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ORIGINAL

Testing Orem's self-care deficit theory : dependent care agency for duration of breast-feeding

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Abstract Aims : The purpose of this study was to test of Orem's theory of self-care deficit. Specifically, limiting factors influencing the duration of breast-feeding were analyzed with Orem model to clarify the ability needed by a mother for continuing breast-feeding.

Background : The mean incidence of mothers with breast-feeding, mixtrophic breast-feeding or bottled milk is 52.6%, 43.2%, and 4.8%, respectively until one month after birth. However, the incidence of mothers with breast-feeding decreases to 46.2% just one month after birth. Although midwives instruct the importance of breast-feeding and promote breast-feeding by using various kinds of empirical care, there is not the standardized care with a high effect for continuation of breast-feeding.

Method : descriptive study.

Design Methodology : One hundred thirty-three mothers who delivered their babies in the University Hospital were included in this research. The hospital experienced around 400 birth in a year. Sixty-nine mothers of them fed a baby with breast milk (the breast-feeding group). The other mothers fed a baby with bottled milk or with bottled milk and breast milk (the mixed group).

Results : According to Orem model, comments obtained by interviews were categorized, and we found 3 factors impairing continuation of breast-feeding, "crying of a child", "inappropriate advice" and "previous experience". The limiting factors were related to each other, and inexperience of a life with a baby, the time-consuming life without composure, and unskilled responses to the shortage of milk enhanced restriction of adaptability caused by a difference between an imagined baby and a real baby.

Conclusions:This study support's Orem's model. Factors influencing the duration of breast-feeding were clarifyed by Orem's limitaitions factors.

Key words : breastfeeding, limitation factors, Orem model, dependent care

Introduction

Breast-feeding has been promoted in Japan since 1975 in cooperation with "infant nourishment and breast-feeding" stated in 1974 by WHO. Furthermore, almost all of the hospitals in Japan accepted "The ten steps to successful breast-feeding" stated by WHO/UNICEF in1989, and have instructed it to a mother. As a result, the prevalence of breast-feeding gradually increased from the nadir (31.7%) in 1970's to 52.0%. However, the prevalence has not yet returned to the level in 1960's. On the other hand, it is well known that breast-feeding lasts between 1 month

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and 6 months after childbirth in many cases, and studies on continuation of breast-feeding have been performed. These studies emphasize the importance of mother's will to continue breast-feeding and the support.

Self-care is defined as activities initiated or performed by an individual, family, or community to achieve, maintain or promote maximum health (Steinger and Lipson[1]). Orem, D. E. reported that client self-care deficits are the result of environmental situations. Orem's Self-Care deficit theory is adapted to clients (Cavanagh, et al.[2], Smith et al.[3]) and pregnant women (Hart, MA.[4], Haku, et al.[5]), and they described dependent care limitation in those clients. Breast-feeding is an activity performed by a mother to achieve, maintain or promote maximum health of a baby. Adapting Orem's Self-Care deficit theory to mothers with and without breast-feeding, the causes of discontinuation of breast-feeding maybe clarified.

Aims and significance

Midwives instruct the importance of breast-feeding and promote breast-feeding by using various kinds of empirical care in Japan. However, there is not the standardized care with a high effect for continuation of breast-feeding. Establishment of the standardized care for continuation of breast-feeding is needed. Therefore, limiting factors influencing the duration of breast-feeding were analyzed with Orem model to clarify the ability needed by a mother for continuing breast-feeding.

Methods

1. Objectives

One hundred thirty three mothers who visited the University Hospital 1 month after childbirth were involved in the study. Sixty-nine mothers of them fed a baby with breast milk (the breast-feeding group). The other mothers fed a baby with bottled milk or with bottled milk and breast milk (the mixed group).

2. Ethical consideration

The aims and significance of this study were informed to the mothers with an explanatory note 1 month after childbirth, and their consent was obtained. The records obtained in this study were carefully stored.

3. Collection of data

Data were collected with interviews using two guides, one of which had been made for the breast-feeding group and the other for the mixed group. The duration of the interview per one person was about between 20 and 30 minutes. Data obtained at mother and infant physical examination just 1 month after childbirth were also used.

4. Analysis methods

The theoretical framework was Orem's self-care deficit theory of nursing. Data obtained by the interviews were analyzed and classified to 30 groups according to the self-care limitation reported by Orem, D. E. propriety of the classification was discussed and verified by other investigators.

Results

1. Details of the objectives were listed in Table 1 according to Orem's basic conditioning factors. The mean age of the objectives was 30.4 years old, which was compatible to those of patients who delivered a baby in the hospital in 29.6 and the mean delivery age in Japan.

The prevalence of mothers complicated with anemia-which was considered to be a factor affecting breast-feeding was 29.0% in the breast-feeding group, 32.8% in the mixed group. There was no significant difference in the prevalence between the two groups. The amount of bleeding at delivery beside cases with Caesarean section was 246 ml in the breast-feeding group, 315 ml in the mixed group. There were no significant differences in mode of delivery, time of labor and previous treatment for infertility between the two groups. The numbers of primaparous and multiparous mothers in the breast-feeding group were 33, 36, respectively, and those in the mixed group were 38, 26, respectively.

2. Dependent care limitation factors[6]

1) Comments obtained through interviews to a mother were categorized in Table 2 according to Orem model in which 30 categories are in 10 sets of 3 limitations.

(1) Limitation of knowing

① Absence or lack of required knowledge (set 1).

Unsatisfied breast-feeding and discontinuation of breast-feeding were attributed to inexperience of breast-feeding, unskilled techniques for breast-feeding and lack of knowledge of deficient milk secretion.

② Limitation for knowing environmental conditions and for knowing self and enviroment (set 2).

Post-partum depression in a case was related to discontinuation of breast-feeding.

③ Psychic and cognitional limitation for developing insights about situation (set 3).

Unnecessary milk was given to a baby in a result of misunderstanding that a crying baby was always hungry. Inappropriate feelings like irritation and impatience, etc. caused by differences between a imagined baby and a real

Table 1. Basic Conditioning Factors (N=133)

Orem's BCF	Mother's BCF		Breast-feeding group n=69	Mixed group n=64
Age	Age		30.07±5.1	30.70±4.6
Health state	Past medical history		5 (7.2%)	9 (14.1%)
	Antepartum complications	Anemia	20 (29.0%)	21 (32.8%)
		Toxemia	3 (4.3%)	5 (7.8%)
		Threatened premature labor	20 (29.0%)	22 (34.3%)
		IUGR	1 (1.4%)	1 (1.6%)
		PROM	2 (2.9%)	1 (1.6%)
		Infection	1 (1.4%)	2 (3.1%)
	Labor	Caesarean	10 (14.5%)	16 (25.0%)
		Twin or Triplet birth	1 (1.4%)	2 (3.1%)
		Duration of labor	7.83±6.8	9.90±8.7
		Maternal blood loss	246±32.1	315±164.5
		Atonic hemorrhage	3 (4.3%)	3 (4.7%)
Social factor	Educational background	over university	14 (20.3%)	17 (26.6%)
		College	8 (11.6%)	13 (20.3%)
		Senior high school	47 (68.1%)	34 (53.1%)
	Have a job		28 (40.6%)	30 (46.9%)
	Obstetric background	primiparous women	33 (47.8%)	38 (59.4%)
		multiparous women	36 (52.2%)	26 (40.6%)
		1 multigravida	23	18
		2 multigravida	13	7
		3 multigravida	0	1
		Sterility	9 (13.0%)	8 (12.5%)
Family system	Support		53 (76.8%)	47 (73.4%)
Development state	Gestational age		38.9±1.3	38.9±1.4

Orem's BCF	Baby's BCF	Breast-feeding group n=69	Mixed group n=64
Development state	Birth weight	3043.5±342.9	2949.7±355.5
	Apgar score	8.5±1.2	8.7±1.1

Table 2. Orem's dependent care/self-care limitation factors

Dr. Taylor kindly allowed us to use the "dependent care" instead of the term "self-care" although she suggest the limitation of using the former term.

Ⅰ. Limitation of knowing

Orem's limitation	Mothers limitation wards	Breast-feeding limitation
[set 1] Absence or lack of required knowledge		
Changed modes of functioning that are not understood;lack of fit between what one has experienced and what one is experiencing.	First experience of breast-feeding. I give my baby bottle milk when my breasts are not engorged. I gave my baby breast milk after I fed him with bottle milk.	Inexperience of breast-feeding. Unskilled techniques for breast-feeding. Lack of knowledge of deficient milk secretion.
New unrecognized requirement for dependent care associated with changed functional states.	I do not know how I care my breasts for secreting milk well.	
New self-care requisites that are parts of a prescribed regimen of health care that are not understood.		
Lack of knowledge essential for performing the operations needed to meet specific self-care requisites using specified methods and measure of care.		
[set 2] Limitation for knowing environmental conditions and for knowing self and environment		
Impairments of sensory functioning, of perception, and of memory or attention deficits that interfere with the acquisition of empirical knowledge or recall of knowledge.	Postpartum depression. Maternity blues.	Interference of remembrance of child care knowledge by Maternity blues.
Disturbances of human integrated functioning that adversely affect empirical consciousness, cognitive functioning, and rationality associated, for example, with (1) organic conditions that are productive of toxic states, (2) mental and emotional illness (3) brain disorders, and (4) effect of material substances such as prescribed or unprescribed drugs.		
[set 3] Psychic and cognitional limitation for developing insights about situation		
Dispositions and orientations that result in perceptions, meanings, and appraisals of situations that are not in accord with reality.	I believed that a baby sleeps after breast-feeding. I believed that a baby sleeps well in a bed. I think that crying of a baby always expresses shortage of milk. Crying of my baby sometimes irritated me. I want to cry. I can not contain myself for irritation. I cannot judge the reason of crying of a baby. I do not understand a characteristic of a baby.	The restriction caused by gap between an imagined baby and a real baby.
Movement away from taking action to acquire new and essential knowledge.	His brother grew with bottle milk. Bottled milk must be better than breast milk because I will return to my job soon.	
Modes of cognitive functioning that affect mental operations associated with knowing when action is to be taken, adjusting action to existent or emerging conditions and knowing when to stop action, and with organizing sets of actions into meaningful sequences toward result achievement.	First experience of breast-feeding.	

Ⅱ. Limitation for making judgments and decisions

Orem's limitation	Mothers limitation wards	Breast-feeding limitation
[set 1] Interfere with individuals having or getting an adequate base of information for judgment and decision making		
Lack of familiarity with a situation and lack of knowledge about appropriate questions for investigation.	My baby does not sleep after breast-feeding. My baby cries every one hour. My baby cries 1 to 2 hours after breast-feeding. My baby frets after breast-feeding. My baby sucks my breast-feeding. Breast milk has not been secreted enough since I was in the hospital. The mother whose breasts are not tensed at night does not secret milk well.	A meaning of crying of a baby and lack of knowledge to nursing. Lack of friends and acquaintances.
Insufficient knowledge or lack of necessary skills for seeking and acquiring appropriate technical knowledge from individuals or reference materials.	T here are no friends here. I have a few friends with kids. I don't know whom I ask about breast-feeding. I don't know whom I ask.	
Lack of sufficient and valid antecedent and empirical knowledge to reflect and reason within a dependent care frame of reference.	The first nursing I don't know why my baby is crying.	
[set 2] Interfere with individuals having or getting an adequate base of information for judgment and decision making		
Interferences with the direction and maintenance of voluntary attention necessary to investigate situations from the perspective of self-care, for example, limitations of consciousness, intense emotional states, sudden or strong likes and dislikes, overriding interests and concerns.	Postpartum depression I am afraid of water. I am afraid that my baby is crying. I can't hold my baby in my arms. I took medison.	
Inability or limited ability imagine alternate courses of action that could be taken and the consequence of each.		
[set 3] Avoidance of decision making		
Reluctance or refusal of individual to investigate situations of dependent care as a basis for determining what can and should be done.	Breast massage does not work. Breast milk not be also secreted this time because milk wasn't secreted enough after previous childbirth. I am lazy about breast-feeding. Everybody can feed my baby with bottle milk. I feed my baby with bottle milk because I smok.	Lack of expectation of breast-feeding.
Reluctance to stop reflection and make a decision once a desirable and suitable course of action is indentified and understood.	I can't judge whether my breast milk enough.	
Refusal to make a decision about a possible course of dependent care agency.		

Ⅲ. Limitations for engagement in result-achieving courses of action

Orem's limitation	Mothers limitation wards	Breast-feeding limitation
[set 1] Absence of conditions necessary for dependent care		
Lack of knowledge or developed skills needed to operationalize decisions about dependent care.	The first experience of breast-feeding. I don't know whether milk is secreted or not. I don't understand why my baby was crying. I gave my baby bottle milk when he cries because I feel pity for him.	Lack of life experience with a baby.
Lack of resources for dependent care.	There are no acquaintances around me because of transfer of my husband.	
[set 2] Lack of sufficient energy for sustained action the investigative and production phases of self-care		
Lack of sufficient energy for sustained action the investigative and production phases of dependent care.	I feed my baby with bottle milk because of fatigue after childbirth. I am tired because I nurse this baby and his brother. Nobody helps me with housework. Only I do housework. I can't take a rest because I am busy with nursing and housework. Crying of my baby irritates me. Being only with my baby in my house all day long stresses me out. It takes a long times to feed a baby with breast milk. It is quite a job.	Fatigue of mental and body. A limit by a breast and nipple trouble.
Inability or limited ability to control body movements in the performance of required actions in either or both phases of dependent care.	My nipples are short. I have fissure of nipple. I have pain in my nipple. I have retracted nipple. When I use a nipple cap, my baby do not suck well.	
Inability or limited ability of individuals to attend to themselves as dependent care agents and to exercise vigilance with respect to existent and changing internal and external conditions.	I am up to nursing my baby.	
[set 3] Lack of interest or desire to meeting dependent care requistes, inadequate goal orientations and values		
Lack of interest in meeting dependent care requisites.	I don't care how to feed my baby. Bottle milk must be better than breast milk because I will return to my job.	(If a baby is cheerful) I am not particular about mother's milk.
Lack of desire to meet perceived needs for dependent care.	My baby easily falls asleep when he begins to suck my breast. So I feed my baby with bottle milk.	
Inadequate goal orientations and values placed on self-care that do not sustain engagement in the investigative and production actions essential for knowing and meeting therapeutic dependent care demands.	A baby grows well when he is fed on bottle milk because bottle milk is rich.	

[set 4] Interferences is associated with individuals' conditions of living		
Family members' or others' delibe-rate interferences with the perfor-mance of the courses of action necessary for individuals to know and meet their therapeutic self-care demands.	When my baby had a checkup at the pediatrics on the 20th day after birth, he advised that I gave my baby bottle milk additionally because weightgain of the baby wasn't enough. My pediatrician advised that I give bottle milk but breast milk because of severe diapper rash. My mother said that breast milk might be short, and then my baby was crying. My husband said 'Give our baby bottle milk additionally.'	In adequate advice. Lack of support.
Patterns of personal or family living that restrict engagement in dependent care operations.	My husband comes back home late. (He doesn't help me with nursing.) I accustum my baby to bottle milk because I return to my job soon. I am busy everyday. (an independent store) I smoke.	
Lack of social support systems needed to sustain individuals when dependent care is complex, timeconsuming, and stressful.	My husband comes back home late. (He doesn't help me with nursing.) There are a few helps of a family.	
Crisis situations in the family or household that interfere with dependent care.	Hospitalization of my mother. My eldest son is operated. I take medison for common cold.	
Disaster situations that interfere with engagement in dependent care and with the usual ways for meeting dependent care requisites.		

baby impelled a mother to feed a baby unnecessarily. Experiences that 'Milk was not secreted enough after previous childbirth.' and 'Brest massage did not work.' caused avoidance of breast-feeding.

(2) Limitation for making judgments and decisions

① Interfere with individuals having or getting an adequate base of information for judgment and decision making (set 1).

Lack of familiarity with the situations like 'My baby cries and does not sleep even after breast-feeding.' and 'My baby cries 1 to 2 hours after breast-feeding.' were related to restriction of breast-feeding. Many comments from mothers in the study were classified to this category. Furthermore, insufficient knowledge for breast-feeding and lack of necessary skill for breast-feeding were attributed to shortage of friends.

② Interferences with the direction and maintenance of voluntary attention necessary to investigate situations from the perspective of dependent care (set 2).

Breast-feeding was restricted in a patient with postpartum depression by the situations that 'I took medicine.' and 'I am afraid that my baby is crying'.

③ Avoidance of decision making (set 3).

The comments that 'I think that breast milk will not be secreted enough', and 'I think that I am lazy for breast-feeding' seemed to express reluctance for breast-feeding. In some cases, breast-feeding was ceased because of smoking.

(3) Limitation for engagement in result-achieving courses of action

① Absence of conditions necessary for dependent care (set 1).

Inexperience of breast-feeding, experience of deficient milk secretion and lack of life-experience with a baby like 'I do not understand why my baby was crying' were applicable to the category 'lack of knowledge or developed skills needed to operationalize decisions about self-care'. The situation that there were no parents and acquaintances around a mother because of transfer and move was

compatible to the category 'lack of resources'.

② Lack of sufficient energy for sustained action in the investigative and production phases of dependent care (set 2).

The situations that 'I can not take a rest because I am busy with nursing and housework.', 'Being only with my baby in my house all day long stresses me out.' and 'Nobody helps me.' indicates that physical and mental fatigue played a role of a limiting factor for continuation of breast-feeding. Troubles of nipples like, fissure of nipple and retracted nipple were also considered to be a limiting factor.

③ Lack of interest or desire to meeting dependent care requistes, inadequate goal orientations and values (set 3).

The comments that 'I do not care how to feed my baby.', 'Bottled milk must be better than breast milk because I will return to my job 2 months after birth.' and 'Bottled milk is better than breast milk because I smoke.' suggested lack of interest for breast-feeding.

④ Interferences associated with individuals, conditions of living (set 4).

The advice by a family member like 'Breast milk may be short.' and the instructions by a pediatrician like 'Give your baby enough milk because weight-gain of the baby is not enough.' and 'Give bottled milk but breast milk because of severe dermatitis.' were a crucial limiting factor for continuation of breast-feeding. The comments that 'My husband comes home late.', 'My husband does not help me to nurse.', 'Bottled milk must be better than breast milk because I will return to my job 2 months after birth.' and 'Bottled milk is better than breast milk because I smoke.' were applicable to the category 'patterns of personal or family living that restrict engagement in dependent care operation'. Critical situations like Admission of parents, sons and daughters other than a newborn baby to a hospital and death of family members seemed to cause discontinuation of breastfeeding. Disease and physical conditions of a newborn baby seemed to cause discontinuation of breast-feeding, too.

Discussion

1. Crying of a baby restricts continuation of breast-feeding

Inappropriate responses to a crying baby were most frequently applicable to categories of Orem Model (Limitation I−set 1, 3, Limitation II−set 1, Limitation III−set 1, 2). Primipara experienced first that her baby was crying. These women seem to have a tendency to imagine that a baby sleeps after breast-feeding and a baby sleeps in a bed instead of imaging that a baby often cries. Inexperience of a life with a baby, a life without time and ease enhanced the restriction caused by gap between an imagined baby and a real baby. Furthermore, crying of a baby sometimes irritated them. Page, L. A.[7] suggested a bad influence caused by imaging 'perfect mother perfect baby' and raised importance of correct understandings and treatments for a crying baby.

The procedure to treat a crying baby is as follows. At first, check whether a diaper is wet or not when you look at a crying baby. If it is wet, change the diaper. However, when a baby is still crying after the change, cradle a baby in your arms. If the procedure is not effective, give your baby breast milk or bottled milk. However, if you understand that crying of a baby always expresses shortage of milk, additional feeding seems cause discontinuation of breast-feeding. Criteria for deficient milk secretion are as follows in Japan, 1) a baby cries about 30 min after suckling, 2) a baby suckles for more than 30 minutes, 3) a baby does not gain weight and 4) stool of a baby is hard and frequency of bowel movement is low. Although the situations a mother faced influenced responses to a crying baby (Limitation III−set 1, 2, 3 and 4), it is very important to know the procedure to treat a crying baby and the criteria for deficient milk secretion.

2. Advice by family members or others restricts continuation of breast-feeding

A mother continuing breast-feeding was considered to devote to nurse a baby and have enough time. On the other hand, a mother without enough supports inclined to feeding with bottled milk owing to the situations that 'Being only with my baby in my house all day long stresses me out.' and 'Nobody helps me.' (Limitation III−set 2).

Many reports on continuation of breast-feeding emphasize importance of support[8,9]. Karyn, J., et al.[10] reported that the most effective factor on continuation of breast-feeding was a support and its efficacy depended on frequency of supports. However, Merrily, H., et al.[11] reported that there was not a significant difference in the frequency of supports between mothers with and without deficient milk secretion. Whether supports are a most important, factor for continuation of breast-feeding remains still controversial. There is a custom in Japan that a pregnant woman visits her parents at old her home, and deliveries her baby and stays there after childbirth. This custom indeed offers supports and time to rest to a mother by family members after childbirth. However, same person had a tendency to restrict continuation of breast-feeding at the same time in the study. The comments by family members like 'Milk is not enough' and 'Our baby must be hungry. You had better give milk' influenced the decision for breast-feeding. The advice by a pediatrician like 'Give your baby milk because diapar rash of a baby is influence breast-feeding.' gave a crucial effect on continuation of breast-feeding. In this study, we found that even an inadequate advice by a real mother restricted continuation of breast-feeding, although deficient milk secretion was induced at a high rate by discord with a mother-in-low. This result suggests that ability selecting appropriate advice seems to be required for continuation of breast-feeding.

3. Previous experiences restricted continuation of breast-feeding

As mentioned above, inexperience of a life with a baby enhanced the restriction caused by gap between an imagined baby and a real baby, resulting in discontinuation of breast-feeding. Therefore, the experience which helps a mother to understand a real baby is considered to contribute to continuation of breast-feeding. However, the experiences that 'Milk was not secreted enough after previous childbirth.' and 'Brest massage did not work.' and 'His brother grew with bottled milk. I do not care how to feed.' caused discontinuation of breast-feeding. Furthermore, the experiences that 'Milk was not secreted after I returned to my job.', 'His brother bothered me with feeding. He refused bottled milk during job.' decided a mother to feed a baby with mixtrophic breast-feeding or bottled milk. This result agrees with the report by Jull R[12] that inexperience of breast-feeding was a promoting factor for breast-feeding. Almost all the experiences were related to detestable feelings on breast-feeding, and the feelings might compel a mother to decide discontinuation of breast-feeding. If a mother has an experience with detestable feeling, it is important to instruct a mother to use the experience effectively for continuation of breast-feeding. Therefore, ability to use an experience effectively is required for continuation of breast-feeding.

Conclusions

According to Orem model, comments obtained by interviews were categorized, and we found 3 factors impairing continuation of breast-feeding, "crying of a child", "inappropriate advice" and "previous experience". The limiting factors were related to each other, and inexperience of a life with a baby, the time-consuming life without composure, and unskilled responses to the shortage of milk enhanced restriction of adaptability caused by a difference between an imagined baby and a real baby.

This study support's Orem's model. Factors influencing the duration of breast-feeding were clarifyed by Orem's limitaitions factors.

References

1) Steiger, N. J. & Lipson, J. G.:Self-care nursing, Theory and practice, Bowie, 1985.
2) Cavanagh, Stephen J.: Orem's Model in Action, 1991. (Kazuma K., Onishi C., eds.) Orem's model in action, Igaku Shoin, 1993, PP. 47-85
3) Smith, Marlaine C.: An Application of Orem's Theory in Nursing Practice, Nursing Science Quarterly, 2 (4), 159-161, 1989.
4) Hart, M. A.: Orem's self-care deficit theory: research with pregnant women, Nursing Science Quarterly, 8(3), 120-126, 1995.
5) Haku M., Takeuchi M., Yokoyama K.: Applicability of Orem's self-care model to pregnant women

considered in terms of self-care limitations, Bulletin of School of Medical Sciences of The University of Tokushima 7 : 81-96, 1997

6) Orem, D. E. : Nursing, concepts of practice (Fifth Edition), Mosby-Year BOOK, 9, 1985.

7) Page LA:The New Midwifery science and sensitivity in practice, 2000 (Suzui E., Haku M., eds.) Medika Shutupan, 2002, PP. 196-216

8) Colin W Binns, Jane A Scott:Breastfeeding:Reasons for starting, reasons for stopping and problems along the way, Breastfeeding Review, 10(2), 13-19, 2002.

9) Viveca Bergman, Anders Moller : A Survey of Swedish Mothers' Views on Breastfeeding and Experiences of Social and Professional Support, Scand J Caring Sci, 7, 47-52, 1993.

10) Karyn J. Kaufman and Lynne A. Hall : Infuluences of the Social Netwark on Choice and Duration of Breast-feeding in Mother of Preterm Infants, Research in Nursing and Health, 12, 149-159, 1989.

11) Merrily H. McNatt and Margie S. Freston : Social Support and Lactation Outcomes in Postpartum Women, J Hum Lact, 8(2), 73-77, 1992.

12) Jull R. Janke : Development of the breastfeeding Attrition Prediction Tool, Nursing Research, 43(2), 100-104, 1994.