



Factors associated with mother's knowledge of oxytocin massage to expedite milk production at midwife and a independent practice

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Article Info

Article history:

Received Aug 15, 2023

Revised Aug 31, 2023

Accepted Sep 22, 2023

Keywords:

Age;

Education;

Mother Knowledge;

Oxytocin Massage;

Work.

ABSTRACT

Knowledge is the result of "knowing" and this occurs after people perceive an object. Breastfeeding is a natural process that occurs and is carried out by women after giving birth. Massage is one solution to overcome the uneven production of ASI. Massage is massage along the spine (vertebrae) to the fifth-sixth ribs and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth. This research is a quantitative research with cross sectional research design. The population in this study were all postpartum and breastfeeding mothers. The variables in this study were: Independent Variables (Age, Education, Occupation, Family Support) Dependent Variables (Mother's Knowledge about Oxytocin Massage). The results of the study found that there was a significant relationship between age and maternal knowledge. The statistical test results obtained p value = 0.036 more smaller than $\alpha = 0.05$, there is no significant relationship between work and mother's knowledge with statistical test results p value = 0.091 greater than $\alpha = 0.05$, there is a significant relationship between education and mother's knowledge statistical test results obtained value p value = 0.091 greater than $\alpha = 0.05$, there is a significant relationship between education and mother's knowledge statistical test results obtained p value = 0.01 less than $\alpha = 0.05$.

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1. INTRODUCTION

Knowledge is the result of "knowing" and this occurs after people perceive a particular object. Sensing of objects occurs through the five human senses, namely sight, hearing, smell, taste and touch alone. At the time of sensing to produce this knowledge is strongly influenced by the intensity of perceptual attention to the object. Most of human knowledge is obtained through the eyes and ears (Wawan, 2018). One of the factors that influence a person's behavior is knowledge. to behave well begins with good knowledge (Atik & Wandal, 2020).

Breast milk is the natural first food for babies. Breast milk provides all the energy and nutrients a baby needs for the first months of life. Breastfeeding is an excellent way of providing ideal food for the healthy growth and development of babies. In order to reduce infant morbidity and mortality, the World Health Organization (WHO) recommends that babies should only be breastfed for at least 6 months, and continued breastfeeding until the baby is two years old (Niar et al., 2021)

The growth and development of infants and toddlers is largely determined by the amount of breast milk (ASI) they obtain, including energy and other substances contained in breast milk. Breast milk is a nutritious food that does not require additional composition. Breast milk is easily digested by babies and absorbed immediately, (Sumarni & Ratnasari, 2021). Breast milk contains substances that repel/prevent disease and can provide satisfaction and bring the hearts of mothers and babies closer as a means of establishing a loving relationship, (Marlina, 2021).

According to Depker RI, 2006. In (Muthmainnah, 2010) Breast milk is very important for nutritional intake to achieve optimal growth and development, in the Global Strategy for Infant and Young Child Feeding. WHO/UNICEF recommends four important things that must be done, namely; the first is giving breast milk to the baby immediately within 30 minutes after the baby is born, the second is giving only breast milk (ASI) or exclusive breastfeeding from birth until the baby is 6 months old. The third is giving complementary food for breast milk (MP-ASI since the baby is 6 months to 24 months old, and the fourth is continuing breastfeeding until the child is 24 months or more (Septina & Erlina, 2023).

In 2020, in Indonesia, the percentage of infants aged less than 6 months who receive exclusive breastfeeding is around 66.1%. The index for the percentage of babies under 6 months who are breastfed has reached the 2020 target of 40%. . The national target is 80% so this achievement needs to be increased again so that the national target can be achieved (Pertiwi et al., 2022).

Breast milk not coming out is a condition of non-production of breast milk or at least the production of breast milk. This is due to the influence of the hormone oxytocin which does not work due to the lack of stimulation of the baby's suction which activates the work of the hormone oxytocin. Oxytocin massage is one of the solutions to overcome the inadequacy of breast milk production (Hidayah & Dian Anggraini, 2023). Oxytocin massage is massage along the spine (vertebrae) to the fifth-sixth costal bones and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth (Rahayu & Yunarsih, 2018). Massage is one of the solutions to overcome the lack of smooth milk production. Massage is massage along the spine (vertebrae) to the fifth-sixth ribs and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth. This massage functions to increase the hormone oxytocin which can calm the mother, so that breast milk comes out automatically (Sri Mukhodim Farida Hanum, 2015).

Based on research results (Sa'adah, 2019) showed that the results of post partum mothers' knowledge about oxytocin massage were in the less category as many as 18 respondents (60.0%), in the sufficient category 8 respondents (26.7%), in the good category as many as 4 respondents (13.3%). Most of the mother's knowledge is lacking, because there are 26 respondents (86.3%) of mothers aged 20-35 years. According to (Notoatmodjo, 2010) that age affects one's comprehension and mindset. The older you get, the more your comprehension and mindset will develop.

Research result (Aryani & Alyensi, 2019), mentioned that there was a significant difference in the smoothness of breastfeeding in postpartum mothers whose oxytocin massage was more effective in increasing the smoothness of breastfeeding when compared to the guinea pig technique, so it was suggested to health care workers, especially midwives, to provide oxytocin massage care to increase milk production. Research conducted (Susanti & Yuliasari, 2019) that the knowledge of working mothers in oxytocin massage is at a sufficient level. Another study was conducted by Putri and Sumiyati in 2015 in Laila 2019 with the result that the longer the oxytocin massage is done for post partum mothers, the faster the time for expressing milk to overcome post partum mother's milk output.

2. RESEARCH METHOD

This research is a cross sectional research design. Cross-sectional research is a type of research that emphasizes the time of measurement/observation of independent and dependent variable data only once at a time. The population in this study was all postpartum and breastfeeding mothers who were at the Andina Midwife Independent Practice. The sample was all postpartum mothers. childbirth and breastfeeding who checked themselves at the Andina midwife independent practice.

Determination of the sample, namely by accidental sampling technique, is a technique of determining a sample based on coincidence, that is, anyone who happens to meet the researcher can be used as a sample. According to (Sugiyono, 2019), Subjects who were interviewed to fill out the questionnaire as respondents were subjects who met or happened to be PMB Andina during the inspection.

The variables in this study are: Independent Variable (Age, Education, Occupation, Family Support) Dependent Variable (Knowledge of Mother about Oxytocin Massage). In this study, researchers collected research data using a questionnaire. Furthermore, data analysis was carried out using univariate data analysis by looking at the percentages collected and presented in the frequency distribution data, then looking at the relationship between variables using bivariate analysis with data collection which will be presented in the form of a 2x2 table accompanied by an explanation. Then it will be analyzed using the Chi-Square method with a degree of freedom of 1 and a confidence level of $\alpha = 0.05$. Data analysis in this study used a computerized data processing application using the Statistical Package for Social Science (SPSS) program, then analyzed by discussing the results in accordance with related theories and articles.

Research Flowchart

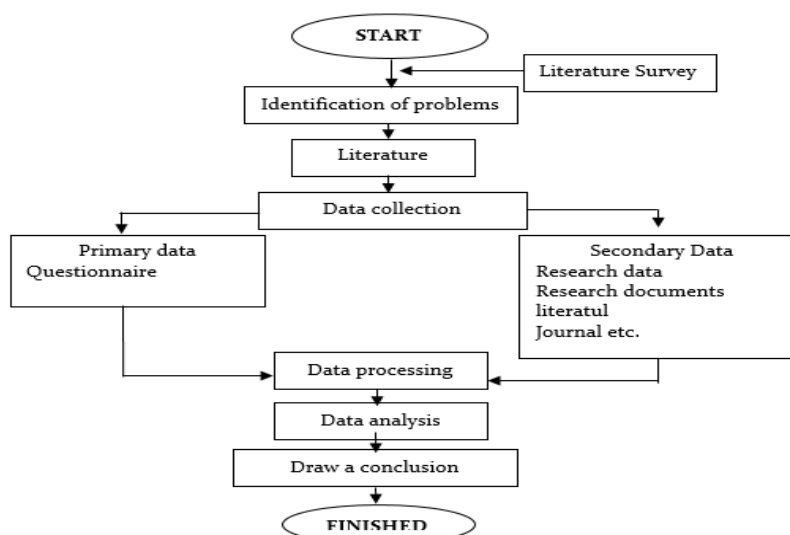


Figure 1. Schematic of research activities

3. RESULTS AND DISCUSSIONS

The following is a table of research results Factors associated with mother's knowledge of oxytocin massage to expedite milk production at midwife andina's independent practice, data analysis was carried out using univariate data analysis by looking at the percentages collected and presented in the frequency distribution data, then looking at the relationship between variables using bivariate analysis with data collection which will be presented in the form of a 2x2 table accompanied by an explanation.

Table 1. Frequency distribution of research results

Variable	Frequency	Percentage
Mother Knowledge		
Not enough	15	44.1%
Good	19	55.9%
Age		
No Risk	15	44.1%

Variable	Frequency	Percentage
Risk	19	55.9%
Work		
Doesn't work	19	55.9%
Work	15	44.1%
Education		
Low	20	58.8%
Tall	14	41.2%
Husband Support		
Not very supportive	21	61.8%
Support	13	38.2%

It is known that of all respondents who had less knowledge, there were 15 respondents (44.1%), while in the group with good knowledge, there were 19 respondents (55.9%). In the age group, 15 respondents (44.5%) were not at risk, while in the risk group there were 19 respondents (55.9%). And there were 19 respondents (55.9%) who did not work, while in the working group there were 15 respondents (44.1%). Respondents with low education were 20 respondents (58.8%), while in the higher education group there were 14 respondents (41.2%). 21 respondents (61.8%) received less support from their husbands, while 13 respondents (38.2%) received the support of their husbands in the group.

Table 2. Variable relations of factors associated with mother's knowledge of oxytocin massage

Variabel	Kriteria	Knowledge				Total	OR (95 % CI)	P (Value)
		Not enough		Good				
		N	%	n	%			
Age	No Risk	10	66.7	5	33.3	15	5.600	0.036
	Risk	5	26.3	14	73.7	19		
Work	Doesn't work	11	57.9	8	42.1	19	3.781	0.091
	Work	4	26.7	11	73.3	16		
Pendidikan	Low	13	65.0	7	35.0	20	11.143	0.05
	Tall	2	14.3	12	85.7	14		
Husband Support	Not very supportive	13	61.9	8	38.1	21	8.938	0.01
	Support	2	15.4	11	84.6	13		

Relationship between Age and Mother's Knowledge

It is known that 10 (66.7%) mothers with age are not at risk of having less knowledge, 5 (26.3%) mothers with age are at risk of having less knowledge. The results of the statistical test obtained a p value = 0.036 less than $\alpha = 0.05$ which means $H_0 =$ rejected, so it is stated that there is a significant relationship between age and mother's knowledge. The results of the analysis of the Odds Ratio (OR) value are 5,600 (95% meaning that mothers who are at risk have 5.6 times the opportunity to have less knowledge compared to mothers who are not at risk.

Work Relationship with Mother's Knowledge

It is known that 11 (57.9%) mothers of non-working age have less knowledge, 4 (26.7%) working mothers have less knowledge. The results of the statistical test obtained a p value = 0.091 greater than $\alpha = 0.05$, which means $H_0 =$ accepted, so it is stated that there is no significant relationship between work and mother's knowledge. The results of the analysis of the Odds Ratio (OR) value of 3,781 (95% means that mothers who do not work are at risk of having 3.7 times the opportunity to have less knowledge compared to working mothers.

Relationship between Education and Mother's Knowledge

It was found that 13 (65.0%) mothers with low education had less knowledge, 2 (14.3%) mothers with higher education had less knowledge. The results of the statistical test obtained a p value = 0.05 equal to $\alpha = 0.05$ which means $H_0 =$ rejected, so it is stated that there is a significant relationship between education and mother's knowledge. The results of the analysis of the Odds

Ratio (OR) value were 11,143 (95% meaning that mothers with low education were at risk of having the opportunity 11.1 times to have less knowledge compared to mothers with higher education.

Husband's Support Relationship with Mother's Knowledge

It was found that 13 (61.9%) mothers who received less support from their husbands had less knowledge, 2 (15.4%) mothers who received support from their husbands had less knowledge. The results of the statistical test obtained a p value = 0.01 less than $\alpha = 0.05$ which means $H_0 =$ rejected, so it is stated that there is a significant relationship between husband's support and mother's knowledge. The results of the analysis of the Odds Ratio (OR) value of 8,938 (95%) means that mothers who have less support from their husbands have an 8.9 times chance of having less knowledge compared to mothers who receive support from their husbands.

Discussion

Age affects knowledge and awareness of health. Age affects a person's comprehension and mindset, where as you get older the mindset and understanding of a person will develop so that the more knowledge you get, Fitriani and Andriyani, 2015 in (Nengah et al., 2020) Other studies have also concluded that age and level of knowledge have a relationship with the level of clean and healthy living behavior, Prihanti et al. 2018 In (Nengah et al., 2020). At the age of 20-30 years is an age with almost perfect maturity where the level of understanding and review of problems is already at a high stage as an adult human being, (Sarofah et al., 2021). This is in line with the results of research conducted by (Susanti & Yuliasari, 2019) it is known that most of the majority of respondents aged between 20-35 years as many as 25 respondents (83.3%). The highest level of knowledge is owned by respondents with an age range of 20-35 years as many as 10 people (33.3%) with a sufficient level of knowledge. This is the same as the results of research conducted by (Romdiyah et al., 2021). Shows that most of the respondents are of healthy reproductive age, namely 21-35 years (67.5%).

According to Nilakusmawati, 2009 in (Rizky & Santoso, 2018) work has the meaning of an activity to produce or help produce goods or services with the intention of obtaining income in the form of money and or goods, within a certain time (time reference). (Rizky & Santoso, 2018). working mothers are mothers who besides taking care of the household also have responsibilities outside the home either at the office, foundation, or self-employed with a range of 6 to 8 hours a day. The results of this study are in line with the results of research conducted by (Elsera, 2021) dengan hasil penelitiandiketahui bahwa sebagianbesar responden yang bekerja sebagai IRT sebanyak 15 respondents (44.1%) and 6 respondents (17.6%) working as entrepreneurs and 13 respondents (38.2%) as private individuals. Many working mothers do not know the information because working mothers use more of their time to work and do not have much time to attend counseling conducted by health workers (Susanti & Yuliasari, 2019). Even though working mothers can do it, oxytocin massage is more effective given twice a day, namely morning and evening, this can affect postpartum mother's milk production, (Hidayah & Dian Anggraini, 2023).

Education can affect a person, including a person's behavior towards lifestyle, especially at the level of knowledge. In general, the higher a person's education, the easier it is to receive information (Wawan, 2018). It can be concluded that the higher the level of education, the easier it will be to gather information, knowledge and improve the quality of life. This is in accordance with the results of research conducted by (Sa'adah, 2019). Bahwa sebagian besar pengetahuan ibu kurang, dikarenakan ibu dengantingkat pendidikan SMP as many as 14 respondents (46.6%). It's the same with research results (Zulfatunnisa & Dewi, 2020). Explaining that there were no respondents with low education, then patients with secondary education all with knowledge of oxytocin massage were in the category of not knowing, namely there were 28 people (100.0%), then patients with higher education, most of them with knowledge of oxytocin massage were in the know category, namely there were 9 people (75.0%), thus there is a tendency that the higher the level of education, the more they know about the benefits of oxytocin massage.

Husband's support is support that plays a role in determining the emotional state or feelings of the mother so that it influences the smoothness of the milk ejection reflex (Kusumayanti &

Nindya, 2018). Hasil penelitian (Kusumayanti & Nindya, 2018) regarding husband's support for exclusive breastfeeding, although statistically there was no significant relationship between husband's support and exclusive breastfeeding with $p=0.058$). This is in line with research (Wulandari & Nurlaela, 2021). The results of the statistical test using Continuity Correction obtained a p-value of 0.015, which means that the p-value is < 0.05 . Thus H_0 is rejected and it can be concluded that there is a significant relationship between the husband's support received by the mother and exclusive breastfeeding. The results of the analysis of the relationship between husband support obtained by mothers with exclusive breastfeeding were obtained from 89 respondents, most of the respondents who received high husband support had high status of exclusive breastfeeding (76.1%). Oxytocin massage is also easy to do with not too many movements. Support from husband and family plays an important role in breastfeeding. One form of this support can be seen from the husband and family agreeing to do oxytocin massage so that mothers can be motivated to breastfeed their babies (Yusari Asih, 2017).

4. CONCLUSION

The results of the research on factors related to mother's knowledge about oxytocin massage, obtained factors related to mother's knowledge including factors of age, education and husband's support, for work factors not related to mother's knowledge, working mothers spend more time working and do not have much time to attend counseling conducted by health workers. However, even though mothers, although the respondents, some mothers do not work, on the other hand, this does not mean that mothers do not have the opportunity to update their knowledge. What we know today is that social media provides a lot of knowledge about breastfeeding as well as techniques to facilitate breastfeeding, such as oxytocin massage as an effort to accelerate milk production.

In this research the researcher has limitations which may make this writing less than perfect, there are several limitations experienced which can be taken into account by future researchers in further perfecting the results of their research, the number of respondents is only 34 which is certainly still not enough to describe the actual situation, then in the process of collecting Data sometimes does not get a good response and also does not show true opinions, from this limitation so that future researchers can condition the data collection process better.

ACKNOWLEDGEMENTS

Thank you to all respondents who were willing to become respondents to this research, and thanks to the leadership of Andina's Independent Midwife Practice and the ranks of health services who have assisted in this research process.

REFERENCES

- Aryani, Y., & Alyensi, F. (2019). Penerapan Pijat Oksitosin Dalam Upaya Memperbanyak Produksi Asi Melalui Pelatihan Bagi Para Bidan. *Dinamisia: Jurnal Pengabdian Kepada Masyarakat*, 3(2), 361-367. <https://doi.org/10.31849/dinamisia.v3i2.3680>
- Atik, N. S., & Wandal, N. Y. R. L. (2020). Hubungan Tingkat Pengetahuan Ibu Nifas Dengan Perilaku Kunjungan Nifas Di Puskesmas Kaliwungu. *Jurnal Ilmiah Kesehatan Ar-Rum Salatiga*, 4, 17-26. <http://www.e-journal.ar-rum.ac.id/index.php/JIKA/article/view/92/106#>
- Elsera, C. (2021). Pengetahuan Ibu Hamil Tentang Pijat Oksitosin. *Prosiding Seminar ...*, 1453-1464. <https://prosiding.unimus.ac.id/index.php/semnas/article/viewFile/918/925>
- Hidayah, A., & Dian Anggraini, R. (2023). Pengaruh Pijat Oksitosin terhadap Produksi Asi pada Ibu Nifas di BPM Noranita Kurniawati. *Journal of Education Research*, 4(1), 234-239. <https://doi.org/10.37985/jer.v4i1.154>
- Kusumayanti, N., & Nindya, T. S. (2018). Hubungan Dukungan Suami Dengan Pemberian Asi Eksklusif Di Daerah Perdesaan. *Media Gizi Indonesia*, 12(2), 98. <https://doi.org/10.20473/mgi.v12i2.98-106>
- Marlina. (2021). Faktor yang Berhubungan dengan pemberian makanan Pendamping ASI pada bayi Usia 0-6 Bulan di Wilayah Kerja Puskesmas Juli Kabupaten Bireuen. *Jurnal Kesehatan dan Masyarakat (Jurnal KeFis)*, 1(Imd), 103-108.
- Muthmainnah, F. (2010). Faktor-faktor yang Berhubungan dengan Pengetahuan Ibu dalam Memberikan Makanan Pendamping Air Susu Ibu di Puskesmas Pamulang 2010. *Skripsi. Fakultas Kedokteran dan Ilmu*

- Kesehatan UIN Syarif Hidayatullah Jakarta*, 1–101.
- Nengah, B. S. ., Ahmad, F. A., Chrysella, R., Devi, A. S., Farah, K., Fitria, H. N. E. S., Hieronimus, A. N. U., Safiinattunnajah, N., Wahyu, A. D., Yunita, A., & Abdul, R. (2020). Hubungan usia dengan pengetahuan dan perilaku penggunaan suplemen pada mahasiswa institut teknologi sepuluh nopember. *Jurnal Farmasi Komunitas*, 7(1), 2.
- Niar, A., Dinengsih, S., & Siauta, J. (2021). Factors Affecting the Production of Breast Milk Breastfeeding Mother at Harifa RSB, Kolaka District Southeast Sulawesi Province. *Jurnal Kebidanan Midwifera*, 7(2), 10–19. <https://doi.org/10.21070/midwifera.v7i2.1288>
- Notoatmodjo, S. (2010). Metodologi Penelitian Kesehatan. In *Journal metode penelitian* (Vol. 17, Nomor 3, hal. 223–231).
- Pertiwi, A. P., Mu'ti, A., & Buchori, M. (2022). Gambaran Pengetahuan ibu Tentang ASI Eksklusif dan Cara Pemberian ASI Eksklusif pada Bayi Usia 0-6 Bulan di Puskesmas Segiri Samarinda. *Jurnal Kedokteran Mulawarman*, 9(3), 103–109.
- Rahayu, D., & Yunarsih, Y. (2018). Penerapan Pijat Oksitosin Dalam Meningkatkan Produksi ASI Pada Ibu Postpartum. *Journals of Ners Community*, 09, 8–14. <http://journal.unigres.ac.id/index.php/JNC/article/view/628%0Ahttps://journal.unigres.ac.id/index.php/JNC/article/download/628/503>
- Rizky, J., & Santoso, M. B. (2018). Faktor Pendorong Ibu Bekerja Sebagai K3L Unpad. *Prosiding Penelitian dan Pengabdian kepada Masyarakat*, 5(2), 158. <https://doi.org/10.24198/jppm.v5i2.18367>
- Romdiyah, R., Nugraheni, N., & Nurbaet, P. (2021). Faktor Yang Mempengaruhi Tindakan Pelaksanaan Pijat Oksitosin Pada Ibu Nifas. *Jurnal Sains Kebidanan*, 3(2), 52–56. <https://doi.org/10.31983/jsk.v3i2.7914>
- Sa'adah, L. C. (2019). *Gambaran Pengetahuan Ibu Post Partum tentang Pijat Oksitosin di Puskesmas Bergas*.
- Sarofah, E., Muthoharoh, H., & Erindah, U. (2021). Pengetahuan Ibu Nifas Tentang Perawatan Payudara Pada Masa Laktasi. *Jurnal Ilmiah Kesehatan*, 20(2), 4–13. <https://journals.stikim.ac.id/index.php/jikes/article/view/1240/726>
- Septina, R., & Erlina, S. (2023). Faktor-Faktor Yang Berhubungan Dengan Pemberian Makanan Pendamping Asi (Mp Asi) Dini Pada Ibu Yang Memiliki Bayi Usia 7-24 Bulan. *Jurnal Ilmiah Kesehatan BPI*, 7(1), 39–49.
- Sri Mukhodim Farida Hanum. (2015). Efektivitas Pijat Oksitosin Terhadap Produksi Asi. *Jurnal Midwifera*, 3(2), 223–227. <https://doi.org/10.54411/jbc.v3i2.217>
- Sugiyono, 2019. (2019). *Metodologi Penelitian Kuantitatif dan Kualitatif*.
- Sumarni, D. T., & Ratnasari, F. (2021). Faktor-Faktor Yang Mempengaruhi Pengeluaran ASI Pada Ibu Postpartum. *Journal for Quality in Women's Health*, 4(1), 18–20. <https://doi.org/10.30994/jqwh.v4i1.100>
- Susanti, D. R., & Yuliasari, T. R. (2019). Tingkat pengetahuan ibu menyusui tentang pijat oksitosin untuk memperlancar produksi asi. *Jurnal Ilmu Kebidanan*, 6, 31–37.
- Wawan. (2018). *Wawan dan Dewi*.
- Wulandari, S., & Nurlaela, E. (2021). Hubungan Dukungan Suami dengan Pemberian ASI Eksklusif : Literature Review. *Prosiding Seminar Nasional Kesehatan*, 1(1), 1984–1995. <https://doi.org/10.48144/prosiding.vii.960>
- Yusari Asih. (2017). *Pengaruh Pijat Oksitosin Terhadap Produksi Asi Ibu Nifas*. (hal. 283–293).
- Zulfatunnisa, N., & Dewi, W. P. (2020). Hubungan Tingkat Pendidikan Dengan Pengetahuan Primipara Tentang Manfaat Pijat Oksitosin Di Puskesmas Sibela Mojosongo. *Profesi (Profesional Islam): Media ...*, 17(2), 43–50. <https://www.journals.itspku.ac.id/index.php/profesi/article/view/27>