

Vasectomy vs. Tubectomy: Factors Influencing Sterilization Choices in Couples Opting for Permanent Sterilization

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ABSTRACT

Background: worldwide, Permanent sterilization is the preferred method of contraception. The purpose of this study was to analyse the rate of acceptance of various surgical permanent sterilization methods among men and women opting for family planning and to find factors affecting the acceptance of tubectomy over vasectomy.

Materials and Methods: The study was carried out from March 2023 to May 2023. The study involved 500 couples. All the couples who opted for permanent sterilisation were included for the study. Detailed counselling was provided about both male and female sterilisation procedures and the couple were advised to select the type of sterilisation procedure and the reasons for not accepting the procedure were discussed. The results were analysed.

Results: Of the study population, 70% of male partners and 76% of female partners were between the ages of 20 and 30; 28% of male partners and 24% of female partners were between the ages of 30 and 40; and just 2% of male partners were older than 40. All 500 couples contemplating permanent sterilization were informed of vasectomy and tubectomy. Prior to therapy, 430 couples chose tubectomy, 10 couples chose vasectomy, and 60 were added after counselling, resulting in 430 couples choosing tubectomy and 70 couples accepting vasectomy. Vasectomy acceptability was low, and variables influencing this included side effects, impotence, family resistance, societal stigma, malignancy, and religious beliefs.

Conclusion: Despite being less intrusive and less expensive than tubectomy, the current study found that vasectomy is not widely accepted.

KEYWORDS: Sterilisation, Tubectomy, vasectomy, family planning, permanent sterilisation.

INTRODUCTION

India is the world's most populous country, accounting for 17.76% of the global total.¹ Since its inception in 1952, the family planning programme has evolved in terms of policy and program execution.²

Surgical sterilization is still one of the most frequent methods of contraception in the globe. The vasectomy operation is a safe, easy, and permanent form of contraception, with a failure rate of less than 1%.³ Vasectomy is less costly and similarly efficient as female sterilization; yet, it is one of the least utilized and least well-known means of contraception worldwide.⁴

Vasectomy rates are often lower in underdeveloped nations. Except for Bhutan, Iran, and the Republic of Korea, the number of vasectomy cases throughout Asia has steadily decreased over the last 15 years.⁵ Despite

several developments from standard to no scalpel vasectomy that may be performed on an outpatient basis, its popularity remains low.

Despite breakthroughs in understanding about permanent sterilization procedures, including newer technologies, and several government incentives to apply these treatments, there are still inadequacies in the communication system that prevent individuals from adopting these methods. Worldwide, about 3-6% of couples use vasectomy as a means of contraception.^{6,7} across contrast, the incidence of vasectomy has gradually decreased across Asia over the last 15 years, with the exception of Bhutan, Iran, and the Republic of Korea.⁸

The purpose of this study was to analyse the rate of acceptance of various surgical permanent sterilization methods among men and women opting for family planning and to find factors affecting the acceptance of tubectomy over vasectomy.

MATERIALS AND METHODS:

The study was conducted between March 2023 to May 2023 in the department of OBG at Viswabharathi Medical College & General Hospital. A total of 500 couples opting for permanent sterilisation were included for the study. After taking ethical committee approval from the study was started on march 2023.

Inclusion criteria

- 1) Couple opting permanent sterilisation (interval) were included in the study.
- 2) Couple admitted for second delivery who are planning for sterilisation (concurrent).
- 3) Couple opting for MTP and willing for sterilisation procedure.

Exclusion criteria

- 1) Couple not willing for the study.
- 2) Husband with severe comorbidities.

Detailed counselling was done regarding both male and female sterilisation procedures were explained and the couple were advised to select the type of sterilisation procedure and the reasons for not accepting the procedure were discussed. The results were analysed.

Statistical analysis: SPSS version 22 was used to do statistical analysis of the data. qualitative data were described using frequency and percentages.

RESULTS:

Of the study population 70% of male partners and 76% of female partners were between 20-30 years and 28% of male partners and 24% of female partners were between 30-40 years of age and only 2% of male partners belong to age group > 40 years as shown in Table 1 & Fig. 1.

TABLE 1: AGE DISTRIBUTION

Age (years)	Male (n=500)	%	Female (n=500)	%
20-30	350	70%	380	76%
30-40	140	28%	120	24%
>40	10	2%	Nil	0%

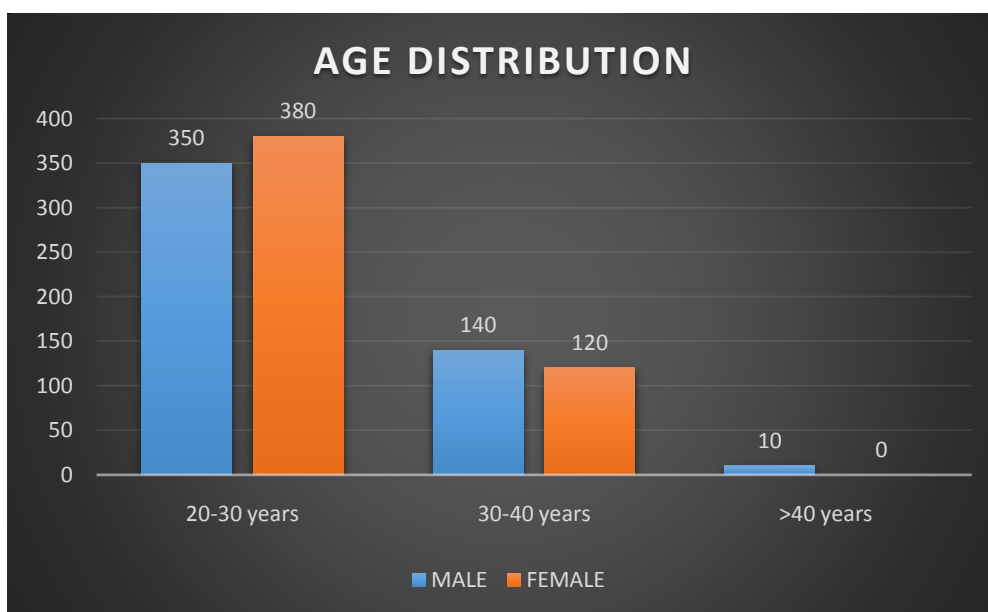


FIG. 1: AGE DISTRIBUTION

Of the study population among the male partners 21.8% were illiterate and 31.6% studied primary school and 25.6% studied secondary school 10% studied upto intermediate and 10% were graduates. Among the female partners 31.2% were illiterate and 36.4% had primary schooling and 20% had secondary schooling and 7.65% completed intermediate and 4.8% were graduates as shown in Table 2 & Fig 2

TABLE 2: EDUCATIONAL STATUS

Educational status	Male (n=500)	%	Female (n=500)	%
Illiterate	109	21.8%	156	31.2%
Primary school	158	31.6%	182	36.4%
Middle school	128	25.6%	100	20%
Inter	54	10.8%	38	7.6%
Graduate and above	51	10.2%	24	4.8%

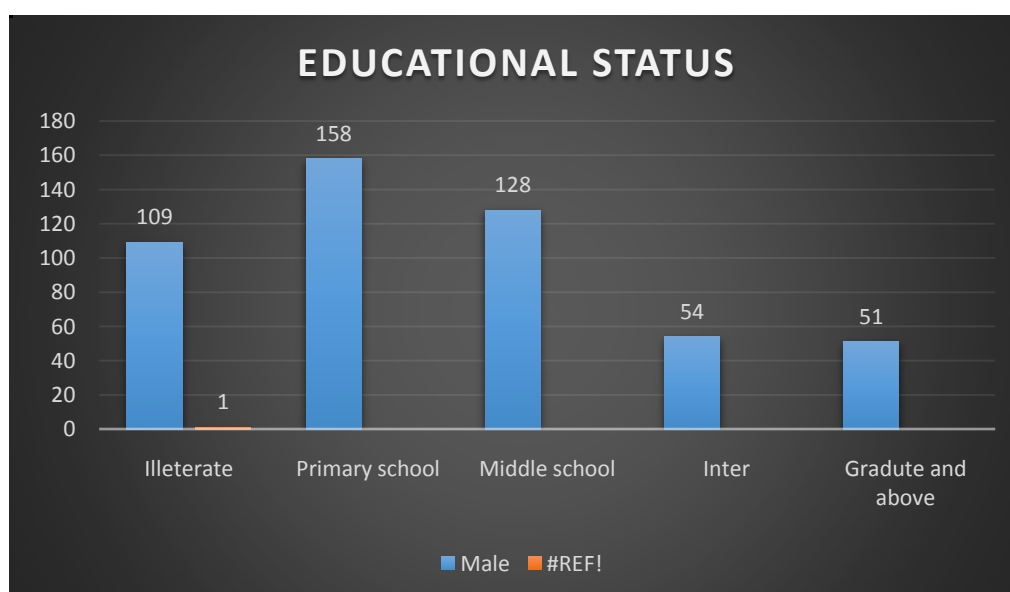


FIG. 2: EDUCATIONAL STATUS

The source of information was about 10% of study couple was obtained from mass media, 20% from health workers, 33.6% from friends, 26.4 % from relatives and family and 10% from other sources as shown in Table 3

TABLE 3: SHOWING SOURCE OF INFORMATION

Source	Number (n=500)	Percentage (%)
Mass media	50	10
Health care workers	100	20
Friends	168	33.6
Relatives	132	26.4
Others	50	10

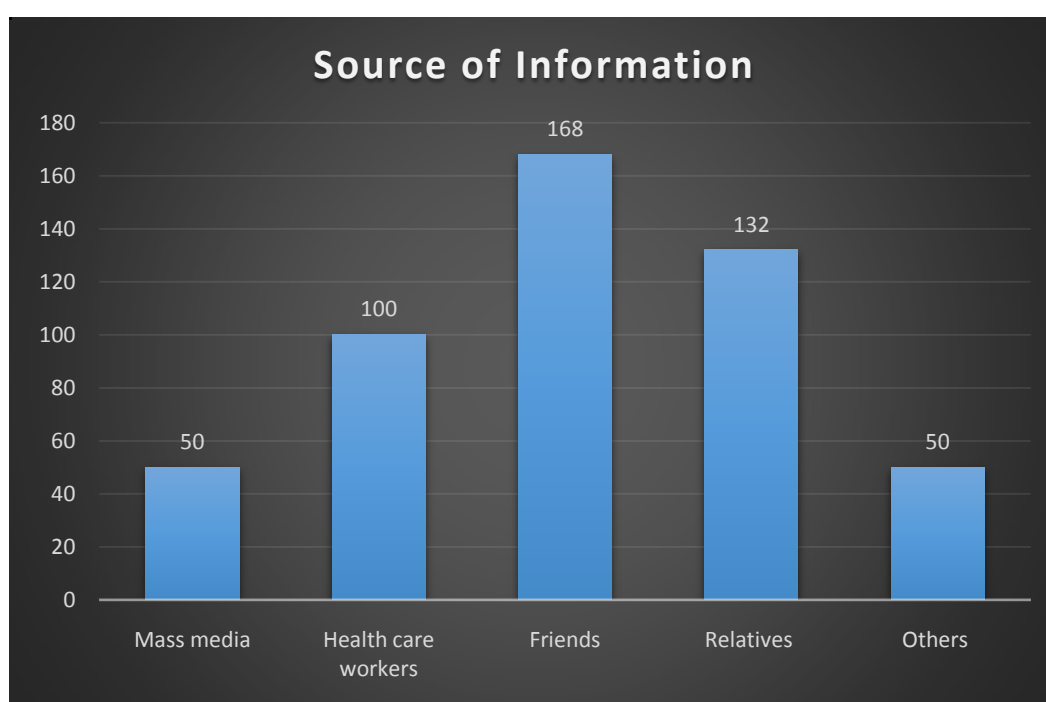


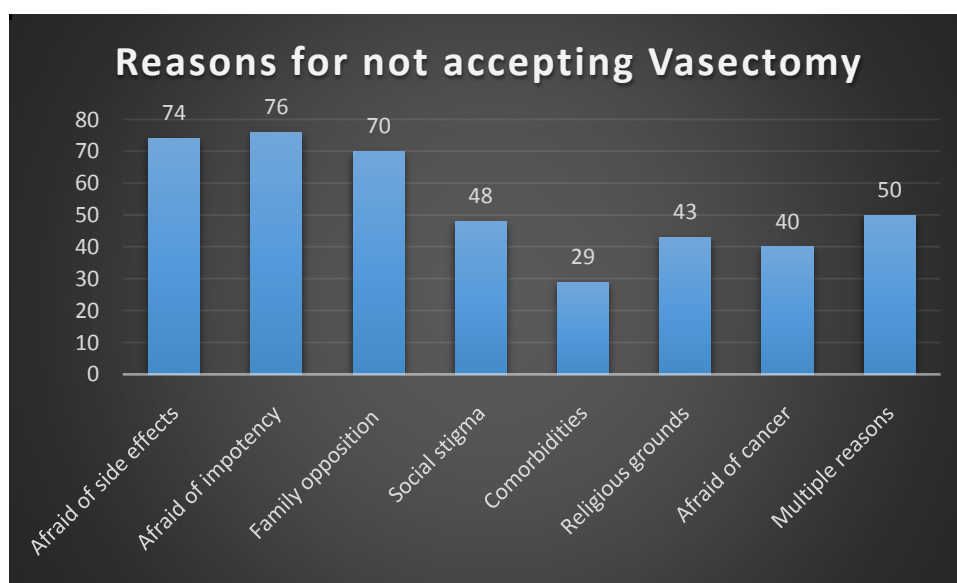
FIG 3: SOURCE OF INFORMATION

After noting their choices, the couples were explained and counselled the advantages of vasectomy over tubectomy and the technique was explained. A detailed counselling session was carried out and the procedures of both tubectomy and vasectomy were explained and the couple were allowed to take their decision after discussing with the partners. After the counselling session, 60 (12%) male partners were willing for vasectomy and in total 70 male partners agreed to undergo vasectomy were done in the institution.

Among the 430(86%) men of the study population who did not opt for vasectomy the reasons for not accepting were noted and tabulated. Among the men who were not willing for vasectomy the reasons for not opting in their terms were tabulated and analysed. 17.20% were afraid of side effects, 17.67% were afraid of impotency, 16.27% were afraid of family opposition, 11.6% were afraid of social stigma (does not want to reveal to friends and family), 10% were not willing for surgery on religious grounds, 9.3% were afraid of risk of cancer as shown in Table 4

TABLE 4: REASONS FOR NOT ACCEPTING VASECTOMY

Reason	Number (n=430)	Percentage (%)
Afraid of side effects	74	17.20
Afraid of impotency	76	17.67
Family opposition	70	16.27
Social stigma	48	11.16
Comorbidities	29	6.74
Religious grounds	43	10
Afraid of cancer	40	9.30
Multiple reasons	50	11.62

**FIG. 4: REASONS FOR NOT ACCEPTING VASECTOMY**

DISCUSSION

A community-based cross-sectional study conducted in Nandagudi revealed that 52% of the study population is between 31 and 40 years of age.⁹ Whereas in the current study, 70% of the male partners and 76% of the female partners belong to age group 20-30 years and 28% of male partners and 28 % of female partners belong to age group 30-40 years and 2% of male partners were aged greater than 40 years.

In the current study, 10% of the information was obtained from mass media, 20% from health care providers, 33.6% from friends, 26.4% from family, and 10% from other sources. According to Nair et al.'s descriptive cross-sectional study "knowledge and attitude of married men towards vasectomy in an urban slum of Navi Mumbai" of 121 married males, 70.2% were aware of vasectomy. The sources of information were mainstream media (42.35%), followed by family and friends (29.4%), and physicians (24.7%).¹⁰

A descriptive cross-sectional research "vasectomy: a study of attitudes, beliefs, knowledge, and practices among literate men" undertaken by Sood et al in three districts of Punjab found that 70% of 225 men had heard of vasectomy but only 11% wanted to have it performed. 52% of them said that they refused to have the treatment because they were afraid their partners might get pregnant as a result of it.¹¹ In the current study following counseling, 16.27% of the study population were eager for vasectomy, and of the reasons not

choosing for vasectomy, 16.67% were fearful of impotence, 17.20% were worried of side effects, 16.20% due to family resistance, and 10% due to religious restraints.

Khan et al. did a study on "knowledge and practice of contraception in urban slum community, Mumbai" and found that although awareness of vasectomy was high, practice was low due to concerns about side effects and religious views.¹² In the current study, as in the previous study, the couples were aware of vasectomy, and despite counselling and explaining that it is less intrusive, acceptability is low due to fear of adverse effects, religious views, and social stigma.

in the study done by Mayani NB et al, it was observed that Only 7% of couples changed their minds from tubectomy to vasectomy, which is a safe, uncomplicated, and easy treatment to perform.¹³ In our research, only a tiny percentage of couples (13.95%) switched from tubectomy to vasectomy after being counselled about the surgery, which is safe, uncomplicated, and easy to carry out.

CONCLUSION

Despite the fact that vasectomy surgery is less intrusive, easier, and has less side effects, acceptability of vasectomy as a permanent method of sterilization is low among the study population. According to the survey, the majority of couples who chose tubectomy over vasectomy did so owing to the husband's hesitation, societal stigma, religious convictions, or familial apposition.

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CONFLICT OF INTEREST: None

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