

The Knowledge and Attitude of Married men towards the use of Vasectomy as a Means of Family Planing in a Nigerian University

Judith Njideka Esievo¹, Onwuegbute Isioma Jane², Obehi Favour³, Oladimeji Joshua Falade⁴, Oladimeji Ojo Raphael⁵

^{1,2,3}Department of Nursing Science, Delta State University, Abraka

⁴Department of Nursing Olusegun Agagu University of Science and Technology Okitipupa, Ondo State

⁵Department of Public Health University of Sierra Leone, Freetown

*Corresponding Author:

Judith Njideka Esievo

Department of Nursing Sciences Delta State University, Abraka.

Email ID: Judithnjideka5@gmail.com

Cite this paper as: Judith Njideka Esievo, Onwuegbute Isioma Jane, Obehi Favour, Oladimeji Joshua Falade, Oladimeji Ojo Raphael, (2025) The Knowledge and Attitude of Married men towards the use of Vasectomy as a Means of Family Planing in a Nigerian University. *Journal of Neonatal Surgery*, 14 (26s), 909-919.

ABSTRACT

Introduction: Vasectomy is an effective family planning option. However, the patriarchy entrenched in African and developing countries contributes to its limited adoption. Additionally, the centralization of family planning services since their inception has made it difficult for men to embrace family planning options.

Aim: This study aimed to assess the level of knowledge about vasectomy among married men at Delta State University, Abraka, Nigeria. It also sought to determine their attitudes towards the use of the procedure.

Methods: A descriptive research design was utilized for this study. A purposive sampling technique was employed to select 164 respondents. A researcher-administered semi-structured questionnaire was used for data collection.

Results: The findings indicated that respondents had a good understanding of vasectomy but held a negative attitude toward its use. Out of 164 respondents, 97.0% understood its purpose. However, 81.1% of them are unaware that the procedure can be reversed. With regards to attitude, they had negative attitude towards vasectomy as 87.2% of the respondents were of the view that vasectomy was not accepted in the society, and only 38.4% are of the opinion that family planning was a shared responsibility between them and their wife.

Conclusion: Despite the high level of awareness this study highlights a notable gap in attitude regarding the use of the procedure. Concerns raised from feedback generated from response to attitudinal statements shows that there is a negative perspective and opinion about the procedure due to unacceptability in the society. Encouraging family planning initiatives for men is essential particularly within the context of Nigeria's patriarchal social structures. Health education and outreach programs are effective strategies for dispelling misconceptions and addressing concerns that may contribute to negative attitudes among men.

Keywords: knowledge, vasectomy, family planning, married men.

1. INTRODUCTION

Throughout history, women have consistently been entrusted with the duty of caring for their children. This entails being emotionally present, accommodating to their partner's sexual needs, and bearing as many children as their husband desires, putting their well-being secondary (Nwankwo et al., 2022). In addition, family planning schemes have always centered around women which consequently has led to a decrease in male participation and involvement especially in underdeveloped countries (Mulatu et al., 2022). Ouedraogo et al. (2021) assert that the global discourse surrounding reproductive health and family planning has undergone a paradigm shift, moving predominantly female-centric approach to one that emphasizes shared responsibility and active male participation. This evolution acknowledges that sustainable family planning outcomes are contingent upon the involvement of both partners, fostering a collaborative approach to decision-making.

Due to the strong patriarchal structures prevalent in Africa, where men often hold dominant positions in society and make key decisions, their involvement in family planning particularly is important (Assefa et al., 2021). Nigeria's fertility rate has remained very high with each woman having at least six children in 1990, there was only a minimal drop to 5 children in 2008 and since then, the population status has increased (Worldometer, 2024). However, family planning options mostly available and accessible are IUDs, pills, injections, and the use of condoms (inclined towards men) with a meager emphasis on vasectomy as an option (Zhang & Eisenberg, 2021). International agreements highlight the need for gender equality (SDG 5) and informed family planning choices alongside a push for men to actively participate in family planning both as supportive partners and by using contraception themselves (United Nations, 2025).

Vasectomy is cost-effective, 99% safe, and has positive effects in terms of viable socioeconomic development in reducing maternal mortality (Nestro et al., 2022). It is worth noting that this procedure presents a long-lasting, secure, and highly effective alternative for male partners (Hoover et al., 2023). There are discrepancies across countries in the worldwide prevalence of vasectomy utilization when compared with the overall population of married men in the respective countries: about 21% in the UK, South Korea, and New Zealand, 22% in Canada, and 11% in the United States and only a few in Sub-Saharan achieving more than 0.1% prevalence (Nwankwo et al., 2022).

Studies have shown that the uptake of this procedure is relevantly low compared to other alternatives raising concerns about limited knowledge and negative attitudes surrounding the procedure (Stockton et al., 2021). There is an indication the awareness of vasectomy is also low among men in developing countries (Umobieri et al., 2023). In a research conducted by Adefila et al., 2024 results revealed that respondents had inadequate knowledge of vasectomy and negative attitude towards it as a choice of contraception for them with the existence of a significant difference in the knowledge of the procedure and their educational level ($F(8, 532) = 0.665; p > 0.05$). Another study involving 60.6% of male respondents posits that the overall knowledge of married men about vasectomy was acceptable, however, their attitude towards the procedure was poor attributing this to the belief of myths and misconceptions (Bol, 2024).

Statement of the Problem

According to the National Bureau of Statistics (Nigeria)(2020), the average household size in Nigeria has at least four children. In 2023, the contraception prevalence rate among women in Nigeria was measured at 18% among those who were married or in a union, the rate stood at 21% (Statista, 2023) with a high number of them opting for hormonal implants. This is the result from a research study by Akinyemi et al. (2023) using data from Nigeria and Health Survey showed that out of 9622 study participants, 71.0% do not use any modern contraceptive method, 19.9% believed that contraception is a woman's business and 1% had a positive view of vasectomy as evidenced by its usage. Results from a research study conducted on 84 in low and middle-income countries (LMICs), 7 reported a prevalence of vasectomy above 2%. In 56 LMICs, no more than 1 in 1000 women rely on vasectomy, and female-to-male disparities in permanent method widened globally (Jacobstein et al., 2023).

The interpretation of these statistics is conspicuous that despite the safety, efficacy, and long-term benefits of vasectomy as a male contraceptive option, its uptake among married men in Nigeria remains significantly low (Okeke, 2025). This study was borne from the researcher's personal experience with family. The researcher's observations of the long-term impact of female contraceptive options and the unwillingness of the educated male partner to consider vasectomy highlighted a critical gap in understanding male attitudes towards the procedure. This issue prompted the researcher to assess the knowledge and attitude of this procedure particularly within an educated community in Delta State University, Abraka, Nigeria. Whether this reluctance stems from a lack of knowledge regarding the concept, benefits, and efficacy of this particular family option in addition to knowing their opinions, beliefs, and perspective of the topic in question.

2. AIM OF THE STUDY

This study aimed to assess the knowledge and determine the attitude toward the use of vasectomy procedures among married men at Delta State University, Abraka.

3. METHODOLOGY

Study Design and Settings

This study adopted a descriptive design. The study was conducted among 164 married men at Delta State University, Abraka. The samples were collected using purposive sampling to select those who met the inclusion criteria.

Inclusion criteria: all married men who worked in the academic/teaching sector at the university who consented to participate.

Exclusion criteria: all married men who did not work in the teaching sector like administrative staff, support staff, technical staff, etc.

Data Collection

The researcher used a primary method of data collection through a researcher's administered questionnaire. Respondents were given all relevant information to make informed decisions about their participation in the study. Confidentiality was observed and no harm of any form was made towards the participants. They were briefed that consent can be given and withdrawn at any point in time should they feel like not participating anymore. Every idea that was not of the researcher was duly cited and referenced in the study. Ethical clearance was obtained from the ethical committee of the research setting.

Data Analysis

Data was thematically analyzed through the use of Microsoft Excel. Analysis of the collected data was done by using descriptive statistical approaches such as frequency and percentage.

4. RESULTS

Table 1 showed the demographic features of the respondents in the study. All the respondents were married, Christian and had a monogamous marriage which gave a frequency of 163 and 100% each. Majority of them (18.3%) were within age 51-60 while age 20-30 had the least percentage of 8.5%. Ph.d educational level had the highest percentage at 38.0% with 62 men in possession of this degree, 15.3% men (25) represented the least educational level i.e the Bachelor's.

58.3% (95) were Urhobo while 6.1% (10) were from other tribe. Out of 163 respondents, 2.5% (4) had no children while 39.9 (65) had 3-4 children accounting for the least and highest frequency respectively in the category. 72% (44.2) were not on any contraceptive method, 3.1% expressed using other method.

Table 2 presented the distribution of respondents' knowledge of vasectomy. On the evaluation of their knowledge, 100% of the respondents have heard of the phenomenon, could accurately define its meaning and understood its benefits. The frequency of the primary purpose of vasectomy was ascertained by 96.9% of the respondents picking the option of sperm being prevented to the semen while 3.1% knew its purpose as preventing the risk of developing testicular cancer. 1.8% chose the option that the epididymis is the part of the male reproductive system involved in vasectomy procedure, 90.2% chose vas deferens, 2.5% picked option of seminal vesicle, 3.0% prostate gland and 2.5% had no idea of the purpose.

Furthermore, when asked how about the duration of the procedure, 12.8% responded that it takes not less than 15 minutes, 67.1% responded that it takes about 30 minutes, and 19.5% responded that it takes about an hour. Results showed that 18.9% agreed that vasectomy can be reversed through vasovasostomy while 81.7% chose the option that stated the vasectomy couldn't be reversed.

Table 3 displayed the performance of respondents' knowledge. The analysis of the respondents' scores on their knowledge of vasectomy, consisting of ten questions, was categorized into two levels: good knowledge with a score of 5 and above, and poor knowledge with a score of less than 5. Out of 164 respondents, those with above-average knowledge answered 8 out of 10 questions correctly, with 100% aware of the meaning and benefits of the procedure, and 97.0% understanding its purpose. However, 81.1% of them remained unaware that the procedure can be reversed.

Table 4 unveiled the attitude of the demographic towards the use of vasectomy procedure was determined through a series of questions. From the result generated, the following deductions were made: 51.8% of the respondents perceived vasectomy as a sign of responsibility in men while 48.2% did not. When asked if family planning was a shared responsibility between them and their wife, 38.4% responded affirmatively. Only 27.4% of the participants were glad that vasectomy wasn't seen as a last resort for men, and 72.6% thought otherwise. 87.2% of the respondents were of the view that vasectomy wasn't accepted in the society. As displayed by the table, only 61.0% thought that vasectomy makes a man promiscuous.

From the distribution of their responses, it was deduced that across ten questions asked, 8 questions had negative responses from majority of the respondents. Therefore, demonstrating negative attitude towards the use of the procedure. The analysis of the respondents' attitude towards the use of vasectomy procedure was made on the basis that there must be more positive responses across the ten questions in comparison to the negative responses.

Table 5 showed an explicit detail to the attitudinal statements met with negative responses and the result demonstrated that the highest emphasis was placed on the stigma of the procedure being accepted and respected in the society. The following concern is the latter regret they will feel if they finally decide to have the procedure despite viewing it as a last resort for men. The onus of family planning lies on their wife however, if they eventually have a contrary view, they spouse wouldn't be of support. They were also of the opinion that more men shouldn't consider it.

Table 1: Distribution of Respondents by Demographic Characteristics

Variables	Frequency (n=164)	Percentage (%)
Age		
20-30	14	8.5
31-40	44	26.8
41-50	53	32.3
51-60	30	18.3
61 and above	23	14.0
Total	164	100
Marital status		
Single	0	0
Married	164	100
Divorced	0	0
Separated	0	0
Total	164	100
Highest educational level		
Bachelor's	25	15.2
Master's	40	24.4
Ph.D	62	37.8
Post Doctorate	37	25.6
Total	164	100
Religion		
Christianity	164	100
Islam	0	0
Traditional	0	0
Others	0	0
Total	164	100
Ethnicity		
Urhobo	96	58.5
Tsekiri	26	15.9
Isoko	16	9.8
Ijaw	16	9.8
Others	10	6.1
Total	164	100
Number of children		

None	5	3.0
1-2	42	25.6
3-4	65	39.6
5 and above	52	31.7
Total	164	100
Family structure		
Monogamy	164	100
Polygamy	0	0
Total	164	100
Current contraceptive being used		
None	72	43.9
Withdrawal	24	14.6
Condom	14	8.5
IUD (partner's use)	13	7.9
Implants (partner's use)	33	20.1
Others (please specify)	6	3.7
Total	164	100

Table 2 Distribution of Respondents' Knowledge of Vasectomy

S/N	Variable	Frequency (n=164)	Percentage (%)
1	Have you heard of vasectomy?		
	Yes	164	100
	No	0	0
	Total	164	100
2	What is vasectomy?		
	A surgical procedure to remove the uterus		
	A surgical procedure for male sterilization or permanent contraception involving cutting and sealing of the sperm duct	164	100
	A medical treatment used to induce ovulation in women	0	0
	A contraceptive method involving the insertion of a hormonal implant under the skin	0	0
	I don't know	0	0
	Total	164	100
3	What is the primary purpose of vasectomy?		
	To increase sperm production	0	0

	To prevent sperm from reaching the semen	159	96.9
	To prevent risk of developing testicular cancer	5	3.1
	To ensure long-lasting sexual stamina	0	0
	I don't know	0	0
	Total	164	100
4	Which part of the male reproductive system is involved during the procedure?		
	Epididymis	3	1.8
	Vas deferens	148	90.2
	Seminal vesicles	4	2.5
	Prostate gland	5	3.0
	I don't know	4	2.5
	Total	164	100
5	How long does it take for the procedure to be effective?		
	Immediately	17	10.4
	After a few weeks or months	135	82.3
	After one year	2	1.2
	Never fully effective	10	6.1
	I don't know	0	0
	Total	164	164
6	How long does a typical vasectomy procedure take?		
	Less than 15 minutes	21	12.8
	About 30 minutes	110	67.1
	About an hour	32	19.5
	More than two hours	0	0
	I don't know	1	0.6
	Total	164	100
7	Which of these is a potential risk or side effect of vasectomy?		
	Increased risk of erectile dysfunction	0	0
	Risk of infection at the surgical site	142	87.1
	Risk of developing testicular cancer	9	5.5
	Risk of hormonal imbalances	7	4.3
	I don't know	6	3.7
	Total	164	100
8	Which of the following is a benefit of vasectomy?		
	Increases sexual libido and performance	0	0

	Enhances fertility and sperm production	0	0
	Reduces the risk of bladder cancer	0	0
	Highly efficient form of contraception for men	164	100
	I don't know	0	0
	Total	164	100
9	Vasectomy is classified as what kind of procedure?		
	Minor	71	43.3
	Major	71	43.3
	Subjective	0	0
	I don't know	22	13.4
	Total	164	100
10	Can vasectomy be reversed?		
	No, it cannot	134	81.7
	Yes, through vasovasostomy	31	18.3
	Yes, through hormone therapy	0	0
	Yes, through medication	0	0
	I don't know	0	0
	Total	164	100

Table 3 Performance of Respondents' Knowledge of Vasectomy

S/N	Questions	Answer	Frequency (n=163) and percentage (%) of responses	
			Correct Responses	Incorrect Responses
1	Have you heard of vasectomy?	Yes	164(100)	0 (0)
2	What is vasectomy?	A surgical procedure for male sterilization or permanent contraception involving cutting and sealing of the vas deferens	164 (100)	0 (0)
3	What is the primary purpose of vasectomy?	To prevent sperm from reaching the semen	159 (97.0)	5 (3.0)
4	Which part of the male reproductive system is involved during the procedure?	Vas deferens	148 (90.2)	16 (9.8)
5	How long does it take for the procedure to be effective?	After a few weeks or months	135 (82.3)	29 (17.7)
6	Which of these is a potential risk or side effect of	Risk of infection at the surgical	110 (67.1)	54 (32.9)

	vasectomy?	site		
7	How long does a typical vasectomy procedure take?	About 30 minutes	142 (86.6)	22 (13.4)
8	Which of the following is a benefit of vasectomy?	Highly efficient form of contraception for men	164 (100)	0 (0)
9	Vasectomy is classified as what kind of procedure?	Minor	71 (43.3)	93(56.7)
10	Can vasectomy be reversed?	Yes, through vasovasostomy	31 (18.9)	134 (81.1)

Table 4 Distribution of Respondents' Attitudes towards the Use of Vasectomy Procedure

S/N	Attitudinal statement	Yes		No	
		Frequency (n=164)	Percentage (%)	Frequency (n=164)	Percentage (%)
1	Vasectomy is perceived as a sign of responsibility in men	85	51.8	79	48.2
2	Family planning is a shared responsibility between my spouse and me, not just my wife's	63	38.4	101	61.6
3	I am glad that vasectomy is not seen by men as a last resort	45	27.4	119	72.6
4	More men must consider vasectomy	79	48.2	85	51.8
5	My spouse would support my decision to undergo a vasectomy	71	43.3	93	56.7
6	I think vasectomy is a widely accepted and respected method of family planning	21	12.8	143	87.2
7	I will support my friends if they decide to get a vasectomy	79	48.2	45	51.8
8	I will regret my decision later if I undergo vasectomy	122	74.4	42	25.6
9	I feel the benefits of vasectomy outweigh the potential risks	82	50.0	82	50.0
10	Vasectomy makes men promiscuous	100	61.0	64	39.0

Table 5 Performance of Respondents' Negative Attitude towards the use of Vasectomy

S/N	Attitudinal statement	Negative responses	
		Frequency (n=164)	Percentage (%)
1	Family planning is a shared responsibility between my spouse and I, not just my wife's	101	61.6
2	I am glad that vasectomy is not seen by men as a last resort	119	72.6
3	More men must consider vasectomy	85	51.8
4	My spouse would support my decision to undergo a vasectomy	93	56.7
5	I think vasectomy is a widely accepted and respected method of family planning	143	87.2
6	I will support my friends if they decide to get a vasectomy	85	51.8
7	I will regret my decision later if I undergo a vasectomy	122	74.4
8	I feel vasectomy makes men promiscuous	100	61

5. DISCUSSION

The findings regarding knowledge and attitude towards the use of vasectomy procedure among married men reveals a significant level of understanding among married men, with a remarkable level of knowledge discovered as the results displays is crucial, as it indicates that the married men are generally. This finding was in keeping with result of the research study by Bol (2024) where it was recognized that the overall knowledge of the respondents was acceptable. High educational status depicts that a high knowledge of subject matter. And in this case, a tertiary institution with more Ph.d and Post Doctorate qualification holders leads to excellence, research innovation and high-quality education in a university. Also, it was in accordance with Ndu et al. (2022) results where the high level of knowledge was attributed to their advanced educational level.

Another study by Dejenene Wolde et al., (2023) backs up this finding as in their study they identified that educational status was significantly associated with knowledge about vasectomy and when compared to those who did not attend formal education, married men who were college or university graduates or higher were 4.1 times more likely to have good knowledge about vasectomy.

Despite the high level of awareness this study highlights a notable gap in attitude regarding the use of the procedure. Concerns raised from feedback generated from response to attitudinal statements shows that there is a negative perspective and opinion about the procedure due to unacceptability in the society. Abraka is a dominated community by Urhobo citizens. This demographic are highly cultural in nature. So the findings from this result is not far-fetched as culture may have played a role (Adefila et al., 2024)

The negative response by 101 (61.6%) respondents in this study further proves Chinnaiyan & Babu (2021) conclusion drawn that there is a widespread belief among men that pregnancy prevention is exclusively the woman's duty. Of the options provided in the demographic section of the questionnaire, we see that 72 respondents (43.9%) uses no contraception. Addition of options indicating partner's use of family planning are more that the two likely options for male. This action raises concerns on the mortality rate of mothers that lose their lives to the effect of long term use of contraceptives because of their devotion to their husband's decision regarding family planning a recent study have proved that men see tubectomy, IUDs, implants as superior options for their wives compared to the concept of vasectomy. hence they wouldn't consider undergoing the procedure.

Targeted interventions like educational campaign and counselling is paramount to dispel any reservation held towards the use of the procedure by the man. The study reveals that their opinions are also influence by the spouses' consent and opinions too (93/56.7%) and later regret (122/74.4). During antenal visits, family planning visits, nurses shouldn't hesitate to counsel couples (the man and his wife) on the efficacy of vasectomy, and its reversibility should they have a change of mind. This emanates a positive effect in terms of viable socioeconomic development in reducing maternal mortality (Nestro et al., 2022).

In the study, 85 (51.8) respondents will not support their friend if they decide to get a vasectomy, neither are they of the opinion that more men should consider the use of the procedure. International agreements highlight the need for gender equality (SDG 5) and informed family planning choices alongside a push for men to actively participate in family planning both as supportive partners and by using contraception themselves (United Nations, 2025). A snowball effect can achieve this by person to person health education (Israel et al. (2024))

6. CONCLUSION

The gender role of seeking family planning option throughout history has always lied on the female except in emerging rare cases of where men from developed countries seek responsibility for their reproductive health. This research study proves the stereotype that most men rely heavily on their wives' involvement in family planning. Whilst the assessment of knowledge about the procedure is apt, concerns were raised from their responses towards the set attitudinal statements. The role of nurses has always been pivotal in the delivery of healthcare. Encouraging family planning initiatives is essential for lowering rates of illness and death among mothers, particularly within the context of Nigeria's patriarchal social structures. Additionally, health education and outreach programs are effective strategies for dispelling misconceptions and addressing concerns that may contribute to negative attitudes among men.

7. CONFLICTS OF INTEREST

No conflicts of interest

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