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Original Research Article

A cross sectional study to assess the knowledge, attitude about non-scalpel vasectomy and practices of any contraceptive method among females of reproductive age group in a urban slum, Chennai, Tamil Nadu, 2014

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ABSTRACT

Background: In India, non-scalpel vasectomy (NSV) technique was introduced in 1992 to improve the male participation in family planning, though it has failed to achieve its goal. Hence this study was planned to know the real concern about this condition. This study was carried out to assess the knowledge and attitude about non- scalpel vasectomy (NSV) and practices of any contraceptive methods among married females in reproductive age in an urban slum.

Methods: This was a cross-sectional study done in urban field practice area of Institute of Community Medicine, Madras Medical College, Chennai-03, Tamil Nadu in the period July 2014 to August 2014 among Married females of reproductive age group (15-49 years). Specific questions on knowledge, attitude regarding NSV were asked. Data were entered in Microsoft Excel sheet and analysed in SPSS version 20.

Results: This is a questionnaire based study. All (106 participants) were aware of vasectomy. Among them 50% knew that vasectomy is an option for permanent sterilization. About 36% of them knew that cash incentive is given for vasectomy & 30% knew that insurance given for pregnancy and other complications followed by vasectomy. Around 31% of the respondents knew that vasectomy does not affect sexual performance. About 29% knew that vasectomy does not need prolonged bed rest. Only 19% of the participants knew that vasectomy is done free of cost and as an OP procedure and 11.3% knew that vasectomy is done without any incision. Among the participants 81% agreed that limiting family size stabilizes the financial condition of the family. About 48% of the participants agreed that family planning is also a responsibility of males and 56% were willing to recommend vasectomy for others. Only 35% of the females agreed to adopt vasectomy for their spouse. Among the respondents 73.6% were practicing some form of contraception currently.

Conclusions: We conclude that there is a need to design and develop a need based behavioural change communication strategy to bridge the existing information gap among the eligible couples about NSV & to improve the male participation in family planning. Involvement of media, community participation and successful stories of males who have adopted NSV would enhance the effectiveness of all the interventions.

Keywords: NSV, Family planning, Male sterilization

INTRODUCTION

Family planning program in India insisted on achieving family planning targets and focused on sterilization before the launch of reproductive health approach. Family planning targets were removed in1996. NFHS II and RCH phase I and II reports have shown that the most widely accepted method was female sterilization and only 3 to 4% adopted male sterilization. To increase the male sterilization acceptance the state innovations in family planning services (SIFPSA) has launched a programme to promote non- scalpel vasectomy (NSV).[1] Both men and women reported negative attitudes toward vasectomy, sharing many stories of times when the procedure had not worked or had resulted in physical weakness, thus limiting a men's ability to provide for his family.[2] Globally, one-third of the eligible couples adopted vasectomy, condom, withdrawal and periodic abstinence which require full male co-operation. In developing countries, during 1970s and early 1980s, about one-fourth of the contraceptive users adopted male methods.[3] In 1990s, there was an overall increase in contraceptive prevalence, but use of male methods was almost static in many of the developing countries.[4] Non vasectomy (NSV) is a modified and sophisticated technique of vasectomy that requires no incision but only a small puncture with no stitches.[5] This is an easier and faster procedure and causes minimal damage to tissues. This is a safe and simple procedure that can be performed in low resource settings.[6] NSV technique was introduced in India in 1992 to increase male participation in family planning.[7] Though it is a simple and safe method, NSV seems to failed to achieve its goal. According to the National Family Health Survey-3 (NFHS-3), the current acceptance of NSV in India has declined from 1.9% to 1% in NFHS-2.[8] Already women are undergoing many physiological changes like menarche, pregnancy, child birth and psychological stress. Family planning also adds up to that burden and is accepted by females which is clearly evident in NFHS-3 report. According to NFHS-3, in Tamil Nadu, 55% of currently married women are sterilized and only 0.4% married women reported that they were practicing male sterilization.

There are many studies available about men's attitude about NSV which states that they will lose their sex drive and manhood, inferiority complex etc. But very few studies are there about female's attitude about NSV. A qualitative research (RESPOND project) by Scott et al, stated that "men commonly decided to go for NSV without discussing the matter with their wife or mother, as they feared that women would try to persuade them not to go for the procedure".[2] Hence this questionnaire-based survey study was conducted to know the real concerns of married females of reproductive age group regarding male participation in family planning and to estimate the knowledge and attitude regarding NSV in urban slum.

Objectives

- To assess the knowledge and attitude about non scalpel vasectomy (NSV) among married females in reproductive age in an urban slum.
- To assess their practice of contraceptive method.

METHODS

This was a cross-sectional study done in urban field practice area of Institute of Community Medicine, Madras Medical College, Chennai-03, Tamil Nadu in the period July 2014 to August 2014 among married females of reproductive age group (15- 49 years). Those women who are separated and widowed were excluded. Assuming that knowledge, attitude about NSV and practice of contraceptive method among married female is 50%, sample size is calculated using the formula: $N=[z^2_{1-(\alpha/2)}P(1-P)]/ d^2$, where, z=standard normal deviant at 95% confidence level i.e. 1.96, p=prevalence of Knowledge 50%, d=relative precision of 20%. $N =[1.96^2*50*50] / 10^2 =96.04\sim96$. Allowing a 10% non-response rate the sample size comes around 106.

Based on literature review of KAP materials on NSV and expert guidance, a questionnaire was designed for married females of reproductive age group. The questionnaire was field tested and validated among a limited number of females. The questionnaire had sections on socio-demographic details, knowledge on NSV, attitude towards NSV and practice of contraceptive methods. The respondents were interviewed one to one after ensuring privacy.

Data collection

All the females were explained about the purpose of the study and informed consent was obtained. They were assured confidentiality of their personal information. The interviews were carried out in August 2014. In this study, awareness is defined as having previously known about NSV. Specific questions on knowledge regarding NSV were asked. Knowledge about NSV is considered good if a respondent is able to answer at least 4 questions correctly out of 8. Attitude towards NSV is measured by asking, "Do you think family planning is also a responsibility of males? And Are you willing to adopt NSV as a method of family planning?". Practice is evaluated by asking questions "Are you currently practicing family planning method". Data were entered in Microsoft Excel sheet and analyzed using SPSS Version 20. Appropriate statistical tests were used to analyze the data. The level of statistical significance was defined as a two-sided p-value of <0.05.The study received institutional ethics committee approval, approval from Dean of Madras Medical College and Director of Institute of Community Medicine.

RESULTS

The study included 106 respondents who agreed to participate in the interview. The mean age of the participants was 33.66±7.706 years and mean age of their spouses was 38.45±8.559 years. The number of children they had ranged from no child to 5 (mode=2). The mean age of their youngest child was 9.3376±6.539 years, ranging from 9 months to 25 years.

Knowledge

Almost all the females were aware of NSV. Table 1 shows that 50% of the study participants knew that NSV is an option for permanent sterilization. About 36% of them knew that cash incentive is given for NSV. Around 31% of the respondents knew that NSV does not affect sexual performance. About 29% knew that NSV does not need prolonged bed rest. Among the respondents 30% knew that insurance will be given for pregnancy and other complications followed by NSV. Only 19% of the participants knew that NSV is done free of cost and as an OP procedure. About 11.3% only knew that NSV is done without any incision.

Attitude

Among the study participants 81% agreed that limiting family size stabilizes the financial condition of the family. About 48% of the participants agreed that family planning is also a responsibility of males. Only 35% of the females agreed to adopt NSV for their spouse.

Table 2 shows that majority of the respondents were not adopting because that may affect their husbands earnings and fear of surgeries. Other reasons which include the belief that pregnancy and family planning were primarily concerned with females.

Table 1: Knowledge, attitude regarding NSV and practice of contraceptive method.

	Number with correct response (N=106)	Percentage (%)
Knowledge regarding NSV		
NSV an option for permanent sterilization	52	49.1
NSV done free of charge	20	18.9
Cash incentive given for NSV	38	35.8
Insurance for complications of NSV	32	30.2
NSV done as OP procedure	20	18.9
NSV does not requires prolonged bed rest	31	29.2
NSV does not affect sexual performance	33	31.1
NSV done without any incision	12	11.3
Attitude regarding NSV		
Limiting family size stabilizes financial condition	86	81.1
Family planning also a responsibility of males	48	45.3
Adopt NSV for your spouse	35	33
Practice of contraceptive method		
Currently practising family planning method	78	73.6

Table 2: Reason for not adopting NSV.

Reason for not adopting NSV	Number of respondents (n=70)	Percentage (%)
Painful procedure	6	8.6
Affect earnings	26	37.1
Decreases sexual performance	5	7.1
Against religious values	5	7.1
Fear of surgeries	12	17.1
Others	16	22.9

Family planning practices

Among the respondents 73.6% were practicing some form of contraception currently. The Table 3 shows that 62.3% of the respondents had undergone permanent method. Among them 98.5% adapted female sterilization and 1.5% male sterilization (NSV). Among the respondents 11.3% practicing temporary methods and 26.4% were not practicing any family planning methods.

Association between knowledge adequacy about NSV and socio demographic details

Among the study participants, about 43% of illiterate participants had adequate knowledge followed by degree/diploma (33%). Hence knowledge adequacy regarding NSV is not really based on educational status of the respondents. Even illiterates also can understand about NSV if they were properly educated.

Table 3: Current practice of contraceptive method.

Current practice		Percentage (%)
Family planning method	**Number of respondents (N=106)**	
Temporary	12	11.3
Permanent	66	62.3
None	28	26.4
Type of currently practicing contraceptive method	**Number of respondents (n=78)**	
Male condom	7	8.97
Male sterilization	1	1.28
OCPs	5	6.42
Female Sterilization	65	83.33

Table 4: Relationship between knowledge adequacy regarding NSV and socio demographic details of the respondents.

Factors	Knowledge		Test	P value
	Adequate (%)	Inadequate (%)		
Age of the respondents (N=106)				
20–30 years	9 (22.5)	31 (77.5)	$\chi^2_{(0.05)}=0.9$ df=2	0.112
31–40 years	10 (22.7)	34 (77.3)		
41–49 years	6 (27.3)	16 (72.7)		
Age of the spouse (N=106)				
20–30 years	4 (18.2)	18 (81.8)	Fischer exact test	0.093
31–40 years	13 (26)	37 (74)		
41–50 years	5 (21.7)	18 (78.3)		
51–60 years	3 (27.3)	8 (72.7)		
Education of the participants (N=106)				
Illiterate	3 (42.9)	4 (57.1)	Fischer exact test	0.0001
Primary (1-5)	1 (10)	9 (90)		
Middle (6-8)	8 (23.5)	26 (76.5)		
High school (9-10)	8 (28.6)	20 (71.4)		
Higher secondary (11-12)	2 (11.1)	16 (88.9)		
Degree/diploma	3 (33.3)	6 (66.7)		
Occupation of the respondents (N=106)				
House wives	14 (20.3)	55 (79.7)	Fischer exact test	0.027
Labourer	4 (21.1)	15 (78.9)		
self employed	2 (28.6)	5 (71.4)		
Salaried employee	5 (55.6)	4 (44.4)		
Others	0	2 (100)		
Socio economic status of the respondents (N=106)				
Class I (Rs. 5090 & above)	3 (50)	3 (50)	Fischer exact test	0.074
Class II (Rs. 2545–5089)	3 (21.4)	11 (78.6)		
Class III (Rs. 1527–2544)	10 (23.3)	33 (76.7)		
Class IV (Rs. 764–1526)	4 (14.3)	24 (85.7)		
Class V (Rs. <764)	5 (33.3)	10 (66.7)		
Age of last child (N=106)				
< 1 year	4 (25)	12 (75)	Fischer exact test	0.056
1–5 years	5 (17.2)	24 (82.8)		
6–10 years	8 (38.1)	13 (61.9)		
11–15 years	3 (14.3)	18 (85.7)		
16–20 years	1 (8.3)	11 (91.7)		
>20 years	4 (57.1)	3 (42.9)		
Deciding authority (N=106)				
Husband	10 (20)	40 (80)	Fischer exact test	0.133
Wife	14 (31.8)	30 (68.2)		
Family members	1 (8.3)	11 (91.7)		

Table 5: Relationship between knowledge adequacy and attitude towards sterilization.

Knowledge adequacy	Attitude towards sterilization		Total
	Agree (%)	Disagree (%)	
Adequate	24 (96)	1 (4)	25
Inadequate	62 (76.5)	19 (23.5)	81
Total	86	20	106

Fischer's exact, p value=0.019 (S).

Table 4 shows that among those with adequate knowledge about NSV, 96% had agreed that limiting family size stabilizes financial condition. Even though they have adequate knowledge about NSV more often they were only opting for female sterilization. Hence knowledge alone is not adequate to change behavior.

Table 5 shows that in the current non-acceptors of permanent sterilization (40/106), among the women with inadequate knowledge about NSV, 68.8% were not willing to adopt NSV. Hence targeted BCC would be helpful to increase acceptance of NSV by females.

DISCUSSION

In 2011 census, population of India was 1.2 billion. The percentage decadal growth during 2001–2011 has registered the sharpest decline since independence - a decrease of 3.9% from 21.54 to 17.64. The present study shows that 73.6% of the couples were practicing some form of family planning method. This was markedly increased from NFHS 3 data (56.3%). NFHS-3 indicated that only 1% currently married women reported male sterilization as a method of family planning which was almost similar near a decade later in the present study (1.25%).[8] Almost all the respondents (99%) were aware of the NSV as a family planning method. Their source of information was mainly media, doctor, friends followed by family members while printed advertisements (magazines, pamphlets, and posters) hardly contributed anything in spreading knowledge. There is a general assumption that men are exercising dominations, Hence they are not taking responsibility of family planning and women also accept the same in silence. However, our study provides a new insight that 45.3% (five out of ten) respondents believed that family planning is also the responsibility of males. Garg et al study revealed that nine out of ten men said family planning is also a responsibility of a man.[9] Rajagopal et al stated in their qualitative study that more men (62%) than women (43%) support to promote vasectomy.[1] Hence, even when men are willing only women are not willing to adopt vasectomy for their spouses. In this present study it is further important to highlight the fact that 40.6% of the female respondents approve male sterilization as a possible option of family planning for their spouses. However, only 33% of them are willing to adopt NSV for their spouses. This highlights the fact that there is large gap in their knowledge and attitude about advantages of NSV which contribute to their reluctance to undergo NSV. NSV affect their husbands earnings is the main reason (37.1%) for not adopting it and fear of surgical procedure was cited as the next frequent cause (17.1%) for unwillingness to accept NSV for their spouses. Many advantages of NSV including no incision, no stitches, and minimal pain were known to only one fifth of the respondents. It becomes imperative that the procedure should be promoted as simple and painless, and campaign materials should stop using the word "operation" in relation with NSV.

Monetary compensation would be given if any complication occurs due to the procedure or in case of failure of the procedure; this fact is known to only very few respondents (9.5%). Other reasons include permanent procedure, uncertainty because what would they do if all of their living children died and thinking family planning is the primary responsibility of a female for not willing to adopt vasectomy for their spouses.[10-12] These worries may be overcome by propagating the advantages of permanent family planning method, in case family is complete. NSV needs to be propagated as one time simple and safe solution which avoids unnecessary anxiety at the time of intercourse for fear of unwanted pregnancy. Awareness of problems associated with other family planning methods (side effects of intrauterine device, associated uneasiness with condoms, and problem of daily intake of oral contraceptive pills) may promote a person to take a final decision about NSV.[12]

Religious reasons were cited by the respondents as a barrier to adopt NSV which could be minimized if involvement of community leaders may enhance the acceptability of NSV. Requirement of prolonged bed rest after vasectomy was another important reason cited by the respondents for their reluctance to adopt NSV. This is highlighted by the fact that 70.8% respondents were not of clear opinion that NSV does not require prolonged bed rest. This aspect is likely to be important for the people who work on the basis of daily wages. Promotional activities should specifically highlight this important issue that the clients may join their work the next day following the NSV.

Worry about the impact on sexual life following NSV was another important barrier to adopt NSV. A large number of respondents (68.9%) were not sure that sexual performance would not be affected following NSV. This aspect was also highlighted in another survey where it was noted that men would not tell other people if they

had been sterilized, fearing being shamed and taunted by community members.[2] In a survey conducted in Tanzania, it says that rumors that vasectomy results in decreased sexual desire or performance or that the procedure is equivalent to castration were prevalent and these were the main reasons mentioned in that study.[13]

CONCLUSION

The present study concludes that only 23.58% had adequate knowledge about NSV. Among those who had adequate knowledge only 40% of them had attitude to adopt NSV for their spouse. Practice of NSV is very much low (1.25%). This explains that there is much more than just knowledge or awareness, which plays a major role in utilization of NSV. A client satisfied with NSV may prove instrumental in convincing other persons to opt for NSV. This has been very aptly said that "NSV is as much an IEC operation as a surgical operation".[14]

Recommendations

The findings of the present study are descriptive. Qualitative study has to be conducted to explain and explore the understanding and very low utilization of the NSV among the people. This study also emphasizes the need for addressing the misconception and improper utilization of NSV as a family planning method. behavioral change communication (BCC) must be given to the expectant couple to adopt family planning methods by cafeteria approach.

Limitations

The present study has tried to capture the perception and utilization of family planning methods among limited number of married women of reproductive age group females in an urban slum area. Thus the results of this study may not be generalized to whole female population.

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