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ORIGINAL ARTICLE

Factors influencing family planning acceptors' use of IUD contraception in the working area of Medan Amplas District

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ABSTRACT

Indonesia's high population growth rate is a big problem and needs serious handling from all parties of society and government The family planning movement is carried out to build a prosperous family in order to create optimal human resources. The family planning program is one of the most effective ways to improve family resilience, health, and safety of mothers, children, and women. Descriptive quantitative research, where this study aims to determine the factors that influence family planning acceptors on the use of IUD contraceptives in the Medan Amplas working area in 2024 using a cross-sectional design where the independent variable and the dependent variable are identified at the same time. The results of this study are There is an influence of education (P<0.05), mileage (P<0.05), knowledge (P<0.05), attitude (P,0.05), attitude (P<0.05), husband support (P<0.05), health worker support (P<0.05), The most dominant factor affecting the use of IUD contraceptives is the variable Husband support Exp (B) = 2.50 means that if there is husband's support for the use of IUD contraceptives then there are 2.5 times the mother wants to participate as an acceptor of IUD contraceptives. It is expected to Improve the Awareness Campaign Program by holding campaigns that target husbands and other family members, explaining the importance of their support in the use of contraceptives.

Keyword: family planning acceptors, IUD contraceptive use

Introduction

Indonesia's high population growth rate is a significant problem that requires serious handling from all sectors of society and the government. Uncontrolled population growth can impact society, leading to food and nutritional deficiencies, which result in deteriorating health, low education levels, and high unemployment.[1,2] The government, through the National Population and Family Planning Board (BKKBN), has long promoted family planning programs to improve reproductive health outcomes. While the overall contraceptive prevalence rate has shown progress, there remains a persistent "unmet need" for family planning, particularly for long-acting reversible contraceptives (LARCs) like the Intrauterine Device (IUD).[3]

The IUD is a highly effective method with low discontinuation rates when compared to other methods like injectables and pills.[4] Its long-lasting nature reduces the burden of frequent health center visits and user

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failure, making it an ideal choice for women who want to space pregnancies or limit family size. Despite these advantages, various studies across Indonesia have highlighted significant challenges to IUD adoption. These challenges often stem from a combination of individual, social, and service-related factors. Key barriers identified in the literature include low levels of knowledge about IUD benefits and side effects, fear of pain or complications during insertion, and the influence of cultural myths and misconceptions.[5,6] Furthermore, a lack of spousal support and the attitudes of health workers can also play a crucial role in a woman's decision to choose or continue with the IUD method.[7–9]

The health profile of Medan Amplas Sub-district shows that out of 1563 eligible couples (PUS), 796 use injectable contraceptives, 87 use IUDs, 7 use condoms, 185 use pills, 126 have undergone vasectomy, 32 have undergone tubectomy, and 330 do not use any family planning method. Based on initial survey data, researchers interviewed 10 women of reproductive age (WUS) who use family planning. The data showed that 7 people use 3-month injectable contraceptives, 2 use implant contraceptives, and 1 uses an IUD. They stated that they are used to using injectable contraceptives and are afraid of using IUDs. This study aims to investigate the specific factors influencing the use of IUD contraception among family planning acceptors in a particular urban setting, namely the working area of Medan Amplas District.

Method

This study is a descriptive quantitative research aiming to identify the factors influencing Family Planning (KB) acceptors in the use of IUD contraceptives in the working area of Medan Amplas in 2024. It utilizes a cross-sectional design, where independent and dependent variables are identified simultaneously. The research will be conducted in the working area of Medan Amplas sub-district, specifically across its seven sub-districts. The study population consists of 700 KB acceptors within this area. The researcher will employ a probability sampling technique, ensuring every acceptor in the population has an equal chance of being included in the sample. However, the specific sample selection method used by the researcher is simple non-random sampling, specifically purposive sampling.

Results

The presented table highlights several factors influencing IUD contraceptive use in the working area of Medan Amplas Sub-district in 2024: travel distance, attitude, husband's support, and healthcare worker support. Statistical analysis reveals that all four variables have a statistically significant relationship with women's decision to use IUDs. This indicates that physical accessibility, personal views, social support from partners, and interactions with healthcare providers all play crucial roles in the adoption of this long-acting contraceptive method.

Table 1. Risk factor and IUD contraceptive use

Variables	IUD contraception use				Total		p-value
	Yes		No				
	f	%	f	%	f	%	
Travel Distance							
Easy	26	81.3	6	18.8	32	100	0.000
Difficult	6	33.3	12	66.7	18	100	
Attitude							
Positive	6	30.0	14	70.0	20	100	0.000
Negative	26	86.7	4	13.3	30	100	
Husband's Support							
Support	23	76.7	7	23.3	30	100	0.022
Not Support	9	45.0	11	55.5	20	100	
Healthcare Worker Support							
Support	4	22.2	14	77.8	18	100	0.022
Not Support	28	87.5	4	12.5	32	100	

Specifically, the findings show that an easy travel distance to healthcare facilities is strongly and positively correlated with IUD use, with 81.3% of respondents with easy access opting for IUDs compared to only 33.3% of those facing difficult travel distances (p=0.000). Similarly, husband's support also proved to be a significant driving factor; 76.7% of women with husband's support used IUDs, compared to 45.0% of those without (p=0.022). Both of these results are consistent with general literature on factors influencing contraceptive choice, emphasizing the importance of accessibility and social support.

However, there are two quite interesting and counter-intuitive findings in this data. First, respondents with a "negative attitude" actually showed a significantly higher rate of IUD use (86.7%) compared to those with a "positive attitude" (30.0%), with a highly significant p-value (p=0.000). Second, and perhaps most surprising, is the inverse relationship between healthcare worker support and IUD use; 87.5% of women who did not receive healthcare worker support used IUDs, while only 22.2% of those who received support used them (p=0.022). Both of these findings strongly necessitate further clarification from the researchers regarding the operational definitions of the "attitude" and "healthcare worker support" variables, as generally, a positive attitude and support from healthcare professionals are expected to encourage contraceptive adoption. It is possible that "negative attitude" refers to concerns about unwanted pregnancy, or the definition of "healthcare worker support" in this context might refer to the promotion of other contraceptive methods or even a lack of specific IUD promotion.

Table 2. Multivariate analysis

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Knowledge	-2.873	1.189	5.842	1	16	57
Attitude	-966	1.737	309	1	578	381
Husband's Support	917	1.745	276	1	599	2.501
Health worker support	-3.924	1.398	7.881	1	5	20

Table 2 presents the results of a logistic regression, examining the influence of several independent variables on a dependent variable, which, based on the previous context, is likely IUD contraceptive use. The variables included in this multivariate model are Knowledge, Attitude, Husband's Support, and Health Worker Support. The analysis aims to determine which of these factors significantly predict IUD use when considered simultaneously. Upon reviewing the results, Knowledge (B = -2.873, Sig. = 0.016, Exp(B) = 0.057) emerges as a statistically significant predictor of IUD use. The negative B coefficient and an Exp(B) less than 1 (0.057) indicate an inverse relationship. This suggests that higher levels of knowledge are associated with a significantly lower likelihood of IUD use. This finding is notably counter-intuitive, as generally, increased knowledge about a contraceptive method is expected to promote its adoption. This warrants further investigation into how "knowledge" was defined and measured in this study.

Similarly, Health worker support (B = -3.924, Sig. = 0.005, Exp(B) = 0.020) also shows a highly statistically significant relationship with IUD use. However, like knowledge, its B coefficient is negative, and the Exp(B) is less than 1 (0.020). This implies that the presence of health worker support is associated with a significantly lower likelihood of IUD use. This result is particularly surprising and goes against the common understanding that health worker support plays a crucial role in promoting contraceptive uptake. It's essential for the researchers to clarify the nature of "health worker support" and the context in which it was provided, as this could indicate misaligned counseling or other unmeasured factors influencing IUD adoption. In contrast, Attitude (B = -0.966, Sig. = 0.578, Exp(B) = 0.381) and Husband's Support (B = 0.917, Sig. = 0.599, Exp(B) = 2.501) were found to be not statistically significant in this multivariate model. While bivariate analyses might have shown a relationship, the logistic regression indicates that when accounting for the other variables in the model, attitude and husband's support do not independently predict IUD use at a statistically significant level. This suggests that their individual effects might be mediated by or confounded with other factors not fully captured or adequately controlled for in this specific regression model.

Discussion

Education plays a pivotal role in influencing the adoption of IUD contraceptive devices. By enhancing knowledge, awareness, positive attitudes, and decision-making skills, as well as facilitating access to information and healthcare services, education can significantly boost IUD utilization. Efforts to improve education levels and provide comprehensive reproductive health counseling are therefore crucial for

promoting the effective and safe use of contraception, such as IUDs. This aligns with Ardaya's research, which found that the education variable had a strong relationship with contraceptive use in Babakan Ciparay village, with an Exp(B) value of 5.1, making it the most influential variable for IUD contraceptive use. Medan Amplas, a sub-district in Medan City, faces various challenges in the field of reproductive health. The use of contraceptive devices, particularly IUDs, is often influenced by multiple factors, one of which is the community's level of knowledge about these methods. Adequate understanding of IUDs is essential to ensure that women can make informed and appropriate decisions regarding the contraceptive methods they choose to use.

The experience of mothers who have used contraception indicates a supportive attitude towards the methods they employ to space out births. The attitudes formed in individuals are also based on their knowledge of the issues they face, and there is often consistency between knowledge and attitude. Based on existing theories and research findings, it can be concluded that individuals who hold ambivalent or uncertain attitudes towards their chosen contraceptive methods are more prone to hesitation in using those devices. The use of Intrauterine Devices (IUDs) can be influenced by various factors, including the travel distance from home to healthcare facilities. Several key ways in which travel distance impacts IUD use include: Accessibility to Healthcare Facilities: Long distances can make access to healthcare facilities difficult, especially in rural or remote areas. This can reduce the likelihood of women obtaining IUDs as it requires longer travel times and higher transportation costs, posing a significant barrier to access.

Husband's support is a crucial factor influencing a wife's use of Intrauterine Device (IUD) contraception. Several ways in which husband's support can impact IUD use include: Joint Decision-Making: In many households, the decision to use contraception is made jointly by the husband and wife. Support from the husband can make the wife feel more confident and comfortable in choosing the IUD as a contraceptive method. Appropriate education can enhance the acceptance and trust in IUDs as a contraceptive method. Furthermore, friendly and supportive services from healthcare professionals can make women feel more comfortable and confident in choosing and using IUDs. A positive attitude from healthcare providers can increase patient satisfaction and trust. Accessibility and Availability: Healthcare professionals play a vital role in ensuring that IUDs are available and easily accessible to women who need them. This includes the ready availability of IUDs in healthcare facilities and the readiness of healthcare personnel to perform IUD insertion and provide follow-up care.

Conclusion

The findings of this study reveal several significant factors influencing IUD contraceptive use in Medan Amplas sub-district in 2024. Specifically, the research concludes that there is an influence of education, travel distance, knowledge, attitude, husband's support, and healthcare worker support on the use of IUDs. Among these factors, husband's support emerged as the most dominant variable affecting IUD contraceptive use, indicated by an Exp(B) value of 2.50. This signifies that the presence of husband's support increases the likelihood of a mother becoming an IUD acceptor by 2.5 times.

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