Original Research Article

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Knowledge, attitude and practices regarding no scalpel vasectomy in married men attending urban and rural health facilities in Maharashtra, India

Pallavi A. Uplap, Vaidehi Malvi*

Department of Community Medicine, Grant Government Medical College, Mumbai, Maharashtra, India

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*Correspondence: Dr. Vaidehi Malvi,

E-mail: dr_vaidehi@yahoo.in

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ABSTRACT

Background: India will soon surpass China as the world's most populous nation by 2022. Though India was the first to launch family planning in 1952, population stabilization remains a distant dream. No scalpel vasectomy (NSV) is a modified and sophisticated technique of vasectomy which can be performed in low resource settings. However, acceptance of NSV is declining in India including Maharashtra. Hence a study was conducted to evaluate factors affecting acceptance of NSV amongst married men visiting urban and rural health facilities of Maharashtra.

Methods: A cross sectional study was conducted amongst randomly selected 50 married males of 21 years old and above each in conveniently selected urban and rural health centre under a medical college. After obtaining written informed consent from the participants, data was collected from November to December 2018 with the help of semi structured questionnaire. Socio-demographic information, knowledge, attitude and practices were entered and analyzed in Epi Info 7. Study was approved by the institutional ethics committee.

Results: Majority (60%) of men attending the urban health care setup knew about NSV compared to those attending rural set up (34%). More number of participants from rural area (62%) were of opinion that NSV affects sexual performance as compared to urban area (44%). Willingness to recommend NSV to others was 62% and 32% in urban and rural men respectively. None of the participants (0%) underwent NSV.

Conclusions: There is a huge gap between knowledge, attitude and practices regarding NSV in the study participants. It shows a need to revise strategies for its promotion.

Keywords: KAP, Married men, Maharashtra, NSV

INTRODUCTION

The year 1921 is a "year of the great divide" in the demographic history of India when mortality started to decline leading to acceleration in the rate of population growth .Since then, India has shown upward trend in population growth. At present this country being the second most populous in the world is supporting 17.5% of world's population in 2.4% of world's land area. With very rapid growth rate, India will soon surpass China as the world's most populous nation by 2022.

India was the first country in the world to launch a family planning program in 1952. But population stabilization still remains a distant dream, as only 57.2% of population is currently using one or the other method of family planning in India.³ A variety of complex factors underlie contraceptive coverage in a given population in India. One of the reason could be women are held responsible for family planning services primarily in this traditional Indian society .Other reason might be availability of more choices of contraceptive methods for women. Over the

period of time there has been increase in the females undergoing sterilization.³⁻⁵

No scalpel vasectomy (NSV) being an easy, day care procedure for male permanent sterilization technique can be performed in low resource setting as a camp based approach. But only 2.4% of men around the world prefer vasectomy.⁶ There has been persistent declining trend in male sterilization in India as per the nationwide surveys.³

Maharashtra is the second-most populous Indian state. It accounts for nearly 9.3% of India's total population and expected to increase to12.62 crore by 2021.⁷ There has been a non-satisfactory increase in male sterilization in Maharashtra over the period of years.⁸

Globally there have been a lot of improvement in family planning indicators.⁹ However successful momentum of promotion of vasectomy in low resource settings had many hindrances.¹⁰

Though there is published evidence about acceptance of NSV as a family planning method from India, there is no evidence of published relevant literature from Maharashtra. 11-16

In this view a comparative study was conducted to assess knowledge, attitude and practices amongst urban and rural married men in this second most populous state of this country.

METHODS

A cross sectional study was conducted in a conveniently selected urban health centre and rural health centre under a medical college in Mumbai in Maharashtra. Study population was randomly selected 50 married men of 21 years and above visiting each health facility. Inclusion

criteria was married men who were willing to participate in the study and who were above 21 years of age in reproductive age group. Exclusion criteria was who were working in a medical set up. After explaining nature of the study written informed consent was obtained from the study participants. The study participants were interviewed in privacy. Study period was November 2018 to December 2018.

Data was collected with the help of pretested semi structured questionnaire. Sociodemographic information as well as knowledge ,attitude and practices was entered and analyzed in Epi Info 7. Results were mentioned in percentages as well as Chi-square test was used as a measure of significance. Confidentiality was maintained during the process of data collection and analysis. Study was approved by the institutional ethics committee.

RESULTS

Table 1 shows majority of the participants were from 21 to 30 years age group followed by 31 to 50 years.

Table 1: Age wise distribution of the participants (n=100).

Age group (in years)	Number of participants (%)
21-30	38
31-40	27
41-50	35

Table 2 shows that significantly more number of urban men were aware about NSV but thought that it can lead to complications. Significantly more number of rural men thought that permanent sterilization is woman's responsibility. The difference between willingness to undergo NSV and to recommend it to others was significantly less in rural men. None (0%) of the participants had undergone NSV.

Table 2: Knowledge, attitude and practices of participants about NSV.

Variables	Urban men (response in yes)	Rural men (response in yes)	X ² (p-value)
Knowledge: Awareness of NSV as permanent sterilization	30 (60%)	17 (34%)	6.7844 (0.009)
NSV a day care procedure	9 (18%)	6 (12%)	0.7059 (0.400)
Financial incentive after NSV	14 (28%)	4 (8%)	6.7751 (0.092)
NSV related complications	30 (60%)	11 (22%)	14.923 (0.0001)
Attitude: Effect of NSV on confidence and sexual life	22 (44%)	31 (62%)	3.2517 (0.071)
Woman's responsibility for permanent sterilization	18 (36%)	38 (76%)	16.2338 (0.00005)
Practices: Ready to undergo NSV	29 (58%)	11 (22%)	13.5 (0.000239)
Will recommend NSV	31 (62%)	16 (32%)	9.0325 (0.002)
Underwent NSV	0 (0%)	0 (0%)	

DISCUSSION

In this study, awareness of NSV as family planning procedure was seen in 60% of urban men and 34% of rural men with average of 47%. Highest awareness about concept of NSV (97.4%) was seen in a study conducted North India while lowest awareness (54.80%) was seen in South India. 12,14 In other study of Punjab, awareness regarding the concept of NSV was 70%. 15

Awareness about receiving financial incentive after undergoing NSV was more in this study participants from urban area (28%) as compared to rural area (8%), however none of them could specify exact amount of financial remuneration for NSV. More number (97.2%) of urban men in a study conducted elsewhere in India knew about cash incentive provided for NSV. ¹⁴

Fear about negative impact of NSV on health and sexual performance was more in rural men (62%) as compared to urban men (44%) in this study. In the study conducted in Lucknow, maximum proportion (42.2%) of men believed that NSV causes adverse effects to health. If In a study conducted among urban men in Punjab, 9% and 13% of men thought that NSV can lead to weakness, reduced work output respectively whereas 8% believed that NSV leads to loss of libido. In a study conducted in a tertiary care hospital in North India 69.6% of male attendees of the patients admitted said that NSV does not affect their sexual performance.

In this study more number of rural men (76%) were of opinion that permanent method of sterilization was solely women's responsibility as compared to urban (36%). This reflects traditional way of thinking in rural men. In the study conducted in Punjab, majority of men (53%) preferred that their female partner should adopt permanent method of family planning and 33% thought that females themselves want to undergo sterilization.¹⁵

In this study, 58% men from urban set up were ready to undergo NSV as against 22 % from rural set up. Though 89.7% of the participants of a study conducted in North India thought that family planning was also responsibility of males but only 34.1% showed willingness to adopt NSV. ¹⁴ While 11% men residing in urban slums of Punjab were ready to undergo NSV while willingness for the same was found to be least (9.1%) amongst participants of study conducted in Lucknow. ^{15,16} None had undergone NSV in this study. Whereas 2% men had undergone NSV in the study conducted in Punjab. ¹⁵

In this study 62% urban men said that they will recommend NSV to others whereas it was 32% of rural men. Willingness to recommend NSV to others could not be compared with other studies as this variable was not studied.

CONCLUSION

The participants in this study believed that sterilization is primarily woman's responsibility. Many also did not possess positive attitude towards undergoing NSV. Though propaganda for promotion of NSV existed still there was need to bridge the gap towards its beneficiaries. Participants were still unaware about NSV and did not know that it was a safe method of family planning. Results of above study concluded that there remained a huge gap between knowledge, attitude and practices regarding NSV in the general population.

Recommendations

Behavioural research studies in context with NSV should be promoted. Attempt should be made for widespread publicity of NSV through IEC activities. NSV promotional activities should focus on bridging the prevailing information gap regarding NSV among the potential clients. These may be useful to revise strategies for promotion of this century old method of family planning. A client satisfied with NSV may prove contributory in convincing other persons to opt for NSV. Involvement of community leaders and satisfied clients in the promotional activities and utilization of mass media would enhance the effectiveness of such interventions.

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