowledge, and only 45% of them had poor knowledge.

Conclusions The proportion of working mothers in several areas in Jakarta who have exclusively breastfed for 4 months is 17%, and only 4% of subjects do exclusive breastfeeding for 6 months. Most subjects have a good to fair knowledge about the physiology of lactation but it does not seem to influence the decision to exclusively breastfed their babies. [Paediatr Indones 2007;47:27-31].

Keywords: *working mothers, exclusive breastfeeding, breastfeeding patterns, mothers' knowledge on physiology of lactation*

Human milk is the best food for human babies because it contains various nutrition factors such as carbohydrates, proteins, fats, minerals, vitamins, and immunological factors in adequate amounts.¹⁻⁷ American Academy of Pediatrics recommended to use human milk to gain its benefits such as decreasing the incidence of diarrhea, upper respiratory tract infection, otitis media, bacteremia, bacterial meningitis, urinary tract infection, and necrotizing enterocolitis. Human milk has also been proven to increase baby's cognitive development.^{2,8-9} The World Health Organization in the year 2001 declared that exclusive breastfeeding duration increased from 4 months to 6 months. The Indonesian Government also supports the program by declaring The National Movement to Promote and The National Mothercare Movement in Hospitals and Primary Health.

The 1997 Indonesian Health Demography Survey found that the 4 month exclusive breastfeeding rate was still low (52%), and slightly increased to 55.1% in the year 2002.^{10,11} According

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to the Statistics Center Bureau 2003, the number of working women in Indonesia has increased to 35.37% of 100,316,007 workers.^{11,12} Therefore, there is a strong need to provide supportive workplace environments for working mothers to be able to continue breastfeeding at work time. There are some obstacles for working mothers to continue breastfeeding to their babies, such as short maternal leave, lack of family support, lack of mother knowledge on physiology of lactation, lack of breastfeeding facilities at workplace, influences of media, and long working hours.¹³ There is lack of data describing the breastfeeding pattern and exclusive breastfeeding rate among working mothers in Indonesia. The purpose of this study was to describe exclusive breastfeeding rate and pattern in working mothers in several areas in Jakarta and factors related to them.

Methods

A descriptive study using a questionnaire was carried out on 290 mothers. Sample size was estimated based on proportion of breastfeeding among working mothers in Vietnam which was 5%.¹⁴ It is assumed that the demographic similarity between Indonesia and Vietnam will result in similar proportion as well. The inclusion criteria were working mothers aged 15-44 years, working outside home, had a baby between 6 to 12 month old, ever breastfed, and their babies did not have any major disabilities such as congenital defects in cardiovascular system, gastrointestinal tract, or neurological defects. Mothers should not have any chronic illness, malignancies, psychological instability, nor under any drug therapies that could harm their babies when breastfed. This study was conducted from October 2005 to February 2006 in several areas in Jakarta.

The interviews were taken place in several places such as pediatric outpatient clinics in Paviliun Tumbuh Kembang Cipto Mangunkusumo Hospital, Asih Hospital, Bunda Hospital, and several companies (banks, insurances) where the mothers worked. Each interview took about 15 to 20 minutes. All data collected were based on mothers' answers at the interview. Data were analyzed using SPSS program version 12.0.

Results

One hundred and fifteen (39.7%) mothers worked in a Bank or Insurance offices, 98 of them (33.8%) in private companies, 71 (24.5%) of them as medical staffs, and only 6 of them (2%) as teachers. Educational levels varied from junior high school graduate (5.2%) to senior high school graduate (17.9%) but most subjects had college education or above (76.9%). The characteristics of the subjects are shown in **Table 1**.

Table 1. Characteristics of study subjects

Characteristics	Total (n)	%
Mother's age (years)		
20-30	167	57.6
31-40	121	41.7
>40	2	0.7
Median	30	
Mothers' education level		
Junior High School	15	5.2
Senior High School	52	17.9
College or above	223	76.9
Job position		
Regular employee	252	86.9
Manager level	38	13.1
Time consumed outside home (hours)		
≤8	53	18.3
>8	237	81.7
Number of children		
1 child	164	56.6
2 children	97	33.4
3 children or more	29	10
Husband's education level		
Junior High School	6	2.1
Senior High School	57	19.6
College or above	227	78.3
Family structure		
Nuclear family	173	59.7
Extended family	99	34.1
Others	18	6.2
Antenatal care		
Traditional midwives	11	3.8
Midwives	27	9.3
Obstetricians	252	86.9
Prelactal feeding practice		
Yes	67	23.1
No	223	76.9

Table 2. Breastfeeding patterns among working mothers

Duration of exclusive breastfeeding (months)	n	%
<4	230	79.3
4	49	16.9
≥6	11	3.8

Table 3. Factors influenced breastfeeding patterns among working mothers

Influencing factors	Breastfeeding patterns			n (%)
	Exclusive (%) 4 months	6 months	Not exclusive (%)	
Maternal leave (weeks)				
<12	8 (18.6)	1 (2.3)	34 (79.1)	43 (14.8)
≥12	41 (16.6)	10 (4)	196 (79.4)	247 (85.2)
Facilities at workplace				
Breastmilk pumping room				
Yes	1 (14.3)	0 (0)	6 (85.7)	7 (2.4)
No	48 (17)	11 (3.9)	224 (79.2)	283 (97.6)
Refrigerator				
Yes	29 (14.4)	9 (4.5)	163 (81.1)	201 (69.3)
No	20 (22.5)	2 (2.2)	67 (75.3)	89 (30.7)
Day care centers near by				
Yes	8 (21.6)	2 (5.4)	27 (73)	37 (12.8)
No	41 (16.2)	9 (3.6)	203 (80.2)	253 (87.2)
Working hours				
≤ 8 hours	5 (9.4)	0 (0)	48 (90.6)	53 (18.3)
>8 hours	44 (18.6)	11 (4.6)	182 (76.8)	237 (81.7)
Supports from husband				
Fully supported	44 (18)	10 (4.1)	190 (77.9)	244 (84.1)
Not supported	0 (0)	0 (0)	1 (100)	1 (0.3)
No action at all	5 (11.1)	1 (2.2)	39 (86.7)	45 (15.5)
Sources that influenced the decision to give breast milk substitutes				
Medical staffs	8 (13.8)	2 (3.4)	48 (82.8)	58 (20)
Family	5 (15.2)	0 (0)	28 (84.8)	33 (11.4)
Work partner	4 (22.2)	1 (5.6)	13 (72.2)	18 (6.2)
Public media	16 (23.9)	3 (4.5)	48 (71.6)	67 (23.1)
Others (internet, leaflet, etc.)	2 (7.4)	1 (3.7)	24 (88.9)	27 (9.3)
No influences	14 (16.1)	4 (4.6)	69 (79.3)	87 (30)

Only 3.8% of working mothers could provide exclusive breastfeeding for 6 months. Most of the subjects could only give their breast milk exclusively for less than 4 months (Table 2).

Several factors were thought to influence the breastfeeding pattern among working mothers such as maternal leave, family support, mothers' knowledge about physiology of lactation, facilities at workplace, media influences, and working hours. Table 3 shows those factors and their relation with breastfeeding patterns among working mothers.

Among 290 working mothers, 122 (42.1%) mothers had good knowledge about physiology of lactation (answered minimum of 9 out of 10 questions correctly), 155 (53.4%) had fair level, while only 4.5% had poor level of knowledge (answered maximum 4 answers correctly).

Discussion

Most of the subjects (99.3%) were between 20-40 years old, with median age of 30 years old. This is an

economically productive age and a reproductive age as well.¹⁵ Slusser *et al*¹⁶ had a similar age range (25-35 years old) in their research about breastfeeding in the workplace.

Education levels of the subjects were mostly college graduate or more (76.9%). This study also showed that women's education in Indonesia is higher than before. According to Indonesian Department of National Education, in the year 2001/2002 there were 210,809 women graduated from university and in the next year they increased up to 338,875 women.^{17,18} The increase should be followed by better understanding about the importance of giving their babies breast milk. Two hundred and fifty two (86.9%) mothers worked as regular employee and most of them worked for more than 8 hours a day. That condition can influence the duration of breastfeeding to their babies.

Most of the subjects (86.9%) visited obstetrician regularly to have antenatal care, but yet there were still 11 mothers (3.8%) who went to traditional healers and all of them were junior high school

graduated. Subjects with lower education probably still have belief to do the antenatal care in a traditional way.

Prelacteal feeding practices are still commonly found in Indonesian culture of raising children. They still assumed that colostrum was not good enough for their newborn feeding. So before the mature milk was excreted they give other fluids such as water or formula. In this study, the prevalence was 23.1% similar with that of Aritonang¹⁹ in her study in the village areas in Yogyakarta (25%). Unfortunately 89.6% of them were guided by medical staffs who supposed to be educator for mothers to stimulate the practice of breastfeeding the baby.

Most (80%) subjects exclusively breastfed for less than 4 months, and only less than 4% have exclusively breastfed for 6 months. These results were similar with that of Vietnam's data; exclusive breast feeding for 6 months was only practiced by 5% of mothers.¹⁴ The results of this study compared to breastfeeding rate in SDKI 2002 (55.2%) was still very low due to the different methods used. The data was cumulatively collected from all women who breastfed exclusively from 1 to 4 months so the rate was high.

This study did not find any factors (maternal leave, family support, mothers' knowledge about physiology of lactation, facilities at workplace, media influences, and working hours) that could influence the working mothers to understand and breastfed their babies exclusively. The proportion of exclusive breastfeeding in working mothers was too low and could not be compared to those who did not breastfed their infants.

Ten questions about physiology of lactation were given to mothers. The scale of 9-10 correct answers were defined as good knowledge, 5-8 correct answers were fair, and 0-4 correct answers were poor knowledge. There were 122 (42.1%) mothers who had good knowledge about physiology of lactation, 155 of them (53.4%) had fair, and only 4.5% mothers have a poor knowledge. But it seems that knowledge has no influence to mothers to breastfeed their babies. A study by Iskandar *et al*²⁰ in 1993 in Java and Bali areas revealed that a higher education had no positive relation with duration of breastfeeding, which 25% among them stopped breastfeeding their babies when they reached the age of 2-5 month old.

As a conclusion of this study, the proportion of the working mothers in several areas in Jakarta who are exclusively breastfeeding for 4 months is 16,9%, and only 3.8% among them have exclusively breastfed for 6 months. Most of the subjects have a good and fair knowledge about physiology of lactation but it does not seem to influence the decision to exclusively breastfeed their babies.

References

1. Suradi R, Ismael S. Cuti menyusui 4 bulan: Suatu analisis pembenaran. *Sari Pediatri* 1994;1:118-27.
2. Suradi R. Spesifitas biologis air susu ibu. *Sari Pediatri* 2001;3:134-40.
3. American Academic of Pediatrics. Work group on breastfeeding. Breastfeeding and the use of human milk. *Pediatrics* 1997;100:1035-9.
4. Dewey KG. The evidence for breastfeeding: Nutrition, growth, and complementary feeding of the breastfed infant. *Ped Clin of North Am* 2001;48:87-104.
5. Zembo CT. Breastfeeding. *Obstet Gynecol Clin* 2002;29:51-76.
6. King FS, Burgess A. Breastfeeding. In: King FS, Burgess A, editors. *Nutrition for developing countries*. 2nd edition. New York: Oxford University Press; 1996. p. 91-4.
7. Picciano MF. The evidence of breastfeeding: nutrient composition of human milk. *Pediatr Clin N Am* 2001;48: 53-67.
8. Anderson JW, Johnstone BM, Remley DT. Breast-feeding and cognitive development: a meta-analysis. *Am J Clin Nutr* 1999;70:525-35.
9. Jain A, Concato J, Leventhal JM. How good is the evidence linking breastfeeding and intelligence? *Pediatrics* 2002;109: 1044-53.
10. Departemen Kesehatan RI. Strategi nasional peningkatan pemberian ASI.
11. Pusat Kesehatan Kerja Depkes RI. Kebijakan Departemen Kesehatan dalam pemberian ASI pada wanita yang bekerja. Cited 2005 January 14. available from: [url:http://www.depkes.go.id/idex.php?option=oom_download&Itemid=50&func=download&filecatid=188](http://www.depkes.go.id/idex.php?option=oom_download&Itemid=50&func=download&filecatid=188).
12. USAID Country Health Statistical Report. Indonesia. September 2004 .
13. Arora S, McJunkin C, Wehrer J, Kuhn P. Major factors influencing breastfeeding rates: Mother's perception of father's attitude and milk supply. *Pediatrics* 2000;106: 67-71.

14. Dearden KA, Quan LN, Do M, Marsh DR, Pachon H, Schroeder DG, *et al.* Work outside the home is the primary barrier to exclusive breastfeeding in rural Viet Nam: Insights from mothers who exclusively breastfed and worked. *Food Nutr Bul* 2002;23:99-105.
15. Health Situation in the South-East Asia Region, 1994-1997. cited 2005 April 2. Available from: url: http://www.w3.whosea.org/health_situt_94-97/pdfs/definition.pdf.
16. Slusser WM, Lange L, Dickson V, Hawkes C, Cohen R. Breastmilk expression in the workplace: A look at frequency and time. *J Hum Lact* 2004;20:164-9
17. Departemen Pendidikan Nasional RI. Ringkasan statistik pendidikan. Cited 2006 February 20. available from: <http://www.depdiknas.go.id/publikasi/brief/01-02/tab53.htm>.
18. Departemen Pendidikan Nasional RI. Ringkasan statistik pendidikan. Cited 2006 February 20. available from: url: <http://www.depdiknas.go.id/statistik/thn03-04/dikti/tab16.htm>.
19. Aritonang IA, Hartini THNS. Masih lebih banyak lagi bayi yang tidak diberi ASI eksklusif. cited 2005 May 19. available from: url: <http://www.tempo.co.id/medika/arsip/012001/lap-1.htm>.
20. Iskandar MB, Costello C, Nasution Y. Initiation and duration of breastfeeding in Indonesia. *Asia-Pacific Population Journal* 1993;5:89-112.