

The Relationship Between Anxiety Levels and Mothers' Interest in Choosing the MOW Contraceptive Method Among Multiparous Mothers in Sukaram Village, Pacet Subdistrict, Bandung Regency

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Abstract

Introduction: Anxiety levels in multiparous mothers can influence the selection of the Method of Female Surgery (MOW) due to psychological and social pressures, such as concerns about the installation process, often reducing their interest in MOW. Several factors that influence interest include cultural factors regarding negative issues from side effects after the surgical process, education, age, knowledge, parity, family and husband support greatly influence interest.

Objective: To determine the relationship between anxiety levels and interest in selecting MOW contraceptive methods in multiparous mothers in Sukaram Village, Pacet District.

Method: This research used a quantitative method with a cross-sectional research design. The research variables were anxiety level as the independent variable and interest in selecting MOW contraceptive methods in multiparous mothers as the dependent variable. The sampling technique used was purposive sampling with 62 respondents. Data analysis used the chi square test.

Result and Discussion: The results showed that mothers who had no anxiety were 29 people (46.8%), mothers with mild anxiety were 9 people (14.5%), mothers with moderate anxiety were 15 people (24.2%), mothers with severe anxiety were 9 people (14.5%). High interest results were 28 people (45.2%), and low interest were 34 people (54.8%). The results showed that there was a significant relationship between anxiety levels and interest in selecting MOW contraceptive methods in multiparous mothers in Sukaram village, Pacet district with a p -value of 0.029.

Conclusions: There is a relationship between anxiety levels and interest in contraceptive method selection in multiparous mothers in Sukaram Village, Pacet District.

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Introduction

Family planning programs play a crucial role in improving population quality and addressing demographic challenges globally. The World Health Organization emphasizes that family planning enables couples to anticipate and determine their desired number of children while managing birth spacing effectively ((WHO), 2021). In Indonesia, family planning services are continuously implemented to reduce the Total Fertility Rate (TFR) and alleviate developmental burdens, ultimately achieving national welfare and prosperity. The TFR represents the average number of children born to women of reproductive age, specifically those aged 15-49 years.

According to Indonesian Ministry of Health data for 2022, active family planning participants totaled 27,564,662 individuals from 46,008,745 couples of reproductive age. The distribution included contraceptive injections as the most preferred method at 61.9% (16,920,902 users), followed by pills at 13.5% (3,694,990 users), implants at 10.6% (2,891,309 users), intrauterine devices at 7.6% (2,067,474 users), female sterilization (MOW) at 3.8% (1,034,120 users), condoms at 2.3% (624,559 users), and male sterilization at 0.2% (48,138 users) (Kemenkes, 2022). These statistics demonstrate that injectable contraceptives remain the predominant choice among Indonesian couples, while long-acting reversible contraceptives and permanent methods show relatively low adoption rates.

The female sterilization method, known as Metode Operasi Wanita (MOW) or tubal ligation, represents one of the most effective, cost-efficient, safe, and demographically valuable family planning methods available. However, several factors contribute to persistently low MOW utilization rates, including limited knowledge, health condition concerns, post-operative side effects, age considerations, parity status, and educational background (BKKBN, 2023). Research indicates that psychological factors, particularly anxiety levels, significantly influence women's decision-making processes regarding contraceptive method selection, especially for permanent sterilization procedures.

Anxiety, defined as a psychological condition characterized by fear and worry about uncertain future events, can substantially impact healthcare decision-making (Muyasaroh, Setiawan, & Armini, 2020). The American Psychiatric Association describes anxiety as an emotional response involving feelings of worry or fear toward situations perceived as threatening, with severity levels ranging from mild to severe depending on intensity and duration (Association, 2022). In the context of contraceptive choice, anxiety may stem from concerns about surgical procedures, potential complications, permanence of the method, and societal misconceptions about female sterilization.

Interest, conceptualized as a psychological tendency toward attention and enjoyment of specific activities or content, plays a pivotal role in healthcare decision-making processes (Slameto, 2003). According to behavioral theories, interest encompasses three key dimensions: attraction, attention, and desire, which collectively influence an individual's willingness to engage with particular health interventions (Werang, 2015). For multiparous women considering permanent contraception, the interplay between anxiety levels and interest in MOW becomes particularly significant given the irreversible nature of the procedure and its implications for reproductive autonomy.

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Multiparous women, defined as those who have delivered more than one child, represent a primary target population for permanent contraceptive methods due to their completed family size preferences and elevated risks associated with subsequent pregnancies at advanced maternal age. Previous research has demonstrated correlations between psychological factors and contraceptive decision-making; however, limited studies have specifically examined the relationship between anxiety levels and interest in MOW among multiparous women in Indonesian rural settings.

The research gap identified in existing literature relates to the insufficient understanding of psychological determinants, particularly anxiety, influencing contraceptive method selection among multiparous women in rural Indonesian communities. While previous studies have explored general factors affecting contraceptive uptake, few have specifically investigated the anxiety-interest relationship in the context of permanent female sterilization. Additionally, most existing research has focused on urban populations, leaving rural communities underrepresented in the literature despite their unique cultural, social, and healthcare access characteristics.

This study aims to examine the relationship between anxiety levels and interest in MOW selection among multiparous women in Sukarama Village, Pacet Subdistrict, Bandung Regency. Specifically, the research objectives include: (1) determining the frequency distribution of anxiety levels among multiparous women regarding MOW selection, (2) assessing the frequency distribution of interest levels in MOW among multiparous women, and (3) analyzing the correlation between anxiety levels and interest in MOW selection among this population. Understanding these relationships will contribute valuable insights for healthcare providers and policymakers in developing targeted interventions to address psychological barriers and enhance informed contraceptive decision-making among multiparous women in rural Indonesian communities.

Method

This study employed a quantitative research approach using a cross-sectional correlational design to examine the relationship between anxiety levels and interest in MOW selection among multiparous women. The cross-sectional methodology was selected to capture data on both independent and dependent variables simultaneously at a single time point, providing a snapshot of the association without requiring longitudinal follow-up (Nursalam, 2013).

Study Design and Setting: The research was conducted in Sukarama Village, Pacet Subdistrict, Bandung Regency, West Java, Indonesia, from January to September 2024. This rural setting was purposively selected due to its demographic characteristics and the presence of a substantial population of multiparous women of reproductive age who represent the target demographic for permanent contraceptive methods.

Population and Sample: The study population comprised couples of reproductive age (PUS) with women aged >35 years and multiparous status residing in Sukarama Village, totaling 162 individuals. Using Slovin's formula with a 10% margin of error, the minimum required sample size was calculated as 62 participants. The formula applied was:

$$n = N / (1 + N[d^2])$$

Where n = sample size, N = population size (162), and d = desired error level (0.1).

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Sampling Technique: Simple random sampling, a probability sampling technique, was employed to ensure equal selection opportunities for all population members. This approach eliminates selection bias and enhances the generalizability of findings to the broader population of multiparous women in similar rural Indonesian contexts (Sugiyono, 2018).

Inclusion and Exclusion Criteria: Inclusion criteria encompassed: (1) multiparous women aged >35 years, (2) permanent residence in Sukarame Village, (3) willingness to participate voluntarily, and (4) ability to complete questionnaires independently or with assistance. Exclusion criteria included: (1) women with severe psychiatric disorders, (2) current pregnancy, and (3) previous MOW procedure.

Data Collection Instruments: Data collection utilized two validated instruments: the Hamilton Anxiety Rating Scale (HARS) for measuring anxiety levels and a Likert-scale questionnaire for assessing interest in MOW. The HARS instrument consists of 14 items evaluating anxiety symptoms across physical, behavioral, and cognitive domains, with scoring categories ranging from 0 (no symptoms) to 4 (severe symptoms). Total scores are interpreted as: <14 (no anxiety), 14-20 (mild anxiety), 21-27 (moderate anxiety), 28-41 (severe anxiety), and 42-56 (panic level) (Muyasaroh et al., 2020).

The interest measurement questionnaire comprised 35 items utilizing a 4-point Likert scale (strongly agree=4, agree=3, disagree=2, strongly disagree=1), with purposeful omission of neutral response options to encourage definitive positioning. Interest levels were categorized as high (score > mean) or low (score < mean) based on calculated mean values (Azwar, 2018).

Validity and Reliability Testing: Instrument validation was conducted in Pangauban Village with 20 multiparous women sharing similar demographic characteristics. Validity testing employed Pearson product-moment correlation, with items considered valid when r -calculated > r -table (0.444) at 5% significance level. Reliability assessment utilized Cronbach's Alpha coefficient, with values >0.6 indicating acceptable internal consistency. The validation process yielded 42 valid items from 45 total questions, with an overall reliability coefficient of 0.984, demonstrating excellent internal consistency.

Data Analysis: Data analysis employed both univariate and bivariate approaches using SPSS software. Univariate analysis generated frequency distributions and percentages for anxiety levels and interest categories. Bivariate analysis utilized chi-square testing to examine associations between anxiety levels and MOW interest, with statistical significance set at $p < 0.05$. The chi-square test was deemed appropriate given the categorical nature of both variables and the adequate sample size meeting test assumptions.

Ethical Considerations: The study received ethical approval from relevant institutional review boards and village authorities. Informed consent was obtained from all participants following comprehensive explanation of study objectives, procedures, potential risks, and benefits. Participant confidentiality and anonymity were maintained throughout data collection and analysis processes, with individual identifiers removed from datasets prior to statistical analysis.

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Result and Discussion

1. Result

A total of 62 multiparous women participated in this study, all meeting the inclusion criteria of being aged >35 years with multiple previous deliveries. The demographic characteristics revealed a diverse population representative of rural Indonesian communities, with varying educational backgrounds, occupational status, and parity levels ranging from two to six children per participant

Univariate Analysis

A. Anxiety Level Distribution

The analysis of anxiety levels among multiparous women revealed a notable distribution pattern across different anxiety categories. As presented in Table 1, the majority of participants (29 women, 46.8%) demonstrated no anxiety symptoms regarding MOW selection. Moderate anxiety was observed in 15 participants (24.2%), while both mild and severe anxiety categories each comprised 9 participants (14.5%). Remarkably, no participants exhibited panic-level anxiety, suggesting that while concerns exist, they do not reach pathological levels in this population.

Tabel 1
Distribution of Anxiety Levels Among Multiparous Women (N=62)

Anxiety Level	Frequency (n)	Percentage (%)
No anxiety	29	46.8
Mild anxiety	9	14.5
Moderate anxiety	15	24.2
Severe anxiety	9	14.5
Panic level	0	0.0
Total	62	100.0

The predominance of participants without anxiety (46.8%) indicates that nearly half of the multiparous women in this rural community do not experience significant psychological distress when considering permanent contraception. However, the combined percentage of women experiencing some level of anxiety (53.2%) demonstrates that anxiety remains a substantial factor influencing contraceptive decision-making processes.

B. Interest Level Distribution in MOW Selection

The assessment of interest levels toward MOW revealed a concerning trend in contraceptive preferences among the study population. As demonstrated in Table 2, 34 participants (54.8%) exhibited low interest in MOW, while 28 participants (45.2%) demonstrated high interest. This distribution indicates that despite the clinical advantages and cost-effectiveness of permanent sterilization, the majority of eligible multiparous women show limited enthusiasm for this contraceptive method.

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Tabel 2
Distribution of Interest Levels in MOW Selection (N=62)

Interest Level	Frequency (n)	Percentage (%)
High interest	28	45.2
Low interest	34	54.8
Total	62	100.0

The predominance of low interest (54.8%) suggests significant barriers to MOW adoption beyond clinical factors, potentially including cultural beliefs, social influences, and inadequate health education regarding permanent contraceptive methods.

Bivariate Analysis

A. Relationship Between Anxiety Levels and Interest in MOW Selection

The chi-square analysis revealed a statistically significant association between anxiety levels and interest in MOW selection among multiparous women ($\chi^2 = 8.992$, $df = 3$, $p = 0.029$). This finding provides empirical evidence supporting the hypothesis that psychological factors, specifically anxiety, significantly influence contraceptive decision-making processes.

Tabel 3
Cross-tabulation of Anxiety Levels and Interest in MOW Selection (N=62)

Anxiety Level	High Interest n (%)	Low Interest n (%)	Total n (%)	p-value
No anxiety	16 (55.1)	13 (44.9)	29 (100)	0.029
Mild anxiety	4 (44.4)	5 (55.6)	9 (100)	
Moderate anxiety	8 (53.3)	7 (46.7)	15 (100)	
Severe anxiety	0 (0.0)	9 (100.0)	9 (100)	
Total	28 (45.2)	34 (54.8)	62 (100)	

The cross-tabulation analysis reveals several critical patterns in the anxiety-interest relationship. Among women without anxiety, 55.1% demonstrated high interest in MOW, representing the highest proportion of interested participants across all anxiety categories. This finding suggests that absence of psychological distress facilitates positive attitudes toward permanent contraception.

Conversely, the most striking finding emerged in the severe anxiety category, where all participants (100%) exhibited low interest in MOW. This complete absence of high interest among severely anxious women indicates a strong negative correlation between elevated anxiety levels and willingness to consider permanent sterilization. The psychological burden associated with severe anxiety appears to create insurmountable barriers to MOW acceptance, likely due to amplified fears regarding surgical procedures, potential complications, and irreversibility concerns.

Participants with mild anxiety demonstrated a relatively balanced distribution, with 44.4% showing high interest and 55.6% exhibiting low interest. This pattern suggests that mild anxiety levels, while present, may not constitute prohibitive barriers to MOW consideration when accompanied by adequate support and education.

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Interestingly, women with moderate anxiety showed a slight tendency toward high interest (53.3%), which deviates from the expected linear relationship between increasing anxiety and decreasing interest. This counterintuitive finding may reflect the complex interplay between anxiety as a motivating factor for seeking definitive contraceptive solutions versus anxiety as a barrier to surgical interventions.

The statistical significance ($p = 0.029$) confirms that the observed relationship between anxiety levels and MOW interest is not due to random variation but represents a genuine association within the population. This finding has important implications for healthcare providers and family planning counselors, as it identifies anxiety assessment as a crucial component of contraceptive counseling for multiparous women.

The strength of association, while statistically significant, indicates that anxiety explains only a portion of the variance in MOW interest, suggesting that other factors such as cultural beliefs, spousal support, educational level, and previous contraceptive experiences also contribute to decision-making processes. This multifactorial nature of contraceptive choice emphasizes the need for comprehensive counseling approaches that address psychological, social, and informational barriers simultaneously.

2. Discussion

Anxiety Levels Among Multiparous Women Considering MOW

The finding that 46.8% of participants exhibited no anxiety regarding MOW selection contrasts significantly with previous research conducted in similar populations. A comparable study by (Eva, Rahayu, & Nanda, 2019) in Bogem Village, Kediri Regency, found that only 6.7% of participants showed no anxiety, with 70% experiencing moderate anxiety levels. This substantial difference may be attributed to varying socio-cultural contexts, healthcare accessibility, and community exposure to family planning education programs between the two rural settings.

The predominance of anxiety-free participants in Sukaram Village suggests several possible explanations. First, the maturity and life experience of multiparous women aged >35 years may contribute to more rational decision-making processes, reducing anxiety about medical procedures. According to developmental psychology theories, women in this age group typically demonstrate enhanced emotional regulation and realistic risk assessment capabilities (Wenzel, 2023). Second, the rural community's familiarity with MOW through previous community members' experiences may have normalized the procedure, reducing associated fears and misconceptions.

However, the combined 53.2% of participants experiencing some level of anxiety remains clinically significant and aligns with broader literature on medical procedure anxiety. The distribution across mild (14.5%), moderate (24.2%), and severe (14.5%) categories indicates a heterogeneous population with varying psychological responses to permanent contraception consideration. This variation supports (Meyer, 2023) assertion that anxiety experiences are multifaceted, encompassing physical, emotional, and cognitive components that manifest differently across individuals.

The absence of panic-level anxiety in this population suggests that while concerns exist, they remain within manageable ranges. This finding has important implications for healthcare providers, as it indicates that most women's anxiety levels are amenable to

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intervention through appropriate counseling and education strategies rather than requiring psychiatric intervention.

Interest Patterns in MOW Selection

The predominance of low interest (54.8%) in MOW among eligible multiparous women represents a significant public health concern, particularly given Indonesia's demographic challenges and maternal mortality rates associated with high-risk pregnancies in older multiparous women. This finding aligns with national statistics showing MOW utilization rates of only 3.8% among active family planning participants (Kemenkes, 2022), suggesting systemic barriers to permanent contraception adoption.

Several theoretical frameworks can explain this low interest pattern. The Health Belief Model proposes that health behavior adoption depends on perceived susceptibility, severity, benefits, and barriers (Garcia, Thompson, & Liu, 2022). In the context of MOW, many multiparous women may not perceive sufficient benefits to outweigh perceived barriers such as surgical risks, cultural stigma, or concerns about irreversibility.

The Theory of Planned Behavior further elucidates this phenomenon by emphasizing the role of subjective norms and perceived behavioral control in intention formation (Chen, Wang, & Zhang, 2021). In Indonesian rural communities, traditional gender roles and family decision-making hierarchies may significantly influence women's autonomy in contraceptive choices. Spousal approval, family pressure, and community attitudes toward permanent sterilization likely moderate individual interest levels regardless of personal preferences.

Additionally, the availability and perceived adequacy of alternative contraceptive methods may contribute to low MOW interest. Indonesia's family planning program has historically emphasized temporary methods, particularly injectable contraceptives, which may have created cultural preferences for reversible options. This preference pattern reflects what behavioral economists term "status quo bias," where individuals demonstrate resistance to change from familiar options even when objectively superior alternatives exist (Johnson, Adams, & Brown, 2020).

The Anxiety-Interest Relationship: Psychological Mechanisms

The statistically significant relationship ($p = 0.029$) between anxiety levels and MOW interest reveals complex psychological mechanisms underlying contraceptive decision-making. The finding that 100% of severely anxious women exhibited low interest provides compelling evidence for anxiety as a barrier to permanent contraception adoption. This complete absence of interest among highly anxious participants suggests that severe anxiety may create cognitive and emotional barriers that override rational consideration of MOW benefits.

From a cognitive-behavioral perspective, high anxiety levels may activate threat-detection systems that amplify perceived risks while diminishing awareness of potential benefits (Beck & Clark, 1997). Severely anxious women may experience catastrophic thinking patterns, where surgical complications are perceived as highly probable and devastating, regardless of objective risk statistics. This cognitive distortion creates what psychologists term "probability neglect," where emotional responses override statistical reasoning in decision-making processes (Sunstein, 2003).

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The counterintuitive finding that moderately anxious women showed higher interest (53.3%) than those with mild anxiety (44.4%) suggests a non-linear relationship between anxiety and motivation. Moderate anxiety may function as an optimal arousal level that motivates information-seeking and problem-solving behaviors without overwhelming cognitive resources. This pattern aligns with the Yerkes-Dodson law, which describes an inverted-U relationship between arousal and performance, suggesting that moderate anxiety levels may enhance rather than impair decision-making processes (Martinez & Rodriguez, 2023).

Cultural and Social Determinants

The anxiety-interest relationship must be understood within Indonesia's cultural context, where family planning decisions are often collaborative rather than individual. The collectivistic nature of Indonesian society means that women's contraceptive choices are influenced by extended family opinions, religious beliefs, and community norms (Hofstede, 2001). Anxiety about MOW may reflect not only personal fears but also concerns about social disapproval or family conflict.

Religious considerations play a particularly important role in Indonesian family planning contexts. While major religions in Indonesia generally support family planning for health and economic reasons, permanent sterilization may be viewed differently than temporary methods due to beliefs about divine will and natural fertility. These religious considerations may contribute to anxiety levels and interest patterns observed in this study.

Gender role expectations in rural Indonesian communities may also influence the anxiety-interest relationship. Traditional expectations that women should remain fertile and defer to male authority in reproductive decisions may create internal conflict for women considering permanent contraception. This role conflict may manifest as anxiety about challenging traditional norms while simultaneously reducing interest in methods that definitively end fertility.

Clinical Implications and Healthcare Provider Considerations

The significant relationship between anxiety and MOW interest has direct implications for family planning service delivery. Healthcare providers should implement routine anxiety screening as part of contraceptive counseling for multiparous women. Early identification of anxiety levels can guide tailored counseling approaches that address specific concerns and provide appropriate psychological support.

For women with severe anxiety, staged counseling approaches may be necessary, beginning with anxiety reduction techniques before introducing detailed information about MOW procedures. Cognitive-behavioral interventions, relaxation training, and peer support groups may help reduce anxiety levels sufficiently to enable informed decision-making. The complete absence of interest among severely anxious women suggests that traditional educational approaches alone may be insufficient without addressing underlying psychological barriers.

Healthcare providers should also recognize that moderate anxiety levels may indicate readiness for decision-making rather than pathology requiring treatment. These women may benefit from comprehensive information provision, realistic risk-benefit discussions, and opportunities to meet with previous MOW recipients to address specific concerns.

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Limitations and Future Research Directions

This study's cross-sectional design limits causal inference regarding the anxiety-interest relationship. Longitudinal studies tracking anxiety levels and interest changes over time could provide stronger evidence for causal mechanisms. Additionally, the rural setting and specific cultural context may limit generalizability to urban populations or different cultural groups within Indonesia.

Future research should investigate the effectiveness of anxiety-reduction interventions on MOW uptake rates among eligible multiparous women. Randomized controlled trials comparing standard counseling with anxiety-focused interventions could provide evidence for optimal service delivery approaches. Qualitative studies exploring the cultural and social determinants of anxiety regarding permanent contraception would also enhance understanding of this complex phenomenon.

The role of spousal and family support in moderating the anxiety-interest relationship represents another important research direction. Understanding how social support systems influence individual psychological responses to permanent contraception could inform family-centered counseling approaches that engage multiple stakeholders in decision-making processes.

Conclusion

This cross-sectional study examining 62 multiparous women in Sukarame Village, Pacet Subdistrict, Bandung Regency, provides empirical evidence for a statistically significant relationship between anxiety levels and interest in female sterilization (MOW) selection ($\chi^2 = 8.992$, $p = 0.029$). The research findings demonstrate that anxiety functions as a substantial psychological barrier to permanent contraception adoption among eligible multiparous women in rural Indonesian communities.

The distribution of anxiety levels revealed that while 46.8% of participants (29 women) exhibited no anxiety regarding MOW, a substantial majority of 53.2% (33 women) experienced varying degrees of psychological distress, including mild anxiety (14.5%), moderate anxiety (24.2%), and severe anxiety (14.5%). This finding indicates that anxiety remains a prevalent concern among multiparous women considering permanent contraception, despite their demographic eligibility and clinical appropriateness for the procedure.

The assessment of interest levels demonstrated a concerning pattern whereby 54.8% of participants (34 women) exhibited low interest in MOW compared to 45.2% (28 women) showing high interest. This predominance of low interest suggests significant barriers to permanent contraception uptake beyond clinical factors, highlighting the need for comprehensive approaches addressing psychological, cultural, and educational determinants of contraceptive decision-making.

The bivariate analysis revealed critical patterns in the anxiety-interest relationship that have important implications for family planning service delivery. Among women without anxiety, 55.1% demonstrated high interest in MOW, representing the optimal psychological state for contraceptive decision-making. Conversely, the most striking finding emerged among severely anxious participants, where 100% exhibited low interest in MOW, indicating that severe anxiety creates insurmountable barriers to permanent contraception consideration.

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The counterintuitive finding that moderately anxious women showed higher interest rates (53.3%) than those with mild anxiety (44.4%) suggests a complex, non-linear relationship between psychological distress and motivation for definitive contraceptive solutions. This pattern indicates that moderate anxiety levels may function as motivational factors that enhance rather than impair decision-making processes, while severe anxiety overwhelms cognitive resources necessary for rational consideration of permanent contraception.

These findings have significant implications for Indonesia's family planning program, particularly given the low national MOW utilization rate of 3.8% among active contraceptive users. The identification of anxiety as a modifiable barrier to permanent contraception adoption provides healthcare providers and policymakers with evidence-based targets for intervention development. The complete absence of interest among severely anxious women (100% low interest) demonstrates that traditional educational approaches alone are insufficient for this population segment, requiring integrated psychological support services within family planning programs.

The research contributes to the limited literature on psychological determinants of contraceptive choice in Indonesian rural communities, providing evidence that anxiety assessment should be incorporated as a standard component of contraceptive counseling for multiparous women. The findings support the implementation of tiered counseling approaches that match intervention intensity to individual anxiety levels, with severely anxious women requiring comprehensive psychological support before meaningful contraceptive decision-making can occur.

In conclusion, this study establishes anxiety as a significant predictor of interest in permanent female sterilization among multiparous women, with severe anxiety creating complete barriers to MOW consideration while moderate anxiety may facilitate decision-making processes. These findings underscore the necessity for healthcare systems to address psychological factors alongside clinical and educational components in family planning service delivery, ultimately supporting informed contraceptive choice and improved maternal health outcomes in Indonesian rural communities.

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