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## Factors Associated with Knowledge of Third Trimester Pregnant Women About Benefits of Giving Colostrum to Newborns Baby

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### ABSTRACT

Colostrum is the first milk that comes out on the first day until the third day after the baby is born. Colostrum is produced from the 16th week of pregnancy (lactogenesis). One way to reduce AKN and IMR is to improve nutrition early in life and can affect quality of life. Community nutrition improvement activities are the percentage of newborns receiving colostrum through early breastfeeding initiation (IMD). The results of a preliminary study conducted on 10 mothers who had babies, obtained 6 mothers who did not know about colostrum and its benefits, and had never given breast milk to their babies for the first time, and the milk was thrown away, because they thought breast milk was stale. Meanwhile, 4 mothers gave the first breast milk to their babies through early initiation of breastfeeding. The purpose of this study was to determine the factors related to the knowledge of third trimester pregnant women about the benefits of colostrum in newborns in Karangraharja village. This type of research is a quantitative survey, and data collection was carried out in a cross sectional manner. The population in this study were all third trimester pregnant women in Karangraharja village. The sample of this research is the total population with a sample of 83 respondents. This primary data was collected by distributing questionnaires. The statistical analysis used is the frequency distribution, chi square and logistic regression. The results showed that 50.6% of respondents had less knowledge about giving colostrum to newborns. Variables that are significantly related are age with  $p$ value=0.009, education with  $p$ value=0.014, parity with  $p$ value=0.035, family support with  $p$ value=0.031, support for health workers with  $p$ value=0.037. The dominant variable is Age OR value 3.431 means age  $\geq 35$  have a 3.4 times chance of having good knowledge about colostrum compared to the age of 20-35 years, it is concluded that age can affect one's comprehension and mindset. The older you are, the more your comprehension and mindset will develop, so that the knowledge gain will improve.

Keywords: Colostrum, Breast Milk, Third Trimester Pregnant Women

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## INTRODUCTION

Child health aims to prepare healthy, intelligent and quality generations for the future and can reduce child mortality. This is one of the important goals in the Sustainable Development Goals (SDGs). Infant and neonatal mortality is a problem that needs attention. The National Neonatal Mortality Rate (AKPN) in the last 5 years has remained the same, namely 19/1000 live births, while the national Post-Neonatal Mortality Rate (AKPN) has decreased from 15/1000 to 13/1000 live births. Most of the deaths in infants over the neonatal age up to one year are caused by infections, especially pneumonia and diarrhea <sup>1</sup>.

The Neonatal Mortality Rate is the number of people who die in the first month after birth (0-28 days) expressed in 1,000 live births in the same year. Death data in Bekasi Regency in 2019 there were 35 cases of neonatal deaths and in 2020 there were 29 cases of neonatal deaths <sup>2</sup>.

One way to reduce AKN and IMR is improvement in the field of nutrition. Improving nutrition at the beginning of life certainly greatly influences the quality of life in the future. The 2015-2019 Strategic Plan states that indicators of achieving the target of community nutrition improvement activities can be seen from the percentage of newborns who receive colostrum through Early Breastfeeding Initiation (IMD) <sup>1</sup>.

Early Initiation of Breastfeeding (IMD) is contact between the mother's skin and the baby's skin as soon as possible within the first hour after the baby is born. The newborn is placed on the mother's chest/stomach with the mother's skin attached to the baby's skin (without any barrier). In West Java, the 2020 IMD coverage is 83.90%. The highest IMD coverage was in Ciamis Regency at 113.22% while the lowest IMD coverage was Bekasi Regency at 70.82% and Sukabumi Regency at 71.11% <sup>3</sup>.

The World Health Organization (WHO) recommends that children should only be given exclusive breastfeeding for 6 months. The coverage of exclusive breastfeeding in Indonesia in 2014 was 52.3%, this shows that the coverage of exclusive breastfeeding has not reached the target of 80%. There was one province that succeeded in achieving the target, namely West Nusa Tenggara Province with 84.7%. Meanwhile, the three provinces with the lowest achievement of exclusive breastfeeding were West Java (21.8%), West Papua (27.3%), and North Sumatra (37.6%). <sup>4</sup>

The coverage of exclusive breastfeeding in West Java in 2020 was 68.09%, an increase of 4.74 points compared to 2019 of 63.35%. Based on the Regency/City, the highest coverage of breastfeeding was in Cirebon City at 109.66% while the lowest coverage of breastfeeding was in Bekasi City at 33.81% <sup>3</sup>.

Colostrum is the first fluid secreted by the mammary glands. There is a high content of antibodies in colostrum which are ready to protect the baby when the baby's condition is still very weak. The protein content in colostrum is higher than the protein content in mature milk. Giving colostrum to newborns has 10-17 times immunity than mature milk, breastfeeding can be continued continuously because it can

protect babies from disease <sup>4</sup>.

Knowledge possessed by mothers and their families is limited so that it becomes an obstacle in giving colostrum and they consider colostrum not very important and most mothers do not immediately give colostrum to babies even until it is thrown away. Mothers do not know about the pattern of formation of breast milk from colostrum to mature milk so they consider colostrum not part of breast milk, besides that the important benefit of colostrum is to meet the fluid needs of newborns <sup>5</sup>.

Colostrum contains higher levels of white blood cells and antibodies than mature breast milk. The level of immunoglobulin A (IgA) found in colostrum can help coat the baby's intestines which are still vulnerable and prevent germs from entering. IgA also prevents food allergies. In the first two weeks after giving birth, colostrum slowly disappears and is replaced by mature breast milk. Colostrum contains a lot of protein compared to mature breast milk but lower levels of carbohydrates and fat. At the beginning of breastfeeding, only a small amount of colostrum comes out, maybe only 1 teaspoon. However, it will continue to increase every day to 150-300 ml/day. <sup>6</sup>

Knowledge and understanding of pregnant women about colostrum is important. a lack of understanding about colostrum is an indicator of a mother's lack of readiness to initiate early breastfeeding (IMD). One of the advantages of initiating early breastfeeding is that it stimulates the production of oxytocin and prolactin thereby increasing milk production. In addition, it can increase the success of exclusive breastfeeding and increase the duration of breastfeeding for the baby, as well as strengthen the baby's sucking reflex in the first hour. <sup>7</sup>. Breast care that is done early (during pregnancy) regularly can increase milk production <sup>8</sup>.

Mother's knowledge about fluid requirements for newborns tends to be low so that it can affect the decrease in colostrum administration. Fluids given to newborns are replaced with other liquids such as honey, water and formula milk. Family support is an important element factor in the success of a mother in giving colostrum. The support given to breastfeeding mothers is both emotional and psychological. Family support is also related to cultural factors or habits that exist in the family and parents' experience of giving colostrum on day 0 to day 3 after the baby is born <sup>5</sup>.

Mothers and families often face obstacles in giving colostrum due to lack of knowledge, so they think colostrum is not very important to give to babies and even throw it away. <sup>9</sup> Experience is a source of knowledge that can be obtained in solving problems encountered in the past. Meanwhile, culture influences a person's behavior, because culture contains the values of belief. If parents in the past had a habit of not giving colostrum which was considered dirty milk, it would affect breastfeeding mothers not to give colostrum. So it is necessary to support health workers in providing correct information about colostrum<sup>5</sup>.

Based on the results of interviews conducted with 8 mothers who had given birth, there were 6 mothers who had given birth to their babies but did not know about colostrum and its benefits. Meanwhile, 2 mothers who had given birth gave colostrum to their newborns through early initiation

of breastfeeding which was carried out within the first 30 minutes of the baby's birth. This condition illustrates that mothers' knowledge about colostrum is still low because they do not know for sure about colostrum and its benefits and the lack of information obtained. and still think that the liquid that comes out first is stale milk and must be thrown away, and newborn babies are always given honey.

### METHOD

The research design is a non-experimental quantitative survey where data is collected in a cross sectional manner. The research unit was third trimester pregnant women. The independent variables studied were age, education, parity, sources of information, family support, and support from health workers. While the dependent variable is the Knowledge of III Trimester Pregnant Women about the benefits of colostrum for newborns in Karangraharja Village. The population in the study was all third trimester pregnant women in Karangraharja Village. the sample in this study is the total population with a total of 83 people. This primary data was collected using a measuring instrument in the form of a questionnaire given to the respondents who were the research sample.

### RESULTS

#### 1. Univariate Analysis

**Table 1. Univariate Analysis Results**

Dependen Variable	Quantity	%
Knowledge		
Lack off	42	50,6
Good	41	49,4
Independen Variable		
Umur		
20-35	33	39,8
≥ 35	50	60,2
Education		
< SMA	21	25,3
≥ SMA	62	74,7
Paritas		
Primigravida	24	28,9
Multigravida	59	71,1
Information resource		
Not exposed		
Exposed	31	37,3
	52	62,7
Family support		
Not support		
Support	33	39,8
	50	60,2
Healthcare Support		
Not Support	41	49,4
Support	42	50,6

Based on Table 1, it is known that of the 83 respondents studied, there were 42 people (50.6%), lack of knowledge about giving colostrum to newborns, while respondents with good knowledge were 41 people (49.4%). Respondents who were aged 20-35 years were 33 respondents (39.8%), Respondents who had <SMA education were 21 respondents (25.3%), Respondents with primigravida parity were 24 respondents (28.9%). Respondents who were not exposed to sources of information were 31 respondents (37.3%). Respondents who did not have family support were 33 people (39.8%), Respondents who did not get support from health workers were 41 respondents (49,4%).

**2. Bivariate Analysis**

**Table 2. Relationship Between Age and Knowledge of Third Trimester Pregnant Women about the Benefits of Colostrum**

Age	Education				Total		p value	OR (95% CI)
	Lack off		Good		N	%		
	n	%	n	%				
20 – 35 years	23	27,7	10	12,1	33	39,8	0,009	3,753 (1.471-9.574)
≥35 years	19	22,9	31	37,3	50	60,2		
Total	42	50,6	41	49,4	83	100		

The results of the analysis showed  $p < 0.05$  ( $p = 0.009$ ) that there was a significant relationship between age and third trimester pregnant women's knowledge about the benefits of giving colostrum with  $OR = 3.753$ . This means that respondents aged  $\geq 35$  years have a 3.75 times chance of having knowledge about the benefits of giving colostrum, compared to third trimester pregnant women aged 20-35 years.

**Table 3. Relationship between Education and Knowledge of Third Trimester Pregnant Women about The Benefits of Colostrum**

Education	Konwledge				Total		p value	OR (95% CI)
	Lack off		Good		N	%		
	n	%	n	%				
< SMA	16	19,3	5	6,1	21	25,3	0,014	4.431 ( 1.440– 13.631)
≥SMA	26	31,3	36	43,3	62	74,6		
Total	42	50,6	41	49,4	83	100		

The results of the analysis showed  $p < 0.05$  ( $p = 0.014$ ) that there was a significant relationship between education and third trimester pregnant women's knowledge about the benefits of giving colostrum with  $OR = 4.431$ . about the benefits of giving colostrum, compared to third trimester pregnant women whose education is < high school.

**Table 4. The Relationship between Parity and Knowledge of Third Trimester Pregnant Women About Colostrum Benefits**

Parity	BSE				Total N	Total %	<i>p</i> <i>value</i>	OR (95% CI)
	Lack off		Good					
	n	%	n	%				
Primigravida	17	20,5	7	8,4	24	28,9	0,035	3,303 ( 1.190– 9.164)
Multigravida	25	30,1	34	40,1	59	71,1		
	42	50,6	41	49,4	83	100		

The results of the analysis showed  $p < 0.05$  ( $p = 0.035$ ) that there was a significant relationship between parity and third trimester pregnant women's knowledge about the benefits of giving colostrum with  $OR = 3.303$ . This means that respondents who are multigravida have a 3.3 times chance of having good knowledge about the benefits of giving colostrum, compared to Trimster III pregnant women who are primigravida.

**Table 5. The Relationship between Sources of Information and Knowledge of Third Trimester Pregnant Women About the Benefits of Colostrum**

Information Source	Knowledge				Total N	Total %	<i>p</i> <i>value</i>	OR (95% CI)
	Lack off		Good					
	n	%	n	%				
Not Exposed	19	22,9	12	14,4	31	37,3	0,202	1,996 ( 0.806– 4.942)
Exposed	23	22,7	29	35	52	62,7		
	42	50,6	41	49,4	83	100		

The results of the analysis showed  $p > 0.05$  ( $p = 0.202$ ) that there was no significant relationship between information sources and third trimester pregnant women's knowledge of the benefits of giving colostrum.

**Table 6. Relationship between family support and knowledge of third trimester pregnant women about the benefits of colostrum**

Healthcare Support	Knowledge				Total N	Total %	<i>p</i> <i>value</i>	OR (95% CI)
	Lack off		Good					
	n	%	n	%				
Not support	26	31,3	15	18,1	41	49,4	0,037	2,817 ( 1.157– 6.857)
Support	16	19,3	26	31,3	42	50,6		
	42	50,6	41	49,4	83	100		

The results of the analysis showed  $p < 0.05$  ( $p = 0.031$ ) that there was a significant relationship between family support and third trimester pregnant women's knowledge of the benefits of giving colostrum. with  $OR = 3,000$ . This means that respondents who get family support have a 3.0 times chance of having good knowledge about the benefits of giving colostrum, compared to Trimster III pregnant women who do not get family support.

**Table 7. The Relationship of Health Workers to the Knowledge of Third Trimester Pregnant Women About the Benefits of Colostrum**

Healthcare Support	Knowledge				Total N	Total %	p value	OR (95% CI)
	Lack off		Good					
	n	%	n	%				
Not support	26	31,3	15	18,1	41	49,4	0.037	2.817 ( 1.157– 6.857)
Support	16	19,3	26	31,3	42	50,6		
	42	50,6	41	49,4	83	100		

The results of the analysis showed  $p < 0.05$  ( $p = 0.037$ ) that there was a significant relationship between the support of health workers and the knowledge of third trimester pregnant women about the benefits of giving colostrum. with a value of  $OR = 2.817$  This means that respondents who get support from health workers have a 2.8 times chance of having good knowledge about giving colostrum, compared to Trimster III pregnant women who do not get support from health workers.

### DISCUSSION

Based on the results of univariate analysis, it can be seen that out of the 83 respondents studied, there were 42 people (50.6%), lack of knowledge about giving colostrum to newborns, while respondents with good knowledge were 41 people (49.4%). Respondents who were aged 20-35 years were 33 respondents (39.8%), Respondents who had <SMA education were 21 respondents (25.3%), Respondents with primigravida parity were 24 respondents (28.9%). Respondents who were not exposed to sources of information were 31 respondents (37.3%). Respondents who did not have family support were 33 people (39.8%), Respondents who did not get support from health workers were 41 respondents (61%).

Knowledge is the result of knowing and this happens after people sense a certain object. Knowledge is a continuous formation by someone who is reorganized every time because of new understandings. Knowledge is needed as encouragement <sup>10</sup>. The researcher's assumption is that knowledge can influence a person's actions, if a mother gets information about colostrum it will be able to increase the mother's knowledge so that the mother will prepare herself for giving colostrum after giving birth to her baby.

The results of the bivariate analysis with the age variable showed  $p < 0.05$  ( $p = 0.009$ ) that there was a significant relationship between age and third trimester pregnant women's knowledge about the benefits of giving colostrum with  $OR = 3.753$ . This means that respondents aged  $\geq 35$  years have a chance of 3,75 times have good knowledge about the benefits of giving colostrum, compared to third trimester pregnant women aged 20-35 years.

This research is in line with Chandra's research between the age variable and the mother's knowledge in giving colostrum to newborns to obtain a probability value ( $p$ ) of 0.017. meaning that there is a relationship between age and knowledge <sup>11</sup>. Age is a characteristic of physical maturity and personality maturity. Age has an impact on the mother's comprehension of all forms of information

conveyed by local health workers which will expand the mother's knowledge about colostrum and exclusive breastfeeding. The more mature, the level of one's knowledge will be more mature and mature in thinking and working. This occurs as a result of the maturation of organ function. But at certain ages before old age the ability to think and remember will also decrease <sup>12</sup>.

The researcher's assumption is supported by the research results of Chandra Juita Pasaribu, SST & Mendrofa that age affects a person's comprehension and mindset. As he gets older, his comprehension and mindset will also develop, so that the knowledge he gets will get better <sup>11</sup>.

The results of the analysis of the education variable showed  $p < 0.05$  ( $p = 0.014$ ) that there was a significant relationship between education and third trimester pregnant women's knowledge about the benefits of giving colostrum with an OR=4.431 meaning that respondents whose education was  $\geq$  high school had a 4.43 chance of good knowledge about the benefits of giving colostrum, compared to third trimester pregnant women whose education is  $<$  high school.

This research is not in line with Nelly Karlinah's research showing that the results of the analysis of the relationship between education and colostrum administration obtained a value of  $p = 0.975$ . This means that there is no relationship between education and giving colostrum in 2017. <sup>13</sup>. In general, the higher a person's education, the better his knowledge. However, that does not mean that someone who is highly educated also has a good level of knowledge <sup>14</sup>.

The assumption of educational researchers greatly influences the level of mother's knowledge regarding the benefits of giving colostrum, the higher the education level of the mother, the more information about colostrum and its benefits when given to newborns.

The results of the parity variable analysis showed  $p < 0.05$  ( $p = 0.035$ ) that there was a significant relationship between parity and third trimester pregnant women's knowledge about the benefits of giving colostrum with OR = 3.303. This means that respondents who are multigravida have a 3.3 times chance of having good knowledge about the benefits of giving colostrum, compared to trimester III pregnant women who are primigravida.

This research is in line with Chandra's research showing the results of a statistical test with a p value of 0.037, which means that there is a relationship between parity and knowledge about giving colostrum to newborns. <sup>11</sup>. Parity factor is one of the causes of delayed lactation. The primipara factor is related to prolactin receptors which are still few and result in less milk production. Primipara mothers with little experience can significantly increase stress and anxiety. Primiparous pain and fatigue after delivery are stronger than multiparas <sup>1</sup>.

The researcher's assumption that parity greatly influences a mother's experience regarding her pregnancy and the mother's preparation in giving colostrum, multigravidas have experience in giving colostrum compared to primigravidas.

The results of the analysis of sources of information variables showed  $p > 0.05$  ( $p = 0.202$ ) that there was no significant relationship between sources of information and knowledge of third trimester



pregnant women on the benefits of giving colostrum.

The research is not in line with Siti Sulaimah's research showing the statistical test results  $p = 0.001$ . meaning that there is a relationship between sources of information and giving colostrum to newborns.<sup>15</sup> Information is the application of notification of news or news about a media and means of communication such as newspapers, magazines, radio, television, posters and banners.<sup>16</sup> Sources of information can also be obtained through health workers or from formal and non-formal education.<sup>17</sup> Mass media is an extension of the tongue and hands to convey knowledge and insight<sup>18</sup>. The researcher's assumption is that mothers who are exposed to information about colostrum from both print and electronic media can increase their knowledge and this will be seen from their behavior in giving colostrum to newborns.

The results of the analysis of family support variables showed  $p < 0.05$  ( $p = 0.031$ ) that there was a significant relationship between family support and third trimester pregnant women's knowledge of the benefits of giving colostrum. with  $OR = 3,000$ . This means that respondents who get family support have a 3.0 times chance of having good knowledge about the benefits of giving colostrum, compared to Trimster III pregnant women who do not get family support.

This research is in line with Ikrawanty Ayu Wulandari's research showing the results of the Statistical Test  $P$  value =  $0.036 < \alpha$  value =  $0.05$ . Then  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a relationship between family support and colostrum breastfeeding for newborns at Laburan Bajji General Hospital, Makassar<sup>19</sup>. Family support is an important element factor in the success of a mother in giving colostrum. The support given to breastfeeding mothers is both emotional and psychological. Family support is also related to cultural factors or habits that exist in the family and parents' experience of giving colostrum on day 0 to day 3 after the baby is born<sup>5</sup>. The researcher's assumption is that family support greatly influences the mother in giving colostrum, because the family is the closest person to the mother, the family can also create a pleasant atmosphere, so that it influences the mother's emotional state and feelings, and can encourage the mother's success in breastfeeding.

The results of the analysis of the variable support of health workers showed  $p < 0.05$  ( $p = 0.037$ ) that there was a significant relationship between the support of health workers and the knowledge of third trimester pregnant women about the benefits of giving colostrum. with a value of  $OR = 2.817$  This means that respondents who get support from health workers have a 2.8 times chance of having good knowledge about giving colostrum, compared to Trimster III pregnant women who do not get support from health workers.

This research is in line with the research of Suyanti Suwardi et al. The results of the analysis of the chi-square statistical test obtained a value of  $p = 0.000 < 0.05$ , so it can be concluded that there is a relationship between the factors of health worker support and the administration of colostrum to newborns<sup>4</sup>. Health workers and lactation counselors should be able to provide education to pregnant women which focuses on increasing attitudes and self-confidence so that pregnant women have a strong

intention to give colostrum<sup>15</sup>. Lack of support and information from health workers about the benefits and advantages of breastfeeding, especially the importance of colostrum, can affect the motivation of pregnant women to give colostrum, and if the information is not obtained by the mother, the mother is reluctant to breastfeed her baby, let alone give colostrum<sup>20</sup>. Health workers can optimize health promotion for mothers, so that mothers can give breast milk to babies<sup>21</sup>. Counseling and education of health workers is very important<sup>22</sup>. Researchers assume that health workers, especially midwives, have an important role in providing information and education about colostrum and the benefits of colostrum for newborns, and supporting third trimester pregnant women in preparing for colostrum administration which is carried out through Early Breastfeeding Initiation within the first hour of the baby's birth.

Based on the results of multivariate analysis with logistic regression analysis, it was found that the most dominant variable is Age OR value 3.431 means age  $\geq 35$  have a 3.4 times chance of having good knowledge about colostrum compared to the age of 20-35 years, it is concluded that age can affect one's comprehension and mindset. The older you are, the more your comprehension and mindset will develop, so that the knowledge gain will improve.

## CONCLUSIONS

Based on the results of data analysis it can be concluded that there is a relationship between knowledge and age, education, parity, family support, health workers. While the unrelated variable is a source of information, the most dominant variable is Age OR value 3.431 means age  $\geq 35$  have a 3.4 times chance of having good knowledge about colostrum compared to the age of 20-35 years, it is concluded that age can affect one's comprehension and mindset. The older you are, the more your comprehension and mindset will develop, so that the knowledge gain will improve.

## REFERENCES

1. Dina AA. Pengeluaran Kolostrum Pada Ibu Bersalin Kala Iv Pengeluaran Kolostrum Pada Ibu Bersalin Kala Iv. *Hub Jenis Persalinan Dengan Waktu Pengeluaran Kolostrum Pada Ibu Bersalin Kala Iv Di Kota Yogyakarta Tahun 2016*. Published online 2016:84.
2. Dinas Kesehatan Kab. Bekasi. Profil Kesehatan Kabupaten Bekasi. *Kemenkes RI*. Published online 2021:2013-2015.
3. Dinkes Jawa Barat. Profil Kesehatan Jawa Barat Tahun 2020. *Dinas Kesehat Provinsi Jawa Barat*. Published online 2020:103-111.
4. Suwardi S. Faktor Yang Berhubungan Dengan Pemberian Kolostrum Pada Bayi Baru Lahir Di Praktek Bidan Syamsiah Kabupaten Tapanuli Selatan Tahun 2018. *J Ilm Kebidanan (Scientific J Midwifery)*. 2019;5(1):1-8. doi:10.33023/jikeb.v5i1.218
5. Savitri NPH, Oktaviana AS. Faktor-Faktor Yang Memengaruhi Perilaku Ibu Nifas Dalam Pemberian Kolostrum Di Wilayah Kotatip Cilacap. *Viva Med J Kesehatan, Kebidanan, dan Keperawatan*. 2021;14(2):194-205.
6. Delima M, Arni G, Rosya E. Faktor-Faktor yang Memengaruhi Pemberian Kolostrum pada Bayi Di Bpm Nurhayati , S . Sit Kecamatan Peusangan Kabupaten Bireuen. *J Ipteks Terap*. 2020;9(4):283-293.

7. Becker FG, Cleary M, Team RM, et al. hubungan pengetahuan ibu hamil trimester III tentang kolostrum dengan kesiapan melakukan Inisiasi Menyusu Dini di Klinik Trismalia Kecamatan Percut Sei Tuan Medan Estate tahun 2018. *Syria Stud.* 2015;7(1):37-72. [https://www.researchgate.net/publication/269107473\\_What\\_is\\_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civilwars\\_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625](https://www.researchgate.net/publication/269107473_What_is_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civilwars_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625)
8. Wardani IKF. Pelatihan Cara Perawatan Payudara Pada Ibu Hamil Trimester Iii Di Desa Bantarjaya Kecamatan Pebayuran Kabupaten Bekasi Tahun 2021. *SELAPARANG J Pengabdian Masy Berkemajuan.* 2021;5(1):115-119.
9. Siregar R. Pelatihan dan Pendampingan Kader Tentang Perawatan Payudara Pada Ibu Hamil Trimester III Dalam Persiapan Inisiasi Menyusu Dini dan Pemberian Kolostrum di Desa Karangraharja Kecamatan Cikarang Utara, Kabupaten Bekasi. *Selaparang J Pengabdian Masy Berkemajuan.* 2022;6(4):2082-2087.
10. Oramas CV, Keluarga DD, Oramas CV. Gambaran Tingkat Pengetahuan Ibu Hamil Trimester III Tentang Manfaat Pemberian ASI Eksklusif Pada Bayi di Puskesmas Gentungs Kabupaten Gowa Tahun 2016.
11. Chandra Juita Pasaribu, SST M, Mendrofa ORN. Hubungan Paritas, Pendidikan, dan Usia Ibu Dengan Tingkat Pengetahuan Dalam Pemberian Kolostrum Pada Bayi Baru Lahir di Lingkungan VIII Kelurahan Mangga Kecamatan Medan Tuntungan 2021. 2021;1(2):117-122.
12. Murti AM. Pengetahuan Ibu Menyusui tentang ASI Eksklusif. *J Kesehat Samodra Ilmu.* 2016;7(2):115-122. <https://stikes-yogyakarta.e-journal.id/JKSI/article/view/26#:~:text=Latar Belakang%3A ASI Eksklusif adalah, sehingga lebih tahan terhadap penyakit.>
13. nelly karlinah. Hubungan Pengetahuan, Pendidikan Dan Sumber Informasi Dengan Pemberian Kolostrum Pada Bayi Baru Lahir Di Wilayah Kerja Puskesmas Sayur Matinggi Tahun 2017. *J Midwifery Nurs.* 2019;1(1):8-12.
14. Ningrat IS, Istiqomah A. Tingkat Pengetahuan Ibu Nifas Tentang Kolostrum Di Klinik Pratama Asih. *J Ilmu ....* 2020;6. <http://jurnalilmukebidanan.akbiduk.ac.id/index.php/jik/article/view/126>
15. Sulaimah S. Analisis Faktor Yang Berhubungan Dengan Pemberian Kolostrum Pada Bayi Baru Lahir. *J Kebidanan Malahayati.* 2019;5(2):97-105. doi:10.33024/jkm.v5i2.1259
16. Julianti N. Pengetahuan Ibu Tentang Tehnik Menyusui di RB Rhaudatunnadya Cikarang Utara - Bekasi Tahun 2016. *J Ilm Kebidanan.* 2017;11(1).
17. ida A. Inisiasi Menyusui Dini Dan Asi Eksklusif. Darul Hikmah. Published online 2017.
18. Rohmah HNF. Faktor-fsktor yang Berhubungan Dengan Perawatan Payudara Pada Ibu Nifas di RB Rhaudatunnadya Tahun 2017. *J Ilm Kebidanan.* 2018;12(1).
19. Wulandari IA, Rahmat MS B. Hubungan Pengetahuan Ibu, Dukungan Keluarga dan Peran Tenaga Kesehatan Terhadap Pemberian ASI Kolostrum Pada Bayi Baru Lahir di RSUD Labuang Baji Makassar. *J Kesehat Delima Pelamonia.* 2017;1(1):79-85. doi:10.37337/jkdp.v1i1.33
20. Wulandari GR. T s u . *Tingkat, Hub Ibu, Pengetah Tentang, Hamil Dengan, Kolostrum Pemberian, Motiv Di, Kolostrum Rahayu, B P S Karya, Magelang Ilmiah, Tulis Sebagai, Diajukan Satu, Salah Mencapai, Syarat Ahli, Gelar Kebidanan, Madya Achmad, Stikes Yogyakarta, Yani O.* Published online 2012.
21. Musmundiroh. Perilaku Penggunaan Kontrasepsi IUD Pasca Persalinan Di RSUD Budhi Asih. *J Ilm Kesehat Inst Med drgSuherman.* 2019;1(1):1-7.
22. Siregar R. Peningkatan Pengetahuan Dan Kesadaran Remaja Putri Dalam Melakukan Pemeriksaan Payudara Sendiri ( Sadari ) Deteksi Dini Kanker Payudara Pada Siswi Kelas X Di Smk Negeri 2 Karawang Tahun 2020. *J Pengabdian Masy.* 2021;4(April):175-178.