

Awareness and Attitude towards Vasectomy among Married Men of a Selected Community

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ABSTRACT

Background: Vasectomy is one of the safest and most effective family planning methods and is one of the few contraceptive options available for men. It is a surgical procedure performed on males in which the vas deferens are cut, tied, cauterized or interrupted to induce sterility. It is one of the least used contraceptive methods in the developing world including Nepal despite its lots of benefits. The objective of the study was to find out the awareness and attitude of married men towards vasectomy.

Methods: A descriptive cross-sectional research design was adopted to assess the level of awareness and attitude towards vasectomy among 96 married men having at least one child in Birendranagar Municipality, ward number 3 of Surkhet district. Data was collected by using the purposive sampling technique. A semi-structured interview schedule was used in community setting to collect data. Collected data were analyzed by using both descriptive and inferential statistics.

Results: Total 96 married men participated in the study. Among them, 53.1% of the respondents had moderate awareness level, 38.5% of the respondents had inadequate awareness level and only 8.3% of the respondents had high awareness level. Most (86.5%) of the respondents had positive attitude and 13.5% had negative attitude towards the vasectomy. There was association between level of awareness with educational status of the respondents ($p=0.024$).

Conclusion: The study concludes that the men of Birendranagar Municipality are moderately aware about vasectomy. So, it is necessary to enhance awareness on vasectomy by launching awareness programme through different mass media with valid information.

KEYWORDS

Attitude, Awareness, Knowledge, Vasectomy

INTRODUCTION

Family planning is a voluntary and informed decision by an individual or couple on the number of children to have and when to have them, by use of modern or natural family planning methods. It can also be referred to as having children by choice and not by chance (WHO, 2008).

Vasectomy is the cheapest permanent method of birth control for men with failure rate less than 1%, fewer hematoma, less bleeding and pain, less risk of infection and less operating time. There is a worldwide estimation of 33 million married women aged between 15 to 49 years, less than 3% of them rely on their partner's vasectomy as a method of family planning. There are different methods for the evaluation of family planning programme. Knowledge and attitude about the contraception among male is one of them (Dayanand et al., 2014).

The utilization of male sterilization in UK, New Zealand, and South Korea is 17 to 18% and in Australia, Belgium, Denmark, Spain, Switzerland and USA has 8 to 11%. Canada has 20% of woman who rely on vasectomy (Stein, 2015). Promoting and educating men about the basic facts and benefits of vasectomy will result in higher use of the method and break down the common myths about the procedure (Ripley & Salem, 2012).

The total voluntary surgical contraceptive (VSC) achievement in Fiscal Year (FY) 2076/2077 was 37% which was 38% in FY 2077/2078. Mini lap case in FY 2077/2078 was 1.7% and vasectomy case was 0.48%. This also showed the involvement of male in permanent family planning is low than women (Annual report department of health services, 2077/2078).

In order to improve the utilization of male sterilization between males, awareness scheme required to be effectively planned, expanded and monitored to upgrade the men's knowledge and elevate the favorable attitude regarding vasectomy. Everyone deserves the right to choose, but knowledge and attitude is important to make it right. Adequate studies have not been conducted in our country for assessing awareness and attitude of married men regarding permanent method. So, the researcher is interested to conduct study in this topic.

METHODOLOGY

A descriptive cross-sectional research design was adopted to assess the level of awareness and attitude towards vasectomy among married men with wife in the reproductive age group of 15-49 years and having at least one child. Data collection was done from 96 respondents residing in Birendranagar Municipality, ward number 3 of Surkhet district from from November 22 to December 6, 2022 after getting ethical approval from the Institutional Review Committee from the Nepalese Army Institute of Health Sciences (Ref.No.245, formal written permission was obtained from Birendranagar Municipality. Objectives of the study were clearly explained and instruction about the instrument was provided in detail. Researcher herself collected the data at the home of each respondent. Informed written consent was taken from all the respondents prior to data collection. Privacy was maintained by interviewing the respondents in a separate room as feasible. Confidentiality was maintained by assuring respondents that the information provided by them would only be used for the study purpose without revealing their identity. Approximately, it took 15- 20 minutes to collect data by using semi-structured interview schedule.

The sample size was estimated by using the formula for definite proportion $n = \frac{z^2 pq}{d^2}$ with the assumptions of 5% allowable error, and 95 % confidence interval. The estimated prevalence of vasectomy was taken as 6% as per NDHS, 2016. The sample was then selected by using the purposive sampling technique.

The questionnaire of the study consisted of 3 parts as part I consisting of questions related to socio-demographic characteristics, Part II consisting of questions related to awareness towards vasectomy and Part III consisting of questions related to attitude towards vasectomy. Questionnaires consists of multiple response questions, MCQ and Yes/No questions. Each correct answer was scored 1 and incorrect answer was scored 0. Here, the total score was 19. A 5- point Likert scale ranging from 5 (strongly agree) and 1 (strongly disagree).

Pretesting of the instrument was done among 10% of the study population in another community of Birendranagar Municipality ward number 1 who shared similar socio-demographic variables as that of the study setting. No modification was needed after pretest result.

Statistical Package for Social Science (SPSS) Version 20.0 was used for data analysis. Analysis of the collected data was done by using descriptive statistical method such as frequency, mean, percentage and standard deviation. An inferential statistic such as chi square test was used to find out the association between the level of awareness with selected socio-demographic variables.

RESULT

A total of 96 married men with wife in the reproductive age group of 15-49 years, and having at least one child were included in the study. Data was collected through face to face interview schedule.

Table 1: Socio-demographic Information of the Respondents

Variables	Frequency	Percent
n=96		
Age in year		
20-29	17	17.7
30-39	44	45.8
40-49	25	26.0
50-59	10	10.4
Mean age=37.05 SD=±7.807		
Type of family		
Nuclear	45	46.9
Joint	51	53.1
Educational status		
Can read and write	88	91.7
Cannot read and write	8	8.3
If can read and write, n=88		
Informal	6	6.3
Basic level	28	29.2
Secondary level	37	38.5
Bachelor and above	17	17.7
Monthly income		
< 10,000	5	5.2
10,000 -15,000	11	11.5

15,000 -20,000	35	36.5
>20,000	45	46.9
Occupation		
Service	29	30.2
Business	23	24.0
Labor	22	22.9
Agriculture	22	22.9

Table 1 depicts the socio-demographic characteristics of the study population. The highest proportions (45.8%) of the respondents belonged to the age group (30-39) years with Mean SD (37.05±7.807). Similarly in type of family, (53.1%) of the respondents belong to joint family. Almost all (91.1%) of the respondents can read and write. With regards to income, nearly half (46.9%) of the respondents monthly family income was more than Rs. 20000. In terms of occupation, 30.2% of the respondents were service holder.

Table 2: Respondents Level of Awareness on Vasectomy

Level of Awareness	Number	Percent
Inadequate (≤50%)	37	38.5
Moderate (50-79%)	51	53.1
Adequate (80% and above)	8	8.3
Total	96	100.0

Mean=8.11 SD= 2.706

Table 2 illustrates that, more than half (53.1%) of the respondents had moderate level of awareness, nearly two- fifth (38.5%) of the respondents had inadequate level of awareness and only 8.3% of the respondents had high level of awareness towards vasectomy.

Table 3: Attitude of the Respondents towards Vasectomy

SN	Statements	n=96				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
		N (%)	N (%)	N (%)	N (%)	N (%)
1	Permanent family Planning is easier in male than in female	35(36.5)	58(60.4)	-	3(3.1)	-
2	Men should be primarily responsible for decision making on family planning#	28(29.2)	52(54.2)	-	14(14.6)	2(2.1)
3	Permanent family planning method benefits to self and family	40(41.7)	55(57.3)	1(1.0)	-	-
4	Permanent family planning should be only for male#	14(14.6)	27(28.1)	-	44(45.8)	11(11.5)

5	After a vasectomy procedure a male loses his sexual urge and desire for sexual activity#	10(10.4)	37(38.5)	2(2.1)	37(38.5)	10(10.4)
6	After vasectomy a man is able to impregnate his wife	21(21.9)	58(60.4)	1(1.0)	11(11.5)	5(5.2)
7	Vasectomy makes a man promiscuous#	15(15.6)	19(19.8)	4(4.2)	46(47.9)	12(12.5)
8	Men are able to do usual work after vasectomy	18(18.8)	62(64.6)	-	12(12.5)	4(4.2)
9	Vasectomy causes weakness#	17(17.7)	35(36.5)	-	32(33.3)	12(12.5)
10	After vasectomy the man cannot get involved in religious action#	3(3.1)	24(25.0)	-	48(50.0)	21(21.9)

Negative statement

Table 3 reveals that the majority (60.4%) of the respondents' agreed that the permanent family planning is easier in male than in female. More than half (54.2%) of the respondents agreed that men should be primarily responsible for decision making on family planning. Nearly three-fifth (57.3%) of the respondents agreed that permanent family planning method benefits to self and family. Highest proportion (45.8 %) of the respondents disagreed that permanent family planning should be only for male. Nearly two-fifth (38.7%) of the respondents agreed and same percentage (38.7%) disagreed that after a vasectomy procedure, male loses his sexual urge and desire for sexual activity. Majority (60.4%) of the respondents agreed that after vasectomy a man is able to impregnate his wife. Nearly half (47.9%) of the respondents disagreed that vasectomy makes a man promiscuous. Majority (64.6%) of the respondents agreed that men are able to do usual work after vasectomy. Nearly two-fifth (36.5%) of the respondents agreed that vasectomy causes weakness. Half (50.0%) of the respondents disagreed that after vasectomy the man cannot get involved in religious action.

Table 4: Respondents Level of Attitude on Vasectomy

Level of Attitude	Number	Percent
Positive \geq 60	86	86.5
Negative $<$ 60	13	13.5
Total	96	100.0

Table 4 shows that most (86.5%) of the respondents had positive attitude and 13.5% had negative attitude towards the vasectomy.

Table 5: Association of Level of Awareness with Selected Socio-demographic Variables

Variable	Level of Awareness		Chi square	P-value
	Inadequate	Moderate to adequate		
n=96				
Age in year				
20-39	27(44.3%)	34(55.7%)	0.459	0.530
40-49	18(51.4%)	17(48.6%)		
Educational status				
Can read and write	38(43.2%)	50(56.8%)	5.784	0.024
Cannot read and write	7(87.5%)	1(12.5%)		
Economic status				
10,000-15,000	20(38.5%)	32(61.5%)	4.046	0.135
15,000-20,000	14(63.6%)	8(36.4%)		
>20,000	11(50.0%)	11(50.0%)		
Type of family				
Nuclear	24(53.3%)	21(46.7)	1.419	0.306
Joint	21(41.2%)	30(53.1%)		

Table 5 illustrates that there was statistically significant association between level of awareness and educational status ($P < 0.05$) and no statistically significant association between level of awareness and selected socio-demographic variables like age, type of family and economic status ($P > 0.05$).

DISCUSSION

In this study, the highest proportions (45.8%) of the respondents belonged to the age group (30-39) years with Mean SD (37.05±7.807) which is consistent with the findings of the study conducted in Nigeria (Owopetu et al., 2015) where 42.7 % of the respondents belong to age group of 31-40 years. Furthermore, study conducted in Ethiopia revealed that more than half (56%) of the respondents belong to the age group (31 and 40) years with Mean SD (35.98 ±6.73) which is moreover similar to the present study findings (Wolelie et al., 2014)

Similarly in type of family, 53.1% of the respondents belong to joint family. In the same way, almost all (91.1%) of the respondents can read and write. Among 88 respondents, 6.3% of them had informal education which is similar to the findings of the study conducted in India among 132 respondents where 8.33% of them had no formal education (Chinnaiyan & Babu, 2021).

With regards to income, nearly half (46.9%) of the respondents monthly family income was more than Rs 20000. Likewise in occupation, more than one fourth (30.2%) of the respondents were service holder, and 24% of them were involved in business activities. A similar study conducted in Rwanda revealed that only 10.51% of the respondents were engaged in business activities (Ntakirutimana et al., 2019).

The present study showed that more than half (54.2%) of the respondents agreed that men should be primarily responsible for decision making on family planning which is similar to the study conducted among 390 men in Rwanda which

showed that almost half (46.4%) of the respondents agreed that men should be responsible for decision making on family planning (Ntakirutimana et al., 2019).

The present study revealed that 19.8% of the respondents agreed that vasectomy makes a man promiscuous which contradicts the findings of the study conducted in Ethiopia by Dejene Wolde et al., (2023) among 624 respondents where 33% of them agreed the statement. Likewise, current study showed that 36.5% of the respondents agreed the statement that vasectomy causes weakness whereas study conducted in Ethiopia revealed that 24.4% of them agreed that vasectomy causes physical weakness and make it difficult to do hard work. This difference could be due to variation in the study setting (Dejene Wolde et al., 2023).

The present study illustrated that more than half (53.1%) of the respondents had moderate level of awareness and only 8.3% of the respondents had adequate level of awareness towards vasectomy which is in contrast to the study conducted in Nigeria which revealed that 32% of the respondents had moderate level of knowledge and 38% of the respondents had adequate level of knowledge. Furthermore, the present study illustrated that nearly two fifth (38.5%) of the respondents had inadequate awareness regarding vasectomy which is consistent with the study findings conducted in Nigeria where 30% of the respondents had inadequate knowledge regarding vasectomy (Owopetu et al., 2015).

It is found that most (85.6%) of the respondents had positive attitude towards vasectomy which is supported by the finding of this study by Dayanada et al., (2014) done in Pokhara, where majority (60%) of the respondents had good attitude regarding vasectomy.

It was found that there was association between level of awareness and educational status as signified by ($p= 0.024$) which is supported by the findings of the study conducted in Rwanda which showed ($p < 0.001$) (Ntakirutimana et al., 2019). The current study does not show association with level of awareness and age, family size and economic status of the respondents as found in the study conducted by Saoji et al., (2013).

CONCLUSION

Based on the finding, it is concluded that more than half of married men had moderate awareness and almost all had positive attitude towards vasectomy. Majority of them knew about the meaning of family planning, permanent family planning method for male and services available for vasectomy. There was association between level of awareness with educational status of the married men.

RECOMMENDATION

Similar study can be conducted in different setting from different parts of the country so that the study can be generalized.

Comparative study can be done between the people of different communities' i.e. urban and rural area.

LIMITATION

This study was conducted in only one setting, i.e only one ward of Birendranagar Municipality.

CONFLICT OF INTEREST

None

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AUTHOR CONTRIBUTION

Manisha Rijal (PI), Babita Thapa (Co-author), Anju Rayamajhi (Co-author)

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