

Reasons for aversion to hysterectomy among fibroid patients in ESUT teaching hospital, Enugu: Cross-sectional study

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Abstract

Background: Uterine fibroids are the most common benign gynaecological tumours in women of reproductive age. It is a benign monoclonal tumour of the smooth muscles of the uterus with very low potential for malignant transformation. More often than not, it is asymptomatic and found as an incidental occurrence but when symptomatic, heavy menstrual bleeding is the commonest occurrence. It has various modalities of treatment ranging from watchful waiting, medical to surgical treatments. However, hysterectomy is the only definitive treatment but this treatment option has not been found to be easily acceptable in our centre from observations, hence, the need to find the proportion of women who may accept this option and the reason given by those who may not accept it when indicated.

Aim: The aim of this study was to determine the factors responsible for the observed high level of aversion to hysterectomy for treating fibroid in our centre

Methodology: It was a cross-sectional questionnaire based, hospital study of 285 women who were diagnosed with uterine fibroid in the gynaecology clinic of ESUT Teaching Hospital, Enugu

Key words: Reasons; Aversion; Hysterectomy; Fibroid

1. Introduction

Uterine fibroids, otherwise known as leiomyomas are the most common gynaecological tumours among women of reproductive age worldwide.¹ They are benign monoclonal tumours of the smooth muscles found in the human uterus.^{2,3} The actual prevalence is unknown because many cases are asymptomatic and are not diagnosed except incidentally during ultrasound or hysterectomy for other reasons. Prevalence as reported in the literature varies significantly depending on the type of study design, methods of diagnosis, ethnic composition and age distribution⁴ but available data ranges from 5 to 21% of women of reproductive age worldwide.⁵⁻⁸ There are various modalities of treating uterine fibroid ranging from watchful waiting to medical treatment and finally surgery. Surgery can be through minimal access technique or open surgery. However, hysterectomy is the definitive treatment for uterine fibroid. Experiences in our centre and many other centres around show that women are averse to hysterectomy for whatever reasons. Only about 20% of hysterectomies done in India was for uterine fibroid treatment.⁹ Hysterectomy is a surgical procedure for removing the uterus either wholly or partially. One of the reasons for doing hysterectomy is for the treatment of uterine fibroids among women who have completed their family size or have life-threatening complications from uterine fibroids irrespective of their parity or desire for further pregnancies.¹⁰ Another study by Radha et al in Turapati found that hysterectomy due to fibroids constitute 45% of all hysterectomy done in the

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city.¹¹Pandey et al in a hospital based study found the most common indication for hysterectomy to be symptomatic uterine fibroid which constituted 40% of all cases.¹²In Maiduguri the incidence of hysterectomy due to uterine fibroid was 56(68.3%),¹³while in Kano 24.6% had hysterectomy for uterine fibroid.¹⁴In a hospital based study in Enugu hysterectomy for fibroid constitute 24.7% and when bilateral salpingo-oophorectomy was included it amounted to 36.8%.¹⁵ Studies on hysterectomy are scanty in our centre. However, a 5-year review on benign hysterectomy in our centre by Odugu et al showed that conditions such fibroids, adenomyosis and dysfunctional uterine bleeding accounted for 44% of all the cases.¹⁶The experience in our centre is that most of the women who had fibroid are averse to hysterectomy as a form of treatment hence, this cross-sectional questionnaire-based study to ascertain the reasons.

Aim/Objectives

The aim of this study was to determine the factors responsible for the observed high level of aversion to hysterectomy for treating fibroid in our centre

The specific objectives include to determine:

- Level of awareness of hysterectomy
- Degree of acceptability if indicated
- Reason for rejecting the option for treating uterine fibroid in our centre.

1.1. Setting

The study was carried out in ESUT Teaching Hospital, a tertiary hospital located in the capital of Enugu State, South-East, Nigeria. The centre offered tertiary healthcare in obstetrics & gynaecology and had remained the major referral centre for surrounding cities and states. It had a total of 16 consultant obstetricians/gynaecologists with their team members who ran gynaecology clinics from Mondays to Fridays every week except for public holidays. It also had a designated theatre for gynaecological procedures that operated every day of the week except weekends and public holidays and majority of the cases done in the theatre were related to uterine fibroids.

2. Methodology

It was a cross-sectional questionnaire based, hospital study of 285 women who were diagnosed with uterine fibroid in the gynaecology clinic of ESUT Teaching Hospital, Enugu. All consenting women who met the inclusion criteria were recruited into the study until the calculated sample size was reached. Oral consent was obtained from the participants and the questionnaire administered to the participant. The researcher or an assistant was available to explain any confusion that arose in the course of filling the questionnaire. The questionnaire was then collected from the participant for subsequent collation and analysis

2.1. Sample size determination

The sample size was calculated using the Kish Leslie formula for a cross-sectional study: $N = Z^2P(1-P)/d^2$

From a hospital based study¹⁴the proportion of hysterectomy done for treatment of fibroid was found to be 24.6%. Hence,

$$\begin{aligned}
 N &= Z^2P(1-P)/d^2 \\
 N &= 1.96^2 \times 0.246(1-0.246)/0.05^2 \\
 &= 3.8416 \times 0.246(0.754)/0.0025 \\
 &= 0.7126/0.0025 \\
 &= 285
 \end{aligned}$$

2.2. Inclusion criteria

Every patient who presented the gynaecology clinic of ESUT Teaching Hospital who was found to have fibroid and who gave her consent for the study

2.3. Exclusion criteria

Patients who withheld their consent or who are not mentally stable to give consent

2.4. Data management

The data analysis was both by descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS) version 25 for windows at 95% confidence level. Sociodemographic variables were used to categorize the data and this was subjected to comparative statistical analysis to yield frequencies, means and percentages. Test of significance between class differences was by Pearson's Chi-square test for categorical variables and student's T-test for continuous variables where applicable. Odd ratio (OR) at 95% confidence interval (95%CI) was calculated using logistic regression techniques. All $P < 0.05$ at 1 degree of freedom ($df=1$) was considered statistically significant.

3. Results

A total of 285 respondents who had uterine fibroid were interviewed. Table 1 showed the distribution of the respondents according to their socio-demographics. Majority of them, 126(44.2%) were aged 25-30 years while only 27(9.5%) were aged ≥ 41 years. Most of the respondents were of Igbo race, 181(63.5%), followed by Yoruba, 96(33.7%); while the Hausa, 3(1.1%), were the least. Fifty five percent were married, followed by 43.9% were single. Only 3(1.1%) were divorced. Majority, 144(50.5%) had tertiary education, whereas 116(40.7%) had secondary education and only 25(8.8%) had primary education. Most of the respondents 197(69.1%) were nulliparous whereas only 2(0.7%) were para 4 and above.

Table 1 Socio-demographics of respondents

Variable	Frequency	Percentage
Age		
25-30 years	126	44.2
31-35 years	87	30.5
36-40 years	45	15.8
≥ 41 years	27	9.5
Ethnicity		
Igbo	181	63.5
Yoruba	96	33.7
Hausa	3	1.1
Others	5	1.8
Marital Status		
Single	125	43.9
Married	157	55.1
Divorced	3	1.1
Educational qualification		
Primary	116	40.7
Secondary	169	59.3
Tertiary	0	0
Parity		
0	197	69.1
1	62	21.8

2	21	7.4
3	3	1.1
≥4	2	0.7

Table 2 showed the distribution of the management options known to the respondent. Two hundred and seven (72.6%) were aware of medical management, 113(39.6%) knew about laparoscopic myomectomy, all of them were aware of open myomectomy, 163(57.2%) were aware of hysterectomy and 270(94.7%) were aware of non-intervention.

Table 2 Options of management known to respondents

Variable	Frequency	Percentage
Medical		
Yes	207	72.6
No	78	27.4
Laparoscopic myomectomy		
Yes	113	39.6
No	172	60.4
Open Myomectomy		
Yes	258	100
No	0	0
Hysterectomy		
Yes	163	57.2
No	122	42.8
None-intervention		
Yes	270	94.7
No	15	5.3

Table 3 showed the source of information about hysterectomy as an option of treatment. One hundred and forty-five (50.9%) learnt from friends/relatives, 46(16.1%) from print media, 9(3.2%) from electronic media, 213(74.7%) from nurses and other health workers and 181(63.5%) from doctors.

Table 3 Source of information about hysterectomy

Variable	Frequency	Percentage
Friends and relatives		
Yes	145	50.9
No	78	27.4
Not applicable	62	21.8
Print media		
Yes	46	16.1
No	177	62.1

Not applicable	62	21.8
Electronic media		
Yes	9	3.2
No	214	75.1
Not applicable	62	21.8
Nurses/Other health workers		
Yes	213	74.7
No	10	3.5
Not applicable	62	21.8
Doctors		
Yes	181	63.5
No	42	14.7
Not applicable	62	21.8

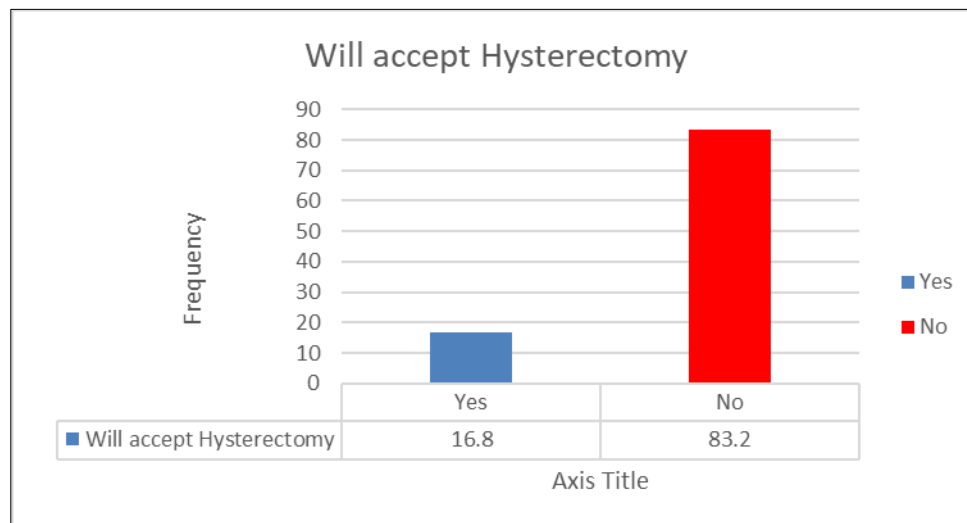


Figure 1 Graphical representation of the proportion of women who will accept hysterectomy on x-axis (blue colour) and those that will reject it (red)

Figure 1 showed a graphical representation of the prevalence of acceptance of hysterectomy among the respondents. About 237(83.2%) of the respondents were not willing to accept hysterectomy when indicated whereas only 48(16.8%) were willing to accept the treatment when indicated

Table 4 revealed the distribution of the respondents according to their various reasons for aversion. Topmost on the table was number of surviving children, 213(74.7%) followed by the myths about reincarnation, 211(74%). Next in line were fear of the procedure, 209(73.3%), spousal influence, 165(67.9%), loss of femininity, 111(38.9%), influence of other family members, 99(34.7%), loss of libido, 73(25.6%), myths about accumulation of dirty blood, 49(17.2%) and sex distribution of the children, 40(14%).

Table 4 Reason for rejecting hysterectomy

Variable	Frequency	Percentage
Fear		
Yes	209	73.3
No	28	9.8
Not applicable	48	16.8
Loss of Libido		
Yes	73	25.6
No	164	57.5
Not applicable	48	16.8
Loss of femininity		
Yes	111	38.9
No	126	44.2
Not applicable	48	16.8
Myths about reincarnation		
Yes	211	74
No	26	9.1
Not applicable	48	16.8
Myths about accumulation of dirty blood		
Yes	49	17.2
No	188	66
Not applicable	48	16.8
Number of surviving children		
Yes	213	74.7
No	4	1.4
Not applicable	68	23.9
Sex distribution of children		
Yes	40	14
No	111	38.9
Not applicable	134	47
Spouse influence		
Yes	165	57.9
No	69	24.2
Not applicable	51	17.9
Influence of other family members		
Yes	99	34.7
No	138	48.4
Not applicable	48	16.8

Table 5 illustrated the association between aversion to hysterectomy and the demographics of respondents. Age, ethnicity, educational qualifications and parity showed a statistically significant association with aversion to hysterectomy with p-values of less than 0.05 whereas marital status was not significant.

Table 5 Association between aversion for hysterectomy and Socio-demographics of respondents

Variable	Yes (N %)	No (N %)	Total (N %)	X ² (p value)
Age				
25-30 years	17(35.4)	109(46)	126(44.2)	26.56(0.001) *
31-35 years	7(14.6)	80(33.8)	87(30.5)	
36-40 years	19(39.6)	26(11)	45(15.8)	
≥41 years	5(10.4)	22(9.3)	27(9.5)	
Ethnicity				
Igbo	21(43.8)	160(67.5)	181(63.5)	43.64(0.001) *
Yoruba	19(39.6)	77(32.5)	96(33.7)	
Hausa	3(6.3)	0(0)	3(1.1)	
Others	5(10.4)	0(0)	5(1.8)	
Marital Status				
Single	20(41.7)	105(44.3)	125(43.9)	0.78(0.68)
Married	28(58.3)	129(54.4)	157(55.1)	
Divorced	0(0)	3(1.3)	3(1.1)	
Educational qualification				
Primary	3(6.2)	22(9.3)	25(8.8)	16.32(0.001) *
Secondary	7(14.6)	109(46.0)	116(40.7)	
Tertiary	38(79.2)	106(44.7)	144(50.5)	
Parity				
0	22(45.8)	175(73.8)	197(69.1)	38.45(0.001) *
1	19(39.6)	43(18.1)	62(21.8)	
2	2(4.2)	19(8)	21(7.4)	
3	3(6.3)	0(0)	3(1.1)	
4	2(4.2)	0(0)	2(0.7)	

Table 6 revealed the association between accepting hysterectomy and respondents' source of information which showed a statistically significant relationship between willingness to accept hysterectomy and the source of such information.

Table 6 Association between accepting Hysterectomy and Source of information of respondents

Variable	Yes (N %)	No (N %)	Total (N %)	X ² (p value)
Friends and relatives				
Yes	29(60.4)	116(48.9)	145(50.9)	17.34(0.001) *
No	2(4.2)	76(32.1)	78(27.4)	
Not applicable	17(35.4)	45(19)	62(21.8)	
Print media				
Yes	26(54.2)	20(8.4)	46(16.1)	81.49(0.001) *
No	5(10.4)	172(72.6)	177(62.1)	
Not applicable	17(35.4)	45(19)	45(19)	
Electronic media				
Yes	4(8.3)	5(2.1)	9(3.2)	12.57(0.002) *
No	27(56.3)	187(78.9)	214(75.1)	
Not applicable	17(35.4)	45(19)	62(21.8)	
Nurses/Other health workers				
Yes	27(56.3)	186(78.5)	213(74.7)	11.42(0.003) *
No	4(8.3)	6(2.5)	10(3.5)	
Not applicable	17(35.4)	45(19)	62(21.8)	
Doctors				
Yes	9(18.8)	172(72.6)	181(63.5)	61.04(0.001) *
No	22(45.8)	20(8.4)	42(14.7)	
Not applicable	17(35.4)	45(19)	62(21.8)	

4. Discussion

The aim of this cross-sectional study was to determine the factors responsible for the observed high rate of aversion to hysterectomy as a treatment option for uterine fibroid. From our result only 16.8% of the 285 respondents were willing to accept hysterectomy when indicated and a whopping 83.2% were averse to hysterectomy for various reasons. In a hospital-based review in Enugu, Okezie and Ezegwui 2006 found a prevalence of hysterectomy due symptomatic fibroid to be 24.7%.¹⁵ This was higher than our finding. While theirs was a retrospective study of women who had hysterectomy for uterine fibroids, ours was a cross-sectional study of women who had uterine fibroid that were not yet treated. Other studies as reported in Maiduguri¹² and Kano¹³ gave prevalence of hysterectomy due to uterine fibroid to be 68.3% and 24.6% respectively. Study in Maiduguri involved a small sample size of 122 as against our sample size of 285 respondents. Furthermore, the study in Kano was retrospective research involving 101 women who had hysterectomy out of which only 56 were due to uterine fibroid, our study was on 285 women who had uterine fibroid yet to be treated but only interviewed on their willingness to accept or reject hysterectomy if indicated. A 1994 study by K Mwaba et al,¹⁷ found that 60% of the respondents lacked knowledge about hysterectomy and that educational level did not have any significant influence on knowledge about hysterectomy whereas 122(42.8%) from our study lack the knowledge. The difference could be due to the differences in sample size population demographics. Another study by Susan Duyar et al,¹⁸ in 2023, found that 34% of the respondents preferred hysterectomy to myomectomy whereas we found that only 16.8% would accept the option. The difference could be due to the large difference in sample sizes, population demographics and methodology. While they studied only 67 women our sample was 285 and while they conducted a prospective study ours was a cross-sectional study. In the study by Duyar et al, 34% of the women who rejected hysterectomy believed that it would worsen their conditions such as mood, relationship with partner, general quality of life, sense of femininity, body image, sexuality and relationships while the 83.2% of women who rejected

hysterectomy from our study had the following reasons: fear (73.3%), loss of libido (25.6%), loss of femininity (38.9%), myths about reincarnation (74%), myths about accumulation of dirty blood (17.2%), number of surviving children (74.7%), sex distribution of children (14%), spousal influence (57.9%) and influence of other family members (34.7%). This showed a similarity in myths and beliefs among the studied women about hysterectomy which informed their choices.

5. Conclusion

Majority of our respondents were averse to hysterectomy due to fear and various myths and beliefs that are unfounded

Recommendation

We recommend a vigorous public enlightenment on the benefits of hysterectomy for the treatment of uterine fibroids and dispelling of false beliefs and myths about hysterectomy

Compliance with ethical standards

Acknowledgement

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Disclosure of conflict of interest

There was no conflict of interest in the course of this study.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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