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Original Article

Awareness and Perception to Vasectomy among Women Attending Antenatal Clinic at Teaching Hospital, Nagpur, India

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ABSTRACT

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Vasectomy is safer, simpler, less expensive and equally as effective as female sterilization. Yet, in India the proportion of tubectomy operations to total sterilizations was 95.6 percent in 2010-11. Women's awareness and perceptions surrounding vasectomy may have a significant role in the willingness to consent to such a procedure and can play a critical role in influencing whether their husbands adopt vasectomy. Methods: A population based cross-sectional study was undertaken at tertiary care hospital among women's attending antenatal clinic. A structured questionnaire was designed, and administered by interview to all consenting participants. Data analysis was done by using Epi info version 3.5.1 software. Results: The awareness of vasectomy was found to be 94.5%, but their knowledge level was low (67.5%). Almost (81.0%) women approved vasectomy as a method of sterilization in men. But surprisingly when asked regarding approval for spouse to use vasectomy as a method of permanent sterilization, (66.5%) women disapproved citing reasons of; not a popular method (33.0%), religious prohibition (16.5%), cultural prohibition (19.5%), fear of sexual dysfunction (8.5%), and other reasons. Almost all women opined that the decision regarding contraception should be taken jointly by husband and wife and there is a need of education regarding vasectomy. Conclusion: Publicity through the media removing misconceptions and individual counseling by health workers and satisfied clients may popularize vasectomy and promote acceptance.

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1. Introduction

Sterilization is currently the world's most widely used contraceptive method, in developing and developed countries alike, and it is projected to remain so over the next decade. Vasectomy is safer, simpler, less expensive and equally as effective as female sterilization. Yet, in India female sterilization prevalence exceeds vasectomy prevalence by a factor of 23 to 1, with a current rate of 4.4 percent in 2010-11 [1]. Worldwide, fewer than 3% of women ages 15 to 49 who are married or in union rely on a partner's vasectomy for contraception. One of the reasons for countries where vasectomy is more popular than female sterilization is women's encouragement to their partners to be sterilized as vasectomy is easier than female sterilization [2].

Demographers and program managers now realize that programs focused exclusively on either men or women may fail in their purpose because most sexual, family planning, and childbearing decisions are made or may potentially (and perhaps ideally) be made by both partners together. Women often play an active and influential role in men's decisions to have a vasectomy. Men are more likely to consider vasectomy if their partners favor it. In a study by Arwen B et al [3] concern for one's spouse was a common factor in the decision to have a vasectomy, and respondents reported a considerable amount of communication between spouses during the decision-making process. All vasectomy clients reported discussing the decision with their spouse, and more than half mentioned their wife's approval as a factor in the decision.

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In some countries addressing women directly can help. In Guatemala one hospital attracted many more vasectomy clients than any other hospital. At this hospital providers discussed vasectomy during family planning talks with women who had just delivered. They encouraged the women to talk to their partners. They gave the women promotional materials, including a brochure comparing vasectomy with female sterilization [4]. Hospitals in Turkey have used a similar strategy. Providers counseled couples seeking abortions about vasectomy and other family planning methods [5].

But women, like men, have doubts and questions about vasectomy. Unless these are resolved, women may discourage their partners from having a vasectomy. Even when women are aware of vasectomy, their information is frequently incomplete or incorrect. Evidence shows that patients who are knowledgeable about their conditions are able to actively participate in shared decision-making [6]. The perceptions surrounding vasectomy may have a significant role in the willingness to consent to such a procedure. These perceptions are driven by the information women receive from diverse sources, which may vary in their accuracy and reliability. Failure to receive accurate information may result in some women refusing a vasectomy for their partners. Culture and beliefs can also significantly influence the attitude toward vasectomy. Considering the importance of these factors, the study therefore investigated the awareness and perception to vasectomy among women attending antenatal clinic at teaching hospital, Nagpur, India.

2. Material and Methods

This was a cross sectional study involving 200 antenatal clinic attendees at the tertiary care Teaching Hospital. The hospital is a 960 bed tertiary health center in Nagpur, central India and serves as a referral center for private, cottage, general and specialist hospitals in this region. Data collection was through a structured pre-tested interviewer administered questionnaire. Women who attended the clinic from March 2012 to June 2012, and consented to be part of the study were recruited. Information obtained included: age, occupation, educational status, religion, parity, awareness and attitude towards male sterilization (vasectomy). Information regarding per capita income (in Rupees / month) was collected and socio-economic status was classified using Modified B G Prasad's classification for the study period (April 2012) and it was calculated by Multiplication factor (April 2012) with 1961 Prasad's classification values [7]. The data was analyzed using EPI info version 3.5.1. The data was presented in a tabular format and compared using simple percentages. Chi Square was used as test of statistics with p value of less than 0.05 considered statistically significant. Table 1

Ethical Considerations: This study protocol was approved by institutional ethics committee of a tertiary care hospital. Before conducting the interview the investigator explained the purposes of this study, the risks and the benefits, and the voluntary nature of participation to the women and their informed consent was obtained. Due to the limited literacy among women investigator spoke in local language to explain the content of questionnaires. Privacy and confidentiality was ensured. All the authors and two post graduate students from the department of community medicine conducted face to face interview to collect data.

3. Results

A total of two hundred women participated in the study. (63.0%) of them were from the age group 20-29 years. (68.5%) women were from social class III, IV and V. The majority of women's (76.0%) were housewives, while the rest were employed. More than half (66.5%) had educational level up to high school and (73.0%) were Hindu. Table 2

The awareness in women was observed by determining how many of them had heard of vasectomy ("operation in men who do not desire anymore children"). Interestingly the awareness of vasectomy was found to be (94.5%) almost all women were aware, even when women are "aware" of vasectomy, the information they have frequently is incomplete or incorrect. A large proportion of women have described themselves as having very little information (67.5%) about vasectomy. The main source of information about vasectomy was predominantly a friend, spouse and relative (51%), followed by the mass media (26.5%) like newspaper, television, radio etc. Health care professionals (19.0%) and other sources (3.5%) ranked the lowest.

Perception of vasectomy was determined by asking the question "do you approve or disapprove of men having this operation?" and what were the one or two most important reasons for approving and disapproving this operation. Out of 200 women (81.0%) approved, while (19.0%) disapproved vasectomy as a method of sterilization in men. Reasons for approval of vasectomy were mainly like, it is easy (24.0%), followed by no adverse effects post-surgery (22.0%), others approved vasectomy citing that it is painless (18.5%), why always women should suffer men should also do operation (11.0%), it is reversible (8.5%) and there were few other reasons (16.0%).

But surprisingly when asked regarding approval for spouse to use vasectomy as a method of permanent sterilization after completion of family, maximum (66.5%) women disapproved. Among those who refused for spouse to use vasectomy gave reasons of; not a popular method (33.0%), religious prohibition (16.5%), cultural prohibition (19.5%), fear of sexual dysfunction (8.5%), fear of marital infidelity (3.0%) and (19.5%) cited other

reason (lack of time, fear of surgery, impact on income, physically weak, so that husband can no longer do strenuous work etc). There was a statistically significant relationship ($p < 0.05$) between socioeconomic status, religion, educational status and the approval for the use of vasectomy. Women with high socioeconomic status (68.2%) were more in favor than low socioeconomic status (17.5%). More Hindu (36.9%) approved of the use of vasectomy than Muslims (19.0%). The more educated women (55.2%) were more willing to allow their spouses use vasectomy than the less educated (39.8%). Association with age, occupational status, and type of family was not found to be in significant. When asked who should take decision on the use of contraceptives methods, almost all women opined that the decision should be taken jointly by husband and wife and there is a need of education regarding vasectomy.

Table 1 Structure of questionnaire listing the various themes constituting the various items.

Structure of questionnaire by themes
Socio-demographic characteristics: Name, age, religion and type of family Socio-economic power: Level of education and employment
Number of children, completion of family Decision regarding contraceptive heard of vasectomy?
Knowledge: method, risk, benefits Approval or disapproval of vasectomy as a method of permanent sterilization in men Approval for spouse to use vasectomy as a method of permanent sterilization Need for client education Source of information: How and where did you get information

4. Discussion

In this study, the most of the women (94.50%) were aware about vasectomy as method of sterilization in men. This finding parallels the findings of Scott B et al [8]. The awareness in this study among women was found to be higher than that mentioned in NHFS III for urban population in Maharashtra which was 81.5% [9]. Even when women are "aware" of vasectomy, the information they have frequently is incomplete or incorrect. A large proportion of women have described themselves as having very little information (67.50%) about vasectomy. This is consistent with the findings of Khan & Patel [10], study in Uttar Pradesh, where nine out of 10 men and women reported being aware of vasectomy, while fewer than half of the men and only one-fourth of the women had correct information on the procedure.

Although majority of the women approved of the use of male contraceptive by men, their attitude towards vasectomy by their spouses was however different. (66.5%) of the women have disapproved the use of vasectomy by their spouses. This finding could portend a major setback to the use of vasectomy by men for fertility control since majority of women had opined that family planning decision should be jointly taken by couples and not one partner. Kishori Mahat et al [11] showed that wife's refusal and

culturally biased misconceptions about vasectomy were the main reason for a number of men refusing this procedure regardless of its necessity. Similarly, a study conducted by Dutta M et al [12] at South Delhi, also found out that 34.4% of the married men did not undergo sterilization as their wives opposed it, as they believed that the husband, being the main bread earner for the family, might become bedridden following sterilization.

On probing reasons given by women for their disapproval with the use of vasectomy by their spouses included religious prohibition, cultural prohibition, socio-economic and few other reasons. Most women gave reason that vasectomy is unpopular operation in the community. It is well known that culture and community aspects influence the ability and willingness of people to obtain any procedure. There is huge impact of the social environment on individual considerations. Awareness of cases of male sterilization that had been successful was, although unfortunately rare in India (prevalence 3- 4%), one of the most powerful drivers of improving attitudes toward and even increasing uptake of vasectomy. Landry E [13] in his study reported that among couples who have chosen vasectomy, women are more likely to have discussed the procedure with their partners and to have known a satisfied vasectomy user before the choice was made. Along with the unpopularity, women's lack of information, misunderstandings and rumors about the vasectomy might be the reason that, more women disapproving with the use of vasectomy by their spouses. More or less similar findings were reported in other studies [3,7,8,9].

For many years, the blame for the underutilization of vasectomy has been placed only on men. The findings in this study suggest that the blame for the low acceptability of vasectomy may not lie squarely with the men. The attitude of women towards the use of vasectomy by their spouses is equally not encouraging. Given a spouse's potential role in the decision-making process, the strategy for improving this trend should involve more targeted efforts by promoting women education, economic empowerment, information dissemination and enlightenment campaigns by family planning experts. Involvement of religious leaders and strong political will is also crucial to improving awareness and acceptability of vasectomy in developing countries like India. Also, women could receive education regarding vasectomy in maternal and child health clinics. Counseling and promotional efforts should be directed at the couple as a decision-making unit.

5. Conclusion

The study reveals that, in this population with a high degree of awareness, most of the women who had heard of the operation approve of it as a means of contraception in men. Nonetheless, there is a widespread lack of knowledge, and a substantial segment of the women who disapproved the use of vasectomy by their spouses citing reasons like, religious and cultural prohibition, socioeconomic sexual dysfunction and unpopularity of the operation in the community. This shows that once there is a critical mass of satisfied clients, demand for vasectomy may grow more exponentially than expected.

Table 2 Distribution of women's according to their socio-demographic characteristics

Parameters	Frequency	Percentage
Age (years)		
<19	02	1.0
20-24	51	25.5
25-29	75	37.5
30-34	44	22.0
35-39	25	12.5
>40	03	1.5
Educational Status		
Illiterate	09	4.5
Primary/Mid school	38	19.0
High school	86	43.0
Intermediate	42	21.0
Graduate/Post graduate	25	12.5
Occupation		
Employed	48	24.0
housewife	152	76.0
Socio-economic classification*		
Upper (I)	20	10.0
Upper Middle (II)	43	21.5
Lower Middle (III)	98	49.0
Upper Lower (IV)	28	14.0
Lower (V)	11	5.5
Religion		
Hindu	146	73
Muslim	42	21
Others	12	06

6. Limitations

The current study should be interpreted in light of some limitations. This is basically because of small sample size and most of the women coming from catchment area of a tertiary care hospital and hence the results from this study cannot be generalized to the entire population. However, when the difficulties related to traditional taboos for women's talking about family planning are considered, the present study provides valuable information on factors influencing the acceptance of vasectomy among married men in Nagpur.

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