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Knowledge and Attitude of Fertile Women towards Bilateral Tubal Ligation in Port Harcourt, Southern Nigeria

Enyindah CE*, Hassan KO, Ojule JD and Oranu EO

Department of Obstetrics and Gynaecology, University of Port Harcourt teaching hospital, Port Harcourt, Rivers State, Nigeria

Abstract

Background: Bilateral tubal ligation is the commonest method of contraception worldwide; but is yet to gain wide acceptance in Nigeria as a result of many factors. These include ignorance, illiteracy, superstitious beliefs amongst others.

Objectives: To find out the knowledge and attitude of antenatal attendees in University of Port Harcourt Teaching Hospital, towards bilateral tubal ligation.

Methodology: This cross sectional descriptive study involved a coded questionnaire interview of some antenatal mothers at the University of Port Harcourt Teaching Hospital between February and April 2013. Data entry and analysis employed SPSS 15.0 for Windows statistical software.

Results: Most of the respondents were in their third decade of life (59.3%), nulliparous (64.5%), and married (97.9%) with tertiary level of education (69.2%). Christians dominated the cohort with preponderance of Pentecostals (51.7%). The knowledge of bilateral tubal ligation amongst the respondents was low. About 52.5% had never heard of bilateral tubal ligation while only 35.5% knew the correct meaning of this. Only 18.3% of the respondents would consider undergoing bilateral tubal ligation in future after completing their family size. The reasons which the respondents gave for never wanting to accept bilateral tubal ligation include permanent nature of the method, fear of operation, and unexpected child loss amongst others. Health personnel/facility was the leading source of information on bilateral tubal ligation.

Conclusion: The low level of knowledge and awareness about bilateral tubal ligation and some of the negative attitudes and views held against it as identified in this study calls for a more comprehensive and concerted effort on information, education and counselling of the citizenry especially women of reproductive age.

Keywords: Knowledge; Attitude; Bilateral tubal ligation; fertile women; Port Harcourt; Southern Nigeria.

*Corresponding author: Enyindah CE

✉ cosenyi@yahoo.co.uk

Department of Obstetrics and Gynaecology, University of Port Harcourt teaching hospital, Port Harcourt, Rivers state, Nigeria

Tel: +2348033127467

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Introduction

Bilateral tubal ligation is an increasingly common method of contraception, and is now the most commonly used method of fertility regulation worldwide [1,2]. Tubal ligation or Tubectomy (also known as having one's "tubes tied") is a surgical procedure for sterilization in which a woman's fallopian tubes are clamped and blocked or severed and sealed, either of which prevents fertilization and subsequent implantation [3]. Tubal ligation is considered a permanent method of sterilization and birth control because of its low failure rate [2-4].

Considering present advances in contraceptive technology, bilateral tubal ligation (BTL) stands out as one of the most efficient, safe and popular method, especially in the developed countries, with an incidence of 28-33. 3% [5-7]. The incidence of BTL worldwide is rising and in New South Wales, a study revealed that 70% of sterilization operations were performed for contraceptive management only while 11% were concurrent with caesarean section [2].

Although the use of bilateral tubal ligation has become the most commonly used family planning method globally, the prevalence

in Nigeria has continued to be among the lowest in the world with less than 5% of women over 35 years using this method [8,9]. Similarly, while the industrialized countries are using bilateral tubal ligation as a strong and important instrument for improving maternal and infant health and check on the unbridle population growth, the acceptance and practice level is still very low in our continent and Nigeria [4,10,11]. There are a number of factors given for this low prevalence in Nigeria. These include inadequate information about the procedure, misconceptions and rumour surrounding the method, number of surviving children, religion and socio-cultural barriers, financial status, inadequate facilities, shortage of trained personnel and poor funding by government [12-15]. Despite the fact that family planning is the most cost effective reproductive health input, the government of developing countries earmark less than 0.5% of their total budget into family planning. Fertility control is a must for any country that strives to develop. Fertility control must be seen as a sensitive and intimate decision which is often based on deeply held religious and philosophical convictions and as such to be approached with sensitivity, empathy, maturity and in a non-judgmental manner [16].

The aim of this study therefore was to find out the knowledge and attitude of antenatal clinic attendees in the University of Port Harcourt Teaching Hospital, Port Harcourt in Southern Nigeria towards bilateral tubal ligation. Antenatal clinic attendees were chosen as the study population because it offers a golden opportunity for effective and efficient forum for exchange of information between pregnant women and health personnel as well as the pregnant women themselves. In addition, it is the group that if properly informed and counselled regarding voluntary female surgical sterilization would in future when they have completed their family size undergo bilateral tubal ligation. This has been demonstrated in previous study carried out by Osuntogun [17] in UCH, Ibadan and Omu and Akagbosu [9] in University of Benin Teaching Hospital where most of the women who were sterilized over stated period were those who were counselled during their antenatal and puerperal period. Port Harcourt capital of Rivers state in Southern Nigeria is cosmopolitan, oil rich and has people from all parts of the country. The population of Port Harcourt was estimated at 1.5 million in 2013 [18]. University of Port Harcourt Teaching Hospital is the apex teaching hospital in the state. It has 800 beds and offers general and specialist care to the citizenry of Rivers State and neighbouring states.

Subjects and Method

This was a cross sectional descriptive study amongst women attending antenatal clinic at the University of Port Harcourt Teaching Hospital. The data was collected over a three month period. A sample size of four hundred (400) was estimated for the study, and this was arrived by convenience. A systematic random sampling technique was employed and the data gathering instrument used was a structured anonymous self-administered questionnaire. The questionnaires were pretested prior to distribution and necessary corrections made. The authors and experienced Public Health Nurses and Midwives interviewed the subjects who came for antenatal care. A sampling ratio of one in five; starting with the first patient that presented in the clinic for the day was used.

Data collected from the respondents included amongst others, sociodemographic characteristics, reproductive health data as well as their knowledge and attitude towards bilateral tubal ligation.

The data were analysed using SPSS 15.0 Microsoft statistical software. Results were presented as means with standard deviation, rates and proportions in tables and figures. Cross tabulation analysis were performed to establish relationships among variables.

Results

Sociodemographic characteristics

A total of four hundred (400) questionnaires were distributed; out of which three hundred and eighty three (383) were completed and retrieved giving a response rate of 95.8%. Most of the respondents (59.3%) were between 21-30 years and nulliparous 247 (64.5%). About 375 (97.9%) were married; while 100 (26.1%) had secondary education and 265 (69.2%) tertiary education. Christians dominated the cohort with preponderance of Pentecostals 198 (51.7%). These are highlighted in the sociodemographic characteristics of respondents shown in **Table 1**.

Table 1 Demographic characteristics of the respondents.

Characteristics	Number	Percentages %
Age (Years)		
≤20	12	3.1
21-30	227	59.3
31-40	136	35.5
> 40	8	2.1
Parity		
0	247	64.5
1-4	134	35
>4	2	0.5
Number of Living children		
0	247	64.5
1	71	18.5
2	44	11.5
3	16	4.2
4	5	1.3
Marital status		
Married	375	97.9
Single	8	2.1
Educational status		
No formal education	2	0.5
Primary	16	4.2
Secondary	100	26.1
Tertiary	265	69.2
Religion		
Catholic	76	19.8
Anglican	65	17
Pentecostal	198	51.7
Islam	44	11.5
Maximum number of children		
1	1	0.3
2	19	5
3	111	29
4	188	49.1
5	54	14.1
6	8	2.1
7	2	0.5

Knowledge of bilateral tubal ligation

Table 2 showed that the knowledge of bilateral tubal ligation among the 383 respondents was low. About 52.5% of the respondents had never heard of bilateral tubal ligation while only 35.5% knew the correct meaning of bilateral tubal ligation. The knowledge of advantages of bilateral tubal ligation was low among the respondents; only 19.1% were aware of the fact that it is more effective than other temporary methods of contraception. Out of the 182 respondents who have had about bilateral tubal ligation, only 23.6% of them knew of someone currently using bilateral tubal ligation while 76.4% did not know of anyone using it.

Relationship between educational level and Knowledge of correct meaning of bilateral tubal ligation

Table 3 showed the proportion of the respondents in each educational level that knew the correct meaning of bilateral tubal ligation. Those with tertiary education were 42.6%, followed by secondary education 20.0% and then primary education 18.8%. Those with no formal education did not know the correct meaning of bilateral tubal ligation.

Relationship between religion and knowledge of correct meaning of bilateral tubal ligation

Table 4 showed the proportion of respondents in each religious group that knew the correct meaning of bilateral tubal ligation.

Table 2 Knowledge of voluntary female surgical sterilization (BTL).

Knowledge	Number	%
Bilateral tubal ligation		
Never heard about it	201	52.5
Meaning of BTL		
The tubes are tied	136	35.5
Womb is tied	37	9.7
Womb is turned	19	5
Tubes are turned	7	1.8
I don't know	184	48
Advantages of BTL		
More effective	74	19.1
Safe	41	10.7
Cheaper	8	4
Does not reduce sexual function	39	10.2
Client can go home on the day of operation	16	3.9
Can be done while awake	22	5.7
I don't Know	185	51.7
Do you Know anyone using BTL?		
Yes	43/182	23.6
No	139/182	76.4

Table 3 Proportion of respondents in each education group that know the correct meaning of Bilateral Tubal of (BTL).

Educational level	No of respondents in the group	No with correct meaning of BTL	% with correct meaning of BTL
No formal Education	2	0	0
Primary	16	3	18.8
Secondary	100	20	20
Tertiary	265	113	42.6

This was highest amongst the Muslims (38.6%) followed by the Roman Catholics (36.8%), Pentecostals (35.8%) and the Anglicans (30.8%).

Attitude of respondents towards bilateral tubal ligation

Likelihood of using bilateral tubal ligation in future

Figure 1 showed that 18.3% of the respondents would consider undergoing bilateral tubal ligation in future after completing their family size while 81.7% would not.

Relationship between educational level and likelihood of using bilateral tubal ligation in future

Figure 2 showed that among the respondents who would consider undergoing bilateral tubal ligation after completing their family size, 55 of them had tertiary level of education; 13 had secondary level of education while 2 had primary level of education. There was none among the respondents with no formal education. Only 20.8% of all the respondents with tertiary level of education would consider undergoing bilateral tubal ligation in future.

Relationship between religion and likelihood of using bilateral tubal ligation in future

Figure 3 showed that among the respondents that would consider undergoing bilateral tubal ligation 43.0% were Pentecostal church Christians followed by Anglicans 21.0%, Muslims 19.0% and the least, Roman Catholic Christians 17.0%. This indicates that the Pentecostal Christians more than the Anglicans and Muslims were more likely to undergo bilateral tubal ligation in future. The Roman Catholic Christians were least disposed to this method.

Non-acceptance of bilateral tubal ligation

The reasons which the respondents gave for never wanting to

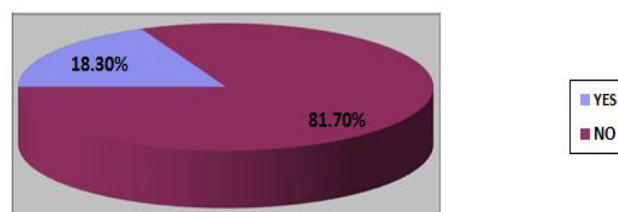


Figure 1 Proportion of respondents who would consider undergoing bilateral tubal ligation after completing their family size.

Table 4 Proportion of respondents in each religious group that know the correct meaning of Bilateral tubal Ligation (BTL).

Religion	No of respondents in the group	No with correct meaning of BTL	% with correct meaning of BTL
Muslim	44	17	38.6
Roman catholic	76	28	36.8
Pentecostal	198	71	35.8
Anglicans	65	20	30.5

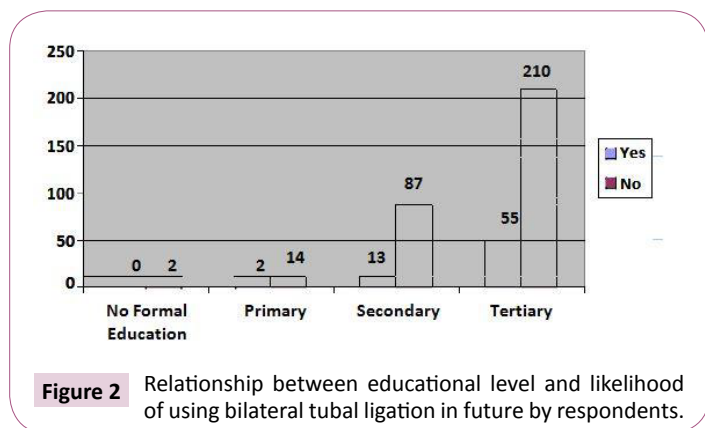


Figure 2 Relationship between educational level and likelihood of using bilateral tubal ligation in future by respondents.

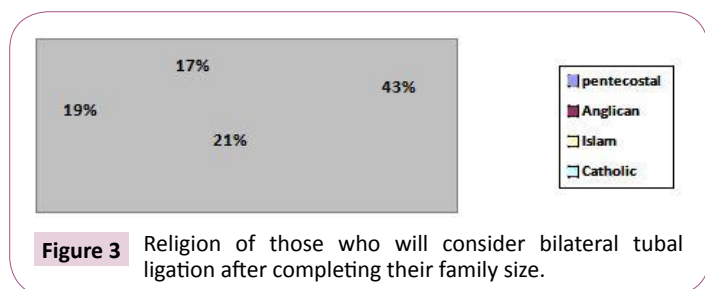


Figure 3 Religion of those who will consider bilateral tubal ligation after completing their family size.

accept bilateral tubal ligation as shown in **Figures 4 and 5** include permanent nature of the method (37.0%), fear of operation (25.0%), unexpected child loss (14.0%), bad side effects (10.0%), religious beliefs (10.0%) and undisclosed reason (4.0%)

Source of Information

Health personnel/health facility was the leading source of information on contraception (68.1%). This is followed by electronic media-TV/Radio (21.7%). Other sources of primary information on contraception were partners (5.2%), non-specified (2.6%), school (1.3%) and friends/siblings (1.1%).

Discussion

Our survey revealed that majority of the women was in the third decade of life, nulliparous, married with tertiary level of education. They were more of Christians with Pentecostal background, already had 0-2 living children with a desire to have maximum of four children. Their knowledge of bilateral tubal ligation was low; 52.5% of the respondents had never heard of bilateral tubal ligation and only 35.5% of them knew the correct meaning of bilateral tubal ligation. Knowledge of the advantages of bilateral tubal ligation was also low with only 19.1% of the respondents being aware of its effectiveness. About 31.6% of those who have heard about bilateral tubal ligation knew someone using this method. This low knowledge and prevalence is in line with

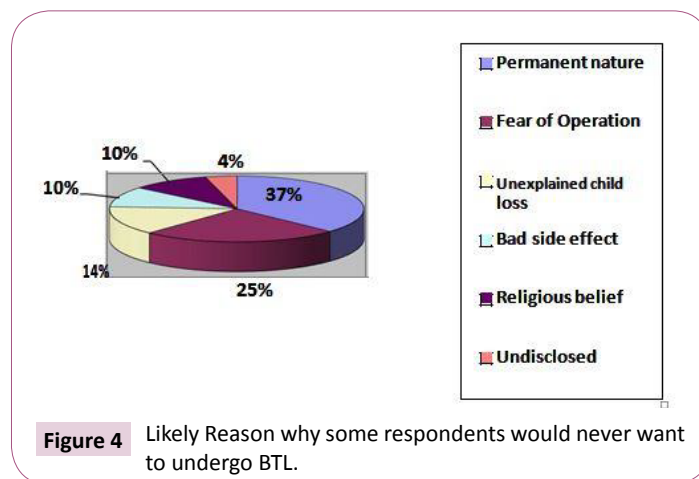


Figure 4 Likely Reason why some respondents would never want to undergo BTL.

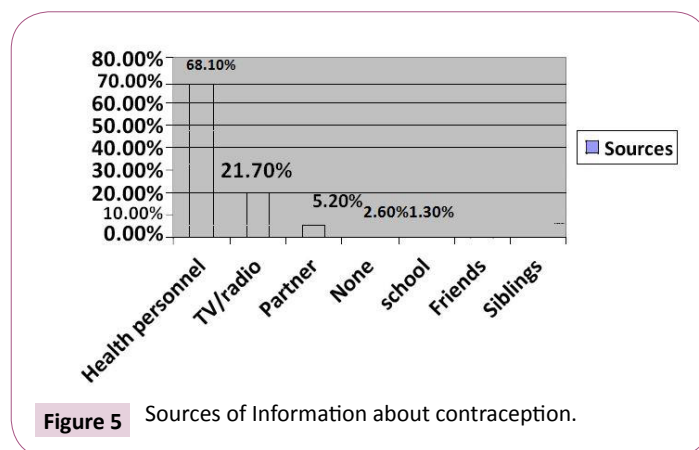


Figure 5 Sources of Information about contraception.

reports from other studies in various parts of Nigeria and Africa [14,19-23].

The knowledge of correct meaning of bilateral tubal ligation was highest among the respondents with tertiary education followed by secondary education with only 2.2% of those with primary education knowing the correct meaning of bilateral tubal ligation whereas those with no formal education had no clue of this. Lack of formal education as well as poor socioeconomic status of many Nigerian women are recognized obstacles to family planning in Nigeria [16,17,24]. The knowledge of correct meaning of bilateral tubal ligation was highest among Christians in Pentecostal Churches and lowest among Muslims. This is with respect to total number of respondents that knew the correct meaning of bilateral tubal ligation. However the proportion of the respondents that knows the correct meaning of bilateral tubal ligation was highest among the Muslims with 38.6% and lowest among the Anglican Christians 30.8%. The Roman Catholic and Pentecostal Christians were 36.8% and 35.8% respectively. This refutes the earlier thought that Islam was opposed to family planning which was

also emphasized by Omran [25] in 1992. What Islam is opposed to is the use of permanent family planning such as voluntary female surgical sterilization [25]. Roman Catholic churches in the other hand believed strongly that sex is for conception and that use of any artificial means of birth control is sinful. This view is strongly supported by Encyclical Humane Vitae by Pope Paul IV and the Vatican in 1968, also 1993 Encyclical Veritatis splendor by Pope John Paul II, which affirmed the ban of artificial contraception on moral ground. The anti-voluntary female surgical sterilization policies of Roman Catholic and Islamic religion have been seen by some scholars as a demonstration of the lack of understanding of impact of family planning on quality of life and the reduction of very high mortality associated with unwanted pregnancies in many African countries including Nigeria, where lifetime risk of death from pregnancy is greater than 1 in 25 which is far higher than 1 in 5000 seen in Western Europe [26].

After enlightening the respondents with some information regarding voluntary female surgical sterilization, their attitude towards this method was sought for; only 18.3% of them would consider undergoing bilateral tubal ligation in future after completing their family size. The positive effect of family planning counselling, information, education and communication (IEC) in encouraging better participation in voluntary female surgical sterilization is well documented in some studies done in Nigeria [9,14,17]. Other important means of encouraging acceptance of voluntary female surgical sterilization was more positive attitude towards it by the health workers (nurse) some of whom are happy to tell the clients that they too have had bilateral tubal ligation in a study done in Lagos University Teaching Hospital, Nigeria [14]. Communicating the right information and general education regarding voluntary female surgical sterilization will help not only dispel the fears, rumour and misconceptions held against it; also emphasizing the advantages of the method will go a long way in stimulating better participation in voluntary female surgical sterilization.

Over two third of the respondents who would consider undergoing bilateral tubal ligation in this study had tertiary education. Formal education has been shown in studies to have direct effect on

maternal mortality by reducing it because educated women tend to make better use of available medical facilities [27]. Education also serves as a way of improving the general socioeconomic status of women in general. On the other hand there is an adverse relationship existing between maternal health (including maternal death) and literacy level [28]. The likelihood of regret after voluntary female surgical sterilization were also similar to those documented in previous study and the reasons include mainly the desire to have more children and unexpected child loss [8]. The data from Nigeria Demographic and Health survey published in 2014, indicate that there is a strong preference for large family size in Nigeria; the total fertility rate of 5.5 children per woman with only 15% of married women using any method of family planning [29]. Apart from the high premium placed on child birth in Africa; especially in Nigeria there is also the issue of "male child" factor, thus compelling many women who have only female children to continue trying to give birth to a son until they are menopausal or die from obstetric complications. This is a reflection of the mean age for acceptance of sterilization in Nigeria which is as high as 40 years which implies some cultural antipathy to the procedure and possibly fears of child death [30]. Among the major ethnic groups in Nigeria, men dominate in both family and social relationships including right to production and reproduction [31]. Male children are seen as insurance for old age, agent of continuity of the family name and some are necessary to fulfil the priestly duty without which the ancestral spirit will begin to fade or are forgotten [32]. The permanent nature and fear of operation were among the common reasons why the respondents would not want to use voluntary female surgical sterilization in future. These were also noted in previous studies [8,9,22].

Conclusion

The low level of knowledge and awareness about bilateral tubal ligation and some of the negative attitude and view held against it as identified in this study, calls for more comprehensive and concerted efforts in informing, educating and counselling of Nigerian populace regarding voluntary female sterilization. This hopefully will lead to better acceptance and its utilization as a method of contraception in Nigeria.

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