

## FACTORS INFLUENCING THE CHOICE OF FEMALE STERILIZATION AMONG WOMEN OF REPRODUCTIVE AGE IN BOJONGGEDE DISTRICT, BOGOR REGENCY

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### ABSTRACT

The prevalence of female sterilization as a contraceptive method is significantly low in Bojonggede, Bogor Regency. Out of the 45,000 couples, merely 3% of women have chosen sterilization. This study aims to identify the factors influencing the choice of female sterilization among women of reproductive age in Bojonggede, Bogor Regency. The research utilized a quantitative study with a cross-sectional approach. The data was gathered through interviews using questionnaires distributed to 171 samples selected through purposive sampling. The Chi Square test was used to analyze the data aiming to examine the relationship between all of the independent variables concerning the choice of female sterilization among women of reproductive age in Bojonggede, Bogor Regency. The findings of this study found a significant association between age, parity, perceived susceptibility, perceived severity, perceived benefit, perceived barriers, and cues to action based on husband support with the choice of female sterilization in Bojonggede. Hence, it is recommended to conduct unrestricted sterilization policy in response to increase the female sterilization selection rate in Bojonggede and ensure that all women are provided equally to access sterilization regardless their age and parity.

**Keywords:** Female, Sterilization, Reproductive

### INTRODUCTION

Female sterilization is a contraceptive method performed voluntarily and is suitable for women who no longer desire pregnancy and/or childbirth (Kementerian Kesehatan RI and BKKBN, 2021; Kementerian Kesehatan Republik Indonesia, 2021; World Health Organization, 2022). Healthcare providers perform tying, cutting, and/or placing rings on the fallopian tubes, preventing ovum from the ovary from reaching the fallopian tubes. Female sterilization as a contraceptive service is one of the programs aimed at addressing risk factors that can increase complications during pregnancy, childbirth, and the postpartum period in women, which ultimately leads to a higher Maternal Mortality Rate (MMR) in Indonesia (Ratnaningtyas & Indrawati, 2023).

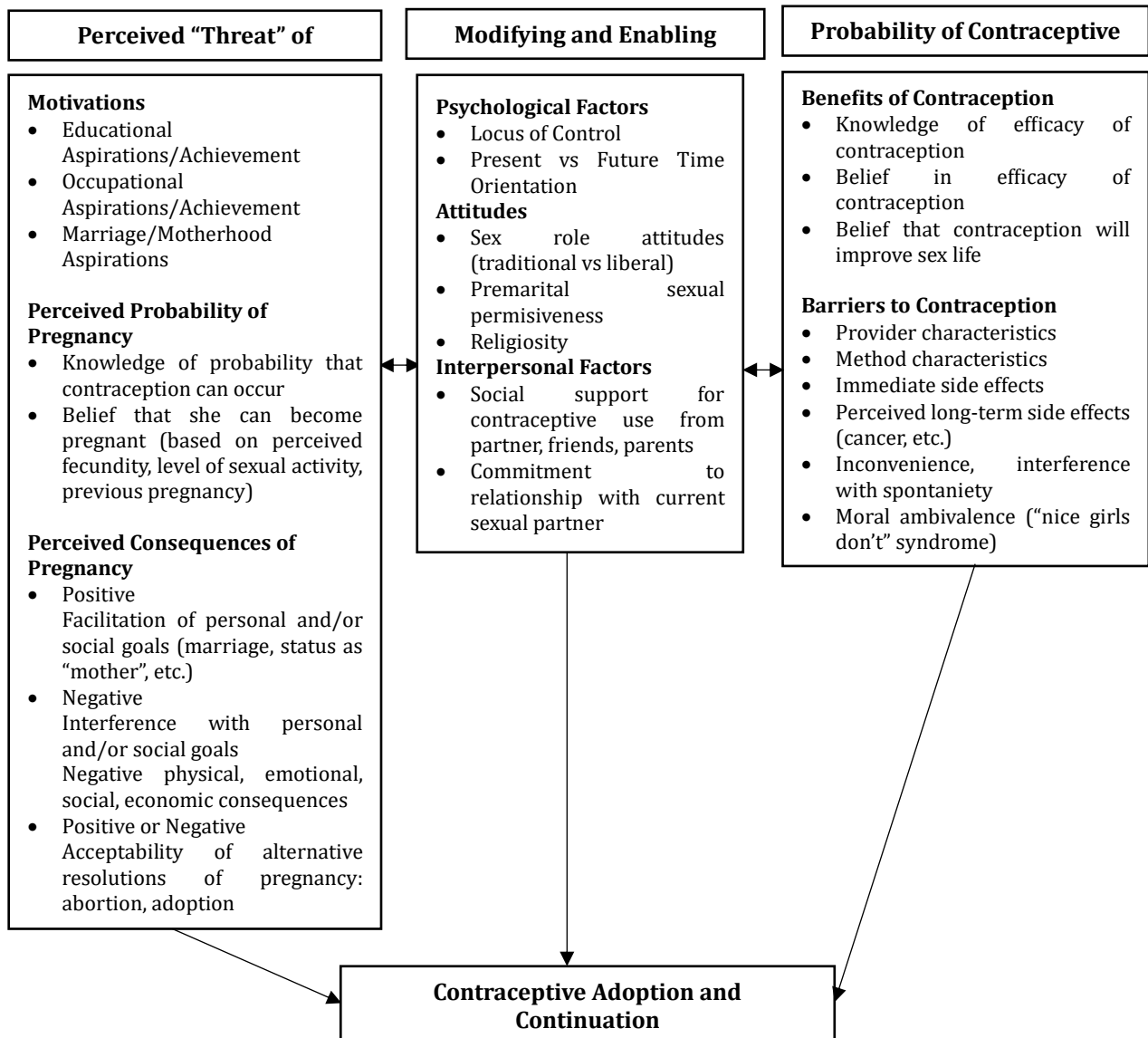
In 2022, Bogor Regency had the second highest MMR in West Java, after Garut Regency, with 55 cases, and the leading cause of this mortality is bleeding (Dinas Kesehatan Jawa Barat, 2023). Therefore, contraceptive services must be accessible equitably to minimize the MMR in Bogor Regency (BKKBN et al., 2018). However, the number of female sterilization users in Bogor Regency decreased from 13.938 women in 2021 to 13.549 women in 2022 (Dinas Kesehatan Jawa Barat, 2022, 2023). Bojonggede is one of districts where the usage of female sterilization is only 1.335 or 3% of all couples. This is low compared to the use of injection (32%) and pills (7,6%) (Balai Penyuluhan Keluarga Berencana Kecamatan Bojonggede, 2023). Therefore, research is needed to investigate the low interest of women in choosing sterilization in Bojonggede, Bogor Regency.

The health belief model is a sociopsychological model developed in the 1950s by the US Public Health Service to explain the reasons for the low participation of society in disease prevention

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and detection programs (Rosenstock et al., 1974). According to Norman & Conner (2016), health belief model has been applied to a wide range of health behaviors identifications, including smoking, alcohol consumption, genetics, vaccination, exercise, and also contraception. Nathanson & Becker (1983) formulated a framework based on the health belief model to predict factors influencing contraceptive decision-making.

Figure 1 Implementation of the Health Belief Model in Describing Contraceptive Decisions



Source: Nathanson & Becker (1983)

Based on Figure 1, the health belief model can be used to identify women's decisions to choose sterilization as a contraceptive method based on four key variables: perceived susceptibility, perceived severity, perceived benefit, and perceived barrier, as well as other factors that may motivate or delay the behavior (cues to action).

Perceived susceptibility is used to assess a woman's perception of her risk of unintended pregnancy and its relationship to her choice of sterilization (Hall, 2012). Perceived severity evaluates a woman's perception of the potential medical consequences of choosing sterilization, including how it might cause new problems in her work conditions, relationships with her

husband and family, and her interactions with the surrounding social environment (Mahmoud et al., 2020a). Perceived benefits help evaluate the feasibility and advantages of sterilization, allowing a comparison between the benefits and barriers of sterilization to prevent pregnancy. Perceived barriers identify women's concerns about side effects and other factors that may obstruct the adoption of recommended behaviors. These include perceptions of the method being expensive, dangerous, inconvenient, or related to distance and less access to health services (Eisen et al., 1985). The presence of internal and external factors will influence the four key variables in the health belief model when deciding to take preventive action, including the decision to choose sterilization against the risk of unintended pregnancy and complications related to pregnancy and childbirth. These factors are referred to as cues to action, such as the husband's support. As the head of the family, the husband has the authority to approve or permit the contraceptive method chosen by his wife. His support is a key factor that encourages and influences his wife's decision. This support reflects his responsibility for his wife's well-being (Maghfiroh et al., 2019). The greater the husband's support, the higher the participation of women in accessing contraception, including sterilization (Sudirman & Herdiana, 2020).

These four variables are also influenced by sociodemographic factors (Rosenstock et al., 1974) (Prof. Dr. Soekidjo Notoatmodjo, 2012), such as age, education, occupation, and parity. A history of advanced age and high parity is one of the risk factors in pregnancy and childbirth (Ratnaningtyas & Indrawati, 2023). Therefore, it is advisable for women who have these risk factors to use long-acting contraceptives, including sterilization. Good education also influences a more rational mind in making decisions, especially when it comes to deciding on contraceptive methods (Fahlevie et al., 2022). Women's occupations that leave them with little free time also increase their desire to find contraceptives that suit their current needs, including sterilization.

Research by Retno Heru Setyorini & Utami (2022) shows that perceived susceptibility and perceived severity affect contraceptive use behavior among women of reproductive age in Sewon District, Yogyakarta. Pitaloka et al. (2019) indicate that perceived susceptibility, perceived severity, perceived benefit, cues to action, and education as sociodemographic factors influence the choice of long-term contraceptive methods among women of reproductive age in Sleman Regency, Yogyakarta. Putri et al. (2023) also shows that perceived susceptibility, perceived severity, perceived benefit, and perceived barrier are influencing contraceptive choice among women of reproductive age in Kebomas Health Center, Gresik Regency. Nevertheless, research on the choice of female sterilization based on the health belief model among women of reproductive age has not been conducted before, especially in Bojonggede, Bogor Regency.

## **METHOD**

### **Hypothesis**

This research aimed to examine the factors influencing the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency. This research used a quantitative study that utilized a cross-sectional approach to investigate various sociodemographic factors, such as age, education, occupation, and parity, and also factors based on the health belief model, including perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action based on husband support. Based on several previous studies, a theoretical framework can be concluded as the basis for formulating hypothesis that be tested in this study. These hypothesis are :

H0 : There's no significant relationship between sociodemographic factors and the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency.

H1 : There's significant relationship between sociodemographic factors and the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency.

H0 : There's no significant relationship between factors based on Health Belief Model and the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency.

H1 : There's significant relationship between factors based on Health Belief Model and the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency.

### **Population and Sample of the Study**

This study was conducted in Bojonggede, Bogor Regency from May to June 2024. The target population included all women of reproductive age living in Bojonggede, Bogor Regency, totaling 22.283 women. Due to the large number of population, a non-probability sampling technique was utilized, specifically purposive sampling. This approach ensured that participants who met specific inclusion criteria were selected, including age range (15 – 49 years old) based on World Health Organization (2024), having a specific marital status, and currently using either traditional or modern contraceptive methods. The minimum sample size for the study was determined to be 143 respondents using the Lemeshow formula. Women who were unwilling to participate in the study were excluded.

### **Variables of the Study**

The dependent variable in this study was the choice of female sterilization among women of reproductive age in Bojonggede, based on Guttman scale (yes or no). The independent variables in this study, including :

#### **1. Sociodemographic Factors**

For these factors, there were 4 (four) question items to define the age, education, occupation, and parity. The cut off point of education, occupation, and parity were measured from (Maghfiroh *et al.*, 2019; Kementerian Kesehatan Republik Indonesia, 2021) and age factors were measured based on the calculation of Receiving Operating Characteristic (ROC) by Stata version 12, including age 21 – 37 years old and 38 – 49 years old.

#### **2. Health Belief Model Factors**

The Health Belief Model questionnaire, including perceived susceptibility (5 statement items), perceived severity (5 statement items), perceived benefits (10 statement items), perceived barriers (10 statement items), and cues to action based on husband support (9 statement items) taken from a study by (Kueh *et al.*, 2021; Mahmoud *et al.*, 2020; Rohmah *et al.*, 2022; Sen *et al.*, 2017; Zimet *et al.*, 2016). There were 5 (five) possible answers based on Likert scale, including 1 (strongly disagree), 2 (disagree), 3 (quite agree), 4 (agree), and 5 (strongly agree). The data were measured based on the calculation of Receiving Operating Characteristic (ROC) by Stata version 12.

##### **a. Perceived Susceptibility**

The cut-off point of this factor was measured as low if the total score was between 5 to 22, and it was classified as high if the total score was between 23 to 25.

##### **b. Perceived Severity**

The cut-off point of this factor was measured as low if the total score was between 12 to 21, and it was classified as high if the total score was between 22 to 25.

##### **c. Perceived Benefits**

The cut-off point of this factor was measured as low if the total score was between 19 to 39, and it was classified as high if the total score was between 40 to 50.

d. Perceived Barriers

The cut-off point of this factor was measured as low if the total score was between 22 to 41, and it was classified as high if the total score was between 42 to 47.

e. Cues To Action Based on Husband Support

The cut-off point of this factor was measured as low if the total score was between 17 to 39, and it was classified as high if the total score was between 40 to 45.

### Data Collection and Analysis Techniques

The data were collected through direct interviews with respondents using a comprehensive 39-question questionnaire in Google Forms, which had been tested for validity and reliability. However, to minimize bias, the data was checked again before being examined.

The research findings were examined using the Chi-Square test to prove the relationship between each independent variable and the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency as the dependent variable via the Stata version 12 application. It was considered that variables have a significant relationship if the obtained p-value is less than or equal to 0,05.

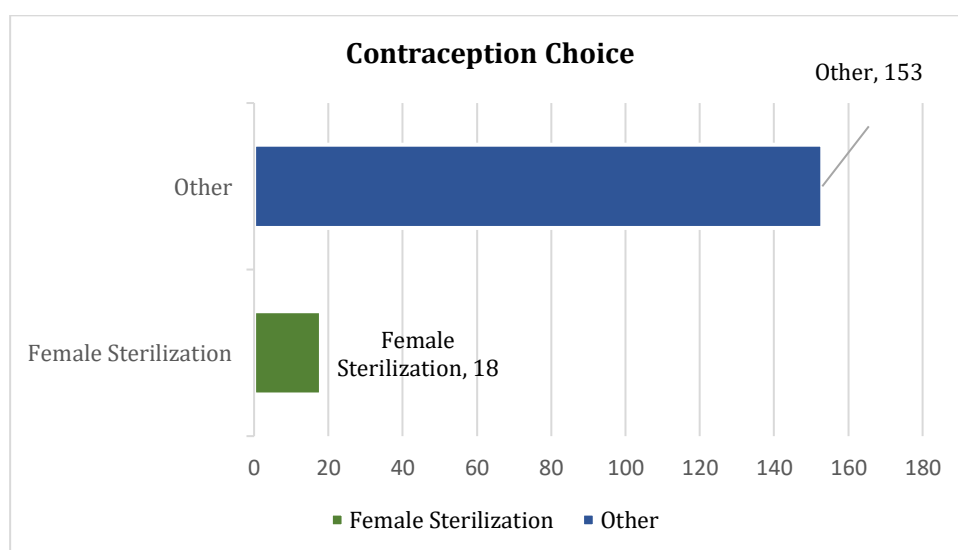
### Ethical Approval

This research has received ethical approval from the Health Research Ethics Commission of Universitas Pembangunan Nasional “Veteran” Jakarta, with the number 200/V/2024/KEP. This approval indicated that this research has passed the assessment according to health ethics to protect the rights of the respondents.

## RESULTS

This research was conducted at integrated health service posts (Posyandu) and primary healthcare center across all sub-districts in Bojonggede, from May to June 2024, totaling 171 respondents.

Figure 2 Distribution of Contraception Choice in Bojonggede



Source: Primary Data Collected by the Authors (2024)

Based on the data presented in Figure 2, it can be concluded that most women in Bojonggede, Bogor Regency, have chosen other contraception besides sterilization (89%). In comparison, only 11% of women have chosen sterilization.

Table 1 Results of Bivariate Analysis Based on Sociodemographic Factors Influencing the Choice of Female Sterilization Among Women of Reproductive Age in Bojonggede District, Bogor Regency

Variable	Female Sterilization				Total		P value	OR (95% CI)
	Yes		No					
	N	%	N	%	N	%		
Age								
38 – 49 years old	11	15.9	58	84.1	69	100	0,05	2.32 (0.94 – 5.70)
21 – 37 years old	7	6.9	95	93.1	102	100		
Education								
≥ High School	13	9.6	122	90.4	135	100	0,46	0.90 (0.67 – 1.22)
< High School	5	13.9	31	86.1	36	100		
Occupation								
Working	1	5	19	95.0	20	100	0,39	0.44 (0.06 – 3.15)
Not Working	17	11.3	134	88.7	151	100		
Parity								
>2 children	15	20	60	80.0	75	100	0,001	2.13 (1.60 – 2.82)
≤ 2 children	3	3.1	93	96.9	96	100		

According to the sociodemographic factors in Table 1, most sterilized women in Bojonggede, Bogor Regency are aged 38–49 years (15.9%), have a high school education background or higher, such as bachelor degree (9.6%), are housewives (11.3%), and have more than 2 children (20%). Based on the p-values, it can be concluded that age and parity are associated with the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency (p-value ≤ 0.05).

Table 2 Results of Bivariate Analysis Based on Health Belief Model Influencing the Choice of Female Sterilization Among Women of Reproductive Age in Bojonggede District, Bogor Regency

Variable	Female Sterilization				Total		P value %	OR (95% CI)
	Yes		No					
	N	%	N	%	N	%		
<b>Perceived Susceptibility</b>								
High	14	24.1	44	75.9	58	100	0.000	2.70 (1.90 – 3.80)
Low	4	3.5	109	96.5	113	100		
<b>Perceived Severity</b>								
High	15	55.6	12	44.4	27	100	0.000	10.6 (5.94 – 19.0)
Low	3	2.1	141	97.9	144	100		

Variable	Female Sterilization				Total		P value %	OR (95% CI)
	Yes		No					
	N	%	N	%	N	%		
Perceived Benefit								
High	17	48.6	18	51.4	35	100	0.000	8.02 (5.13-12.60)
Low	1	0.7	135	99.3	136	100		
Perceived Barrier								
High	16	44.4	20	55.6	36	100	0.000	6.8 (4.38 – 10.56)
Low	2	1.5	133	98.5	135	100		
Cues to Action based on Husband's Support								
High	15	38.5	24	61.5	39	100	0.000	5.31 (3.49 – 8.10)
Low	3	2.3	129	97.7	132	100		

According to the Health Belief Model presented in Table 2, most sterilized women in Bojonggede, Bogor Regency have high levels of perceived susceptibility (24.1%), perceived severity (55.6%), perceived benefit (48.6%), perceived barrier (44.4%), and husband's support (38.5%). Based on the p-values, it can be concluded that there is a relationship between perceived susceptibility, perceived severity, perceived benefit, perceived barrier, and husband's support with the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency (p-value  $\leq 0,05$ ).

## DISCUSSION

Bojonggede is one of the most populous areas in Bogor Regency. According to data published by Dinas Komunikasi dan Informatika Kabupaten Bogor (2023), 298.500 people are recorded as residents of Bojonggede, with approximately 146.800 or 49% of them are females. Furthermore, the area exhibits a high population density of 10,1 individuals per square kilometers. These demographics factors underline the importance of enhancing family planning policy, including contraception.

The research findings show that there is still a low number of female sterilization in Bojonggede, Bogor Regency. Most respondents prefer to use other contraceptives, such as pills, injection, IUDs, or implants, because they are less expensive than sterilization. They also report some fear of the procedure, which requires surgery. The limited number of sterilizations in developing countries, including Indonesia, is due to religious, cultural beliefs, legal limitations, the high cost of accessing sterilization, restricted eligibility criteria based on age and number of children, and the irreversible method, which causes apprehension among women (Kansu Celik et al., 2018).

Based on sosiodemographic factors, it can be concluded that there is an association between age and the choice of female sterilization in Bojonggede, Bogor Regency. Most sterilized women in Bojonggede, Bogor Regency, aged 38 – 49 are already aware of the health risks associated with having additional children, and most likely prefer to choose long-term contraception, including sterilization. These risks can jeopardize their organ structure and physiological condition (Nurhayati, 2023; Ridawati & Nurmala, 2021). This research also showed that there was no association between education and the choice of female sterilization in Bojonggede, Bogor Regency. Regardless of the level of their education, most respondents decide to use contraception based on their perception of its effectiveness, side effects, and comfort. This suggests that women's perceptions of sterilization are influenced by their knowledge of these methods.

Therefore, in the decision-making process, women of reproductive age can discuss their choices with those around them or with trusted healthcare professionals (Doni & Salim, 2020). Advanced technology also makes it easier for women of reproductive age to obtain information about sterilization (Setiawati et al., 2023a). These findings also show that there was no association between occupation and the choosing of female sterilization in Bojonggede, Bogor Regency. The majority of housewives choose sterilization due to their heightened awareness of the risks associated with bearing additional children, prompting them to seek information regarding this method of contraception. Housewives primarily engaged in domestic duties require efficacious contraception to mitigate the likelihood of additional childbirth. Nonetheless, it is imperative for them to deliberate their preferred contraceptive methods with their husband as part of their commitment to family planning ((Maghfiroh et al., 2019). Employed mothers who have not undergone sterilization express concerns about the extended recovery period post-procedure, which could disrupt their professional obligations. This suggests that the primary role of occupational for women of reproductive age is to secure a livelihood, and it does not significantly influence their decision to undergo sterilization. Unless there are complaints concerning their current contraceptive method, employed mothers are unlikely to choose sterilization (Krisdayanti et al., 2022). This research finds an association between parity and the choosing of female sterilization in Bojonggede, Bogor Regency. A majority of sterilized women in this region exhibit high parity. Women with more than three children face heightened risks of conception and childbirth ((Kansu Celik et al., 2018). Furthermore, the experience of raising numerous children heightens women's recognition of the necessity (Faradita et al., 2020) ((K. M. Putri, 2020). Consequently, women are motivated to seek healthcare or adhere to necessary medical recommendations, including sterilization (Retno Heru Setyorini & Utami, 2022).

Women of reproductive age consider the risk of unintended pregnancy when deciding to use contraception, and they evaluate which method is suitable for them (Nathanson & Becker, 1983). The health belief model was used in a study to understand women's choices regarding sterilization, viewing pregnancy as an 'undesirable condition' rather than a 'disease' (Fisher, 1977).

This research finds an association between perceived susceptibility and severity with the choose of female sterilization in Bojonggede, Bogor Regency. Factors influencing these aspects include perceived medical risks, psychological elements, experiences from previous pregnancies and deliveries, and opinions from trusted health professionals (Retno Heru Setyorini & Utami, 2022). Many respondents expressed apprehension or trauma concerning the potential complications of future pregnancies and childbirth, compelling them to choose sterilization as a preventive measure against unintended pregnancies. The heightened risk of unintended pregnancy for sexually active women who do not use contraception also influences the decision to undergo sterilization (Mahmoud et al., 2020a). However, they still have concerns about how sterilization may impact their physical condition or social relationships. Subsequently, individual levels of interest, willingness, and tolerance towards the medical and social ramifications of sterilization emerge as key determinants in the decision-making process among women of reproductive age. This research finds an association between perceived benefit and the choose of female sterilization. An understanding of the advantages, notably the efficacy of sterilization, supports the choices of respondents who have no desire for additional children. The efficiency of these methods, which obviates the need for recurrent visits to health facilities characteristic of other contraceptives, also appeals to a majority of respondents. Those already informed about the benefits of long-acting contraceptives, including sterilization, exhibit a proclivity for this method compared to their uninformed counterparts (Pitaloka et al., 2019). Furthermore, they regard it as the optimal choice to avert health complications associated with contraceptive side effects (Mahmoud et al., 2020a). Most respondent also state that sterilization influences their perception of self-acceptance. Changes in physical appearance after pregnancy and childbirth, as well as side effects from previous contraceptives, affect their body image. If they choose sterilization, with its



minimal side effects, they can avoid concerns related to changes in their physical appearance (Tesfaw et al., 2022a; Youseflu & Jahanian Sadatmahalleh, 2021). Additionally, most respondents feel that sterilization does not affect their relationship with their husbands. It helps them control their fertility without disrupting their sexual life and marital status ((Panchal et al., 2021).

On the other hand, this research also shows an association between perceived barriers and the choice of female sterilization. Many respondents state that religious beliefs and personal convictions are factors that made them consider choosing sterilization. However, when compared to the benefits, women of reproductive age ultimately decided to undergo sterilization. High personal motivation and husband's support can help minimize barriers to being sterilized (A. S. Putri et al., 2023).

These findings shows that there was an association between husband's support and the choose of female sterilization. A high level of support from husbands signifies a shared responsibility in determining the number of children, emphasizing that such decisions transcend the sole purview of the wife, who bears the physical burdens of pregnancy and childbirth. Consequently, the provision of material, emotional, and informational support by the husband significantly enhances the wife's confidence in choosing sterilization (Ningrum et al., 2018; Setiawati et al., 2023b). These variables also influence the family's overall reproductive choices and the husband's perceptions, subsequently shaping his support for the wife's decision to undergo sterilization ((Panchal et al., 2021). Nonetheless, patriarchal societal norms may engender a dominant attitude in husbands regarding their wives' decision-making autonomy, particularly in matters pertaining to contraception. Such dynamics potentially jeopardize the reproductive health of women (Nugroho et al., 2019; Tambunsari et al., 2023).

## CONCLUSION

The findings of this study indicate significant correlations between age, parity, perceived susceptibility, perceived severity, perceived benefit, perceived barriers, and cues to action based on husband's support with the choice of female sterilization among women of reproductive age in Bojonggede District, Bogor Regency. Based on the findings of the study, it is recommended to outreach women of reproductive age in Bojonggede by conducting a sterilization policy and requirement that not only focused on women over the age of 35 and have a minimum of two children. This policy would provide an opportunity for women who do not wish to have more children to be sterilized, regardless of their age and the number of children they currently have. The objective of these recommendation aims at promoting greater participation in sterilization utilization, specifically in Bojonggede, Bogor Regency.

## REFERENCES

- Balai Penyuluhan Keluarga Berencana Kecamatan Bojonggede. (2023). *Data Program Bangga Kencana (Pembangunan Keluarga, Kependudukan, dan Keluarga Berencana) Kecamatan Bojonggede, Kabupaten Bogor Tahun 2023*.
- BKKBN, Kementerian Kesehatan RI, & Badan Pusat Statistik. (2018). *Survei Demografi dan Kesehatan Indonesia Tahun 2017*.
- Dinas Kesehatan Jawa Barat. (2022). *Profil Kesehatan Jawa Barat Tahun 2021*.
- Dinas Kesehatan Jawa Barat. (2023). *Profil Kesehatan Jawa Barat Tahun 2022* (Issue July).
- Doni, S., & Salim, L. A. (2020). Relationship of Demography, Socio-Economy, and Husband'S Support With the Use of Medical Operative for Women Contraceptives (Tubectomy) Towards

- Couple of Childbearing Age in Puskesmas Mojo Surabaya. *Jurnal Biometrika Dan Kependudukan*, 9(2), 130–136. <https://doi.org/10.20473/jbk.v9i2.2020.130-136>
- Eisen, M., Zellman, G. L., & McAlister, A. L. (1985). A Health Belief Model Approach to Adolescents' Fertility Control: Some Pilot Program Findings. *Health Education & Behavior*, 12(2), 185–210. <https://doi.org/10.1177/109019818501200205>
- Fahlevie, R., Anggraini, H., & Turiyani, T. (2022). Hubungan Umur, Paritas, dan Tingkat Pendidikan Terhadap Penggunaan Metode Kontrasepsi Jangka Panjang (MKJP) di Rumkitban Muara Enim Tahun 2020. *Jurnal Ilmiah Universitas Batanghari Jambi*, 22(2), 706. <https://doi.org/10.33087/jiubj.v22i2.1679>
- Faradita, M. I., Lestari, W., & Wahyuningsih, S. (2020). Faktor-Faktor yang Berhubungan dengan Pemilihan Metode Kontrasepsi Jangka Panjang (MKJP) pada Wanita Usia Subur di Desa Tajurhalang Tahun 2019. *Seminar Nasional Riset Kedokteran (SENSORIK)*, 2017, 173–186.
- Fisher, A. A. (1977). The Health Belief Model and Contraceptive Behavior: Limits to the Application of a Conceptual Framework. In *Health Education Monographs* (pp. 244–250).
- Hall, K. S. (2012). The Health Belief Model Can Guide Modern Contraceptive Behavior Research and Practice. *Journal of Midwifery and Women's Health*, 57(1), 74–81. <https://doi.org/10.1111/j.1542-2011.2011.00110.x>
- Kansu Celik, H., Uygur, D., Tasci, Y., Durmus, M. G., Kisa Karakaya, B., & Engin Ustun, Y. (2018). Female Sterilization by Tubal Ligation During C-Section in Women with a History of 2 or More C-Section. *Gynecology Obstetrics & Reproductive Medicine*, 24(1), 7–11. <https://doi.org/10.21613/gorm.2017.723>
- Kementerian Kesehatan Republik Indonesia. (2021). *Peraturan Menteri Kesehatan RI Nomor 21 Tahun 2021 Tentang PENYELENGGARAAN PELAYANAN KESEHATAN MASA SEBELUM HAMIL, MASA HAMIL, PERSALINAN, DAN MASA SESUDAH MELAHIRKAN, PELAYANAN KONTRASEPSI, DAN PELAYANAN KESEHATAN SEKSUAL*.
- Kementerian Kesehatan RI, & BKKBN. (2021). *Pedoman Pelayanan Kontrasepsi dan Keluarga Berencana*. 3(April), 49–58.
- Krisdayanti, B., Datjing, T., & Misdayanti. (2022). Faktor-Faktor yang Mempengaruhi Pemilihan Kontrasepsi Metode Operasi Wanita (MOW) pada Pasangan Usia Subur di Rumah Sakit Umum Dewi Sartika Kota Kendari Tahun 2021. *Sains Dan Kesehatan*, 1(1), 9–18.
- Kueh, M., Rahim, F. F., & Rashid, A. (2021). Development and validation of the health behavioural intention among at-risk smokers to prevent nasopharyngeal cancer in Sarawak, Malaysia based on the Health Belief Model. *BMJ Open*, 1–16.
- Maghfiroh, A., Budihastuti, U. R., Dwi, I., & Nurhaeni, A. (2019). *Path Analysis on Factors Affecting the Choice of Female Surgical Contraceptive Method in Kendal, Central Java*. 4, 146–157.
- Mahmoud, N. M., Ghaly, A. S., & Ahmed, A. H. (2020a). Perception of women towards contraceptive methods: using health belief model. *International Journal of Advanced Nursing Studies*, 9(1), 1–14.
- Mahmoud, N. M., Ghaly, A. S., & Ahmed, A. H. (2020b). Perception of women towards contraceptive methods: using health belief model. *International Journal of Advanced Nursing Studies*, 9(1), 1–14.
- Nathanson, C. A., & Becker, M. H. (1983). Contraceptive behavior among unmarried young women: A theoretical framework for research. *Population and Environment*, 6(1), 39–59. <https://doi.org/10.1007/BF01255864>

- Ningrum, D. A. W., Easter Y, D., & Sugihati. (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. *Jurnal Dunia Kesmas*, 7(4).
- Norman, P., & Conner, M. (2016). Health Behavior. *The Curated Reference Collection in Neuroscience and Biobehavioral Psychology*, December 2015, 1–37. <https://doi.org/10.1016/B978-0-12-809324-5.05143-9>
- Nugroho, A. S., Azhari, Nurtjahyo, A., & Theodorus. (2019). Factors Associated with Reproductive Age Couples' Selection of Sterilization in the Era of the National Health Insurance Program. *Indonesian Journal of Obstetrics and Gynecology*, 7(2), 110–115. <https://doi.org/10.32771/inajog.v7i2.626>
- Nurhayati, N.-. (2023). Faktor Yang Mempengaruhi Tindakan Pemilihan Kontrasepsi Mantap Wanita (MOW). *Jurnal Kebidanan*, 13(2), 139–148. <https://doi.org/10.35874/jib.v13i2.1279>
- Panchal, V., Patel, V., Nayak, A., Parikh, J., & Parikh, B. (2021). Socio-demographic Factors affecting Female Sterilization Operation among Couples of Ahmedabad City : A Record Based Study. *Healthline*, 12(2), 43–48. [https://doi.org/10.51957/healthline\\_206\\_2021](https://doi.org/10.51957/healthline_206_2021)
- Pitaloka, A. D., Pawito, & Prasetya, H. (2019). Application of Health Belief Model on Factors Influencing Long-Term Contraceptive Use. *Journal of Health Promotion and Behavior*, 4(1), 55–63. <https://doi.org/10.26911/thejhp.2019.04.01.06>
- Prof. Dr. Soekidjo Notoatmodjo. (2012). *Promosi Kesehatan dan Perilaku Kesehatan*. Rineka Cipta.
- Putri, A. S., Yunitasari, E., & Wahyudi, A. S. (2023). Analisis Faktor yang Berhubungan dengan Penggunaan Kontrasepsi berbasis Teori Health Belief Model. 4(September), 1978–1990.
- Putri, K. M. (2020). Faktor yang Berhubungan dengan Pemilihan Kontrasepsi MOW pada Ibu Nifas di RSIA Annisa. *Jurnal Bidan Komunitas*, 3(2), 67–72. <https://doi.org/10.33085/jbk.v3i2.4612>
- Ratnaningtyas, M., & Indrawati, F. (2023). Karakteristik Ibu Hamil dengan Kejadian Kehamilan Risiko Tinggi. *Higeia Journal of Public Health Research and Development*, 7(3), 334–344.
- Retno Heru Setyorini, & Utami, R. W. (2022). Memprediksi Perilaku Penggunaan Kontrasepsi Menggunakan Theory Health Belief Model. *Jurnal Kesehatan Komunitas*, 8(2), 372–380. <https://doi.org/10.25311/keskom.vol8.iss2.1221>
- Ridawati, I. D., & Nurmala, F. (2021). Hubungan Antara Pengetahuan Dengan Sikap Ibu Terhadap Metode Kontrasepsi Jangka Panjang. *Jurnal Ilmiah Keperawatan Altruistik*, 8(1), 43–52. <https://doi.org/10.48079/vol4.iss2.53>
- Rohmah, M. H. U., Sulistyaningsih, S. H., & Juhariyah, A. S. (2022). Dukungan Suami Berhubungan Dengan Pemilihan Kb IUD Pada Wanita Usia Subur. *JKJ: Persatuan Perawat Nasional Indonesia*, 10(4), 785–794.
- Rosenstock, I. M., Hochbaum, G. M., Kegeles, S. S., & Leventhal, H. (1974). Historical Origins of the Health Belief Model. In *Health Education Monographs* (Vol. 2, Issue 4, pp. 328–335).
- Sen, S., Cetinkaya, A., & Cavuslar, A. (2017). Perception scale of barriers to contraceptive use: a methodological study. *Fertility Research and Practice*, 3(1), 1–10. <https://doi.org/10.1186/s40738-017-0038-9>
- Setiawati, S., Yolandia, R. A., & Agustina, A. (2023a). Hubungan Akses Informasi, Dukungan Tenaga Kesehatan, Dan Dukungan Suami Dalam Pengambilan Keputusan Tubektomi Di Rsu Zahirah

- Tahun 2022. *SENTRI: Jurnal Riset Ilmiah*, 2(1), 34–49. <https://doi.org/10.55681/sentri.v2i1.434>
- Setiawati, S., Yolandia, R. A., & Agustina, A. (2023b). Hubungan Akses Informasi, Dukungan Tenaga Kesehatan, Dan Dukungan Suami Dalam Pengambilan Keputusan Tubektomi Di Rsu Zahirah Tahun 2022. *SENTRI: Jurnal Riset Ilmiah*, 2(1), 34–49. <https://doi.org/10.55681/sentri.v2i1.434>
- Sudirman, R., & Herdiana, R. (2020). Hubungan Dukungan Suami dengan Pemilihan Metode Kontrasepsi pada Pasangan Usia Subur. *Journal of Nursing Practice and Education Volume 01 Nomor 01. Desember 2020. STIKes Kuningan*, 1–9.
- Tambunsari, M., Nadapdap, T. P., & Fitria, A. (2023). Faktor Yang Mempengaruhi Wanita Pasangan Usia Subur Terhadap Pemilihan Metode Kontrasepsi Tubektomi Di Dinas Pengendalian penduduk Dan keluarga Berencana Wilayah Kerja Kecamatan Siantar. *Excellent Midwifery Journal*, 6(2). [rlc.nrct.go.th/ewt\\_dl.php?nid=679](http://rlc.nrct.go.th/ewt_dl.php?nid=679)
- World Health Organization. (2022). Family Planning : A Global Handbook for Providers. In *World Health Organization* (Vol. 486).
- World Health Organization. (2024). *Women of reproductive age (15-49 years) population (thousands)*.
- Youseflu, S., & Jahanian Sadatmahalleh, S. (2021). Psycho-sexual influence of sterilization on women's quality of life: a path model. *Health and Quality of Life Outcomes*, 19(1), 1–6. <https://doi.org/10.1186/s12955-021-01733-9>
- Zimet, G., Dahlem NW, Zimet SG, & Farley GK. (2016). Multidimensional Scale of Perceived Social Support (MSPSS)-Scale Items and Scoring Information Survey Project View project. *J Pers Assess*, 52(December), 30–41. <http://gzimet.wix.com/mspss>