Factors Influencing the Choice of Female Sterilization at Menteng Mitra Afia Hospital Jakarta

Mutiara Mayfridana Alifa[1], Putri Azzahroh[2*], Rini Kundaryanti[3]

[1,2,3] *Midwifery Study Program, Faculty of Health Science, Universitas Nasional,*

Indonesia

* Corresponding Author: Putri Azzahroh, Universitas Nasional;

putriazzahroh@civitas.unas.ac.id

Abstract

Maternal Mortality Rate (MMR) is defined and calculated as the number of maternal deaths divided by the number of person-years lived by women of reproductive age in a population. Family Planning is a programme to reduce the MMR, one of which is female sterilization. This study aims to determine the factors related to the Choice of Female Sterilization at Menteng Mitra Afia Hospital in the case group and control group. The method of this research is analytical observational research using a case-control design. The sample in this study consisted of 78 long-term family planning acceptors, comprised of 39 case groups and 39 control groups. The sampling technique uses a purposive sampling technique. The research instrument consisted of a questionnaire regarding maternal knowledge and husband's support. This questionnaire has been tested for validity and reliability with Cronbach's alpha coefficient values of 0.775 (knowledge) and 0.835 (husband's support). Data were analyzed using the chi-square test to determine the effect between the case and control groups. The research results show that there is a relationship between the variables age, parity, and knowledge ($p < 0.05$). As for the variables of female sterilization indication and husband's support, there was no significant relationship with the choice of female sterilization contraception (Female Surgical Method) at Menteng Mitra Afia Hospital, Jakarta ($p > 0.05$).

Keywords: Family Planning, Female Sterilization, Maternal Mortality Rate

Introduction

Maternal Mortality Rate (MMR) is defined as the number of maternal deaths divided by the number of person-years lived by women of reproductive age in a population. MMR includes the risk of maternal death per pregnancy and the fertility rate in the population. (World Health Organization (WHO) et al., 2023). According to the 2023 Indonesian Health Survey, from 2022 to 2023, there was an increase in the number of maternal deaths from 4,005 to 4,129 (Ministry of Health of the Republic of Indonesia, 2024). The direct causes of maternal mortality in Indonesia are dominated by maternal health during pregnancy and childbirth, while the indirect causes are influenced by "4T" or the so-called "four too", namely too old to get pregnant, too young to get pregnant, too many children, and too close a birth spacing of less than two years. (Ulfa et al., 2024)

In the Indonesian Health Profile 2023, it is stated that efforts to accelerate the reduction of MMR are carried out one of them with family planning services. (Ministry of Health of the Republic of Indonesia, 2024). Family planning is one of the strategies to support the acceleration of maternal mortality reduction through: (1) Regulating the time, distance and number of pregnancies; (2) Preventing or minimizing the possibility of a pregnant woman experiencing complications that endanger the life or fetus during pregnancy, childbirth and postpartum; (3) Preventing the death of a woman who experiences complications during pregnancy, childbirth and postpartum. (Ministry of Health of the Republic of Indonesia, 2024).

Data on the number of couples of reproductive age participating in family planning in DKI Jakarta Province based on contraceptive methods according to data in the Indonesian health profile in 2023, namely the most couples of reproductive age using injectable family planning (19.3%), followed by IUD (13.6%), implants (6.3%), condoms (4.6%), female sterilization/tubectomy (3.8%), male sterilization/vasectomy (0.75%), and MAL (0.43%). (Ministry of Health of the Republic of Indonesia, 2024).

Based on data at Menteng Mitra Afia Hospital Jakarta, it was recorded that there were 96 women of reproductive age with a distribution in 2023-2024, woman sterilization acceptor data of 56 acceptors and 40 IUD acceptors.

Long-term contraceptive methods and sterilization are government efforts to reduce population growth. The problem of population growth that has increased requires an effort from the community and the government. To reduce the rate of

population growth, the government implements various development programs, one of which is Family Planning for Fertile Age Couples. (Triyanto et al., 2018). Long-term contraceptive methods consist of several contraceptives, including IUD (Intrauterine Contraceptive Device) and an implant.

Female sterilization/tubectomy is the most common method for women aged 35 years and above. (Mahadevappa et al., 2016). Female sterilization can be performed in several ways, such as minilaparotomy and laparoscopy. The advantages of female sterilization are that it is very effective in stopping pregnancy, does not affect breastfeeding, does not depend on coitus factors, has no long-term side effects, does not need to worry about getting pregnant or worrying about contraception again, users do not need to do or remember anything after the procedure is performed, and there is no change in sexual function. Meanwhile, male sterilization/vasectomy is the act of cutting and tying the vas (ductus) deferens without using a scalpel, to achieve azoospermia. (Indonesian Ministry of Health, 2021)

Method

This type of research is analytical research by analyzes the data that has been obtained. The research approach uses an observational approach. Analytical observation is a survey or research that explores how and why a health phenomenon occurs and analyzes the dynamics of the correlation between phenomena and risk factors, and effect factors. The research design is cross-case control, which is a study of the relationship between the causes of events and events retrospectively.

The population is all objects/subjects observed for research. (The population of this study was WUS who used the Long-Term Contraceptive Method at Menteng Mitra Afia Hospital, Jakarta, which was 96 women of reproductive age who used long-term contraception since 2023-2024. The sample in this study was 39 people, with a sample size ratio between cases: control = 1: 1, where the sample consisted of 39 respondents as a case group (female sterilization acceptors) and 39 respondents as a control group (non- female sterilization acceptors), so that the total sample size was 78 samples. This study was conducted at Menteng Mitra Afia Hospital, Jakarta, from December 2024 to February 2025.

Results

Table 1
Frequency Distribution of Respondents at Menteng Mitra Afia Hospital Jakarta

Variables	Frequency	Percentage (%)
Contraception Choice		
Female Sterilization	39	50
Non-Female Sterilization	39	50
Total	**78**	**100**
Age		
≥ 35 years old	44	56,4
< 35 years old	34	43,6
Total	**78**	**100**
Parity		
> 2 times	57	73,1
≤ 2 times	21	26,9
Total	**78**	**100**
Female Sterilization Indication		
Medical	23	29,5
Non-Medical	55	70,5
Total	**78**	**100**
Knowledge		
Good	61	78,2
Poor	17	21,8
Total	**78**	**100**
Husband's Support		
Support	56	71,8
Less Support	22	28,2
Total	**78**	**100**

The results showed that out of 78 respondents, the majority were ≥ 35 years old (56,4%), respondents with parity > 2 times (73,1%), chose female sterilization with non-medical indications (70,5%), had good knowledge (78,2%), and with husband support (71,8%).

Table 2
Relationship between Age and The Choice of Female Sterilization Contraseption at Menteng Mitra Afia Hospital Jakarta

Age	Female Sterilization Choice						OR	*p-value*
	Female Sterilization		Non- Female Sterilization		Total			
	N	%	N	%	n	%		
≥ 35 years old	38	97,4	6	15,4	44	56,4		
< 35 years old	1	2,6	33	84,6	34	43,6	29,364	0,00
Total	39	100	39	100	78	100		

Table 3
Relationship between Parity and The Choice of Female Sterilization Contraseption at Menteng Mitra Afia Hospital Jakarta

Parity	Female Sterilization Choice						OR	p-value
	Female Sterilization		Non- Female Sterilization		Total			
	N	%	N	%	n	%		
> 2 times	38	97,4	19	48,7	57	73,1		
≤ 2 times	1	2,6	20	51,3	21	26,9	40,000	0,00
Total	39	100	39	100	78	100		

Table 4
Relationship between Female Sterilization Indication and The Choice of Female Sterilization Contraseption at Menteng Mitra Afia Hospital Jakarta

Female Sterilization Indication	Female Sterilization Choice						OR	p-value
	Female Sterilization		Non- Female Sterilization		Total			
	N	%	N	%	n	%		
Medical	13	33,3	10	25,6	23	29,5		
Non-Medical	26	66,7	29	74,4	55	70,5	1,450	0,620
Total	39	100	39	100	78	100		

Table 5
Relationship between Knowledge and The Choice of Female Sterilization Contraseption at Menteng Mitra Afia Hospital Jakarta

Knowledge	Female Sterilization Choice						OR	p-value
	Female Sterilization		Non- Female Sterilization		Total			
	N	%	N	%	n	%		
Good	37	94,9	24	61,5	61	78,2		
Less Knowledge	2	5,1	15	38,5	17	21,8	11,563	0,001
Total	39	100	39	100	78	100		

Table 6
Relationship between Husband's Support and The Choice of Female Sterilization Contraseption at Menteng Mitra Afia Hospital Jakarta

Husband's Support	Female Sterilization Choice						OR	p-value
	Female Sterilization		Non- Female Sterilization		Total			
	N	%	N	%	n	%		
Support	27	69,2	23	59	50	64,1		
Less Support	12	30,8	16	41	28	35,9	1,565	0,479
Total	39	100	39	100	78	100		

Discussion

Relationship between Age and The Choice of Female Sterilization at Menteng Mitra Afia Hospital Jakarta

Based on the results of the analysis in this study, it is known that the p-value is 0.00 (p < 0.05), so there is a relationship between age and the choice of female sterilization at Menteng Mitra Afia Hospital Jakarta. While the OR test results

amounted to 29.364, then respondents aged ≥ 35 years had a 29.364 times better chance of using female sterilization compared to respondents aged < 35 years.

The results of this study are supported by research conducted by Dg Salimung (2019) which states that the statistical test results obtained p value = 0.000 at α 0.05 (0.000 <0.05), so it can be concluded that there is a relationship between age and the selection of tubectomy contraceptives. (Dg Salimung, 2019). This study is not in line with research conducted by Istri & Efi (2020) which states that most respondents are women of reproductive age > 30 years. The statistical test results obtained a value of p = 0.732, there is no relationship between age and the selection of tubectomy contraception in women of reproductive age.(Utami & Trimuryani, 2020).

Age is one of the factors that influence a person in choosing contraception. Age plays an important role in decision making to determine which contraceptive to use. The age that is not risky to use contraception is 20-35 years old because this is the period in which the organs, reproductive function and hormonal system of a woman are mature enough to have children. Meanwhile, the age of more than 35 years is the phase of ending pregnancy, which is the phase of not wanting to get pregnant again, needed if the woman no longer wants to have children. (Indriani Djusair et al., 2022). According to the researcher's assumption, the older a woman is, the more likely she is to choose female sterilization contraception due to the many complications of pregnancy and childbirth that occur and women aged ≥ 35 years have a higher risk than women aged < 35 years.

Relationship between Parity and The Choice of Female Sterilization at Menteng Mitra Afia Hospital Jakarta

Based on the results of the analysis in this study, it is known that the p-value is 0.00 (p < 0.05), so there is a relationship between parity and the choice of female sterilization at Menteng Mitra Afia Hospital Jakarta. While the OR test results of 40.000 showed that respondents with parity > 2 times had a 40 times better chance of using female sterilization than respondents with parity ≤ 2 times.

This study supports research conducted by Mustika, Ismiati, & Gladeva (2024) with the results of p=0.002 (p value <0.005) which means that there is a relationship between parity and the selection of female sterilization contraception at Dompu Regional

Hospital in 2022. (Lestari et al., 2024)

Parity refers to the number of children one has. Women with more than two children or women who have ≤ 2 children, the age of the smallest child must be at least 2 years old. (Indonesian Ministry of Health, 2021). Parity affects the respondent's willingness to use a particular type of contraceptive. This is because the greater the parity of the respondent, the more his life needs. If the respondent is a family that is less economically established, this can certainly be a problem if parity is not controlled. (Mellya, 2020). According to the researcher's assumption based on research, theory, and related studies, most women with parity > 2 times choose to use female sterilization contraception because having many children will increase the burden of living costs and education costs. If there are more children, the education provided and the lifestyle given to each child will not be maximized so that social problems such as poverty will continue. In addition, giving birth and becoming pregnant more than twice has higher risks such as complications in pregnancy and childbirth.

Relationship between Female Indication Sterilization and The Choice of Female Sterilization at Menteng Mitra Afia Hospital Jakarta

Based on the results of the analysis in this study, it is known that the p-value is 0.620 (p> 0.05), so there is no relationship between female sterilization indications and the choice of female sterilization indication at Menteng Mitra Afia Hospital Jakarta. The OR test result is 1.450, so respondents with non-medical indications have a 1.450 times better chance of using non-female sterilization contraception than respondents with non-medical indications.

Based on data from medical records at Menteng Mitra Afia Hopsital, out of 13 female sterilization acceptors due to medical indications, caused by various medical histories and/or current diseases, the most indications were due to a history of previous childbirth with sectio caesarea ≥ 2 times, followed by hypertension, obesity, hepatitis B patients, uterine myoma, syphilis, severe anemia as much as, and a history of Ectopic Pregnancy. While the medical indications for non-female sterilization acceptors listed that the most medical indications were caused by Hemorrhoid Grade-IV, followed by IDT (Internal Delivery Time) ≤ 18 months, Hypertension in Pregnancy, acute bronchitis, effective hallucination disorder, teenager pregnancy, stroma nodusa, and Gestational

Diabetes Mellitus.

This study is in line with research conducted by Rita & Idawati (2021) which states that there is no relationship between disease history and the use of tubectomy contraception in the Maternity Room of Tgk Chik Ditiro Hospital. In the study, the researchers noted that the sample in the study was still small enough to be able to provide significant results. (Mirdahni & Idawati, 2021). Research by Hartanto (2012) in Rita & Idawati (2021) states that the presence of a history of illness causes a person to choose to use tubectomy contraception, this is due to the fact that if a person becomes pregnant and gives birth, it can endanger a person's life.

According to Darwis (2016) in Permanent Contraception: A Manual for Health Practitioners, the medical indications for the use of female sterilization are couples who have reached the ideal number of children, women with high health risks if they become pregnant again (e.g., heart disease, severe hypertension, chronic diabetes mellitus), and women with a history of serious pregnancy complications. According to the researcher, based on supporting theories, previous research, and data from this study, complications or comorbidities can be very risky if pregnant or giving birth again. A history of these diseases can cause serious complications for both mother and baby at some point. In addition, hormonal changes can also worsen the mother's condition, so it is better to do female sterilization to minimize or prevent the mother's condition from getting worse.

Relationship between Knowledge and The Choice of Female Sterilization at Menteng Mitra Afia Hospital Jakarta

Based on the results of the analysis in this study, it is known that the p-value is 0.001 ($p < 0.05$), so there is a relationship between knowledge and the choice of female sterilization contraception at Menteng Mitra Afia Hospital Jakarta. While the OR test results amounted to 11.563, then respondents with good knowledge had a 11.563 times better chance of using MOW than respondents with less knowledge.

This study supports research conducted by Hardianto (2019) with the results of p = 0.024 (p value <0.05) which means that there is a relationship between knowledge and the selection of tubectomy contraception at Sawerigading General Hospital, Palopo City. (Dg Salimung, 2019). Another study that is not in line with this research is research by Istri and Efi (2020) which states that the statistical test results obtained a

value of p = 0.086> 0.05 which means that there is no relationship between knowledge and the selection of tubectomy contraception in women of childbearing age. (Utami & Trimuryani, 2020).

The level of knowledge about female sterilization greatly influences the decision to use. Good knowledge includes an understanding of the procedure, benefits, risks, and permanence of female sterilization. Studies show that women with better knowledge tend to be more confident in choosing female sterilization (Darwis, 2016). If the mother's knowledge about female sterilization contraceptives is good, the mother will be easier and more rational in deciding to use female sterilization contraception (Jannah & Safitri, 2024). According to Notoatmodjo in Kristy (2020), knowledge or cognitive is very important for the formation of a person's action (over behavior). From experience and research, behavior based on knowledge will be better than behavior that is not based on knowledge. (Mellya, 2020)

According to the researcher's assumption based on research, theory, and related research, most women who use female sterilization contraception have good knowledge about female sterilization contraception due to the education provided by doctors and health workers before deciding to use female sterilization contraception or also their awareness of their own health so that they learn about female sterilization contraception from various sources. With a good knowledge base, acceptors will more easily decide what is better for them and their families.

Relationship between Husband's Support and The Choice of Female Sterilization at Menteng Mitra Afia Hospital Jakarta

Based on the results of the analysis in this study, it is known that the p-value is 0.479 (p> 0.05), so there is no relationship between husband support and the selection of female sterilization contraception at Menteng Mitra Afia Hospital Jakarta. While the OR test results of 1.565 indicate that respondents with supportive husband support have a 1.565 times better chance of using female sterilization than respondents with less supportive husband support to use female sterilization.

This study supports research conducted by Lestari, Yusniarita, and Patroni (2015) with the results of the p value = 0.06> 0.05, meaning that there is no relationship between husband support and the selection of female sterilization contraceptives.

According to BKKBN (2007) in Astuti and Ester (2018), the implementation of family planning programs in Indonesia must pay attention to reproductive rights, women's empowerment and gender equality by the agreement made at the population and development conference. Socialization of reproductive rights and gender equality is an activity that is always a concern and improvement in the implementation of program services, as well as in health and family planning and reproductive health service efforts. (Astuti Widia Ningrum & Easter, 2018). According to the researcher's assumption based on research, theory, and related research, husband's support for the use of female sterilization contraception is very important because it is related to the mother's mentality in the future. Couples of childbearing age must support each other plus also have the same knowledge so that the husband can support the use of female sterilization for his wife for her health. Meanwhile, some husbands who did not support their wives' decision to use contraception were due to their lack of knowledge and awareness of their wives' health.

Conclusion

Based on the acquisition of data analysis that has been done before, it can be concluded that the proportion of MOW contraceptive selection (Female Operation Method) at RSU Menteng Mitra Afia Jakarta based on the sample and the overall population is 0.41%. The frequency distribution of age, parity, indications of MOW, knowledge, and husband's support for the selection of MOW contraception (Female Operation Method) at RSU Menteng Mitra Afia Jakarta in this study were 39 respondents. There is a relationship between age, parity, and knowledge on the selection of MOW contraception (Female Operation Method) at RSU Menteng Mitra Afia Jakarta (p<0.05). While the indication of MOW and husband's support did not have a significant relationship with the selection of MOW contraception (Female Operation Method) at RSU Menteng Mitra Afia Jakarta (p>0.05).

References

1. Aprilia Budiman, L., & Setyo Wahyuningsih, A. (2023). Indonesian Journal of Public Health and Nutrition Faktor yang Berhubungan dengan Perilaku Tidak Aman

Pada Pekerja di PT X. *IJPHN*, *3*(3), 357–366. https://doi.org/10.15294/ijphn.v3i3.62872

2. Astuti Widia Ningrum, D., & Easter, D. Y. (2018). Faktor-Faktor Yang Berhubungan Dengan Pemilihan Metode Kontrasepsi Jangka Panjang (Mkjp) Pada Pasangan Usia Subur Di Wilayah Kerja Puskesmas Batang Hari Kabupaten Lampung Timur. In *Jurnal Dunia Kesmas* (Vol. 7).

3. Ayu Rizkitama, A., Sofro, M. A., Widjanarko, B., & Suryoputro, A. (2017). *Beberapa Faktor Yang Berhubungan Dengan Partisipasi Wanita Dalam Pemilihan Tubektomi Pada Peserta Mkjp Di Kecamatan Bumiayu Kabupaten Brebes*. Universitas Diponegoro Semarang.

4. Datjing, T., Studi Kesehatan Masyarakat, P., & Teknologi dan Kesehatan Avicenna, I. (2022). Faktor-Faktor yang Mempengaruhi Pemilihan Kontrasepsi Metode Operasi Wanita (Mow) pada Pasangan Usia Subur d i Rumah Sakit Umum Dewi Sartika Kota Kendari Tahun 2021. In *Sains dan Kesehatan* (Vol. 1, Issue 1).

5. Dg Salimung, H. (2019). Factors That Influence To The Selection Of Method On Tubectomy Contraception in Fertile Age Couples In Sawerigading Hospital In Palopo City. In *286 | Jurnal Fenomena Kesehatan* (Vol. 2).

6. Indriani Djusair, D., Ilmu Keseahtan Masyarakat, M., & Fort De Kock Bukittinggi, U. (2022). Pemilihan Metode Kontrasepsi Jangka Panjang (Mkjp) Program Keluarga Berencana. In *Human Care Journal* (Vol. 7, Issue 2).

7. Jannah, N., & Safitri, H. (2024). Faktor Yang Berhubungan Dengan Pemilihan Metode Kontrasepsi Tubektomi Pada Pasangan Usia Subur. *Ovum : Journal of Midwifery and Health Sciences*, *4*, 17.

8. Kemenkes RI. (2021). *Pedoman Pelayanan Kontrasepsi dan Keluarga Berencana*.

9. Kementerian Kesehatan Republik Indonesia. (2024a). Laporan SKI TEMATIK 2023. *Kementerian Kesehatan RI*.

10. Kementerian Kesehatan Republik Indonesia. (2024b). *Profil Kesehatan Indonesia 2023*.

11. Lestari, M. A., Ismiati, & Antari, G. Y. (2024). Hubungan Usia dan Paritas dengan Pemilihan Kontrasepsi MOW pada Ibu Nifas. *INNOVATIVE: Journal Of Social Science Research*, *4*, 3874–3887.

12. Mahadevappa, K., Prasanna, N., & Channabasappa, R. A. (2016). Trends of various techniques of tubectomy: A five year study in a tertiary institute. *Journal of Clinical and Diagnostic Research*, *10*(1), QC04–QC07. https://doi.org/10.7860/JCDR/2016/16863.7104

13. Mellya, K. (2020). *Faktor-Faktor Yang Berhubungan Dengan Pemilihan Kontrasepsi Mow Pada Ibu Nifas Di Rsia AnnisA*. *1*(2), 57–66. http://ejournal.helvetia.ac.id/index.php/jbk

14. Mirdahni, R., & Idawati, I. (2021). Pengaruh Usia dan Penyakit Ibu dalam Penggunaan Kontrasepsi Tubektomi di Ruang Bersalin RSUD Tgk Chik Ditiro. *Sang Pencerah: Jurnal Ilmiah Universitas Muhammadiyah Buton*, *7*(4), 662–669. https://doi.org/10.35326/pencerah.v7i4.1555

15. Sabilla, M., & Maisya, I. B. (2016). Gambaran Perilaku Wanita Dalam Penggunaan Kontrasepsi Strerilisasi Wanita Di Pamulang, Kota Tangerang Selatan. *Jurnal Kesehatan Reproduksi*, *7*(3), 185–197.

16. Syapitri, H., Amilia, & Aritonang, J. (2021). *Metodologi Penelitian Kesehatan* (1st ed.). Ahlimedia Press. www.ahlimediapress.com

17. Triyanto, L., Indriani, D., Biostatistika, D., Fakultas, K., Masyarakat, K., Airlangga,

U., & Korespondensi, A. (2018). Faktor Yang Mempengaruhi Penggunaan Jenis Metode Kontrasepsi Jangka Panjang (Mkjp) Pada Wanita Menikah Usia Subur Di Provinsi Jawa TimuR. *IJPH*, *11*. https://doi.org/10.20473/ijph.vl13il.2018.244-255

18. Ulfa, M., Ariyani, F., Ayuningtiyas, A. N., Pratama, M. B., & Maharani, S. (2024). Pencegahan Pernikahan Dini dalam Upaya Menurunkan Angka Kematian Ibu Melalui Penyuluhan Kesehatan Remaja. *APMa Jurnal Pengabdian Masyarakat*, *4*(1), 53–59. https://doi.org/10.47575/apma.v4i1.544

19. Utami, I., & Trimuryani, E. (2020). Faktor yang Berhubungan dengan Pemilihan Kontrasepsi Tubektomi Wanita Usia Subur. *Jurnal Keperawatan Silampari*, *3*(2), 717–726. https://doi.org/10.31539/jks.v3i2.1168

20. World Health Organizations (WHO), UNICEF, UNFPA, World Bank Group, & UNDESA. (2023). Trends in maternal mortality 2000 to 2020. *Https://Www.Who.Int/Publications/i/Item/9789240068759*.