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Article

## The Overview of Mother's Characteristics, Exclusive Breastfeeding History and Immunization Status on the Morbidity of Infants 1-14 Months in Sukabumi

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#### ABSTRACT

Morbidity among children in Indonesia is high. Based on the 2013 Hospital Information System data, there were five major morbidities, namely acute respiratory tract infections, diarrhea, fever, seizures, and pneumonia. This study aimed to describe the characteristics of mothers, history of exclusive breastfeeding and immunization status against morbidity in infants aged 1-14 months in the Sukabumi region. This study used descriptive research method with a cross-sectional study design on 71 mothers who have infants aged 1-14 months and are domiciled in the Sukabumi region. The data sources used were primary and secondary data, while the data was analyzed using univariate. The results of the study showed that the majority of mothers aged 20-35 years had infants morbidity due to fever by 78.9%, 29.6% of infants morbidity in mothers with elementary school graduate was caused by fever, housewives had infants morbidity due to fever by 78.9%, 83.1% of infants morbidity due to fever was occurred in mothers who performed exclusive breastfeeding, and 63.4% of morbidity in infants with complete immunization were also caused by fever. The results of this study can be concluded that the majority of morbidity was caused by fever, in mothers aged 20-35 years, mothers with elementary school graduate, housewife, children who obtained exclusive breastfeeding and complete immunization.

#### I. INTRODUCTION

Morbidity is a disorder of physical and mental conditions which is used as an indicator to measure the health status of a country's population. Morbidity can be seen from the percentage of the population with health complaints that indicate a particular disease. The high number of morbidity shows that the health status of the country's population is getting worse. Conversely,

the lower the morbidity rate shows the health level of the country's population is getting better. Child morbidity and mortality rates are the second indicators in determining children's health. Poor endurance of infants and under-five children is one of the factors that cause morbidity in infants and toddlers.(Dinkes Aceh, 2016) (Badan Pusat Statistik, 2019)

Child morbidity in Indonesia was 15.86% in 2017, while children's health complaints were 28.56%. In the Social Economic Socio-Economic Survey (2014), there were several health complaints that were usually experienced by under-five children, namely fever, cough, runny nose, asthma or shortness of breath, diarrhea, recurrent headaches, and toothache. More than half of under-five children in Indonesia have coughs (57.62%), colds (58.32%), fever (53.90%). These three health complaints are often experienced by under-five children because their immune system is not perfect yet thus, it is susceptible to disease.(KPP&PA and BPS, 2015) (Kementerian Kesehatan RI, 2015)

The morbidity experienced by under-five children in Indonesia is mostly caused by diarrhea, respiratory infections, fever, and pneumonia. The Basic Health Research Results in 2018 showed that there were three major morbidities in infants in Indonesia, namely 20.6% of acute respiratory infections, 23.3% of diarrhea, and 6.9% of pneumonia.3 According to the Hospital Information System, there are eleven morbidities in under-five children, the most common causes of morbidity are 36,258 cases of diarrhea, 11,260 cases of seizures, 11,043 cases of ARI, 9,747 cases of fever, and 9,180 cases of pneumonia.(Kementerian Kesehatan RI, 2019)

Research conducted by Olack et al. 2011 showed that sick children will be difficult to eat so they tend to be malnourished compared to healthy children. Nutritional deficiencies experienced by under-five children due to illness can result in the inhibition of growth and development because nutrition has an important role in the growth process and cognitive development. Stunted growth and cognitive development can reduce the quality and welfare of under-five children. (Kementerian Kesehatan RI, 2019)

This morbidity rate can contribute to infant and under-five children mortality. Based on the health profile of West Java in 2016, the city of Sukabumi ranked 5th on infant and under-five children mortality. It shows that the mortality rate in the city is still a problem that needs to be addressed.(Dinkes Jawa Barat, 2016) The research of the Competency Research Grant for Lecturers at Padjadjaran University by Dr. Meita Dhamayanti, dr., SpAK., M.Kes and the team on 55 infants in the Sukabumi region in 2017, resulted that the most common experienced disease by sick infants were coughs, colds, fever, hives, and vomiting.(Dhamayanti, 2017)

Morbidity experienced by under-five children can be influenced by several factors such as mother's age, recent education, and occupation of mother, exclusive breastfeeding history and immunization status. (Suharwati, 2013)

Mother's age is related to the level of maturity in thinking; mothers with sufficient age tend to be able to make the best decisions for the health of their children. Research conducted by Fitriana (2017) showed that as people age, the level of maturity in thinking increases. Thus, mothers with sufficient age will be able to give the right decisions for the health of their children. (Novrianda and Yeni, 2014)

Mother's education level is related to the mother's understanding of information about the health of her child. The higher the level of education of the mother, the higher the understanding ability of information about the health of her child. It is expected that with a higher understanding ability of the mother, the level of attention of the mother to the health of her child also increases. Meanwhile, based on the occupation status of the mother, mothers who work more often spend their time outside the home than with their children, thus, most working mothers cannot pay attention to their children's health optimally. (Novrianda and Yeni, 2014)

Exclusive breastfeeding can reduce a child's risk of exposure to the disease, this is because breast milk contains antibodies. (Fitriyah Himmatul, 2013) In addition to exclusive breastfeeding, basic immunization status can affect the incidence of illness in infants.

Immunization is the process of forming the body's immunity by entering a virus that has been weakened so that the body will form antibodies to existing pathogens. Providing complete immunization is expected to reduce the risk of disease in infants.(Iswari, Nurhidayah, and Hendrawati, 2017)

#### II. METHODS

This study used a descriptive approach with the cross-sectional method. The data sources used were primary data from the results of questionnaires and secondary data to determine the description of mothers' characteristics, such as age, recent education, and occupation against morbidity in infants aged 1-14 months of in the Sukabumi region.

Data collection began by giving an explanation to the respondent regarding the research and its sequence. After the respondents agreed, it was continued by submitting several questions prepared in the questionnaire. Data collection was performed by visiting each respondent's house.

The sample selection technique and sample size in this study used the total sampling method from the main research, thus 71 respondents were obtained.

The inclusion criteria of this study were mothers who had infants aged 1-14 months, residing in the Sukabumi City, and infants who were initially respondents to the research of the competency research grant for lecturers at Padjadjaran University by Dr. Meita Dhamayanti, dr., SpAK., M.Kes, and team. Exclusion criteria were respondents who have different domiciles.

### III. RESULT

Table 1. Characteristics of mothers who have infants aged 1-14 months in the Sukabumi region

Type of Morbidity ARI Diarrhea Fever Seizures Pneumonia										
A	RI	D	Diarrhea		Fever		Seizures		Pneumonia	
f	%	f	%	f	%	f	%	f	%	
cs										
2	2,8	0	0	3	4,2	0	0	0	0	
51	71,8	13	18,3	56	78,9	1	1,4	1	1,4	
4	5,6	2	2,8	5	7	0	0	0	0	
16	22,5	3	4,2	21	29,6	0	0	0	0	
19	26,7	6	8,5	19	26,8	1	1,4	0	0	
20	28,2	5	7	20	28,2	0	0	0	0	
2	2,8	1	1,4	4	5,6	0	0	1	1,4	
51	71,8	11	15,5	56	78,9	1	1,4	0	0	
6	8,5	4	5,6	8	11,3	0	0	1	1,4	
	f 2 51 4 16 19 20 2 51	f %  2 2,8 51 71,8 4 5,6  16 22,5 19 26,7 20 28,2 2 2,8  51 71,8	f % f  cs  2 2,8 0 51 71,8 13 4 5,6 2  16 22,5 3 19 26,7 6 20 28,2 5 2 2,8 1  51 71,8 11	ARI Diarrhea f % f %  cs  2 2,8 0 0 51 71,8 13 18,3 4 5,6 2 2,8  16 22,5 3 4,2 19 26,7 6 8,5 20 28,2 5 7 2 2,8 1 1,4  51 71,8 11 15,5	ARI Diarrhea Fever f % f % f % f  2 2,8 0 0 3 51 71,8 13 18,3 56 4 5,6 2 2,8 5  16 22,5 3 4,2 21 19 26,7 6 8,5 19 20 28,2 5 7 20 2 2,8 1 1,4 4  51 71,8 11 15,5 56	ARI Diarrhea Fever    f %   f %   f %	ARI Diarrhea Fever Se f % f % f % f % f  cs  2 2,8 0 0 3 4,2 0 51 71,8 13 18,3 56 78,9 1 4 5,6 2 2,8 5 7 0  16 22,5 3 4,2 21 29,6 0 19 26,7 6 8,5 19 26,8 1 20 28,2 5 7 20 28,2 0 2 2,8 1 1,4 4 5,6 0  51 71,8 11 15,5 56 78,9 1	ARI Diarrhea Fever Seizures  f % f % f % f % f %  cs  2 2,8 0 0 3 4,2 0 0 51 71,8 13 18,3 56 78,9 1 1,4 4 5,6 2 2,8 5 7 0 0  16 22,5 3 4,2 21 29,6 0 0 19 26,7 6 8,5 19 26,8 1 1,4 20 28,2 5 7 20 28,2 0 0 2 2,8 1 1,4 4 5,6 0 0  51 71,8 11 15,5 56 78,9 1 1,4	ARI Diarrhea Fever Seizures Pneud f % f % f % f % f % f % f % f % f % f	

The table above shows the majority of mothers aged 20-35 years had infants morbidity due to fever by 78.9%, 29.6% of infants morbidity rates in mothers with elementary school graduate was caused by fever, and housewives had experienced infants morbidity due to fever by 78.9%.

Table 2. Frequency Distribution of Infants Aged 1-14 Months that Received Exclusive Breastfeeding in Sukabumi Region

Variable	Type of Morbidity										
	ARI		Diarrhea		Fever		Seizure		Pneumonia		
	f	%	f	%	F	%	f	%	f	%	
Exclusive											
breastfeeding											
history											
Exclusive	52	73,2	14	19,7	59	83,1	1	1,4	1	1,4	
Not Exclusive	5	7	1	1,4	5	7	0	0	0	0	

Based on a history of exclusive breastfeeding, the highest type of morbidity was fever of 83.1% in children who received exclusive breastfeeding.

Table 3. Frequency Distribution of Immunization Status on Infants Aged 1-14 months in Sukabumi Region

Variable		Type of Morbidity									
	AI	ARI		Diarrhea		Fever		Seizure		Pneumonia	
	f	%	f	%	f	%	f	%	f	%	
Immunization											
status											
Complete	41	57,8	10	14,1	45	63,4	0	0	0	0	
Not complete	16	22,5	5	7	19	26,7	1	1,4	1	1,4	

Based on the table above, it shows that 63.4% of morbidity in infants who received complete immunization were also caused by fever.

#### IV. DISCUSSION

### An Overview Mother's Characteristics Against Morbidity in Infants Aged 1-14 Months

The majority of mothers aged 20-35 have infants morbidity due to fever by 78.9%. The age of a person will affect one's perception and mindset of the information provided. As people age, the ability to understand and think also develop. Mother's aged 20-35 years are the productive age group. They are at the state with good physical and psychological maturity and are considered capable of carrying out its role as a mother who takes care of her child. The parenting method on under-five children is very important because, at this time, children are very vulnerable to disease. Thus, an adult mother is very needed in caring for children and the incidence of illness in children can be minimized.(Fitriana, 2017)

Under-five children are susceptible to fever. Fever is the body's response when white blood cells carry out their duties to attack incoming viruses or bacteria. The Social Socio-Economic Survey (2014) stated that fever ranked third in complaints that were often experienced by under-five children (53.90%). Fever in under-five children can occur because their body is very vulnerable to attacks by viruses and bacteria. Mothers with good knowledge of parenting for under-five children will pay more attention to their children's health from various aspects such as environmental conditions and food consumed by their children so that attacks by viruses and bacteria can be prevented. (Fitriana, 2017)

Good knowledge of parenting will minimize the incidence of fever. The age of the mother is not a determinant of mother's knowledge of parenting. Research by Fitriana (2017) showed that there was no relationship between the age of the mother and her knowledge of fever and maternal behavior in managing fever in infants. Mother's knowledge and behavior in handling fever in infants can be influenced by other factors. Curiosity, environmental factors, and the bustle of the mother can affect productive age mothers in parenting to avoid disease attacks. Many mothers in productive groups help the family economy by working and they will leave their children with their families. Thus, their children's health is not monitored optimally. (Fitriana, 2017)

The research conducted by Setyowati (2017) stated that if the mothers married at a young age, then they have low parenting ability. Mothers are unable to regulate and control the provision of food and affection for their children since infant to pre-school. (Setyowati, Krisnatuti, and Hastuti, 2017) Research conducted by Oktaviani (2014) stated that a certain range of age (20-35 years) is a good age for carrying out parenting roles. Mothers who are too young or old cannot play the role of mother optimally because physical and psychological strength is needed. Younger mothers tend to lack good parenting skills and emphasize their teenager's nature more than their motherly nature. (Oktafiani, Fajarsari, and Mulidah, 2014)

The importance of the role of midwives in minimizing the occurrence of pain in children can be done by implementing promotive and preventive efforts. Counseling to all mothers who have under-five children by using language that can be understood by mothers can also be provided so that mothers in all age groups can understand information about their children's health. In addition to preventive and promotive efforts, midwives can provide services to sick toddlers according to the Integrated Management of Childhood Illness and Integrated Management of Infant's guidelines. (Peraturan Menteri Kesehatan Republik Indonesia No 28 Tahun 2017, 2017)

Infant's morbidity that often occurs in mothers with elementary school graduates was a fever of 29.6%. Knowledge can be influenced by educational factors. It is expected that with a high level of education, a person will become more knowledgeable. However, the level of education and the type of morbidity are not related because not all respondents are elementary school graduates. Education is a long-term process that using systematic and organized procedures to study conceptual and theoretical knowledge for general purposes. The level of education consists of primary, secondary and post-secondary education. The primary education level is the education of the first 9 (nine) years of schooling for children which underlies the level of secondary education.

Secondary education is a continuation of primary education. Post-secondary education is a level of education after secondary education that includes undergraduate, master, doctoral, and specialist programs organized by universities. (Nurhayati Indah, Eidyaningsih Endang Nur, 2017)

Mother's education level has an important role in under-five children morbidity. It is related to the level of understanding of health care, hygiene, antenatal care, and post-natal care, and awareness of the health of children and their families. The higher the mother's education, the better the mother's level of understanding about the health of her baby. Thus, it can minimize under-five children morbidity or prevent the morbidity of children who are getting worse. Research conducted by Fitriana (2017) showed that there was a relationship between the education level of mothers and knowledge of behavior in the management of fever in infants. Mothers with low levels of education have a poor understanding of their children's health, usually, mothers rely on experience or information from their families in parenting their children. Therefore, childcare to prevent illness is not optimal. (Harianti, Fitriana, and Krisnanto, 2016)

Research conducted by Aji (2017) stated that there was no significant relationship between the education of mother and poor parenting behavior in the provision of food for under-five children. The provision of food to under-five children can have an influence on children's health. (Aji Dimas Setiyo Kusuma, Wati Erna Kusuma, 2016) Research conducted by Setyowati (2017) showed that the education level of mothers has an influence on readiness to become parents. Readiness to be a parent will affect the parenting style that is also related to the health of their children. (Setyowati, Krisnatuti, and Hastuti, 2017)

Midwives play a role in improving the health of children with promotive and preventive efforts. Midwives can exercise their authority to educate the community especially for mothers who have toddlers to prevent the occurrence of morbidity in infants. It is important for a midwife to conduct counseling using language that is easily understood by the community so that the community can understand and apply information in accordance with the information obtained. In addition to conducting counseling, midwives can provide services to sick toddlers in accordance with the Integrated Management of Childhood Illness guideline. (Peraturan Menteri Kesehatan Republik Indonesia No 28 Tahun 2017, 2017)

Mothers who are unemployed or housewives have infant's morbidity due to fever by 78.9%. Respondents who do not work should spend more time with their children so that children are always monitored. More time at home will give a lot of time for the mother to find information about the health of her baby.(Fitriana, 2017)

Mother's occupation relates to the time spent with her child. Working mothers usually do a lot of activities outside the home so that the time spent with their children decreases and will affect the mothers in parenting their child. The research was conducted by Fitriana (2017) in Depok I Health Center Community showed a relationship between occupational status and the behavior of fever management in under-five children. (Fitriana, 2017)

Time for working mothers will be divided between working and parenting. However, they still need to take care of their families first, especially children. The time to be with children for working mothers will be reduced or limited. As a result, children's activities are not monitored so that the risk of illness can increase. However, work will establish social relationships with coworkers so that it will add insight and provide a diverse perspective on children's health.(Novrianda and Yeni, 2014)

Research conducted by Aji (2017) stated that there was a significant relationship between the education of mothers and poor parenting behavior in the provision of food for under-five children. The provision of food for five children can have an influence on children's health.(Aji Dimas Setiyo Kusuma, Wati Erna Kusuma, 2016)

Midwives conduct preventive and promotive efforts to overcome the morbidity that occurs in infants. Prevention and counseling carried out by midwives must pay attention to the language used and the time of implementation. Choose the time of implementation that can be attended by

most people, both working and non-working mothers. Mothers who are not present due to work can be dealt with by inviting people who help mothers to look after for their children so that caregivers can monitor their children's health properly. (Peraturan Menteri Kesehatan Republik Indonesia No 28 Tahun 2017, 2017)

## An Overview of The Exclusive Breastfeeding History Against Morbidity in Infant Aged 1-14 months

The most common type of morbidity in the history of exclusive breastfeeding is a fever of 83.1% which occurs mostly in respondents who get breast milk exclusively. In this study, the coverage of exclusive breastfeeding in the Sukabumi region was good, with the majority of respondents giving their children exclusive breastfeeding. In the results of the 2018 Riskesdas the coverage of exclusive breastfeeding was 74.0%. Breast milk contains many immune systems that can protect babies from disease. Approximately 80% of the gastrointestinal tract produces antibodies and 40% of gastrointestinal tissue is composed of lymphoid tissue, also known as gut-associated lymphoid tissue (GALT), which is the largest lymphoid tissue in the human body. (Fitriyah Himmatul, 2013), (Kementerian Kesehatan RI, 2019)

Exclusive breastfeeding can provide immunity to babies against various diseases because breast milk contains immune substances that can protect babies from various bacterial, viral, fungal and parasitic infections. (Fitriyah Himmatul, 2013)

Nur's research (2014) in Aceh showed that there was a significant influence between the history of breastfeeding and infectious diseases in infants. Under-five children who are not exclusively breastfed will be 1.4 times at risk of developing an infectious disease because breast milk contains natural antibodies that will not have a negative impact on the infants. (Nur and Marissa, 2014)

Providing breast milk can minimize the risk factors for the incidence of illness in infants because exclusive breastfeeding is an effort to prevent the occurrence of illness in infants. Breast milk can provide passive immunization through its antibody. (Nur and Marissa, 2014)

Illnesses in infants can be affected by immunity, which is an immune system acquired naturally from birth. The immunity that infants have from birth can be obtained from exclusive breastfeeding. Antibodies contained in breast milk are lactobacillus, lactoferrin, and lysozyme. Lactobacillus is useful in inhibiting the growth of microorganisms such as E.colli bacteria which often causes diarrhea in under-five children. Lactoferrin increases iron and prevents the growth of bacteria that need iron, as well as antibodies such as immunoglobulins, especially IgA. Meanwhile, lysozyme destroys harmful bacteria and maintains the balance of bacteria in the intestine. Therefore, exclusive breastfeeding can minimize the risk of illness in under-five children because of the content of breast milk which provides protection against bacteria and viruses that attack the under-five children. (Nur and Marissa, 2014)

Research conducted by Putri (2017) showed that there was a significant relationship between the pattern of breastfeeding and the frequency of illness incident. Exclusive breastfeeding can increase the immune system of under-five children because breast milk contains antibodies that can strengthen the immune system to prevent infectious diseases. (Putri, R. and Illahi, 2017) Considering the benefits of breastfeeding for the illness of under-five children, health workers have a key role in monitoring and counseling the importance of exclusive breastfeeding. Thus, the coverage of exclusive breastfeeding in Indonesia can continue to increase. (Peraturan Menteri Kesehatan Republik Indonesia No 28 Tahun 2017', 2017)

# An Overview of the History of Immunization Status Against Morbidity in Infants Aged 1-14 Months

The results showed that 63.4% of morbidity in infants who received complete immunization were caused by fever. Based on Indonesia's health profile, immunization coverage in 2017 was 91.12%; this figure still does not meet the strategic plan target of 92%. The results showed that

most children received complete immunization. Immunization is a method to actively increase a person's immunity against an antigen. If he is exposed to the antigen in the future then there will be no disease occurred. One program that has been proven effective for suppressing the morbidity due to Immunization Preventable Diseases is immunization. (Kaloh Indryani Djeisy, Ismanto Amatus Yudi, 2017) Research conducted by Indriany (2017) at Modoiding Health Center Community showed a significant relationship between compliance with basic immunization and morbidity rates. The types of immunization given were BCG, HB, Polio, DPT, and Measles. Immunization was given to infants to prevent diseases such as tuberculosis, diphtheria, pertussis, tetanus, polio, hepatitis and measles. (Kaloh Indryani Djeisy, Ismanto Amatus Yudi, 2017) The results of the study also showed that fever was the only disease that had appeared. Fever itself is a sign of other infectious diseases, as the body's response to infections that attack the body. Fever experienced by children with complete immunization status is a form of the body's response to antigens that enter the body. Therefore, the antigen will not cause an infectious disease to the child. (Kaloh Indryani Djeisy, Ismanto Amatus Yudi, 2017)

The provision of immunization can prevent various types of infections. It is expected that with complete immunization, the development of infectious diseases will not worsen. Considering that immunization can decrease the morbidity in infants, midwives play an important role in fulfilling immunization coverage in their area. Promotive and preventive efforts can be conducted by midwives to fulfill immunization coverage and reduce morbidity in infants.(Kementerian Kesehatan RI, 2015)

Research conducted by Putra (2017) showed that immunization is an effective method to prevent disease, reduce morbidity, and improve the health of children. (Putra, Joko Wiyono and Adi, 2016)

#### V. CONCLUSION

We can conclude that the most common morbidity in respondents in Sukabumi region is a fever. The morbidities were found in mothers aged 20-35 years, elementary school graduates, housewives, and children who obtained exclusive breastfeeding and complete immunization.

#### REFERENCES

- Aji Dimas Setiyo Kusuma, Wati Erna Kusuma, R. S. (2016). Analisis Faktor-faktor yang Berpengaruh Terhadap Pola Asuh Ibu Balita di Kabupaten Banyumas. *Jurnal Kesmas Indonesia*. 8(1). pp. 1–15.
- Badan Pusat Statistik (2019) *Angka Kesakitan/Morbiditas/Presentasi Penduduk yang mempunyai Keluhan Kesehatan. Sistem Informasi Rujukan Statistik.* Available at: https://sirusa.bps.go.id/index.php?r=indikator/view&id=16 (Accessed: 26 May 2019).
- Dhamayanti, M. (2017) *Hasil Hibah Riset Kompetensi Dosen Bandung Padjadjaran University*. Dinkes Aceh (2016). Profil Kesehatan Profinsi Aceh. Aceh: Dinas Kesehatan Aceh, p. 25.
- Dinkes Jawa Barat (2016). Profil Kesehatan Provinsi Jawa Barat Tahun 2016. Dinas Kesehatan Jawa Barat. p. 326.
- Fitriana, L. B. (2017). Analisis Faktor Yang Mempengaruhi Perilaku Ibu Dalam Penanganan Demam Pada Anak Balita di Puskesmas Depok Sleman Yogyakarta. *Jurnal Keperawatan Respati Yogyakarta*. 4(2). pp. 179–188.
- Fitriyah Himmatul, S. T. (2013). Hubungan Status Pemberian ASI Eksklusif Dengan Kejadian Morbiditas Pada Bayi Umur 7-12 Bulan di Kota Semarang. *Dinamika Kebidanan*. 3(1). pp. 1–16.
- Harianti, N., Fitriana, L. B. and Krisnanto, P. D. (2016). Hubungan Tingkat Pengetahuan Ibu Tentang Demam Dengan Perilaku Ibu Dalam Penanganan Demam Pada Anak Balita di Puskesmas Depok I Sleman Yogyakarta. *Jurnal Keperawatan Respati Yogyakarta*. 3(2). pp.

17-22.

- Iswari, B. M., Nurhidayah, I. and Hendrawati, S. (2017). Hubungan Status Imunisasi: DPT-HB-HIB dengan Pneumonia pada Balita Usia 12-24 bulan di Puskesmas Babakan Sari Kota Bandung. *Jurnal Keperawatan*. 8(2). p. 15 halaman.
- Kaloh Indryani Djeisy, Ismanto Amatus Yudi, B. Y. (2017). Kepatuhan Melaksanakan Imunisasi Dasar Dengan Kesakitan Pada Bayi Usia 9-12 Bulan di Puskesmas Modoinding', *e-Journal Keperawatan*. 5(2). pp. 1–7.
- Kementerian Kesehatan RI (2015). Situasi Kesehatan Anak Balita di Indonesia. Pusat Data dan Informasi Kementerian Kesehatan.
- Kementerian Kesehatan RI (2019). Laporan Nasional RISKESDAS 2018. Jakarta: Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan.
- KPP&PA and BPS (2015). Profil Anak Indonesia 2015. Kementerian Pemberdayaan Perempuan dan Perlindungan Anak dan Badan Pusat Statistik.
- Novrianda, D. and Yeni, F. (2014). Hubungan Karakteristik Ibu dengan Pengetahuan tentang Penatalaksanaan Diare pada Balita. *NERS Jurnal Keperawatan*. 10(2). p. 159. doi: 10.25077/njk.10.2.159-165.2014.
- Nur, A. and Marissa, N. (2014). Riwayat Pemberian Air Susu Ibu dengan Penyakit Infeksi pada Balita. *Kesmas: National Public Health Journal*. 9(2). p. 144. doi: 10.21109/kesmas.v9i2.510.
- Nurhayati Indah, Eidyaningsih Endang Nur, S. A. (2017). Pertumbuhan dan Tingkat Morbiditas Pada Bayi Usia 7-12 bulan Berdasarkan Status Pemberian ASI di Wilayah Puskesmas Gilingan Kecamatan Banjarsari Surakarta. *Jurnal Kesehatan*. 10(1). pp. 48–58.
- Oktafiani, S., Fajarsari, D. and Mulidah, S. (2014). Pengaruh Usia Dan Konsep Diri Terhadap Pencapaian Peran Ibu Saat Bayi Usia 0-6 Bulan Di Desa Bojongsari, Kecamatan Bojongsari, Kabupaten Purbalingga. *Jurnal Ilmiah Kebidanan*. 5(1). pp. 33–42.
- Peraturan Menteri Kesehatan Republik Indonesia No 28 Tahun 2017 (2017). pp. 1–29.
- Putra, A., Joko Wiyono and Adi, R. C. (2016). Analisis Faktor-Faktor yang Berhubungan Dengan Ketidaklengkapan Imunisasi Dasar Bayi di Posyandu Sumbersari Kota Malang. *Nursing News*. 2(1), pp. 223–233.
- Putri, R. and Illahi, S. A. (2017). Hubungan pola menyusui dengan frekurnsi kejadian sakit pada bayi. *Journal of Issues in Midwifery*. 1(1). pp. 30–41.
- Setyowati, Y. D., Krisnatuti, D. and Hastuti, D. (2017). Pengaruh Kesiapan Menjadi Orang Tua dan Pola Asuh Psikososial Terhadap Perkembangan Sosial Anak. *Jurnal Ilmu Keluarga dan Konsumen*. 10(2). pp. 95–106. doi: http://dx.doi.org/10.24156/jikk.2017.10.2.95.
- Suharwati, S. I. (2013). Faktor-Faktor Yang Mempengaruhi Morbiditas Balita Di Desa Klampar Kec. Proppo Kab. Pamekasan. pp. 32–33.

#### **BIOGRAPHY**

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