Study Of Maternal Death In Urban And Rural Based On Pregnancy Planning In East Sumba Regency 2014-2018

Mariana Ngundju Awang[1 *], Diyan Maria Kristin [2], Wilhelmina A.A.Woda[3]

Abstract

Background: Family Planning (*Keluarga Berencana/KB*) is closely related to reducing Maternal Mortality Rate (MMR). MMR is maternal death during pregnancy, childbirth and the puerperium. Reproductive behavior is a contributor to MMR in this case the 4Ts: too many pregnancies, too close distance, too young, and too old. The 2012 Demographic and Population Survey showed that around 32.5 percent of MMR occurred as a result of giving birth too old and too young, and around 34 percent due to too many pregnancies (more than 3 children). East Sumba Regency MMR in the last 5 years is quite high, number 1 or 2 is the highest in NTT Province after TTS.
Purpose: To determine the characteristics of maternal mortality in 2014 – 2018, pregnancy planning for mothers who died in East Sumba Regency and the relationship between maternal mortality and pregnancy planning in East Sumba Regency in 2014 – 2018.
Methods: The type of research used is Analytical Descriptive Research with Cross-sectional Method. The population and sample are total maternal mortality from 2014 - 2018 which is 50 in urban and rural areas. Methods of collecting data using interviews using questionnaires to husbands/families of deceased mothers, Village Midwives and Coordinator Midwives regarding complete identity, age, education, occupation, parity, spacing of Acceptor card ownership, information obtained from the Midwife is detailed and systematic before choosing contraception.
Results: Most mothers have planned pregnancy but there is a tendency to follow the wishes of the client.
Conclusion: Maternal mortality is not related to planning for pregnancy, but pregnant women who do not plan pregnancy well are at greater risk of death than mothers who plan to become pregnant
Conclusion: conclusions and implications for nursing practice.

Keywords: Maternal Mortality Study, East Sumba, Pregnancy Planning

DOI Number: 10.4704/nq.2022.20.14.NQ88008 **Neuro Quantology 2022; 20(14):50-57**

Background

Family Planning (KB) is closely related to the reduction in the Maternal Mortality Rate (MMR). MMR is maternal death during pregnancy, childbirth and the puerperium. Reproductive behavior is a contributor to MMR in this case the 4Ts: too many pregnancies, too close distance, too young, and too old. The 2012 Demographic and Population Survey revealed that around 32.5 percent of MMR occurred as a result of giving birth too old and too young, and Around 34 percent due to too many pregnancies (more than 3 children). Data from the RSCM shows that most MMR deaths are due to premature delivery. Therefore, a strategy to change reproductive behavior is needed to suppress MMR, which is by planning for pregnancy or family planning (KB). "The role of family planning is very important in reducing MMR. If family planning fails, the MMR will not go down, do not expect the MMR to go down if the KB is down ((Affandi, 2019)(Hartanto,

***Corresponding Author: -** Mariana Ngundju Awang
Address: *[1]Department Of Midwifery, Health Polytechnic Kupang, Indonesia, Email: lovemyspecial01@gmail.com
[2]Department Of Midwifery, Health Polytechnic Kupang, Email: Indonesia,diyankristin@gmail.com
[3]Prof W.Z.Yohannes Kupang Hospital, City, Indonesia, hwpunk86@gmail.com
Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest
Received: **Accepted:**

2020). Data on the number of maternal deaths in NTT province are 149 cases and 744 cases of infant mortality ((Dinkes NTT, 2021). Meanwhile, East Sumba Regency, from 2020 - 2021, the decline in the number of maternal deaths is still fluctuating and is one of the regencies that contributes to the highest number of maternal deaths after TTS Regency.

The births of the first and second children are the lowest risk deliveries, with a minimum interval of 2 years between pregnancies. Currently, there is a choice of various modern family planning devices, ranging from pills, injections, implants, condoms to safe and comfortable sterilization so that it is expected to increase the success of family planning. Long-Term Contraceptive Methods (MKJP) such as IUDs, implants, and sterilization (vasectomy and tubectomy) are the most effective methods of spacing pregnancies, but MKJP users in Indonesia are far behind the pill and injection methods (Mesfin & Kibret, 2016). The use of long-term contraceptives in Indonesia is still a concern. The BKKBN continues to encourage the use of MKJP but in 2012, it only reached 17 percent, and in 2017 it rose to 21 percent, in order to increase MKJP users, the BKKBN has created a program for 1 district, 1 obstetrician, obstetrician who can provide tubectomy, and 1 general practitioner who can provide vasectomy, which will be launched next year by trying to reduce injection acceptors and encouraging MKJP with IUD, implant and sterilization in collaboration with the Indonesian Midwives Association (*Ikatan Bidan Indonesia/*IBI) and providers serving family planning to improve MKJP. 48,000 midwives and 11,000 general practitioners have already been trained on how to insert IUDs and implants. "People's demand and public knowledge about contraceptives has not yet been unsderstood. The results of the IDHS survey show that 98 percent know about family planning, but when asked about contraceptive devices, the percentage is getting lower. Moreover, understanding about vasectomy and tubectomy is only about 7-10 percent (Dwi Susilawati,ZahrohShaluhiyah,2019)(Thummal achetty et al., 2017).

Objective

Research Objectives: General: Assessing Maternal Mortality and the Role of Family Planning (KB) in order to reduce MMR in East Sumba Regency in 2014 – 2018. Specifically: To identify the relationship between maternal mortality and Pregnancy Planning in East Sumba Regency in 2014 – 2018

Methods

2.1. Types of research

Analytical Descriptive Research with Cross sectional Method. Descriptive Research is a method that aims to make a systematic, factual, and accurate description of the facts and characteristics of a particular population or area (Sugiyono, 2017), which is about planning for pregnancy in mothers. The research has been conducted in East Sumba Regency, NTT Province as one of the highest MMR Contributing Regencies in NTT.

2.2. Population and Sample

The population is data on all mothers who died during pregnancy, childbirth and postpartum in 2014 – 2018 both in rural and urban areas with a total of 50 health centers. The sample in this study were husbands/families of mothers who died who knew correctly the case of maternal death, midwives in the Village and Coordinator Midwives who are willing to sign the Inform Consent (IC) after being given an explanation or approval after explanation (PSP).

2.3 Procedure and Method of Data Collection

The research was performed by:

1. Collecting all maternal mortality data from 2014 – 2018.
2. Conducting a study on pregnancy planning for mothers who died by conducting interviews with husbands or families of mothers who died using a questionnaire that had been prepared by the researcher.
3. Conducting Interviews with Village Midwives and Coordinator Midwives in relation to pregnancy planning, pre- and post-contraception counseling.
4. Interviews were conducted on the sample according to the mapping where MMR in 5 years was mostly in urban and rural areas with a total sampling of 50 husbands/families of pregnant women who died and 8 Midwives in the Village as the person in charge of the Assisted Villages and 8 Coordinator Midwives each Public health centers.

2.4 Data collection instrument

The instrument used in this study was a questionnaire in the form of closed questions including complete identity, age, education, occupation, parity, spacing of acceptor card ownership, reasons for selecting contraceptives, whether the information obtained from the midwife was detailed and systematic before choosing contraceptives.

Questions for Village Midwives and Coordinator Midwives: Have provided detailed and complete information to husband and wife before choosing and using contraceptives (types of contraceptives, benefits, side effects, indications, requirements, procedures or how the devices work), there is evidence of recording/documentation of family planning counseling before giving/installing alcohol, evidence of providing counseling actions due to side effects of using alcohol, and the scheduled time of giving counseling to acceptors.

2.5. How to Process and Analyze Data

Data processing and data analysis descriptively and inference using the Chi - Square test to analyze whether there is a relationship between maternal mortality and pregnancy planning

3. Research Result

3.1. Characteristics of Maternal Mortality in 2014 - 2018

Table 1. Data on the frequency distribution of maternal deaths by age in East Sumba Regency in 2014 – 2018

Mother 's Age (years)	City		Village		Total	
	∑	%	∑	%	∑	%
< 20	6	12	2	4	8	16
20 – 35	19	38	10	20	29	58
>35	6	12	7	14	13	26
TOTAL	31	62	19	38	50	100

Table 1 shows that 58 percent of maternal deaths are of healthy reproductive age, but 42 percent are those who are at high risk because they are too young and too old to get pregnant. According to Ghufron, 2014, the highest maternal mortality was caused by a marriage that was too young, which was less than 19 years, but the results of my research were found to be different, which were 58 percent of maternal deaths occurred at the age of 20-35 years and 16 percent at the age of less than 20 years (Hidayah, Wahyuningsih, & Kusminatun, 2018)

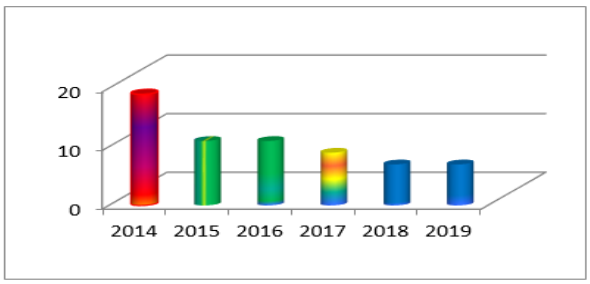

Figure 1. Number of Maternal Mortality in East Sumba Regency in 2014 – 2019

Table 2. Data on the frequency distribution of maternal deaths by age in East Sumba Regency in 2014 – 2018

	Pregnancy Planning					
	Yes		**No**		**TOTAL**	
	∑	%	∑	%	∑	%
1	[42]	[84]	[8]	[16]	[50]	[100]

Table 2 shows that 84 percent of mothers who died in 2014 - 2018 had planned a pregnancy using contraception, 16 percent were not using because of new parity 1 and are still in the early puerperium

Table 3. Data on Parity and Spacing of Respondents in 2014 - 2018 in the Rural and Urban District of East Sumba

PARITY	VILLAGE		CITY		TOTAL	
	∑	%	∑	%	∑	%
HIGH	21	42	10	20	31	62
LOW	10	20	9	18	19	38
	31	62	19	38	50	100
SPACING	∑	%	∑	%	∑	%
<2 YEARS	4	8	4	8	8	16
>2 YEARS	27	54	15	30	42	84
	31	62	19	38	50	100

Table 3 shows 62 percent of mothers who died both in urban and rural areas had high parity, namely the number of pregnancies of more than three [3] but 84 percent had planned pregnancies so that they had a distance of more than 2 years

Table 4 Pregnancy planning data for mothers who died in 2014 - 2018 in the Rural and Urban District of East Sumba

Pregnancy planning	Yes		No		Jumlah	
	∑	%	∑	%	∑	%
Urban	25	50	6	12	31	62
Rural	17	34	2	4	19	38
Total	42	84	8	16	50	100

Table 4 shows the Fertile Age Couple in Rural and Urban areas have planned Pregnancy well at 84 percent consisting of 50 percent greater in urban areas compared to 34 percent in Rural areas.

c. Relationship between maternal mortality and pregnancy planning

Table 5. Relationships mother's death by planning Pregnancy in East Sumba Year 2014-2018

Maternal death	Pregnancy Planning					
	Yes		No		Total	
	∑	%	∑	%	∑	%
Urban	25	50	6	12	31	62
Rural	17	34	2	4	19	38
Total	42	84	8	16	50	100

The results of the study in table 5. 84 percent of mothers who died in 2014 - 2018 had planned a pregnancy using contraceptives, only 16 percent did not use contraception for reasons of parity one and at the time of death, they were still in the early puerperium or less than 2 weeks of Postpartum. The results of the Chi-Square test obtained a p value of 0.683, meaning that there is no relationship between maternal mortality and planning for pregnancy, but there is a risk of death for mothers who are not planning a pregnancy based on the OR of 0.412-8,199 times compared to mothers who are planning a pregnancy using contraceptives. Results of interviews with midwives/PLKB regarding the presence or absence of pre-installation and post-installation counseling or the provision of contraceptives, 8 respondents said there was, always do counseling first so that the client can make his choice, but the client has had a previous choice without knowing in advance the type of contraception used in accordance with the stages concerned. During counseling, there is a tendency for officers to follow the client's wishes rather than not using them to prevent unwanted pregnancies.

The results of the study also revealed that the counseling conducted by the officers had not implemented the correct counseling steps, the results had not been written in full in the family planning register/control book for family planning participants, had not used the Family Planning Counseling Assistance Tool, and only used oral without any post-counseling media. The installation is performed if there is a complaint from the client also without media and sometimes not properly documented. The point is that the officers have not implemented a rational family planning planning pattern in determining or choosing the type and contraceptive method for clients in delaying, spacing and terminating their pregnancy. Officers also still tend to follow the wishes of the client so that at the age of 36-42 years there are still respondents who use the pill contraceptive or injections and implants even though they already have 4-6 children (high parity category) according to the description in table 3.

Discussion

Family Planning (KB) is closely related to reducing Maternal Mortality Rate (MMR). Family planning programs play a major role in achieving a reduction in MMR through family planning by regulating safe, healthy and desirable pregnancies. The link between the benefits of family planning and a reduction in maternal mortality is frequently not felt. One of the causes of maternal death is due to the low understanding of family planning and reproductive health. Low access to family planning services will also increase MMR. Many couples of childbearing age do not get family planning services (unmet need), even though there is a risk of increasing maternal mortality due to unsafe abortion [11,12,13]. Nationally, the average family planning coverage is still 60 percent. In 2017, the MMR was still around 259-305 per 100,000 births, far from the target of 102 per 100,000 live births based on the MDGs which failed to be achieved in 2015 and continued with the SDGs until 2030.

This is in accordance with the number of maternal deaths in East Sumba Regency in 2014 – 2019 in Figure 1, where in 2014 the number of deaths from 19 to 11 in 2016 and 2017, 2018 fell to 7, but in 2019 to 7 in September 2019. The basis for administering family planning services is Law of the Republic of Indonesia Number 36 of 2009 concerning Health, article 78 concerning Family Planning which reads: (1) Health services in family planning are intended to regulate pregnancy for couples of childbearing age in order to form a healthy and intelligent next generation, (2) The government is responsible for and ensures the availability of personnel, service facilities, tools and medicines in providing family planning services that are safe,

quality and affordable to the community, and (3) Provisions regarding family planning services are conducted in accordance with statutory regulations [14,15]. Village Midwives and Coordinator Midwives have implemented this rule but it is not yet optimal, which is 62.5 percent of Pregnancy Planning is conducted according to the stages of the family planning pattern including delaying, adjusting the distance and terminating pregnancy.

Reproductive behavior contributes to MMR in this 4T: too much pregnancy, too fast, too young, and too old. Based on the 2012 Demographic and Population Survey, 32.5 percent of MMR occurred due to giving birth too old and too young, and around 34 percent due to having too many pregnancies (more than 3 children). This is in accordance with the results of the study in Table 3, where 62 percent of respondents with high parity have children more than 3 and 42 percent give birth at the age of less than 20 years and more than 35 years also have birth spacing, children less than 2 years, which is 16 percent. Maternal Mortality Rate is also an important indicator of public health status. MMR describes the number of women who die from causes of death related to pregnancy or medication disorders (excluding accidents or incidental cases) during pregnancy, childbirth and the puerperium (42 days after delivery) without taking into account the length of pregnancy per 100,000 live births, used to monitor pregnancy-related deaths.

This indicator is influenced by general health status, education and services during pregnancy and childbirth. Table 4 shows that 84 percent of mothers who died used contraception, only 16 percent did not use it for reasons of parity one and early postpartum less than 2 weeks at the time of death and 58 percent of respondents aged 20-35 years/reproductive age, healthy. This is different from the results of the 2015 National Population and Family Agency survey that most maternal deaths due to childbirth are too young. Therefore, a strategy for changing reproductive behavior is needed to suppress MMR, which is planning pregnancy or family planning. 51 percent of young women in urban areas and in rural areas around 40 percent have had sexual intercourse and when an unwanted pregnancy occurs, they do not have the opportunity to become a teenager, but immediately play the role of mothers with all its complexities, meaning they are unable to care for the pregnancy [16,17,18].

The results of interviews with the Village Midwife and Coordinator Midwife said that the number of contraceptive users was higher in the types of Pills, Injections, Implants. It is in accordance with the data which states that the ratio of the use of the Long-Term Contraceptive Method (MKJP) from year to year is getting higher, but the number of users of this method is less. This may be due to the use of this method which requires more complex measures and skills of health professionals (Jurisman, Ariadi, & Kurniati, 2016; Mishbahuddin, 2021)

Around 76 percent of respondents both in rural and urban areas have a low level of education, who were Elementary – Junior High School and some are even illiterate, this affects the level of understanding about the benefits and the selection of the appropriate type of contraception, in planning a pregnancy whether to delay, distance or terminate the pregnancy. It is consistent with the data which states that the most well-known contraceptive methods are pills and injections, while the less well known are the diaphragm and emergency contraception. The pill, injectable and implant methods are recognized in almost equal proportions in both urban and rural areas and at various levels of education. Meanwhile, other family planning methods tend to be better known in urban areas and have higher levels of education(Laras Tsany Nur Mahmudah, 2015; Triyanto & Indriani, 2018) A mother who has just given birth to a baby is usually easier to invite to use contraception, so after giving birth is the most appropriate time to invite the mother to use contraception. The purpose of postpartum family planning services is to regulate pregnancy/birth spacing, and avoid unwanted pregnancies, so that every family can plan a safe and healthy pregnancy. It is performed so that pregnancy does not occur with a distance that is too close or less than 2 years (the distance between pregnancies ranges from 4 months to 1 year 7 months), which is 16 percent according to the results of the study in table 3 (Ajong et al., 2018)(Dona, Abera, Alemu, & Hawaria, 2018; Sedekia, Jones, Nathan, Schellenberg, & Marchant, 2017) Post-delivery family planning services begin with the

provision of information and counseling that has been started since pregnancy. Health workers as service providers play an essential role in providing postnatal family planning information and counseling to prospective family planning participants. All contraceptive methods can be used as postpartum contraceptive methods, but considering the high drop out (DO) in the use of Non-Long-Term Contraceptive Methods, in providing counseling services clients are directed to choose Long-Term Contraception. Methods, such as implants and IUDs, with the use of Long-Term Contraceptive Methods, it is hoped that the contraceptive discontinuation/DO rate can be reduced or decreased. Especially for the Postpartum IUD, there is a time recommended by the HTA, based on the expulsion rate (Ayiasi, Muhumuza, Bukenya, & Orach, 2015; Chacko et al., 2016; Kurniawan H, 2017) However, interviews with Coordinator Midwives and Village Midwives stated that although counseling was conducted for clients choosing the Long-Term Contraception Method, clients preferred Long Term Contraception Methods such as Pills, Injections, Implants for various reasons that were more practical, worried about IUD and partner surgery and 62 percent parity High children in rural and urban areas have children 3-6 and the age is still 42 years according to table 3. It implies that the opportunity to add children is still very high because of the failure rate of Non-Long-Term Contraception Methods. Post-natal family planning services and family planning services in general can be performed by doctors and midwives who competent.

The services provided by midwives refer to the Regulation of the Minister of Health of the Republic of Indonesia Number 28 of 2017 concerning Permits and Implementation of Midwifery Practices Article 21 In Providing Reproductive Health Services for Women and Family Planning as referred to in Article 18 letter c, midwives are authorized to provide: a. counseling on women's reproductive health and family planning; and B. services for oral contraceptives, condoms, and injections as well as Article 25 (1) Authorities based on government programs as referred to in Article 23 paragraph (1) letter a, include: a. providing contraceptive services in the womb and under the skin. Based on the results of interviews with Village Midwives and Coordinator Midwives regarding counseling, they asserted that counseling was always conducted Pre and Post-Installation or the provision of contraceptive devices, but had not performed the stages of counseling properly, had not fully involved husband and wife, without any media/decision-making aids so that the client's tendency to choose based on practical and often heard from others that does not correspond to the stages in planning the client's desired pregnancy. Theoretically, counseling is a process of exchanging information and positive interactions between clients and staff to help clients identify their needs, choose the best solution and make decisions that are most appropriate to the conditions at hand. A good counseling process has four elements of activity: 1) fostering good relations, 2) digging and providing information 3) decision making, problem solving and planning and 4) following up on meetings. Before receiving postnatal contraceptive services, clients and their partners must obtain complete, clear and correct information from health workers in order to make the right choice. Post-delivery family planning services will run well if it is preceded by good counseling, where the client is in good health, aware, and not under pressure or sick. Post-natal family planning counseling services can use the flipchart media for the Family Planning Decision Making Tool.

Post-delivery family planning counseling can be done at the time of antenatal care, when completing the delivery mandate in the delivery planning and complications program and when attending classes for pregnant women, during labour, post-delivery, and before/after contraceptive services. After the client conducts counseling and chooses a contraceptive method, the client provides his consent in the form of an informed consent form for the IUD, implant and solid contraception methods (tubectomy and vasectomy) (Achyut et al., 2016; Sitorus & Siahaan, 2018; Teka, Feyissa, Melka, & Bobo, 2018).

The family planning program also plays a major role in achieving a reduction in MMR through family planning by regulating safe, healthy and desirable pregnancies. The link between the

benefits of family planning and a reduction in maternal mortality is frequently not felt. One of the causes of maternal death is due to the low understanding of family planning and reproductive health. Low access to family planning services will also increase MMR. Many couples of childbearing age do not get family planning services (unmet need), even though this has the risk of increasing maternal mortality due to unsafe abortion (Bellows et al., 2016; Galle et al., 2018; Mutumba, Wekesa, & Stephenson, 2018)
This research has been attempted so that it can be conducted according to correct scientific procedures but still has limitations, which is cross sectional research methods, data collection methods using questionnaires as well as for activities that have been conducted previously. Thus, there is still the possibility of dishonesty in answering. The implication of this research is as information and data for the Head of the Family Health Subdivision at the Health Office of East Sumba Regency to be able to conduct supervision, provide facilities and infrastructure needed for services and update the knowledge and skills of midwives on a scheduled basis in collaboration with professional organizations/Indonesian Midwives Association in order to decreasing MMR and improving public health in East Sumba District.

Conclusion

There is no relationship between Maternal Mortality and Pregnancy Planning in Rural and Urban fertile age couple (PUS) In East Sumba Regency. Safe, healthy and controlled pregnancy planning already exists but has not been going well according to the Rational Family Planning pattern with the stages of Delaying, Spacing and Terminating pregnancy.

Acknowledgments (if any):

Thank you to Health Polytechnic Ministry Of Health Kupang as a sponsor in this research.

References

Achyut, P., Mishra, A., Montana, L., Sengupta, R., Calhoun, L. M., & Nanda, P. (2016). Integration of family planning with maternal health services: An opportunity to increase postpartum modern contraceptive use in urban Uttar Pradesh, India. *Journal of Family Planning and Reproductive Health Care*, *42*(2). https://doi.org/10.1136/jfprhc-2015-101271

Affandi, B. (2019). KESEHATAN REPRODUKSI, HAK REPRODUKSI, DAN REALITAS SOSIAL. In *Pustaka Sarwono Prawirohardjo*. https://doi.org/10.22146/jp.11575

Ajong, A. B., Njotang, P. N., Kenfack, B., Essi, M. J., Yakum, M. N., Iballa, F. B. S., & Mbu, E. R. (2018). Contraceptive method mix and preference: A focus on long acting reversible contraception in Urban Cameroon. *PLoS ONE*, *13*(8). https://doi.org/10.1371/journal.pone.0202967

Ayiasi, R. M., Muhumuza, C., Bukenya, J., & Orach, C. G. (2015). The effect of prenatal counselling on postpartum family planning use among early postpartum women in Masindi and Kiryandongo districts, Uganda. *Pan African Medical Journal*, *21*. https://doi.org/10.11604/pamj.2015.21.138.7026

Bellows, B., Bulaya, C., Inambwae, S., Lissner, C. L., Ali, M., & Bajracharya, A. (2016). Family Planning Vouchers in Low and Middle Income Countries: A Systematic Review. *Studies in Family Planning*, *47*(4). https://doi.org/10.1111/sifp.12006

Chacko, M. R., Wiemann, C. M., Buzi, R. S., Kozinetz, C. A., Peskin, M., & Smith, P. B. (2016). Choice of Postpartum Contraception: Factors Predisposing Pregnant Adolescents to Choose Less Effective Methods over Long-Acting Reversible Contraception. *Journal of Adolescent Health*, *58*(6). https://doi.org/10.1016/j.jadohealth.2015.12.002

Dinkes NTT. (2021). Ntt bangkit ntt sejahtera. *Profil Kesehatan Provinsi Nusa Tenggara Timur*.

Dona, A., Abera, M., Alemu, T., & Hawaria, D. (2018). Timely initiation of postpartum contraceptive utilization and associated factors among women of child bearing age in Aroressa District, Southern Ethiopia: A community based cross-sectional study. *BMC Public Health*, *18*(1). https://doi.org/10.1186/s12889-018-5981-9

Dwi Susilawati, Zahroh Shaluhiyah, S. B. (2019). Gambaran Perencanaan Kehamilan Pada Ibu Rumah Tangga Hiv Positif Di Kota Semarang. *Jurnal Kesehatan Masyarakat (e-Journal)*, *7*(1), 472–482.

Galle, A., Vermandere, H., Griffin, S., De Melo, M., Machaieie, L., Van Braeckel, D., & Degomme, O. (2018). Quality of care in family planning services in rural Mozambique with a focus on long acting reversible contraceptives: A cross-sectional survey. *BMC Women's Health*, Vol. 18. https://doi.org/10.1186/s12905-018-0692-z

Hartanto, W. (2020). *Sistematika*.

Hidayah, P., Wahyuningsih, H. P., & Kusminatun, K. (2018). Hubungan Tingkat Risiko Kehamilan dengan Kejadian Komplikasi Persalinan di RSUD Panembahan Senopati Bantul. *Jurnal Kesehatan Vokasional*, *3*(1), 39. https://doi.org/10.22146/jkesvo.33877

Jurisman, A., Ariadi, A., & Kurniati, R. (2016). Hubungan Karakteristik Ibu dengan Pemilihan Kontrasepsi di Puskesmas Padang Pasir Padang. *Jurnal Kesehatan Andalas*, *5*(1), 191–195. https://doi.org/10.25077/jka.v5i1.467

Kurniawan H, N. R. (2017). Perilaku Akseptor Dalam Memilih Metode Kontrasepsi Jangka Panjang (Mkjp) Di Poskesdes Anuta Singgani Kecamatan Mantikulore Kota Palu. *Jurnal Preventif*, *8*(April), 1–58. Retrieved from rahmathidayatkesmas12@gmail.com

Laras Tsany Nur Mahmudah, F. I. (2015). Analisis Faktor Yang Berhubungan Dengan Pemilihan Metode Kontrasepsi Jangka Panjang (Mkjp) Pada Akseptor Kb Wanita Di Kecamatan Banyubiru Kabupaten Semarang. *Unnes Journal of Public Health.*, *4*(3), 76–85. https://doi.org/10.15294/ujph.v4i3.7222

Mesfin, Y. M., & Kibret, K. T. (2016). Practice and Intention to use long acting and permanent contraceptive methods among married women in Ethiopia: Systematic meta-analysis. *Reproductive Health*, *13*(1). https://doi.org/10.1186/s12978-016-0194-0

Mishbahuddin, H. I. &. (2021). Strategi menurunkan Angka Kejadian Unmet Need KB. In N. Rismawati (Ed.), *Published online* (cetakan pe). Retrieved from https://www.academia.edu/63809878/Strategi_Menurunkan_Angka_Kejadian_Unmet_Need_KB

Mutumba, M., Wekesa, E., & Stephenson, R. (2018). Community influences on modern contraceptive use among young women in low and middle-income countries: A cross-sectional multi-country analysis. *BMC Public Health*, *18*(1). https://doi.org/10.1186/s12889-018-5331-y

Sedekia, Y., Jones, C., Nathan, R., Schellenberg, J., & Marchant, T. (2017). Using contraceptives to delay first birth: A qualitative study of individual, community and health provider perceptions in southern Tanzania. *BMC Public Health*, *17*(1). https://doi.org/10.1186/s12889-017-4759-9

Sitorus, F. M., & Siahaan, J. M. (2018). Pelayanan Keluarga Berencana Pasca Persalinan Dalam Upaya Mendukung Percepatan Penurunan Angka Kematian Ibu. *Midwifery Journal: Jurnal Kebidanan UM. Mataram*, *3*(2), 114. https://doi.org/10.31764/mj.v3i2.505

Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D.* Retrieved from https://massugiyantojambi.wordpress.com/2011/04/15/teori-motivasi/

Teka, T. T., Feyissa, T. R., Melka, A. S., & Bobo, F. T. (2018). Role of antenatal and postnatal care in contraceptive use during postpartum period in western Ethiopia: A cross sectional study. *BMC Research Notes*, *11*(1). https://doi.org/10.1186/s13104-018-3698-6

Thummalachetty, N., Mathur, S., Mullinax, M., Decosta, K., Nakyanjo, N., Lutalo, T., … Santelli, J. S. (2017). Contraceptive knowledge, perceptions, and concerns among men in Uganda. *BMC Public Health*, *17*(1). https://doi.org/10.1186/s12889-017-4815-5

Triyanto, L., & Indriani, D. (2018). Faktor yang Mempengaruhi Penggunaan Jenis Metode Kontrasepsi Jangka Panjang (MKJP) pada Wanita Menikah Usia Subur di Provinsi Jawa Timur. *The Indonesian Journal of Public Health*, *13(2)*(April), 244–255. https://doi.org/10.20473/ijph.vl13il.2018.244-255