



# The Relationship Between Maternal Knowledge About Lactation Management and Behavior in Breast Feeding In Kedaton Health Center Bandar Lampung

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## ABSTRACT

Breastfeeding is the right of every mother even for mothers who work as farmers, traders, civil engineering, or private employees. The implementation of breastfeeding can be done properly and correctly if there is complete information about the benefits of breast milk and breastfeeding also lactation management. Exclusive breastfeeding can be inhibited by a number of things such as low maternal and family knowledge about the benefits of breast milk, correct breastfeeding, lack of lactation counseling services, socio-cultural factors, incessant marketing of formula milk, lack of support from health workers and maternal working. This study aims to determine the relationship between maternal knowledge about lactation management and behavior in the provision of breast milk in the working areas of the Health Center, Penengahan Raya Kedaton Village Bandar Lampung. This study used descriptive correlation design with cross sectional approach. The population of this study was all breastfeeding working mothers in the working area of Health Center Penengahan Raya Kedaton Village with a total sample of 40 respondents. The instrument consists of 10 knowledge questions and 10 behavioral questions with Guttman Scale, which were validated by 10 respondents. The result of the bivariate analysis using the Kendall test shows that  $p$  value = 0,016 then  $p$  value  $p < 0,05$  with coefficient correlation is 0.76. Based on the result of the research and analysis above, it can be concluded that there is a high correlation relationship between the level of knowledge about lactation management and maternal behavior in giving breast milk in the working areas of the Health Center, Penengahan Raya Kedaton Village Bandar Lampung.

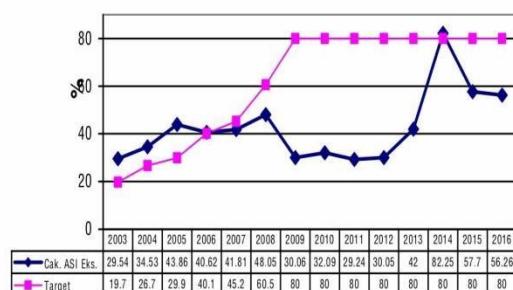
**Keywords:** Breast Milk, Breastfeeding, Lactation Management, Knowledge, Behavior

## INTRODUCTION

Word Helath Organization (WHO) recommends exclusive breastfeeding for at least the first 6 months of life and continued with complementary foods until the age of 2 years. The American Academy of Pediatrics (AAP), the Academy of Breeding Medicine and the Indonesian Pediatrician

Association (IDAI) recommend the same thing about exclusive breastfeeding for at least 6 months

Grafik 1 – Trend Cakupan Bayi Mendapat ASI Ekslusif  
Di Provinsi Lampung Th. 2003-2016



Sumber : Profil Kesehatan Kab/Kota

(Suradi, 2010). Data on the Regency / City Health Profile of Lampung Province in 2003-2016 shows that coverage of exclusive breastfeeding had reached 82.25% in 2014, and decreased in 2015 to

57.7% and decreased again in 2016 to 56.26%. (see Graph 1)

This figure is still very low compared to the target of achieving exclusive breastfeeding in 2009 of

80% (DHO, 2016).

According to Elmiyasna (2009), exclusive breastfeeding can be hampered by several things such as the lack of knowledge of mothers and families about the benefits of breastfeeding, how to breastfeed properly, the lack of socio-cultural factor counseling services, the incessant marketing of formula milk, the lack of support from health workers, and factors mothers who work as farmers, traders, civil engineering or private workers. The 2007 Indonesia Demographic Health Survey (SDKI) shows that 57% of the health workforce in Indonesia are women.

Cadwell & Cindy (2011) defines lactation management as all efforts made to support breastfeeding success. The scope of lactation management starts from the period of pregnancy, after

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delivery, and the subsequent breastfeeding period. The scope of post-natal period lactation management for working mothers includes exclusive breastfeeding, breastfeeding techniques, expressing breast milk, giving squeezed breast milk, storing squeezed breast milk (Dyah, 2009).

Desi (2008) revealed that breastfeeding is the best way to provide a food deal for the development and growth of a healthy baby. With early breastfeeding stimulation of the nipples, prolactin and pituitary are formed. So that the secretion of ASI more smoothly. In mothers there are two kinds of reflexes that determine success in breastfeeding. These reflexes are prolactin and flow reflexes (let down reflect). (Perinasi, 2009).

Ayu (2011) in her research revealed that exclusive breastfeeding has been defined by WHO wherein the baby only gets breast milk, there is no other liquid or solid with the exception of drops or syrup consisting of vitamins, minerals, supplements or drugs.

According to AAP (2012) recommends that exclusive breastfeeding can be done until the age of 6 months. Breast milk consists of ait, alta lactalbumin, lactose, casein, amino acids, antibodies to germs, viruses, and fungi. Breast milk will protect the baby against infection and will also stimulate normal baby growth. (Dyah, 2009)

The nutritional content in breast milk is much higher compared to cow's milk. The protein content in colostrum is much higher than breast milk. Colostrum is a liquid that is released on the first day until the third day after the baby is born which is yellowish in color, is rather rough because it contains fat granules and epithelial cells. Colostrum contains high protein levels and antibodies that are able to protect the baby's body against infection (Proverawati, 2010).

**Table 1. The content of Colostrum Transitional Breast Milk and Mature Breast Milk**

o	Content	Colostrum	Transition	BM
Energy (kg/kg)				
cal)		57	63	65
Lactose (gr/100cc)		6,5	6,7	7
Fat (gr/100cc)		2,9	3,6	3,8
Protein (gr/100cc)		1,195	0,36 5	1,324
Mineral (gr/100cc)		0,3	0,3	0,2

Source: Lactation Management Program of the Indonesian Perinatology Association – Jakarta 2015

**Table 2. Immunoglobulin content**

o	Content	Colostrum	Trans	BM
Ig	A			
(mg/100cc)		335	-	119,6
Ig	G			
(mg/100cc)		5,9	-	2,9
Ig	M			
(gr/100cc)		17,1	-	3,8
Lisosin (mg/100cc)		14,216,4	-	1,324
Lactoferrin		420520	-	0,2

Sumber: Lactation Management Program of the Indonesian Perinatology Association – Jakarta 2015

## LITERATURE REVIEW

Roesli (2005) explains that breast milk is a natural food that is good for bayu, practical, economical, contains the right composition, ideal nutrients in accordance with the needs and digestive abilities of infants, so as to produce optimal physical growth.

Perinasia (2009) by breastfeeding the breast to stimulate the formation of oxytocin. Oxytocin helps stimulate uterine involution and prevents postpartum hemorrhage. Reducing the bleeding will reduce the prevalence of anemia. In addition, it also reduces the possibility of many breast cancers. By breastfeeding the mother's fertility will be reduced so that it can reduce pregnancy. Cara menyusui yang benar menurut Cadwell & Cindy (2011) adalah sebagai berikut:

- a. Before breastfeeding, milk is released a little later applied to the nipple and around the breast
- b. The baby is placed facing the belly of the mother / mother's breast, the baby is held on the back of her shoulder with one arm. The baby's head is located on the mother's elbow.
- c. One baby's hand is placed behind the mother's body, and one in front.
- d. The baby's stomach is attached to the mother's body, the baby's head is facing the breast, the baby's ears and arms are located in a straight line.
- e. The baby is given a stimulus to open the mouth by touching the cheek or side of the baby's mouth.
- f. After the wind opens the mouth, the wind is immediately brought close to the mother's breast and breast aerola is inserted into the baby's mouth.
- g. The wrong position if the baby is only sucking on the nipple only, will result in insufficient breast milk input and nipples blisters.

#### How to express milk

Bestabel (2011) in her research revealed that many mothers return to work after giving birth and they must leave their babies at home. They cannot breastfeed their babies properly as required by WHO due to lack of facilities in the workplace. In this case work is no reason to stop exclusive breastfeeding for at least 4 months. And working mothers are encouraged to give milk to their babies while their mothers work.

The benefits of breastfeeding according to Roesli (2005) in addition to babies still getting breast milk while the mother is working can also be to eliminate the milk dams, eliminate the seepage of breast milk, also maintain the continuity of milk supply when the mother is sick or the baby is healthy.

According to Bestabel (2011), the way to express milk by hand is as follows:

- a. Wash your hands, hold a clean cup to collect milk
- b. Lean forward and refute your breasts with your hands
- c. Starting from placing the finger on the aerola and other fingers underneath
- d. Squeeze the breast milk by pressing the breast while the thumb and other fingers massage towards the front
- e. Repeat the press, massage and release several times with rhythmic movements until the milk starts to flow out
- f. Do not pull or massage the nipples, because they will not express milk and will cause pain.

### Storage of Breastmilk

The milk that is released can be stored for a while. Perinasi (2009) states the difference in the duration of storage is related to the storage, which is as follows: a. In the open air 4-6 hours

- b. In the refrigerator / 24°C which is 24 hours
- c. In the refrigerator / freeze (-18°C) 6 months

### How to dilute milk and warm milk

- a. Frozen milk can be warmed in a pan filled with lukewarm water
- b. Never use a microwave to thaw or warm milk
- c. Thawed milk should be used within 24 hours of thawing

- d. The milk that has been thawed may not be frozen or stored again. (Codwell and Cindy, 2011)

Knowledge of working mothers about exclusive breastfeeding and workplace support. The cause of the low knowledge of mothers about exclusive breastfeeding, problems in breastfeeding that does not come out, besides that working mothers do not know how to give breast milk and store breast milk, another factor because nursing mothers who work assume breast milk is not enough given to infants and infants are not will feel full. In addition, the right to breastfeed in the workplace needs to be supported, so that milking milk remains comfortable in a special room and a special storage area to make breast milk last until brought home. This is a problem in the office generally. The success of breastfeeding mothers, greatly requires the support of various parties ranging from partners, families, communities, health workers, health facilities, companies, and government. (Proverawati and Eni, 2010).

The regulation on the procedure for providing breast milk space is intended to implement the provisions of Section 30 verse (4) Government Regulation Number 33 of 2012 concerning the Provision of Exclusive Breast Milk, which is regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 15 of 2013 concerning Procedures for Providing Special Facilities for Breastfeeding and / or Blush milk. Purpose of The Study

The achieved of the objectives this study are:

1. To find out the characteristics of breastfeeding respondents at the Kedaton Health Center in Bandar Lampung.
2. To find out the level of mother's knowledge about lactation management.
3. To find out the mother's behavior in breastfeeding.
4. To determine the relationship of mother's knowledge about lactation management with maternal behavior in breastfeeding.

## **METHODS**

This study used a descriptive correlation with Cross Sectional Approach and purpose of this study are to explain research with various relationships (Hidayat, 2011). This study focuses on variables and analysis to test hypotheses. The characteristic of this research is

the description by collecting data from working mothers' knowledge about lactation management, workplace support and mother's behavior in breastfeeding. And the results of the analysis to find out the relationship of the two. This study uses a research explanation with a cross sectional approach as a measure (Sugiyono, 2013).

The sample in this study was all populations where the population in this study were all working mothers who breastfeed in the working area of the Kedaton Health Center in Bandar Lampung. The total respondents were 40 people. Criteria for respondents in the study:

Mothers who have babies aged 1-6 months.

Residing in the working area of Kedaton Health Center, Bandar Lampung

Mothers who work in an agency / company

Working mothers are willing to be respondents

Working mothers who are still breastfeeding.

This research was conducted in the working area of the Bandar Lampung Kedaton Health Center in the posyandu or office where mothers work. This research was conducted by giving a questionnaire by directly visiting the houses or Puskesmas Kedaton, which was conducted in January - April 2019.

The mother's knowledge questionnaire about lactation management uses Guttman with a value of 1 for correct answers and 0 for incorrect answers (Arikunto, 2006). Good value category (76% 100%); enough (56% -75%); and less (<55%), ordinal scale. (Riwidikdo, 2010).

The check list is used as a measure of maternal behavior in breastfeeding, with exclusive (1) and non-exclusive (0) categories, in nominal terms. (Riwidikdo, 2011).

The instrument validity was tested on 10 respondents in the Health Center working area of the Kedaton Community to determine whether the instrument was suitable for use. Validity were done by comparing the instrument with the service material that has been taught. This type of statistic for assessing validity uses product moment correlation. The validity test results obtained that the item valid knowledge questions no. 3, 4, 5, 13, 14, 15, 19, 21, 22, 28, while valid behavior is no. 2, 4, 5, 8, 9, 13, 14 , 15, 18, 20.

Test reliability on maternal knowledge about lactation management and workplace support using the Cronbach's Coefficient Alpha technique. Interpretations of Alpha test reliability are: 0.80-1.00 is very high; 0.40-0.60 is moderate, 0.20-0.40 is low, and 0.00-0.20 is very low. The reliability test results on 10 items of knowledge questions are 0.850 so the reliability level is very high whereas the 10 items of behavior questions obtained the reliability value of 0.811 then the level of reliability is very high.

## **RESULTS**

### Univariate Analysis

The aim of this univariate analysis was to answer the characteristics of breastfeeding respondents by age (Table 3) , to find out the characteristics of breastfeeding respondents by Education Level (Table 4), to find out the level of mother's knowledge about lactation management (Table 5), and to find out the mother's behavior in breastfeeding (Table 6).

Table 3. Characteristics of Respondents by Age (n=40)

<b>Age</b>	<b>Total</b>	<b>Presentage</b>
26 - 35 yo	25	62,5%
36 - 45 yo	13	32,5%
46 - 50 yo	2	5%
<b>Total</b>	<b>40</b>	<b>100%</b>

Table 4. Characteristics of Respondents by Education Level

<b>Level of Education</b>	<b>Total</b>	<b>Presentage</b>
Elementary	7	17,5%
Junior High School	10	25%
Senior High School	20	50%
College	3	7,5%
<b>Total</b>	<b>40</b>	<b>100%</b>

Table 5. Level of Knowledge About Lactation Management

<b>Level of Knowledge</b>	<b>Frequency</b>	<b>Presentage</b>
High	10	25%
Medium	25	62,5%
Low	5	12,5%
<b>Total</b>	<b>50</b>	<b>100%</b>

Table 6. Breastfeeding Behavior

<b>Level of Knowledge</b>	<b>Frequency</b>	<b>Presentage</b>
High	12	30%
Medium	24	60%
Low	4	10%
<b>Total</b>	<b>40</b>	<b>100%</b>

### Analisis Bivariat

Using the Kendall Tav Test which aims to determine the relationship of maternal knowledge about lactation management with maternal behavior in breastfeeding in the Kedaton Health Center in Bandar Lampung.

Table 7. Relationship between the level of knowledge and breastfeeding behavior

<b>Variable</b>	<b>P Value</b>
Level of Knowledge	0,16

Coefissien correlation is 0.76

Table 8. Guidelines for Interpreting the Power of

Relationship

<b>Interval Coefficient</b>	<b>Category Correlation</b>	<b>Interpretation</b>
0	No correlate	No relationship
> 0 - 0,25	Weak	No relationship
> 0,25 0 0,5	Enough	There is a relationship
> 0,5 - 0,75	Strong	There is a relationship
> 0,75 - 0,99	Very Strong	There is a relationship
1	Perfect	There is a relationship

Source: Sugiyono (2009)

## DISCUSSION

Characteristics of Respondents by Age(Table 3). Distribution of respondents based on age at most in the range of ages 26-35 years old, they were 25 respondents (50%). The results of this study are in line with the results of Sari's research (2009) which shows that the characteristics

of respondents that are mostly based on age are 25-30 yo. because this is where women are productive in giving birth.

Characteristics based on level of knowledge(Table 4). Distribution of respondents based on education level is the most Senior High School that is 20 respondents (50%). Supporting employment in the region because it is a developing industrial area, which generally works in factories and shops. This result is in line with the results of Sari (2009) which shows that the most education respondents are 16 respondents (50.5%). Other researchers conducted by Setyorini

(2014) stated that the respondents who had the most postgraduate education and the least were Junior High Schools. This can be influenced by regional differences and human resource progress.

Univariate analysis of the level of knowledge about lactation management (Table 5) is the most medium. They were 25 respondents (62.5%) and the lowest there are 5 respondents (12.5%). Sari(2009) research results showed that the most mother's level of knowledge about lactation management was sufficient, they are 13 respondents (52%). Education is one of the factors that influences one's knowledge level. The higher the level of education, the higher the level of knowledge a person has (Setiyowati & Khilminia, 2010). According to Rini (2008) education has to do with development and behavior change. Education deals with transmission, knowledge, attitudes, beliefs, skills, and other aspects of behavior. With high education will affect one's mindset to act and make the best decisions so that maturity emerges. Besides that, the thing that influences breastfeeding is the experience that makes the respondent not give a formula to her baby.

The data above shows that the higher the level of education, the better the person's behavior in this case is lactation management. Good behavior is very closely related to the knowledge possessed by a person so that the better the knowledge, the better the behavior (Sari, 2009). The results of the Setiyowati & Khilmiana (2010) study indicate that there is a tendency that mothers who have more knowledge will provide exclusive breastfeeding to their babies. Conversely mothers with low knowledge about breast milk will be less in terms of providing exclusive breastfeeding to their babies. In this case education is one factor that influences one's

knowledge level. A high level of knowledge also determines whether a mother is easy to understand and adopt information about exclusive breastfeeding.

#### Breastfeeding Behavior (Table 6)

The most breastfeeding behavior data is enough, there were 24 respondents (60%). Breastfeeding by mothers since ancient times is a tradition and is a duty of mother. They, the mothers, gave it more to their instincts and demands. Exclusive breastfeeding includes the benefits of bahi bayu as well as for the mother and for the family in general. If done properly, exclusive breastfeeding is the main nutrient for the baby, while for nursing mothers can prevent some maternal diseases and psychological aspects. In addition, exclusive breastfeeding has an economic impact, where the need for breast milk is enough to provide nutrition to infants with no need for formula milk which means it will reduce family expenses (Setiyowati & Khilmiana, 2010).

An action or behavior will be realized if the respondent understands and wants to do good lactation management in exclusive breastfeeding. From the research conducted by Setyorini (2014), it was found that the behavior of exclusive breastfeeding with a less good category was 20%. According to Allport (1954) in Notoatmojo (2010), that attitude is a tendency to act (trend to behave) which means attitude is a component that precedes open action or behavior.

#### Relationship between Knowledge Level and ASI Behavior

Based on the results of the research analysis, there is a relationship between the level of knowledge about lactation management with breastfeeding behavior. According to Notoatmojo in Sari (2009) said that knowledge is the result of knowing that will happen after someone senses a certain object such as seeing, hearing, smelling, feeling, and feeling. But most of the knowledge itself is obtained through the eyes and ears, so in other words the result of hearing and seeing. One strategy to obtain behavioral changes according to WHO cited in Notoatmojo is by providing information to increase knowledge so as to raise awareness and ultimately people will behave according to that knowledge. Changes in good behavior are very closely

related to his knowledge. Changes in good behavior are very closely related to the knowledge possessed by a person so that the better the knowledge, the better the behavior (Sari, 2009).

The results of the Setyowati & Khilmiana (2010) study indicate that there is a tendency that mothers who have more knowledge will provide exclusive breastfeeding to their babies. Conversely mothers with low knowledge about breast milk will be less willing to give exclusive breastfeeding to their babies. In this case education is one of the factors that influence one's level of knowledge.

According to Bloom in Notoatmojo (2005), knowledge is one of the domains of behavior formation. Behavior that is based on good knowledge will be more durable than behavior that is not based on knowledge. The relationship of the level of knowledge about lactation management with breastfeeding behavior is influenced by maternal education, previous breastfeeding experience and exposure to information sources such as mass media, health workers, and contact with groups of mothers who have successfully breastfeed.

## **Conclusion**

1. Characteristics of breastfeeding respondents in the working area of Bandar Lampung Kedaton Health Center based on the most age is at the fertile age of 26-35 years, they were 25 respondents (62,5%). And characteristics of respondents by education level is Senior High School, they were 20 respondents (50%).
2. The most mother's level of knowledge about lactation management is in medium level, which are 25 respondents (62,5%).
3. The most behavior of mothers in breastfeeding is good enough, they were 24 respondents (60%)
4. There is a strong correlation relationship between the level of knowledge about lactation management and maternal behavior in breastfeeding(p value = 0,16).

## **Recommendation**

For Kedaton Health Center, hope this research can provide basic evidence to improve community outreach programs regarding good breastfeeding behavior

For nursing mothers, can increase self-awareness in the behavior of mothers in exclusive breastfeeding.

For Educational Institutions, it is hoped that the results of this study can be used as a reference source and material in developing research on exclusive breastfeeding.

For further researchers, the results of this study are expected to motivate other researchers to develop research on exclusive breastfeeding in order to expedite efforts to educate the nation's children through an exclusive breastfeeding program something the Ministry of Health stipulates.

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