

Choice of Contraceptive Methods with a focus on Non-Acceptance of Vasectomy

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Abstract: Female sterilisation is one of the most preferred limiting methods of family planning in India while male sterilisation is the least accepted method. Over the years a reduction in the prevalence of male sterilisation (vasectomy) has been noticed. The prevalence of vasectomy reduced to 0.3 percent in National Family Health Survey-4 (NFHS-4, 2015-16) from 3.5 in NFHS-1(1992-93) which may be due to low acceptance or negative perception. Against this backdrop, the present study aims to examine the changing pattern of contraceptive practices in India. Apart from this, the study also intends to find out the knowledge and attitude towards various contraceptive practices. It also tries to find out the association of various socio-economic factors with vasectomy prevalence. The data sources for the present study will be the different rounds of National Family Health Surveys (NFHS). For analysis, binary logistic regression was carried out to see impact of various factors on vasectomy prevalence. The analysis show that prevalence of vasectomy is gradually declining over the years. People are slowly shifting towards spacing methods like Oral Contraceptive Pills(OCPs) and condoms than permanent methods. Knowledge of any contraceptive method is substantially higher while men and women were found almost equally aware about any contraceptive method. A substantial portion of men think contraception is a matter of women's business and those who use contraception are of promiscuous. The factors such as caste, religion and educational status found to be significantly associated with the prevalence of vasectomy. Scheduled caste people were found more likely to undergo vasectomy than other caste categories. As compared to Hindus, Muslims found to have a less chance to undergo vasectomy. Also, the likelihood of undergoing vasectomy seen higher among the illiterates than the literates.

Background

In order to overcome the rapid growth of population and perhaps considering the Malthusian ideas of impact of population growth, India adopted the Family Planning Programmes in the year 1952 and become the 1st country in the world to launch a programme with the objective of lowering fertility and slowing down the population growth rate. At a later stage, the family planning programme has been integrated with Reproductive and child health programme that targets to achieve an overall better health of the underserved and adolescents.

The population growth history of India shows that till 1921 the population growth was very slow, it is after 1921 population growth noticed as 11 percent growth occurred in between 1921-31 which rises to 14 percent in 1931-41 though marginal decline noticed in 1941-51. Afterwards population continuously grew at a rapid rate. The country witnessed a population growth rate of 17.64 percent in the year 2001-11 which is lower than the growth rate of 1991-2001. Despite the overall decline in population growth rate India is yet to achieve the replacement level of fertility. In India a married couple still produces 4 children during the entire reproductive span (Government of India, 2013). Large gaps can be noticed among the states in terms of population growth rate. The states like Bihar and Uttar Pradesh sees high decadal growth rate which is well above than the national average. Looking at the current scenario in India, it was predicted that very soon India will be the largest populous country in the world overtaking China. Planned family planning efforts is the need of the hour for India's development.

Viewing the alarming rate of population growth and to keep a pace on this, family planning has been remaining an important component in different policies and programmes of India. Though the main aim is to check the unwanted pregnancies, also it provides better reproductive care as well keeps a check on various Sexually Transmitted Diseases (STDs). Family planning methods can be differentiated in to two types such as Spacing and Limiting. Spacing methods are meant to keep a space between pregnancies and are reversible which allows women to become pregnant. Various spacing methods include Condom for males, Oral Contraceptive Pills, IUCD etc for females. On the other hand the limiting methods keeps a total control on unplanned pregnancies and not reversible. It is not possible for a couple to conceive after undergoing the process. Limiting methods include Tubectomy for females and Vasectomy for males.

Apart from promoting Family Planning, the governmental programmes ensure access to preferred contraceptive methods for couples. Though various contraceptive methods are available, it is up to the couple to choose among those available methods of contraceptives. However there are many socio-cultural aspects that determine the choice of contraceptive methods to a larger extent. Choice of contraceptive practices changing over time which may be due to the introduction of newly inducted methods. Also adequate availability, accessibility and affordability may also be a reason. Among limiting methods female sterilisation remaining as the most commonly used method of sterilisation. Despite the fact that vasectomy is highly effective and safe contraceptive practice for couples with limited side effects as compared to sterilisation, in worldwide only 2.4 percent men sterilised as compared to 19 percent women sterilisation (UN 2011).

Need of the Study

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In the recent time people's choice of family planning methods shifting towards spacing methods rather than terminal methods. Among the terminal methods, female sterilisation is remaining one of the most preferred methods of in India while male sterilisation is the least accepted method. Over the years a reduction in the prevalence of vasectomy has been noticed. Despite its coverage in many governmental programmes acceptance towards vasectomy is gradually declining. As per the latest estimates of NFHS-4, the prevalence of vasectomy is 0.3 percent in India which was 3.5 percent in NFHS-1. It seems the acceptance of vasectomy is declining despite of its promotion in many governmental programmes. In order to modify the existing policies towards vasectomy acceptance, the reasons of low use of vasectomy need to be identified.

Objectives

1. To obtain the changing patterns of contraceptive practices in India.
2. To find out the knowledge and attitude towards contraceptive practices.
3. To explore the associations of various socio-economic factors in determining prevalence of vasectomy.

Review of Literature

There have been many factors those determine the prevalence of vasectomy Findings of some of the studies highlighted here to know the association.

Perception towards vasectomy has a bigger influence on the practice. Most of the studies reveal a negative perception towards vasectomy that leads to a lower acceptance of vasectomy. Vasectomy declines men's pride (Azmat et al., 2012). Men also lose masculinity due to vasectomy (Kabegenyi, 2014). A man who undergoes vasectomy viewed as slave to his wife (Adongo, 2014). A study from India revealed female sterilisation is the most preferred method over vasectomy as economic contribution of men were highly valued than the women (Hall, 2008). Vasectomy also leads to male infidelity (Bunce, 2007; Adongo, 2014). Male dominance is also an important factor that influences the prevalence of vasectomy (Nian et al., 2010). Lack of information and misunderstanding about vasectomy led to the low prevalence of vasectomy (Nian et al., 2010). Higher knowledge doesn't necessarily make a person to adopt vasectomy. Respondents with low level of knowledge participate actively in vasectomy (Yunitasarai et al).

Socio-economic factors also determine the prevalence of vasectomy to some extent as revealed in few studies. Economic hardship led the couple to undergo vasectomy. Smaller family have larger economic benefits including adequate food, health care and education of children (Bunce, 2007). Age of the respondent also an important factor which affects the decision making of the respondent in choosing vasectomy. Choosing vasectomy is higher among the respondents of age 30 and above as compared to the respondents of lower age group (Yunitasarai et al., 2017). A correlation exists between number of children and vasectomy acceptance. Respondents having 3 and more children have a high tendency to select vasectomy (Yunitasarai et al., 2017). Cultural factors influence the choice of contraceptive methods to a larger extent. Religious leaders of the muslim world play key figures in influencing if male methods are used (Ahmed, 1976).

As revealed from the literatures, attitude towards vasectomy seem to play bigger role in determining vasectomy prevalence. To some extent socio-economic demographic factors like economic background of the family, age and religion had a role.

Data and Methodology

The study explores the four rounds of National Family Health Surveys (NFHS) to examine changing patterns of contraceptive practices India. The unit level data of third round (NFHS-3, 2005-06) explored to examine the impact of socio-economic and demographic factors on the prevalence of vasectomy. The National Family Health Survey was launched by the Ministry of Health and Family Welfare (MoHFW) in the year 1991 and IIPS being designated as the nodal agency to carry out the survey. For the first time India launched a large-scale population and health surveys with the objective to provide state and national level estimates on practices of family planning, fertility, maternal and child health care along with utilisation of services and status of infant and child mortality.

The outcome variables for the present study is the prevalence of vasectomy while the explanatory variables are the socio-economic and demographic factors such as social group, religion, place of residence, educational status, wealth index and age of the partner (husband). NFHS-3 unit level data (women file) explored and the analysis is based on the currently married women. Statistical techniques such as bivariate analysis was carried out to see the gross impact of various variables on the prevalence of vasectomy while binary logistic regression was adopted to see the net impact of various socio-economic and demographic factors on the prevalence of vasectomy. All statistical analysis was carried out using Statistical Package for Social Sciences (SPSS) as a software package.

Analysis

An increase in the prevalence of contraceptive practices has been noticed over time. The prevalence rate was 40.6 percent in NFHS-1 which grew to 53.6 percent in NFHS-4 showing a 13 percent increase in the prevalence rate (Table1). Among various methods of contraceptives, the most preferred method of contraception is female sterilisation as 36 percent women being underwent tubectomy as per the NFHS-4. Prevalence of contraceptive practices rises to 56.1 percent in NFHS-3 from 40.6 percent in NFHS-1. In the subsequent round (NFHS-4), contraceptive prevalence declines to 53.6 percent. A per NFHS-4, among the various spacing methods, condoms found the most prevalent practice (5.6) which is followed by Oral Contraceptive Pill as 4.1 percent women found to use Oral Contraceptive Pills (OCPs). A consistent rise in the prevalence of Condoms and OCPs can be noticed from NFHS-1 to NFHS-4. Though female sterilisation was found to increase till NFHS-3, a sudden decline noticed in NFHS-4 as 1.3 percent less women being carried out sterilisation in NFHS-4 as compared to NFHS-3. On the other hand, the

prevalence of male sterilisation declined to 0.3 percent in NFHS-4 from 3.5 percent in NFHS-1. Male sterilisation declines gradually with each round of survey. Only 1.5 percent women (NFHS-4) adopted IUD as a family planning method as practised by 1.9 percent women in NFHS-1. With regard to other traditional methods, 3.5 percent practised rhythm methods while 2.3 percent adopted withdrawl method. Though the practice of traditional methods increased till NFHS-3, a marginal decline in the prevalence noticed in NFHS-4(Table 1).

Table 1: Prevalence of Contraceptive Practices in various rounds of NFHS, India

| Contraceptive Methods | NFHS-1 (1992-93) | NFHS-2 (1998-99) | NFHS-3 (2005-06) | NFHS-4 (2015-16) | % Change (NFHS-1 to NFHS-4) |
|------------------------------------|---------------------|---------------------|---------------------|---------------------|--------------------------------|
| OCPs | 1.2 | 2.8 | 3.1 | 4.1 | 2.9 |
| IUD | 1.9 | 1.6 | 1.7 | 1.5 | -0.4 |
| Injection | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 |
| Condom | 2.4 | 3.1 | 5.2 | 5.6 | 3.2 |
| Female Sterilizations/Tubectomy | 27.4 | 34.2 | 37.3 | 36.0 | 8.6 |
| Male Sterilizations/Vasectomy | 3.5 | 1.9 | 1.0 | 0.3 | -3.2 |
| Rhythm Method | 2.6 | 3.0 | 4.9 | 3.5 | 0.9 |
| Withdrawl Method | 1.4 | 2.0 | 2.5 | 2.3 | 0.9 |
| Other Methods | 0.2 | 0.4* | 0.3 | 0.1 | -0.1 |
| Total Prevalence | 40.6 | 48.6 | 56.1 | 53.6 | 13.0 |

Source: NFHS-1, 2, 3&4

Overall results suggest that the proportion share of limiting methods mainly female sterilisation to the overall contraceptive prevalence is very high. Decline in the prevalence of female sterilisation (NFHS-4) shows the preference towards spacing methods. The practice of IUD and vasectomy seen declining over time while the decline seen more rapid in case of vasectomy despite of so much promotion in various programmes.

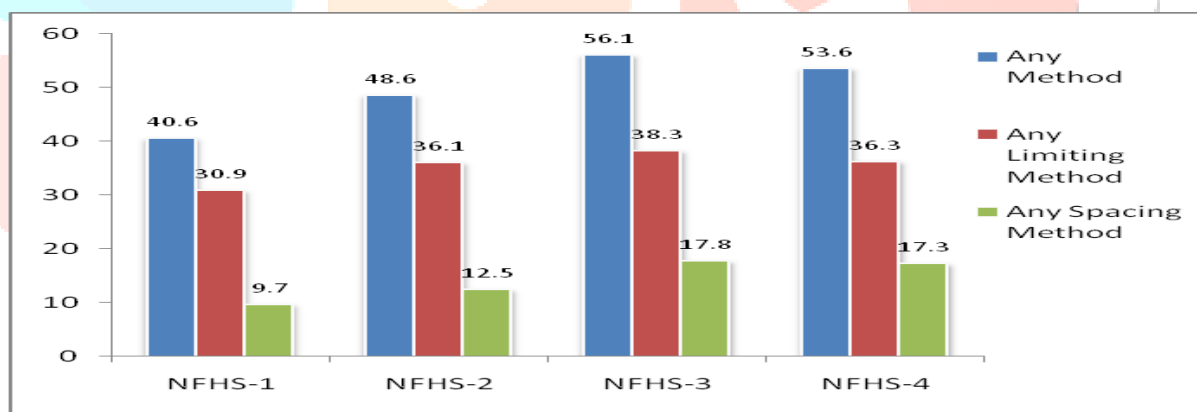


Figure 1: Prevalence of Contraceptive Practices in various rounds of NFHS

It can be seen from Figure 1 that the contraceptive prevalence increased till third round of NFHS while around a 3 percent decline noticed in NFHS-4. For spacing and limiting methods the trend remained same as in overall. In comparison to limiting methods, the pace of decline noticed slower for spacing methods.

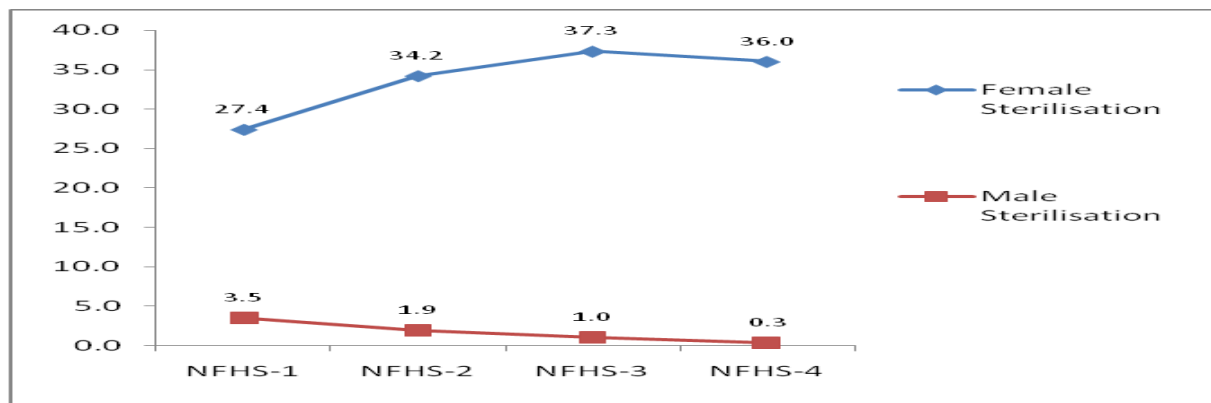


Figure 2: Trend in Limiting Methods in India

Knowledge of Various Contraceptive Methods

Knowledge on various contraceptive methods among both males and females increases over time. In NFHS-1, around 96 percent females knew about any method of family planning which grew to 99 percent in NFHS-4 show an increase in awareness about contraceptive method (Table 2). Male and female are almost equally aware about various contraceptive methods as revealed from the latest two NFHS rounds (NFHS-3 and NFHS-4). Awareness among the females about OCPs increased to 88.2 percent in NFHS-4 from 66.2 percent in NFHS-1. Also females were found more aware (88.2) about OCPs as compared to males (84.9). Similarly for Intrauterine Device (IUDs) and injection females seen more aware (76.7 and 73.4) than the males (50.6 and 66.6). Knowledge of male condoms higher among the males (94.6) in comparison to females (81.9). Moreover awareness of male condoms seen increasing over time as 58.1 percent females found aware of condoms in NFHS-1 which increased to 81.9 percent in NFHS-4. For female condom, also males were found more aware as compared to females (21.5). With respect to emergency contraception, a considerable rise in knowledge noticed among both males and females in NFHS-4 as compared to NFHS-3. Like other methods, knowledge of emergency contraception among the females found lower than the males. Around 98 percent females found aware about female sterilisation while 94 percent males were aware about it. On the other hand in comparison to females, higher percentage of males observed aware about male sterilisation as per NFHS-4. Regarding rhythm method higher percentage of females (55.0) found aware as compared to males (52.0) while knowledge of withdrawal methods noticed higher among males (57.5) than the females (53.0).

Table 2: Knowledge of various contraceptive methods in different rounds of NFHS, India

| Knowledge of Contraceptive Methods | NFHS-1 (1992-93) | NFHS-2 (1998-99) | NFHS-3 (2005-06) | | NFHS-4 (2015-16) | |
|------------------------------------|------------------|------------------|------------------|--------|------------------|--------|
| | Female | Female | Male | Female | Male | Female |
| Any Method | 95.8 | 99.0 | 99.4 | 99.3 | 98.9 | 99.0 |
| OCPs | 66.2 | 79.5 | 84.9 | 87.2 | 84.9 | 88.2 |
| IUD | 60.8 | 70.6 | 58.1 | 74.3 | 50.6 | 76.7 |
| Injection | 19.3 | * | 47.9 | 52.6 | 66.6 | 73.4 |
| Condom | 58.1 | 71.0 | 92.7 | 76.1 | 94.6 | 81.9 |
| Female Condom | * | * | 17.0 | 8.3 | 35.1 | 21.5 |
| Emergency Contraception | * | * | 22.6 | 11.9 | 47.7 | 41.8 |
| Female Sterilisation | 94.6 | 98.2 | 97.7 | 98.4 | 94.3 | 97.7 |
| Male Sterilisation | 84.5 | 89.3 | 92.0 | 83.2 | 87.9 | 84.6 |
| Rhythm | 34.9 | 45.1 | 59.8 | 48.1 | 52.0 | 55.0 |
| Withdrawal | 20.1 | 31.2 | 44.2 | 36.3 | 57.5 | 53.0 |
| Other Methods | 3.6 | 2.7 | 2.1 | 5.4 | 3.2 | 2.7 |

Source: NFHS-1, 2, 3&4

Note- * indicates figures not available; data on male not available for NFHS-1 & 2

Overall trend suggests that knowledge among the females as well as males has increased over time. Males and females were found almost equally aware about any contraceptive methods while males found more aware about male oriented methods and females observed more aware about female oriented methods.

Men’s attitude towards Contraception

Men’s attitude towards contraception might have a greater influence on the practice of contraception. It can be seen that a substantial portion of men think that practice of contraception is a women’s business which also seen increases over years.. In NFHS-3, 21.6 percent men believed contraception is matter of women’s business which increased to 37.3 percent in NFHS-4. On

the other hand around 20 percent men had a belief that women using contraception may become promiscuous which was 16 percent in NFHS-3.

Table 3: Attitudes of men towards contraception in different rounds of NFHS in India

| Attitudes of Men towards Contraception | NFHS-3 (2005-06) | NFHS-4 (2015-16) |
|--|---------------------|---------------------|
| Contraception is women's business | 21.6 | 37.3 |
| Women using contraception may become promiscuous | 16.2 | 20.2 |

Source: NFHS-3 &4

Note: Figures not available for NFHS 1 & 2

Socio-economic differentials in the prevalence of Vasectomy

Socio-economic factors found to have a large impact on the prevalence of vasectomy (Table 4). It can be seen that the prevalence of vasectomy is higher among the scheduled tribes (2.5) as compared to other castes. Only 0.8 percent OBC and other caste respondent while 1.1 percent scheduled caste found to undergo vasectomy.

Table 4: Socio-economic differentials in the Prevalence of Vasectomy, NFHS-3, India

| Socio-Economic Factors | Vasectomy Prevalence | Total Frequency |
|-------------------------------------|----------------------|-----------------|
| Social Group | | |
| Scheduled Caste | 1.1 | 17372 |
| Scheduled Tribe | 2.5 | 7631 |
| OBC and Others | 0.8 | 68086 |
| Religions | | |
| Hindu | 1.1 | 75799 |
| Muslim | 0.6 | 12289 |
| Christian | 0.7 | 2040 |
| Others | 1.6 | 2960 |
| Place of Residence | | |
| Urban | 1.1 | 28605 |
| Rural | 1.0 | 64484 |
| Partner's(Husband) Education | | |
| Illiterate | 1.1 | 14312 |
| Literate | 1.0 | 78788 |
| Respondent's(Wife) Education | | |
| Literate | 1.2 | 43931 |
| Illiterate | 0.9 | 49158 |
| Wealth Index | | |
| Poorest | 1.3 | 17425 |
| Poorer | 0.9 | 18495 |
| Middle | 0.8 | 18671 |
| Richer | 0.8 | 18985 |
| Richest | 1.3 | 19514 |
| Partner's Age | | |
| <25 | 0.0 | 7237 |
| 25-34 | 0.3 | 29996 |
| 35-44 | 0.8 | 31119 |
| 45-54 | 2.3 | 20247 |
| 55-64 | 3.2 | 3841 |
| 65 and above | 1.8 | 650 |
| Total | 1.0 | 93090 |

Source: Calculated from NFHS-3, 2005-06

Among the major religions, Hindus have a higher (1.1) vasectomy prevalence in comparison to Musims (0.6) and Christians (0.7). Other than Hindus, Muslims and Christians, 1.6 percent from other religions undergo vasectomy. Vasectomy prevalence was seen higher in urban areas (1.1) than the rural areas (1.0). The percentage of males (partners) undergoing vasectomy was seen higher among the illiterates (1.1) as compared to the literates (1.0). Similarly vasectomy higher among husband of illiterate wives (1.1) than those of literate wives. With respect to wealth index, vasectomy acceptance is noticed higher among the people belonging to poorest (1.3) category as compared to people from other categories. The prevalence is 0.9, 0.8 and 0.3 percent among the people of poorer, middle and richer category respectively. With the increase in age of the partners, vasectomy prevalence was seen increases. Higher prevalence noticed among those in the age group 55 to 64 followed by 45 to 54 age groups. Lower prevalence noticed among those belongs to age group 25-43 (Table 4).

Results of Binary Logistic Regression

Socio-economic factors are very much interrelated with each other and there is a chance of confounding effects (Table 5). In order to avoid the confounding effect and to see the adjusted impact, a binary logistic regression was carried out to see the impact various socio-economic and demographic factors on the prevalence of vasectomy.

Table 5: Prevalence of Vasectomy by various socio-economic and demographic factors: Results from Binary Logistic Regression Analysis

| Explanatory Variables | Vasectomy Prevalence | | | |
|-------------------------------------|----------------------|------|---------------|------|
| | B | S.E | Odds Ratio(B) | p |
| Social Group | | | | |
| Scheduled Caste® | | | | |
| Scheduled Tribe | 0.952 | .107 | 2.590 | .000 |
| OBC and Others | -0.277 | .089 | .758 | .002 |
| Religions | | | | |
| Hindu® | | | | |
| Muslim | -0.394 | .127 | .675 | .002 |
| Christian | -0.763 | .263 | .466 | .004 |
| Others | 0.222 | .155 | 1.248 | .153 |
| Place of Residence | | | | |
| Urban® | | | | |
| Rural | 0.003 | .089 | 1.003 | .976 |
| Partner's(Husband) Education | | | | |
| Illiterate® | | | | |
| Literate | -0.294 | .107 | .745 | .006 |
| Respondent's(Wife) Education | | | | |
| Literate® | | | | |
| Illiterate | -0.100 | .098 | .905 | .309 |
| Wealth Index | | | | |
| Poorest® | | | | |
| Poorer | -0.127 | .105 | .881 | .227 |
| Middle | -0.173 | .112 | .841 | .122 |
| Richer | -0.143 | .123 | .867 | .245 |
| Richest | 0.296 | .135 | 1.345 | .028 |
| Partner's Age | | | | |
| <25® | | | | |
| 25-34 | 2.904 | .865 | 18.239 | .001 |
| 35-44 | 3.857 | .862 | 47.319 | .000 |
| 45-54 | 4.858 | .861 | 128.774 | .000 |
| 55-64 | 5.226 | .865 | 186.012 | .000 |
| 65 and above | 4.542 | .909 | 93.850 | .000 |
| Constant | -8.210 | .875 | .000 | .000 |
| Nagelkerke R square | 0.090 | | | |

Source: Calculated from NFHS-3

It was found that, the likelihood of undergoing vasectomy is higher among those belonging to scheduled tribes (odds ratio, 2.590) as compared to those from scheduled castes. The chance of undergoing vasectomy is lower (odds ratio, .758) among those from OBC and other caste category than the scheduled tribe category. With regard to religion, Muslims are less likely (.675) to undergo vasectomy than the Hindus. Similarly Christians have a less chance of undergoing vasectomy as compared to Muslims and Hindus. Literate partners (husband) found to have significantly less chance (odds ratio, .745) of undergoing vasectomy as compared to the illiterates. Persons belonging to richest category have significantly less chance to adopt vasectomy in comparison to the poorest after controlling all other factors. Meanwhile partners of higher age group found to be more likely to adopt vasectomy. The chance of undergoing vasectomy was seen increases with the increase in age. The likelihood of undergoing vasectomy was found higher among those of 25-34 age group as compared to those of <25 age category.

Discussion

Along with females, participation of males can be considered as one of the success indicators to achieve replacement level of fertility. Involvement of males in reproductive health is as important as females. Despite the promotion of vasectomy in many governmental programmes, the prevalence of vasectomy is at a declining trend which could be a major concern for the policy makers. Males and females need to play an equal role to address the issue of family planning. Despite of vasectomy's limited clinical procedure tubectomy being found the most prevalent method of sterilisation in India. Among all other methods, vasectomy is only method showing a rapid declining in practice over the years. If we look at the latest two rounds of NFHS (4 & 5), both males and females are almost equally aware about any contraceptive methods. Meanwhile the knowledge on male oriented methods observed higher among the males than the females. Similarly females found to be more aware about female

methods. In India still a large fraction of people think contraception is a matter of women's business. Surprisingly the percentage of people who think contraception is women's business is on rise. Socio-economic factors play a big role in determining the prevalence of vasectomy. The prevalence of vasectomy found higher among the scheduled tribe people. It doesn't necessarily mean that they understand vasectomy's impact well or positive towards the method. It may be due to the influence of the health care providers or pressure that may lead to undergo vasectomy. Affording spacing methods may not be easy for their part due to poor economic backward as well as the accessibility to health personnel or centres. As revealed in the literatures, religious affiliation has a large influence on choosing male methods (Ahmed, 1976). Among the Muslims and Christians vasectomy prevalence was seen lower which may be due the religious taboos that restricts them to adopt contraception or vasectomy. Educational status also found an important factor while the prevalence seen higher among the illiterates. Higher knowledge doesn't led men to adopt vasectomy (Yunitasarai et al., 2017). There is a possibility that it is easy for literate people to adopt spacing method than the limiting methods. Economic hardship is an important reason to go for vasectomy (Bunce, 2007). Meanwhile the people from poorest category undergo vasectomy at a higher note than those belongs to wealthier category. Going for spacing methods frequently may not be possible for those from poorest category which led them to adopt vasectomy. Vasectomy prevalence significantly higher among higher age groups (Yunitasarai et al., 2017). It is after achieving the desired family size people choose to go for sterilisation rather than adopting spacing methods.

It is also a matter of concern why acceptance of vasectomy is quite low despite of its promotion of many governmental programmes like National Health Mission (NHM) in India. Many empirical studies indicate the negative attitude of the people towards vasectomy is the major reason of this low prevalence. The factors like losing of masculinity, male infidelity and the role of men's economic contribution are the major reasons as revealed. Choosing female sterilisation over vasectomy is also point out the patriarchal nature of Indian society as most of the men think contraception is a matter of women's business and men has no role to play on this. On the other hand they also think that those who adopt contraception are promiscuous. So it seems the patriarchal Indian society as well the negative perception is two most important factors responsible for the low prevalence of vasectomy.

It is necessary for the male to participate in all reproductive matters along with his partner including choosing family planning methods for a better reproductive life. Adoption of vasectomy over tubectomy is more safe and effective with less surgical procedures. In this regard, government need to adopt more policies to make people aware about the method. Campaigns including street plays need to be carried out on vasectomy to make the male aware about their responsibility in reproductive matters. Though in National Health Mission IEC materials have been provided on various family planning methods including vasectomy and its procedure of carrying out, still government needs to think of family planning counselling sessions especially for the males and it must be started along with antenatal care. Huge incentives can also push the males to go for vasectomy. Apart from these, large scale surveys need to focus on the attitude of males towards vasectomy, so that a clear picture can be emerged on this which will further help to formulate better policies.

Conclusions

The prevalence of vasectomy is gradually declining over the years. People are slowly shifting towards spacing methods like OCPs and Condoms than permanent methods. Knowledge of any contraceptive method is substantially higher while men and women are almost equally aware about any contraceptive method. A substantial portion of men think contraception is a matter of women's business and those who use contraception are of promiscuous. The factors such as caste, religion and educational status found to be significantly associated with the prevalence of vasectomy. Scheduled caste people were found more likely to undergo vasectomy than other caste categories. As compared to Hindus, muslims found to have a less chance undergo vasectomy. Also the likelihood of undergoing vasectomy seen higher among the illiterates than the literates

References

- Adongo, P. B., Tapsoba, P., Phillips, J. F., Tabong, P. T. N., Stone, A., Kuffour, E., ... & Akweongo, P. 2014. If you do vasectomy and come back here weak, I will divorce you: a qualitative study of community perceptions about vasectomy in Southern Ghana. *BMC international health and human rights*, 14(1).
- Ahmed, W. 1976. Social considerations in sterilization in the Muslim world. In Fathalla et al.(eds), *Voluntary Sterilization*, Alexandria, Egypt: Egyptian Fertility Control Society.
- Azmat, S. K., Mustafa, G., Hameed, W., Ali, M., Ahmed, A., & Bilgrami, M. 2012. Barriers and perceptions regarding different contraceptives and family planning practices amongst men and women of reproductive age in rural Pakistan: a qualitative study. *Pak Journal of Public Health*, 2(1): 17-23.
- Bunce, A., Guest, G., Searing, H., Frajzyngier, V., Riwa, P., Kanama, J., & Achwal, I. 2007. Factors affecting vasectomy acceptability in Tanzania. *International family planning perspectives*, 13-21.
- Government of India. 2013. *Sample Registration System Statistical Report 2011*. New Delhi, Registrar General and Census Commissioner of India.
- Hall, M. A. K., Stephenson, R. B., & Juvekar, S. 2008. Social and logistical barriers to the use of reversible contraception among women in a rural Indian village. *Journal of health, population, and nutrition*, 26(2).

Kabagenyi, A., Jennings, L., Reid, A., Nalwadda, G., Ntozi, J., & Atuyambe, L. 2014. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. *Reproductive health*, 11(1).

Nian, C., Xiaozhang, L., Xiaofang, P., Qing, Y., & Minxiang, L. 2010. Factors influencing the declining trend of vasectomy in Sichuan, China. *Southeast Asian Journal of Tropical Medicine and Public Health*, 41(4).

United Nations, Department of Economic and Social Affairs. 2011. Population Division. *World contraceptive use 2011*. Geneva: United Nations.

Yunitasari, E., Pradanie, R., & Hardiansyah, H. 2017. Determinant Factors of Vasectomy Method Selection. *Jurnal ners*, 12(1).

