Original Research Article

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Knowledge and attitude of married men towards vasectomy in an urban slum of Navi Mumbai

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ABSTRACT

Background: India's Total Fertility Rate has been 2.2 in 2016, which is not far from replacement levels of 2.1. Tubectomy has been able to achieve this to a good extent, however vasectomy which is a far safer and effective method, isn't still popular amongst men due to gender bias in our country. This study intends to understand the reasons for gap in the demand for vasectomy. The objective was to assess knowledge and attitude of married men towards vasectomy.

Methods: A descriptive cross sectional study was carried out amongst 121 married men selected by simple random sampling, in the age group of 21 to 50 years and who hadn't undergone vasectomy. A pretested structured questionnaire was used to assess knowledge. Respondents' attitude was measured on 4 point Likert's scale. Data was analysed using SPSS software version 21.

Results: 70.2% men were aware of vasectomy. Main sources of information were mass media (42.35%), family and friends (29.41%) and doctors (24.7%). 47.1% of respondents felt that men should not undergo vasectomy. The main reasons given for disapproval were "women are best suited for sterilization procedure" (68.42%), "Vasectomy can make men impotent" (14.03%), "Leads to general weakness and blood loss" (13.03%), "Can't do heavy work" (11.5%) and "Fear of surgery" (5.7%). Only 16.5% men agreed that vasectomy is better than tubectomy.

Conclusions: In our country there is a clear gender bias towards tubectomy as men are reluctant to undergo vasectomy. Thus there is an urgent need to intensify the Behavioural Change Communication approach which will enable to improve knowledge and change men's attitude towards vasectomy.

Keywords: Knowledge, Attitude, Vasectomy, Married men, Gender

INTRODUCTION

India was the first country to launch its National Family Welfare program in 1951 with a view of reducing birth rate to the extent necessary to stabilize the population consistent with the requirements of national economy. Though the National Family Welfare Program witnessed an upsurge in male sterilizations in 1970s due to mass vasectomy camps, enhanced incentives and massive public drives but it failed to find social acceptance.

Government of India had set a target for Total Fertility Rate (TFR) of 2.1 children per woman nationally by the year 2010. India's Total Fertility Rate has seen a steady decline from 2.7 in 2005-06 to 2.2 in 2015-16. Tubectomy has been able to achieve this to a good extent. However vasectomy which is a far more safer and effective method, isn't still popular amongst men, due to gender bias in our country.

As per the NFHS-4 data, the total number of male sterilisation done in the year 2015-16 were only 0.3% as

compared to 1% in 2005-06.² Even in Maharashtra there has been a reduction in participation for vasectomy from 2.1% in 2005-06 to 0.4% in 2015-16.² It does not mean that the temporary method of male contraception i.e. condom usage has improved in turn. In fact the usage of condom in Maharashtra has seen a drop of 10.5% in 2016-17 as compared to 2015-16 and in overall India there was a decrease by 58.4%.³ A WHO expert committee has defined five methods to evaluate the success of family planning program. One of them is the evaluation of knowledge, attitude, motivation and behaviour among people which are important determinants in the adoption of Family Planning methods by them.¹ Thus this study intends to understand the reasons for gap in the demand for vasectomy.

Objectives of the study

- To assess the knowledge of married men aged 21 to 50 years regarding vasectomy.
- To study the gender biased attitude of married men towards decision making regarding acceptance of vasectomy.

METHODS

A descriptive cross sectional community based study was carried out amongst 121 married men selected by simple random sampling, in the age group of 21 to 50 years and who had not undergone vasectomy. The study was conducted over a period of 6 months from November 2016 to April 2017.

The inclusion criteria for selection of the participants were that the respondents had to be permanent residents of the urban slum area and they should not have undergone vasectomy. Respondents who were unmarried, divorcee, separated or widower were not considered for the purpose of the study. The ones who were not willing to participate in the study were also excluded from the study.

Sample size calculation was done using the formula 4 PQ/L². The prevalence of knowledge regarding vasectomy procedure was taken as 78% from the study by Vijay, Surya.⁴ Allowable error was taken as 10%. The attrition rate was considered as 10%. Hence the sample size was calculated as 121.

A pilot study was conducted first amongst 25 subjects. Then a house to house visit was done. The subjects were explained the purpose of the study in detail and a rapport was developed, so as to make the interview comfortable for the subjects. Some of them preferred discussing this alone without their spouses around them, while others were ok discussing it in front of their wives. The subjects were personally interviewed using predesigned, pretested structured questionnaire to assess the knowledge regarding vasectomy. Attitude was measured using a 4 point Likert scale in the same questionnaire. The role of gender bias in decision making regarding acceptance of

vasectomy was assessed through questions in the attitude section of the questionnaire. Questions such as should men undergo vasectomy or whether contraception is wife's responsibility were assessed on 4 point Likerts scale to know the gender biased attitude of married men towards vasectomy. Attitude was further probed by asking married men whether vasectomy was better than tubectomy or does vasectomy affect their masculinity. Validation of the questionnaire was done by experts. Statistical analysis included percentages and various test of significance like chi square test were applied to find out association. Data was analysed using SPSS software version 21.

RESULTS

Table 1: Demography statistics.

Demographic variables	Prevalence (%)
Age	
21 to 30 yrs	30 (24.8)
31 to 40 yrs	65 (53.7)
41 to 50 yrs	26 (21.5)
Education	
Illiterate	30 (24.8)
Primary	14 (11.6)
Secondary	67 (55.4)
Higher Secondary	4 (3.3)
Graduate	5 (4.1)
Post Graduate	1 (0.8)
Religion	
Hindus	100 (82.6)
Buddhists	16 (13.2)
Muslims	5 (4.1)
Family members	
2 to 5 members	83 (68.6)
6 to 10 members	35 (28.9)
11 to 15 members	3 (2.5)
Socio-economic status	
I	2 (1.7)
II	30 (24.8)
III	38 (31.4)
IV	42 (34.7)
V	9 (7.4)
No. of children	
0 - 2	65 (53.7)
3 – 6	56 (46.3)
Type of family	
Joint	21 (17.4)
Nuclear	19 (75.2)
Three Generation	9 (7.4)

Majority of respondents (53.7%) were between the age group of 31 to 40 years. 82.6% respondents were Hindus. 68.6% respondents had 2 to 5 members in their family. Majority men (53.7%) had between 0 to 2 children. 75.2% of respondents stayed in nuclear families. 52.2%

respondents were unskilled workers followed by 39.7% of respondents who were skilled workers. 55.4% respondents had studied up to secondary school whereas 24.8% respondents were illiterate. Socio-economic status for the respondents was classified as per Modified B G Prasad's classification, after which 34.7% respondents were found to belong to Class IV, followed by 32.4% respondents belonging to Class III (Table 1).⁵

Table 2: Association between socioeconomic status and awareness.

Socioeconomic Status	Aware No. (%)	Not Aware No. (%)
I	1 (50)	1 (50)
II	21 (70)	9 (30)
III	26 (68.4)	31.6 (12)
IV	31 (73.8)	11 (26.2)
V	6 (66.7)	3 (77.3)
Total	85 (70.2)	36 (29.8)

P=0.943, Not significant.

It was observed that the level of awareness about vasectomy was found to be higher as the level of education went up, with only 53.3% illiterate respondents being aware of vasectomy whereas 100% of graduates and post graduates were aware of it, though there was no statistical significance found in the association between education and level of awareness (Table 2).

There was no statistically significant association found between the socio-economic status and awareness regarding vasectomy (Table 3).

Table 3: Association between education and level of awareness.

Education	Aware No. (%)	Not aware No. (%)
Illiterate	16 (53.3)	14 (46.7)
Primary	9 (64.3)	5 (35.7)
Secondary	51 (76.1)	16 (23.9)
Higher secondary	3 (75)	1 (25)
Graduate	5 (100)	0 (0)
Post Graduate	1 (100)	0 (0)

P=0.154, Not significant.

70.2% men were aware of vasectomy. Main sources of information were mass media (42.35%), family and friends (29.41%) and doctors (24.7%). 47.1% of respondents felt that men should not undergo vasectomy. 70.2% men know that vasectomy is a permanent method of contraception. 45.5% men did not know whether sexual function returns to normal following vasectomy (Table 4).

47.1% men disagreed that they should undergo vasectomy. 57.9% men strongly agreed that contraception is wife's responsibility alone indicating gender bias. 31.4% men felt that vasectomy has its influence on self-confidence and masculinity. 42.1% men disagreed that vasectomy is better than tubectomy (Table 5).

Table 4: Knowledge regarding vasectomy (n=121).

Question	Number of subjects	Percentage (%)		
1. Have you heard about vasectomy?				
a. Yes	85	70.2		
b. No	36	29.8		
2. Source of information for vasectomy				
a. Mass media	36	29.7		
b. Family & Friends	25	20.7		
c. Doctors	20	17.3		
d. Others	3	2.5		
3. Is vasectomy a permanent method of contraception?				
a. Yes	35	70.2		
b. No	4	3.3		
c. Don't know	32	26.4		
4. Does sexual function return to normal following vasectomy?				
a. Yes	55	40.5		
b. No	17	14		
c. Don't know	49	45.5		
5. Does vasectomy prevent one from getting STI?				
a. Yes	47	38.8		
b. No	15	12.4		
c. Don't know	59	48.8		

Table 5: Attitude	towards	vasectomy	(n=121)
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Question	Strongly agree (%)	Agree (%)	Disagree (%)	Strongly disagree (%)
1. Men should undergo vasectomy	6 (4.95)	50 (41.3)	57 (47.1)	8 (6.61)
2. Contraception is wife's responsibility alone	70 (57.9)	14 (11.5)	28 (23.1)	9 (7.43)
3. Vasectomy has its influence on self confidence and masculinity	13 (10.7)	38 (31.4)	50 (41.3)	20 (16.5)
4. Vasectomy is better than tubectomy	20 (16.5)	19 (15.7)	51 (42.1)	31 (25.61)

The main reasons given by the study participants for disapproval of vasectomy were "Women are best suited for sterilization procedure" (68.42%), "Vasectomy can make men impotent" (14.03%), "Procedure leads to general weakness and blood loss" (13.03%), "Can't do heavy work" (11.5%) and "Fear of surgery" (5.7%). Only 16.5% men agreed that vasectomy is better than tubectomy (Figure 1).



Figure 1: Reasons for disapproval of vasectomy.

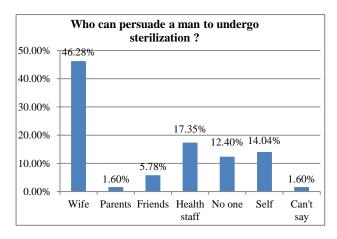


Figure 2: Who can persuade a man to undergo sterilization?

When the respondents were asked about who could persuade a man to undergo sterilization, majority (46.28%) felt that wife could persuade husbands for accepting vasectomy. 17.35% felt that health staff could persuade them for vasectomy acceptance. The other persuaders reported by the respondents for accepting

vasectomy were "Self-Motivation" (14.04%), "No one" (12.40%), "Friends" (5.78%) and "Parents" (1.6%). (Figure 2).

DISCUSSION

The study found that even after extensive advocacy, social mobilization and communication efforts by government under various national health programs including Reproductive and Child Health (RCH III) program just 70.2% men were aware of vasectomy which was lower as compared to a similar study by Khan et al where 81.37% men were aware of vasectomy. It can be due to multiple factors, which are discussed in the study.

In this study the level of education is positively associated with the level of awareness regarding vasectomy amongst men and as the level of education increased, the level of awareness also increased. Thus increasing educational opportunities for men would lead to better vocational opportunities. This would not just increase the awareness levels regarding vasectomy but the economic necessities of modern world would also compel men to adopt a smaller family.

In our study, mass media has been the major contributor in spreading awareness regarding vasectomy (42.3%). This finding is in tune with the ever increasing role of mass media in today's world and the convincing power that mass media holds. More effective mass media and advertising strategies for promoting vasectomy thus hold great promise. Doctors contributed as source of information in just 24.7% cases, whereas in the study by AjeetSaoji et al health care professionals contributed in 19% cases. Therefore we can conclude that role of health care professionals has been lesser in spreading awareness regarding vasectomy as compared to other modes. Hence health care professionals need to take up the responsibility in spreading awareness and reducing the misconceptions regarding the same.

47.1% of respondents were of the opinion that men should not undergo vasectomy, which can be due to various factors including gender bias. The major reason for disapproval found out by the study were "Women are best suited for sterilization procedure" (68.42%) which is in contrast with a similar study by Prabhu et al wherein

the major reason was found to be "Fear of surgical procedure" (37%).⁷

Only 16.5% men agreed that vasectomy is better than tubectomy which is similar (17.98%) to the study by Madhukumar et al in Karnataka. This indicates the level of ignorance amongst men regarding this procedure. Excellent IEC efforts coupled with quality of services rendered would help increasing the acceptance of vasectomy. 9

45.5% men did not know whether vasectomy reduces sexual function or not. A study by Bertero et al showed that vasectomy caused a positive impact on sexual function, especially on desire and sexual satisfaction, in the majority of men undergoing surgery. There was no case of surgery-related erectile dysfunction.¹⁰

41.3% men thought that vasectomy has its influence on self-confidence and masculinity which again shows ignorance amongst men regarding vasectomy.

Around 69.42% subjects are of the opinion that contraception is wife's responsibility alone and also 58.7% respondents had got tubectomy done for their wives. What stands out here is the attitude of men towards women. It shows the gender discrimination that is largely prevalent in our patriarchal society. It also directs our attention towards the power structure in the family, wherein the decision making power of the woman is negligible. It reflects the marginalisation of women in our society. Gender bias and gender discrimination has its roots in certain misplaced beliefs in society about men and women, like men are strong and women are weak. These misplaced beliefs lead to defining different gender norms which govern the behaviour of men and women in society, like men can express themselves and women should not express themselves freely. Gender norms ultimately lead to different gender roles for men and women, like men must be breadwinners and women must be the carers and nurturers. These typical masculine and feminine roles defined by society causes a sexual division of labour which is typically productive for men i.e. earning income and reproductive function for women. Division of labour causes different activities and tasks being defined for men and women. Women's tasks are often undervalued and invisible. The ultimate outcome of this patriarchal system is differential access to and control over various resources like money, land, technology, knowledge, self-esteem and time. Differential access to resources perpetuates a system where decision making power lies with men. This same gender bias is also proved by our study which shows gender bias amongst men for getting vasectomy procedure done and the tendency of men to put the entire onus of contraception on women. Hence there is an urgent need to address this bias through behaviour change communication approach. Long term change in attitude is only possible when the overall patriarchal beliefs in society and upbringing of boys change, which is a long term social process.

46.28% men said that their wives can persuade them for undergoing sterilization. Though they have said so, on further enquiry it was found out that none of the men in the entire locality had undergone vasectomy. So there is a difference between what men say and what they actually practice.

CONCLUSION

Our study shows that there is a significant lack of awareness about the procedure of vasectomy amongst married men which may be due to lack of education and lack of communication efforts on the part of healthcare professionals and the government.

And also there is a huge gap in demand for vasectomy which is seen mainly due to gender bias which is evident in the responses of the participants. Women willingly get their tubectomy done without any resistance due to lack of concern for their health, it also shows lack of awareness and inadequate decision making power on the part of women, which maybe again due to lack of literacy and lack of communication. The gender biased attitude of men can play a role in non-acceptance of vasectomy procedure. This needs to be further probed by conducting in-depth interviews and focus group discussion.

Recommendations

There is an urgent need to address the gap in demand for vasectomy due to gender bias. A holistic approach towards this challenge of non-acceptance of vasectomy has to be adopted which includes multidisciplinary strategies like Social approach, Legal approach, Behaviour Change Communication approach, Improving women literacy status and Woman empowerment.

Also emphasis should be given on improving the educational status of men to improve their knowledge, and positively changing the men upbringing culture right from their childhood which will also improve their attitude towards women in general and also towards vasectomy in particular. This in turn would motivate more men to actively participate in family planning and readily accept vasectomy as a safe and effective method of family planning.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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