

# The Difference of Full Breastfeeding Length of Normal Confinement and Cesarean Section with IMD and non-IMD at RSDK Ibu dan Anak Siti Fatima and Restu RSB (Maternity Hospital) Makassar, Indonesia

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**Abstract-** The difference of full breastfeeding length of normal confinement and cesarean section with IMD and non-IMD at RSDK Ibu dan Anak Siti Fatima and RSB (Maternity Hospital) of Restu Makassar. The research aims to indicate (1) the different of the length of full breastfeeding of normal confinement doing IMD and non-IMD, (2) the difference of the length of full breastfeeding of cesarean section doing IMD and non-IMD, (3) the difference of the length of full breastfeeding of normal confinement and cesarean section with IMD, and (4) the difference of length of full breast feeding of normal confinement which do not use IMD and cesarean section which use IMD. The research was conducted at the children's and Maternity Hospitals in Makassar city. The type of method used was Analytic Observational Research with design of cohort prospective. There were 72 respondents. The datum analysis was conducted with bivariat manner with Kaplan Meier. The results reveal that there is different length of full breastfeeding of mothers who give birth with cesarean section with IMD and not IMD, there is difference of length of full breastfeeding to mothers of normal giving birth and cesarean section with IMD, but there is no different of the length of full breastfeeding of women who normally give birth without IMD and the mothers of cesarean section doing IMD, there is no difference of the length of full breastfeeding of mothers normally giving birth with IMD and non-IMD.

**Index Terms-** Breast feeding, normal confinement, cesarean section and IMD

## I. INTRODUCTION

There are still many cases where the baby is born not directly given to the mother for having skin contact and have feeding immediately. It is more likely due to the several reasons, such as knowledge of mothers about the importance of breast feeding is low, the inaccurate hospital regulation, and the numerous mothers who work outside the home. Some hospitals simply give formula to newborns which may lead the baby to suck the milk from the unaccustomed her nipples and finally no longer want to consume breast milk or often referred to as "nipple confusion". Sucking milk from a bottle is very different from the mother's nipple sucking that babies should learn from the beginning to suckle. This case shows that labor without any Early Initiation of Breastfeeding may shorten even prevent babies can breastfeed

for longer (Prasetyono, 2009). Nativity with acts such as Caesarean section, vacuum, forceps, episiotomy even can also interfere with this natural ability, due to the pain felt by the mother because of the incision and suture the stomach so it takes time for mothers to breastfeed their babies.

Researchers from the British under the leadership of Edmond dr.Karen doing research in Ghana published in Pediatrics 30 March 2006, to the 10,947 babies born between July 2003 and June 2004 implied that if a baby is given the opportunity to suckle within the first hour of contact with the mother skin (at least for an hour) then 22% of infants under 28 days of lives can be saved. However, if it first begin feeding when the baby was over two hours and 24 hours following the first, 16 % lived below the 28 day baby's life can be saved.

Babies born by cesarean section delivery method in Indonesia are generally not equipped to do the IMD, whereas actually IMD is an international recommendations of the UNICEF - WHO in 1992, the contents of which have been developed by the Ministry of Health. The recommendation states that all health care facilities implement the 10 Steps to Successful Breastfeeding (LMKM) / Ten Step to Successful Breastfeeding that one of its contents recommend to assist in the implementation of the IMD mothers after delivery, whether vaginal delivery by normal methods as well as the section cesarean (Virarisca, Dasuki, Sofowan, 2010). This study aimed to identify (1) the effect of IMD on normal delivery to full breastfeeding Giving, (2) the effects of IMD on cesarean section deliveries to the full length of breast feeding, and (3) differences IMD effects on normal labor and cesarean section deliveries to the full of breast feeding.

## II. MATERIALS AND METHODS

### 2.1 Research Site and Design

The research using cohort design which was conducted at the Hospital of Bersalin Restu and RSKDIA Fatimah Makassar on the consideration that; Bersalin Restu Hospital and RSDKIA Fatima Makassar is the maternity hospital that performs the early initiation of well breastfeeding on normal delivery or cesarean section deliveries; There were no reports of research on differences in the length of a full breast feeding on normal labor and cesarean section IMD and non IMD.

### 2.2 Population and Sample

The population in this study were all mothers who gave birth at the Bersalin Restu Hospital and RSKDIA Fatima Makassar in 2012. Sample were mothers who gave birth to normal and caesarean section who perform Early Initiation of Breastfeeding (IMD) in RSB Restu Makassar and Early Initiation of Breastfeeding (IMD) in Makassar RSKDIA Fatima from February to March 2012. Sampling quota by means of sampling with a sample size of 72 people.

### 2.3 Data Collection

Primary data was collected through interviews by providing a list of questions orally to respondents and documentation methods for collecting secondary data by asking the register books owned by the midwife who handles the delivery of patients data either normal delivery or cesarean section.

### 2.4 Data Analysis

Data Analysis using survival analysis is a draft statistic method for analyzing financial survival and described the differences of period of breast feeding in normal labor and cesarean section who did not IMD and in the form of tables and graphs survival. The data analyzed is determined long survival time mothers to breast feed their babies in full. For a long calculates the mother gave breast feed with IMD done at birth Kaplan Meyer and method used to distinguish length breastfed infants in cesarean section deliveries and normal wear tests using the log-rank statistic.

## III. RESULTS

### 3.1 Descriptive Analysis

In **Table 1** show that the normal delivery and caesarean section were 36 respondents who did IMD and not IMD at the amount of 50%. In normal labor there is no age group > 35 years in the amount of 0% compared to the cesarean section deliveries by 11.11%. Similarly, the cesarean section deliveries were more common in the age group 25-35 years with 83.33% compared to normal labor equal to 77.78%. More normal labor in *multipara* in the number of 58.3 % compared to the cesarean section deliveries by 44.4%. Similarly, the cesarean section deliveries are more common in *primipara* by 55.6% compared to normal labor is equal to 41.7%. Cesarean section deliveries more on working mothers in the amount of 66.7% compared to 55.6% of normal deliveries.

**Table 1. Distribution Frequency of Normal Delivery and Mother on Cesarean section Status IMD Based in RSKDIA Siti Fatimah and RSB Restu In 2012.**

Variables	Normal	%	Cesarean section	%
<b>IMD Status</b>				
Yes	18	50,0	18	50,0
No	18	50,0	18	50,0
<b>Age</b>				
< 25 year	8	22,22	2	5,56

25 – 35 year	28	77,78	30	83,33
>35 year	0	0	4	11,11
<b>Parity</b>				
Multipara	21	58,3	16	44,4
Primipara	15	41,7	20	55,6
<b>Occupation</b>				
Work	20	55,6	24	66,7
Not work	16	44,4	12	33,3
<b>Education level</b>				
Low	0	0,0	0	0,0
Medium	24	66,6	21	58,3
High	12	33,3	15	41,6
<b>Number</b>	36	100,0	36	100,0

Similarly, in normal labor is more common in women not working at 44.4% compared to cesarean section deliveries was equal to 33.3%. For educational level, In the normal delivery or cesarean section maternal education are not low at 0% Similarly, in normal labor is more common in women secondary education by 66.6% compared to cesarean section deliveries is equal to 58.3%.

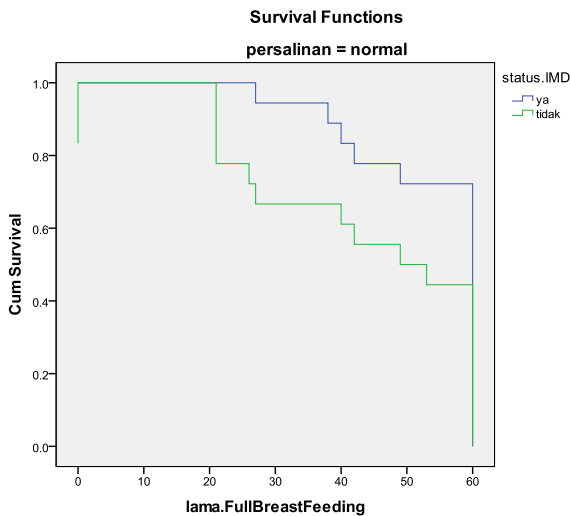
### Bivariate Analysis

Giving Full Breast Feeding in the Normal maternal IMD and non-IMD Based on **Table 2**, the opportunity to get a full Breast Feeding babies who do IMD in normal delivery at the age of 0 days is 100 % and the non-IMD of 83.3 %, the chance of the baby getting full IMD Breast Feeding is done on a normal delivery at the age of 40 days for 83.3% and non-IMD of 61.1%, while the chances of the baby getting full IMD Breast Feeding on a normal delivery at the age of 60 days was 66.6% and that not IMD only of 38.8%.

**Table 2. Probability of Full Breast Feeding Since Giving Birth Mother Maternity Normal Based on IMD status in RSKDIA Siti Fatima and RSB Restu, 2012**

Day	Cumulative Survival Proportion		The number of rest cases	
	IMD	Non IMD	IMD	Non IMD
0	0	100.0	83,3	15
27	21	94,4	77,8	14
38	26	88,9	72,2	13
	27		66,7	12
40	40	83,3	61,1	11
42	42	77,8	55,6	10
49	49	72,2	50,5	9
	53		44,4	8
60	60	66,6	38,8	7

Figure 1 below indicate probabilities provision of full breast feeding in normal maternal IMD longest at 60 days is 66.6 % and non-IMD no later than 60 days of age is 38.8 %.



**Figure 1. Period of Full Breast Feeding According to the IMD Status Normal Delivery**

Based on Table 3, the average duration of full breast feeding for normal maternal conducted IMD is 54 days longer when compared with normal maternal IMD is not done at 41 days.

**Table 3. Period of Full Breast Feeding Mothers According to the IMD status Maternity Normal in RSKDIA Siti Fatima and RSB Restu In 2012**

IMD Status	Period of Full Breast Feeding	Percentiles		
		25%	50%	75%
IMD	54,222	60	49	26
Non IMD	41,000	60		

Based on median values, there are 50 % of mothers who gave birth to normal and do IMD still provide full breastfeeding up to the age of 60 days, while 50 % of mothers who gave birth to normal and not done IMD still provide full breast feeding until the age of 49 days.

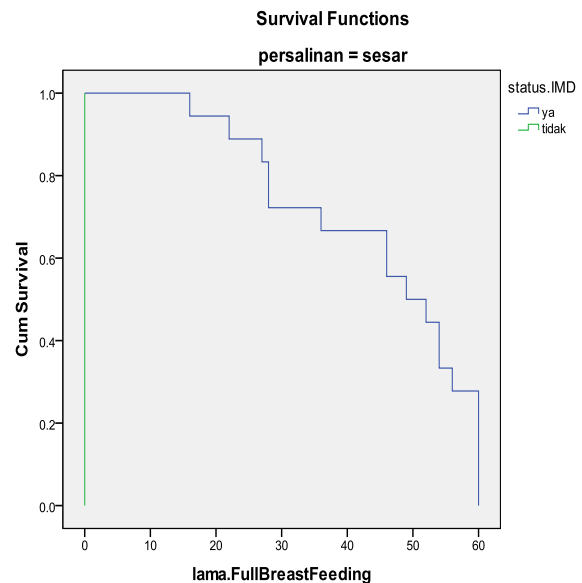
**Table 4. Probability of Giving Full Breast Feeding After Childbirth According to IMD status on Mother Maternity Seksio Fault in RSKDIA Siti Fatima and RSB Restu In 2012**

Day		Cumulative Survival Proportion		The number of rest cases	
IMD	Non IMD	IMD	Non IMD	IMD	Non IMD

0	0	100	0	18	0
16		94,4		17	
22		88,9		16	
27		83,3		15	
28		72,2		13	
36		66,7		12	
46		55,6		10	
49		50,0		9	
52		44,4		8	
54		33,3		6	
56		27,8		5	
60		22,2		4	

Period of Full Breast Feeding giving on maternal cesarean section that IMD and non-IMD Table 4 show, chances of getting a full breast feeding baby at the age of 0 day by 100% and at the age of 60 days was 22,2% in maternal cesarean section performed while the IMD at maternal cesarean section and the non-IMD is 0%. Based on IMD status in mothers with cesarean section deliveries can be seen that the provision of full breastfeeding mothers do IMD have longer odds when compared with mothers who did not IMD.

Based Graphic 2, giving the probability of full breast feeding on maternal cesarean section performed IMD, the oldest age of 60 days is 22.2 %, when compared with maternal cesarean section for non-IMD, where there is no provision of full breast feeding by mothers cesarean section IMD is not done.



**Graphic 2. Period of Full Breast Feeding based on the IMD maternal cesarean section**

Based on Table 6, the average duration of full breast feeding for mothers who do IMD cesarean section at 45 days whereas maternal cesarean section is not performed at all IMD does not provide full breastfeeding.

Table 6. Differences period of Full Breast Feeding According to IMD Status on Mother Maternity cesarean section in RSKDIA Siti Fatima and RSB Restu In 2012

	Chi-Square	Df	Sig.
Log Rank (Mantel-Cox)	35.000	1	.000
Breslow (Generalized Wilcoxon)	35.000	1	.000
Tarone-Ware	35.000	1	.000

Based on the estimated value of the median, there were 50% of mothers who continue to provide full breast feeding in the cesarean section group were given intervention IMD until the age of 49 days, but no one is giving full breastfeeding mothers in the cesarean section group at non IMD. Table 4 illustrates that significant value both log rank, Breslow, and Tarone – Ware less of 0.05, so it can be concluded that there are differences in the duration of full breast feeding among mothers who do IMD cesarean section cesarean section to mothers who did not do the IMD.

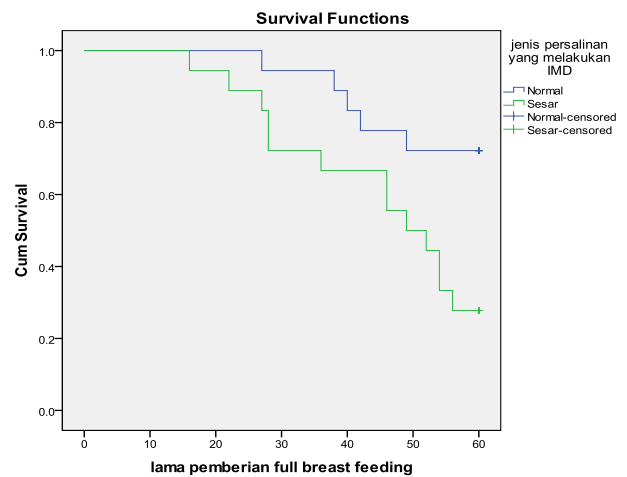
**Duration of Giving Full Breast Feeding in Normal and IMD maternal cesarean section.**

Table 7 shows that opportunities to get Full Breast Feeding babies who do IMD in normal maternal and maternal cesarean section at the age of 0 days is 100%, at the age of 49 the opportunity to get Full Breast Feeding infants on maternal normal is 72.2% and the section fault that is 50.0%,

Table 7 Probability of Giving Full Breast Feeding Mother After Childbirth and Maternity Normal Fault section to the IMD in RSKDIA Siti Fatima and RSB Restu In 2012.

Day	Proporsi Survival Kumulatif		The number of rest cases		
	cesarean section	Normal	cesarean section	Normal	
0	0	100,0	100,0	18	18
27	16	94,4	94,4	17	17
38	22	88,9	88,9	16	16
40	27	83,3	83,3	15	15
42	28	77,8	72,2	14	13
	36		66,7		12
	46		55,6		10
49	49	72,2	50,0	13	9
	52		44,4		8
	54		33,3		6
	56		27,8		5
60	60	66,6	22,2	12	4

Based on Figure 3, the probability of giving full breast feeding mothers who gave birth at the while chances of getting a full breast feeding babies in mothers of normal birth at the age of 60 days is 66.6 cases of cesarean section and the mother lived only 22.2 %.



IMD's normal maximum of 60 days of age is 66.6 % and the cesarean section IMD longest 60 days of age is 22.2 %.

Based on Table 8, the average duration of full breast feeding for mothers who gave birth to normal with IMD were 54.222 days longer than the mother who gave birth to the IMD cesarean section is 45.222 days. Based on the 75 % percentile, mothers who still provide full breast feeding among mothers who gave birth to normal IMD till the age of 49 days, and the mother who gave birth cesarean section performed IMD until age 28 days.

Table 8. Period of Full Maternity Breast Feeding Mother Normal and cesarean section with IMD in RSKDIA Siti Fatima and RSB Restu in 2012

Delivery type	Duration of Full Breast Feeding	Percentiles		
		25%	50%	75 %
Normal	54,222	0	0	49
Cesarean	45,222	0	49	28

Table 9 illustrate that both the significant value of log rank, Breslow and TARone-Ware, less than 0.05, so it can be concluded that there are differences between the old full breast feeding mothers with normal delivery and caesarean section were IMD.

Tabel 9. Period of Full Maternity Breast Feeding Mother Normal and IMD cesarean in RSKDIA Siti Fatima and RSB Restu In 2012

	Chi-Square	Df	Sig.
Log Rank (Mantel-Cox)	6.232	1	.013

Breslow (Generalized Wilcoxon)	5.421	1	.020
Tarone-Ware	5.825	1	.016

	Chi-Square	Df	Sig.
Log Rank (Mantel-Cox)	.216	1	.642
Breslow (Generalized Wilcoxon)	.004	1	.948
Tarone-Ware	.037	1	.847

**Bivariate Analysis Between period of Full Breast Feeding Giving in normal maternal Not IMD and the IMD cesarean section.**

Table 10, the chances of the baby getting Full Breast Feeding at non IMD normal maternal age 0 days is 83.3 % and the IMD maternal cesarean section at 100%. At the age of 49 get a full day of opportunities Breast Feeding babies in normal maternal non IMD and IMD maternal cesarean section is same with 50.0 %, while chances of getting a full breast feeding infants on non IMD maternal at age of 60 days is 38.8% and the cesarean section of IMD mo ther lived only 22.2%. Based on Figure 4, the probability of giving full breast feeding in mothers who gave birth to normal non-IMD no later than 60 days of age is 38.8 % and cesarean section, maternal age IMD maximum of 60 days is 22.2 %.

IV. DISCUSSION

**Period of Full Breast Feeding in the Normal Maternal IMD and non IMD**

Approximately 22% of the infant mortality rate at one month after the first birth can be reduced by doing IMD, breastfed babies for an hour or more his mother's chest immediately after birth. It is important in maintaining the productivity of milk. Baby's sucking is important in increasing the levels of the prolactin hormone, the hormone stimulates the mammary glands to produce milk. The suction will increase milk production doubled. That's the difference puff with feeling (Yuliarti, 2010). This study is in line with the research of Dr. Niels bergman (2005) found that mothers who gave birth to the chest temperatures to 1 degree Celsius warmer than the temperature of the mother's breast is not giving birth. If the baby's mother placed chest heat, the temperature of the mother's chest will drop 1 degree Celsius. If the baby was cold, the mother's chest temperature will rise by 2 degrees Celsius to warm the baby. Thus, mothers who gave birth chest is the best place for newborns than a sophisticated bed and expensive.

It rarely found that IMD can not be done as long as health workers and mothers can work. Unless complications occur in mother or abnormalities in infants that require immediate action. Based on interviews conducted during the study that the information obtained from 50% of normal birth mother who did not IMD, though giving full breast feeding only till age of 49 days than did the IMD can provide full breast feeding longer till age of 60 days. Average mother does not know the importance of breastfeeding and how to breastfeed properly so that her breasts are swollen and sore nipples and opted to stop nursing her baby, so that tends to give her baby formula because they think formula is better than breast milk, because it is ultimately used to use baby pacifier so breastfeed when experiencing nipple confusion. It also greatly affect the continuity of the provision of full breast feeding. This study is also in line with the qualitative studies on women in the region south of Jakarta district in Jagakarsa health centers reported that IMD significantly affect the implementation of exclusive breastfeeding.

These results are also in line with those made by Fika and Syafiq, medical journal (2003) which states that in the group of infants who were given the opportunity for early breastfeeding, the result is eight times more successful than exclusively breastfed infants who were not given the opportunity early breastfeeding.

**Tabel 11. Period of Full Breast Feeding of normal delivery with non IMD and Cesarean section delivery with IMD di RSKDIA Siti Fatima and RSB Restu 2012**

Delivery type	Duration of Full Breast Feeding	Percentiles		
		25 %	50%	75 %
Normal	41,000	60	49	26
Cesarean	45,222	60	49	28

Based on **Table 11**, the average duration of full breast feeding for mothers who give birth are normal non IMD were 41,000 days and to those mothers who gave birth at caesarean section IMD is longer with 45.222 days. Based on median values , there are 50 % of mothers who continue to provide full breast feeding mothers who gave birth to normal both not IMD and mother who gave birth cesarean section IMD until the age of 49 days.

Table 12 illustrates that the significant value both log rank, Breslow and TARone-Ware more than 0.05, so it can be concluded that there is no difference in duration of full breast feeding among mothers with normal delivery non IMD and maternal IMD cesarean section.

**Tabel 12 Difference of Full Breast Feeding of normal delivery maternal non IMD and cesarean section delivery maternal with IMD in RSKDIA Siti Fatima and RSB Restu, 2012**

### **Period of Full Breast Feeding on maternal cesarean section that IMD and non IMD**

According to the theory, the most common reason that was not done IMD in mothers who gave birth cesarean section because of the condition of the mother who is very risky and the busy operating rooms. This is not a problem because the baby's chest with mother, mother to be moved or recovered chamber treatment rooms. Give the baby a chance to continue its operations and achieve breast feeding early.

Based on interviews conducted at the time of the study obtained information that 50 % of mothers who gave birth cesarean section did IMD, no one that gives full breastfeeding even though only a day than those who do IMD can provide full breast feeding longer till 49 days. The results showed that the majority of mothers with ailing physical condition including cesarean section deliveries stopped giving full breast feeding her baby because of the pain in the incision, breastfeeding mothers little or no out - and because of the hospital early after giving birth to her baby immediately separated as soon after birth the baby was given formula. This greatly affects the continuity of the provision of full breast feeding. It shows that the IMD greatly affect the success of the full length Breastfeeding mothers especially on how childbirth affects the physical condition of the mother, unlike the case in normal deliveries, well done IMD or not it did not greatly affect the duration of full breastfeeding difference.

According to research conducted by Arifah, (2009) that there was a significant difference of time between the Early breastfeeding success of initiation of normal delivery with cesarean delivery. So that in the event of failure of the early initiation will also affect maternal milk production, because of the hormone oxytocin which affects the mother's milk production will be released when stimulated by the baby's sucking at the mother's nipple during breastfeeding. Meanwhile, the baby still needs breast milk as nutrition and body was also improves immunity. If there is a balance between the needs of the mother's milk production of breast milk needed by the baby, then the program will result in the failure of 6 month exclusive breastfeeding in infants.

Tarigan, RB (2011) in Kabanjahe Hospital in 2009 found, there were 175 maternal and 96 of them with a cesarean surgery. Means about 54% of labor performed by cesarean section. Mothers who give birth by cesarean section on General Hospital generally do not give milk to their babies. This study is consistent with research Fitriany (2011), it is known that delivery by cesarean section does not affect the physiological basis of breastfeeding if the mother wants.

### **Period of Full Breast Feeding Giving in Normal and IMD maternal cesarean section.**

According to the IMD theory can be done either on a normal delivery and caesarean section for the delivery of successful breast feeding full longer. Cesarean delivery is not a barrier to mothers initiate breastfeeding early. Because the baby can be positioned although not as perfect as in normal labor. From the results of the research can be seen that the IMD does birth mothers supported by the normal place that turns healthy maternal health affects more than the duration of full breastfeeding mothers that childbirth is not a normal place so

affected by the physical condition of the mother, although still done IMD.

### **Period of Full Breast Feeding Giving in Normal maternal Not IMD and the IMD**

At cesarean section deliveries are usually less stable physical condition of the mother because the incision pain and anesthetic effects when performed cesarean section, so sometimes the introduction of early breastfeeding initiation was not done. Although the actual initiation of early breastfeeding can still be done, although not as perfect as the normal delivery for a full success of breastfeeding is longer. It should be understood that, if exercised early breastfeeding initiation but still will not like the normal labor performed early breastfeeding initiation. The results of this study showed that although the birth mother in a way that is not normal or caesarean section but the effect does IMD turns full success of breastfeeding for longer than normal the birth mother with a healthy physical condition of the mother but not done IMD, not much different from that considered there is no difference between a mother who gave birth to normal IMD and maternal cesarean section performed IMD where there are 50 % of women who continue to provide full breast feeding mothers who gave birth to normal either not IMD or mother who gave birth cesarean section IMD until the age of 49 days.

It can be concluded that mothers who give birth by cesarean section IMD mothers who gave birth at the IMD is not normal, and the mother who gave birth to normal IMD longer than mothers with a cesarean section IMD against granting full duration of breast feeding.

## **V. CONCLUSION**

There was no difference in duration of full breast feeding among mothers of normal birth with the IMD and non IMD with p value of 0.071. There are differences in the duration of full breast feeding among mothers cesarean section performed with IMD and non IMD with value of 0.000. There are differences between the period full breast feeding mothers with normal delivery and caesarean section with IMD p-value 0.013. There was no difference in duration of full breast feeding among mothers with normal delivery with not IMD and IMD maternal cesarean section with p value 0.642.

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