

ORIGINAL RESEARCH

Study of knowledge and attitude towards uterine conservation among patients

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ABSTRACT

Objective: Hysterectomy is the common procedure in gynaecology. With the increasing rate of hysterectomies and that too at young age there is need for assessment of patient preferences regarding their treatment choices. This study aimed to investigate the factors influencing the preference for medical or surgical management among women with various uterine pathologies, exploring the reasons behind their treatment choices and the implications for healthcare decision-making. **Methods:** This is a cross-sectional survey using a validated questionnaire conducted among a diverse sample of 514 women diagnosed with various uterine pathologies. Participants were asked to indicate their treatment preference between medical management and surgical intervention. **Results:** A total of 514 participants were included in the study, and 41.4% of participants (292) preferred medical management. A total of 234 participants (45.5%) reported experiencing menstrual problems. A total of 51.56% (265 participants) reported being previously advised to undergo a hysterectomy, and 47.08% (242 participants) believed that hysterectomy affects sexual function. The social and biological characteristics of the women preferring surgical management over conservative management included older women, having a lower educational level, and belonging to a lower socioeconomic status ($p < 0.05$). **Conclusion:** The study highlights the complex decision-making process involved in choosing medical or surgical management for uterine pathology. Factors such as fear of surgery, desire to preserve reproductive capabilities, and financial considerations play crucial roles in treatment preference. Hysterectomy rate can be reduced by proper counselling regarding their disease and enhancing their understanding about risks and benefits of different treatment modalities for their disease.

Key words: Hysterectomy, treatment preferences, uterine pathologies, surgical management, decision-making process

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INTRODUCTION

Hysterectomy is the surgical removal of the uterus¹. It is usually recommended for women who have severe or life-threatening conditions, such as cancer of the uterus or cervix, severe endometriosis, or uterine prolapse¹. However, in rare cases, a hysterectomy may also be recommended for young women who experience certain medical conditions that cannot be treated with other medical options¹. For young women, hysterectomy is a major surgery that should not be taken lightly. It can have significant physical, emotional, and sexual consequences, including premature menopause, decreased sexual function, and an increased risk of heart disease and other health problems. Therefore, doctors usually consider hysterectomy as a last resort option for young women². They may suggest alternative treatments, such as medication, hormone therapy, or less invasive

surgical options, depending on the underlying medical condition.

In contrast to uterine removal alone, which is linked to ovarian function decline, hysterectomy combined with the removal of the ovaries (oophorectomy) surgically triggers menopause³. A recent systematic review of 29 studies reported evidence of a connection between hysterectomy and chronic diseases among women, including an increased risk of cardiovascular events, cancers, depression, metabolic disorders, and dementia⁴. The authors of the review concluded that hysterectomy, both with and without oophorectomy, has long-term adverse effects on the physical, mental, and emotional health of the woman and her family⁴. Emerging data from cohort studies, however, show that hysterectomy with ovarian preservation is linked to a greater risk of metabolic disease, cardiovascular disease, and all-cause

mortality among women who had the procedure before the age of 50 and without hormone therapy⁵. According to the National Family Health Surveys conducted in India in 2019-20, 1 in 10 women had a hysterectomy by the time they were 50. Further, in the state of Madhya Pradesh, 3 out of 100 women in the reproductive age group had a hysterectomy⁶. What is more worrisome is that the median age of women at the time of hysterectomy in Madhya Pradesh was just 33 years⁶. Population-based studies on hysterectomy have mostly concentrated on high-income environments, leaving little knowledge of the prevalence, risk factors, and long-term effects of hysterectomy on health in low- and middle-income nations⁷. Policymakers, medical professionals, and researchers in India have worked to address claims that young women frequently get hysterectomies. Moreover, the level of knowledge among women in the reproductive age group about the benefits and adverse effects associated with hysterectomy is not currently known. Such information is required to design the information campaign and health education material aimed at reproductive-aged women. Therefore, we designed this study with the intention of assessing the knowledge and attitude of the women presenting to the outpatient department with gynaecological complaints.

MATERIAL AND METHODS

- **STUDY DESIGN:** This was a single centre, hospital (out-patient) based, cross-sectional, observational study.
- **STUDY SETTINGS:** The present study was conducted at the Department of Obstetrics & Gynaecology, LN Medical College, Bhopal. It is a tertiary care institute. The data collection for the present study was initiated after the Institute's Ethical Committee on Human Research approved the research protocol.
- **STUDY DURATION:** The total duration of the study was 12 months.
- **STUDY OUTCOMES:** The extent of knowledge and the attitude of the participants towards hysterectomy.
- **SAMPLE SIZE CALCULATION:** Using the prescribed formula for a cross-sectional study, with the prevalence of hysterectomy among women as 24% and 95% confidence interval, the minimum required sample size for this study was calculated as 281 participants⁸. However, all participants who fulfilled the selection criteria and visited the OPD of the Department of Obstetrics and Gynaecology during the period of participants' recruitment were enrolled in the present study. Following this, a total of 514 participants were enrolled in the present study.
- **PARTICIPANTS' RECRUITMENT:** The participants were recruited into the study after verifying that they fulfilled the following selection criteria.

INCLUSION CRITERIA

- i) Married women.
- ii) Age ≥ 35 years.
- iii) Minimum parity=1.
- iv) Women attending the OPD of JK Hospital, Bhopal and gave consent to participate in the study.

EXCLUSION CRITERIA

- i) Women's refusal to participate in the study.

▪ **SAMPLING METHODOLOGY:** We employed a systematic random sampling method to recruit participants for the preferred study⁹. Women with gynaecological problems coming to the OPD department of the JK Hospital were approached for recruiting participants for the study. Those agreeing to participate in the study were recruited in the study.

▪ **INFORMED CONSENT:** All the questions from participants about the study procedure, risk, and data privacy were answered. The participants were informed and explained that they have the right to withdraw from the study at any point in time. A bi-lingual (Hindi & English) consent form was drafted following the prescribed guidelines for research on human participants to obtain written informed consent for the study.

▪ **DATA COLLECTION:** The data were collected in a paper-based proforma. For the present study, the author adopted the "instrument development model" as suggested by Schifferdecker & Reed (2009) for a mixed-method study¹⁰. The questionnaire had 4 parts as follows:

PART 1: Demographic details.

PART 2: Obstetrics and Menstrual History.

PART 3: Knowledge about hysterectomy.

PART 4: Attitude towards adopting hysterectomy.

▪ **SOURCE OF DATA:** one-to-one, face-to-face, quantitative interview using the study proforma. The data were collected in an enclosed chamber ensuring the privacy of the participants. The data were collected by the principal investigator.

▪ **END POINT OF STUDY:** The study was terminated if:

- i) A participant decided to withdraw from the study.
- ii) After completion of the data collection.

▪ **STATISTICAL ANALYSIS PLAN:** The primary outcome was the prevalence of knowledge and attitude towards undergoing hysterectomy for gynaecological complaints. The coded data were imported into Stata 17.1 version for analysis. For the continuous data, the author calculated the mean, median, mode, standard deviation, and interquartile range. For discrete data, the author calculated and reported frequency, proportion, and percentage. Continuous variables in the two comparison groups were analyzed using a student's t-test. Categorical variables were analyzed using chi-

square (χ^2) tests. A P -value < 0.05 was considered statistically significant.

- **FUNDING:** There was no funding for this study. The participants were not paid any type of fees/incentives/freebies to participate in the study.

women were excluded following the selection criteria and 10 women refused to participate in the study, and the remaining 514 women were enrolled in the present study. The mean age of the participants was 45.4 (± 4.7) years, ranging from a minimum of 37 years to a maximum of 56 years.

RESULTS: To recruit the participants for the present study, we approached a total of 582 women: 58

Table 1: Obstetrics details of participants (n=514)

Variable	n	%
Number of children		
1	43	8.4
2	247	48.1
3	134	26.1
≥ 4	90	17.5
Previous LSCS		
Yes	131	25.5
No	383	74.5
Sterilization		
Yes	298	58.0
No	216	42.0
Previous Abortion		
Yes	148	28.8
No	366	71.2
Menopause		
Yes	168	32.7
No	346	67.3

Table 1 provides valuable insights into the obstetrics details of the participants in the study. Most of the participants (48.1%) reported having two children, with 26.1% having three children, 17.5% having four or more children, and 8.4% having only one child. Approximately a quarter of the participants (25.5%) reported having undergone a previous LSCS.

The data indicate that a considerable number of participants (58.0%) had undergone sterilization procedures. The results show that a notable proportion of participants (28.8%) reported having a previous abortion. A total of 32.7% of participants were in the menopausal phase.

Table 2: Presenting complaints (n=514)

	n	%
Menstrual Problems	234	45.53
Abdominal pain	92	17.90
Something coming out pervaginum	108	21.01
Mass per abdomen	52	10.12
Post-menopausal bleeding	28	5.45

Overall, Table 2 provides a comprehensive overview of the presenting complaints of the study participants. A total of 234 participants (45.5%) reported experiencing menstrual problems. This category includes various menstrual irregularities such as heavy or prolonged menstrual bleeding, irregular cycles, and other related issues. A total of 92

participants (17.9%) reported abdominal pain as their primary complaint and 108 participants (21.0%) reported the sensation of something coming out pervaginum and 52 participants (10.1%) reported the presence of a mass or lump in the abdomen. Lastly, 28 participants (5.5%) reported experiencing bleeding or spotting after reaching menopause.

Table 3: Clinical Diagnosis (n=514)

	n	%
Polyp	94	18.29
Adenomyosis	98	19.07
Leiomyoma	112	21.78
Endometrial Hyperplasia	58	11.28
Ovulatory dysfunction	22	18.29
Uterovaginal Prolapse	108	21.01
Others	22	4.28

Table 3 illustrates that a total of 94 participants (18.3%) were diagnosed with polyps and 98 participants (19.1%) were diagnosed with adenomyosis, 112 participants (21.8%) were diagnosed with leiomyoma, commonly known as

uterine fibroids, 58 participants (11.3%) were diagnosed with endometrial hyperplasia, and 22 participants (18.3%) were diagnosed with ovulatory dysfunction.

Table 4: Knowledge about Different Treatment Options (n=514)

Domain	Not at all (Score = 0)	Slightly (Score = 1)	Moderately (Score = 2)	Very Well (Score = 3)	Completely (Score = 4)
Aware of different treatment options available	102	95	119	104	94
	19.84(%)	18.48(%)	23.15(%)	20.23(%)	18.29(%)
Aware of the benefits of medical management over surgical management?	95	163	130	100	26
	18.48(%)	31.71(%)	25.29(%)	19.46(%)	5.06(%)
Aware of the risks associated with medical management over surgical management?	110	186	128	68	22
	21.40(%)	36.19(%)	24.90(%)	13.23(%)	4.28(%)
Aware of the benefits of surgical management over medical management?	106	174	131	58	45
	20.62(%)	33.85(%)	25.49(%)	11.28(%)	8.75(%)
Aware of the risks associated with surgical management over medical management?	108	156	126	88	36
	21.01(%)	30.35(%)	24.51(%)	17.12(%)	7.00(%)
Know about different routes of hysterectomy?	113	170	104	77	50
	21.98(%)	33.07(%)	20.23(%)	14.98(%)	9.73(%)
Aware of the benefits and risks associated with the preservation of ovaries?	199	119	109	57	30
	38.72(%)	23.15(%)	21.21(%)	11.09(%)	5.84(%)
Aware of the need for Hormonal replacement therapy after surgical removal of ovaries?	216	210	53	29	6
	42.02(%)	40.86(%)	10.31(%)	5.64(%)	1.17(%)
Know about menopause after surgery (Surgical menopause)?	107	198	75	98	36
	20.82(%)	38.52(%)	14.59(%)	19.07(%)	7.00(%)
Surgical menopause is harmful than natural menopause?	180	107	97	78	52
	35.02(%)	20.82(%)	18.87(%)	15.18(%)	10.12(%)
Awareness about postsurgical complications	178	100	95	86	55
	34.63(%)	19.46(%)	18.42(%)	16.73(%)	10.70(%)

Overall, Table 4 provides a comprehensive overview of the participant's knowledge and awareness regarding different treatment options, benefits, and risks associated with medical and surgical management, preservation of ovaries, and menopause after surgery.

50.2% and 57.6% of patients has no knowledge or slight knowledge about benefits of medical management over surgical management and risks

associated respectively. 54.5% and 51.4% of patients has no or slight knowledge about benefits of surgical management over medical management and risks associated with surgical management respectively. 61.9% of patients has no or slight knowledge about benefits and risks associated with preservation of ovaries. 82.9% of patients has no or slight knowledge about need of Hormonal replacement therapy after oophorectomy.

Table 5: Attitude towards undergoing Hysterectomy (n=514)

	n	%
Prefer medical management over surgical management?		
Yes	213	41.4
No	301	58.6
Reason for your preference for medical management? (n=213)		
Want to first try medical management	96	45.1
Afraid of surgery	48	22.5
To delay surgery	34	15.9
Other	35	16.4
Why did you choose surgical management over medical management?		
One-time treatment/Follow up not required	156	51.8
Low cost in comparison to medical management (Govt health schemes)	92	30.6
Don't want to take risks regarding the progression of the disease	53	17.6
Hysterectomy affects sexual function.		
Yes	242	47.08%
No	272	52.92%

Table 5 illustrates that a total of 41.4% of participants (292) expressed a preference for medical management

over surgical management. The reasons for preference for Medical Management-45.1% (n=96) of

participants preferred medical management as their first option, possibly indicating a willingness to explore non-surgical treatments before considering surgery, 22.5% of participants (48) expressed fear of surgery as the reason for preferring medical management, 15.9% of participants (34) chose medical management to delay the need for surgery, suggesting a desire to avoid surgical intervention until it becomes necessary.

The reasons for Choosing Surgical Management over Medical Management included 51.8% of participants

(n=156) chose surgical management due to its potential as a one-time treatment, possibly avoiding the need for long-term follow-up or repeated interventions, 30.6% of participants (n=92) cited low cost as a reason for choosing surgical management, particularly when government health schemes cover the expenses associated with surgery, 17.6% of participants (n=53) opted for surgical management because they want to minimize the risk of disease progression and its potential consequences.

Table 6: Comparison of Sociodemographic characteristics of patients with their knowledge about hysterectomy

Education	Low Knowledge Score(Score 0-22)		High Knowledge Score(Score 23-44)		P-value
	n	%	n	%	
Illiterate	90	75.0	30	25.0	<0.001
Up to 8th	63	64.3	35	35.7	
Upton 12th	58	63.0	34	37.0	
UG	40	39.2	62	60.8	
PG or Higher	28	27.5	74	72.5	
Age Group					
35-40	44	30.1	102	69.9	< 0.001
41-45	43	36.8	74	63.2	
46-50	78	69.0	35	31.0	
>50	86	62.3	52	37.7	
Socioeconomic Status					
Upper class	0	0	8	100.0	< 0.001
Upper middle	10	25.6	29	74.4	
Lower middle	70	40.5	103	59.5	
Upper lower	90	63.8	52	36.6	
Lower	96	63.2	56	38.8	

Based on the data provided in Table 6 regarding the sociodemographic characteristics of participants and their knowledge about hysterectomies and medical management for uterine pathologies. Participants with no formal education (Illiterate) predominantly fall into the low knowledge score category (75.0% with scores 0-22) compared to those with a higher knowledge score (25.0% with scores 23-44) in patients who are literate. As the education level increases, a shift towards higher knowledge scores is observed. For instance, only 39.2% of undergraduates (UG) and 27.5% of postgraduates (PG or Higher) are in the low knowledge score category, indicating a trend where higher education levels are associated with higher knowledge scores. Higher educational attainment is associated with higher knowledge scores, highlighting the importance of education in understanding health-related information (p-value < 0.001).

The knowledge scores vary significantly with age. For instance, participants aged 35-40 years show a higher proportion of higher knowledge scores (69.9%) compared to those aged 46-50 years, where 69.0% have low knowledge scores (p-value < 0.001), indicating that younger participants tend to have better knowledge. Socioeconomic status plays a significant role, with participants from the upper class having 100% in the higher knowledge score category, indicating a strong association between higher socioeconomic status and better knowledge. The difference in knowledge scores across socioeconomic statuses is statistically significant (p-value < 0.001 for upper class), suggesting that socioeconomic status is a determinant of knowledge about hysterectomies and medical management for uterine disorders.

Table 7: Clinical Diagnosis (n=514) and preference for management

	Preference for medical management	Preference for surgical management
Polyp	50 (9.73%)	44 (8.56%)
Adenomyosis	38 (7.39%)	60 (11.67%)
Leiomyoma	51 (9.92%)	61 (11.87%)
Endometrial Hyperplasia	38 (7.39%)	20 (3.89%)
Ovulatory dysfunction	10 (1.95%)	12 (2.33%)
AUB (Polyp, Adenomyosis, Leiomyoma, Endometrial hyperplasia and Ovulatory dysfunction)	187(36.38%)	197(38.32%)

Uterovaginal Prolapse	10 (1.95%)	98 (19.07%)
Other	16 (3.11%)	6 (1.17%)

Table no. 7 shows preference of patients of different diagnosis for medical management and surgical management.

Table 8: Socio-demographic Characteristics of participants

Variable	Medical (n=213)		Surgical (n=301)		P-value
	n	%	n	%	
Age Group					
35-40	92	43.19	54	17.94	0.012
41-45	54	25.35	63	20.93	
46-50	35	16.43	78	25.91	
>50	32	15.02	106	35.22	
Mean	43.2		56.4		
Education					
Illiterate	24	11.27	96	31.89	0.004
Up to 8th	25	11.74	73	24.25	
Upton 12th	38	17.84	54	17.94	
UG	54	25.35	48	15.95	
PG or Higher	72	33.80	30	9.97	
Occupation					
Home maker	72	33.80	85	28.24	0.001
Services	33	15.49	47	15.61	
Business	30	14.08	49	16.28	
Agricultural	36	16.90	53	17.61	
Labour	42	19.72	67	22.26	
Socioeconomic Status					
Upper class	5	2.35	3	1.00	0.008
Upper middle	13	6.10	26	8.64	
Lower middle	97	45.54	76	25.25	
Upper lower	62	29.11	80	26.58	
Lower	36	16.90	116	38.54	
Residence					
Urban	113	53.05	138	45.85	0.107
Rural	100	46.95	163	54.15	

There are significant differences in the distribution of age groups between Medical and Surgical groups ($p = 0.012$) (Table 8). Notably, the surgical group has a higher proportion of participants aged over 50 compared to the medical group. A higher proportion of illiterate and individuals with education up to the 8th grade are observed in the surgical group, while higher education levels (UG, PG, or Higher) are more prevalent in the medical group. Home makers and labourers are more prevalent in the medical group, whereas individuals in business and services are more represented in the surgical group. There are significant differences in the distribution of occupations between the Medical and Surgical groups ($p = 0.001$). A higher proportion of individuals in the lower socioeconomic classes is observed in the Surgical group compared to the Medical group. There are significant differences in socioeconomic status between the Medical and Surgical groups ($p = 0.008$). A higher proportion of participants from rural areas are observed in the Surgical group, whereas more participants from urban areas are present in the medical group. There's a significant difference in residence distribution between the Medical and Surgical groups ($p = 0.032$).

DISCUSSION

Uterine pathology, including conditions like fibroids, adenomyosis, and endometrial hyperplasia, can significantly impact the quality of life for perimenopausal women¹¹. Two primary treatment options available for managing uterine pathology in this population are medical management and hysterectomy. We conducted this study intending to study sociodemographic characteristics of the women opting for either medical management or hysterectomy for their pathological condition considering their efficacy, safety, impact on quality of life, potential complications, and implications for reproductive health in perimenopausal women. Also, how the knowledge and attitude of patients will affect their decision making for choice of medical or surgical management.

A considerable number of participants with AUB (with diagnosis of Polyp, Adenomyosis, Leiomyoma, Endometrial hyperplasia and Ovulatory dysfunction) (38.32%) showed their preference for surgical management whereas these patients can be managed medically as well. 82.88% of patients has no or slight knowledge about need of Hormonal replacement therapy after oophorectomy, this shows

that patient has very less awareness about effects of oophorectomy with hysterectomy. This indicates the need of enhancing knowledge of patients regarding long term effects of hysterectomy.

A considerable proportion of participants (58.6%) preferred surgical management over medical management. This preference for surgical intervention was influenced by various factors, as highlighted in Table 5. The predominant reason for choosing surgical intervention was the perception of it as a one-time treatment, thereby eliminating the need for ongoing follow-ups. Additionally, a substantial portion of participants opting for surgery cited lower costs under government health schemes as a motivating factor. Moreover, concerns regarding the progression of the disease and a desire to avoid associated risks were also factors driving this preference. Conversely, a notable percentage of participants (41.4%) favoured medical management over surgery. The reasons behind this preference were diverse, with a significant portion expressing a desire to first attempt medical management. Fear or anxiety regarding surgery and the wish to delay undergoing a surgical procedure were other substantial contributing factors to this preference.

The analysis of sociodemographic characteristics among participants undergoing medical or surgical management for hysterectomy reveals intriguing correlations with treatment preferences. Significant differences in age distribution were observed between the Medical and Surgical groups ($p = 0.012$). Notably, the surgical group had a higher representation of individuals over 50 years old, while the medical group had a larger proportion in the 35-40 age bracket. Like our study, Desai S *et al.*, (2016)¹², Vishwanath L *et al.*, (2020)³ and Jindal M *et al.*, (2021)¹³ found that younger patients were more likely to prefer medical interventions, while older individuals tended to opt for surgical treatments. This difference in age preference could be attributed to factors such as risk tolerance, personal preferences, perceived invasiveness of the treatments, and desire for fertility and menses.

Educational backgrounds also exhibited disparities between the groups. The Surgical group had higher percentages of individuals with lower educational attainment (illiterate or up to 8th grade), while the medical group included more participants with higher education levels (UG, PG, or Higher). The findings highlighting a preference for surgical treatment among patients with lower educational backgrounds for uterine pathology underscore a critical disparity in treatment choices influenced by educational levels. This finding aligns with previous research by Shekhar and colleagues (2019), which highlighted that lower education levels were associated with a preference for surgical interventions¹⁴.

The observed trend linking lower educational attainment with a preference for surgical intervention suggests a potential lack of comprehensive information or understanding among this demographic

regarding the implications of hysterectomy. More than half of the patients in this study have no knowledge or slight knowledge about benefits and risks associated with both medical and surgical management of their disease, benefits and risks associated with removal of ovaries, need of HRT after oophorectomy and postsurgical complications. These individuals might be unaware of the available medical management options or might not fully comprehend the long-term consequences of surgical procedures. This discrepancy emphasizes the necessity for a targeted patient education program aimed at augmenting their understanding of the drawbacks associated with hysterectomy and the benefits of medical management as an alternative^{15,16}. Developing a patient education program tailored specifically to this demography becomes imperative^{15,16}. Such a program should focus on elucidating the potential drawbacks of hysterectomy, such as postoperative complications, longer recovery times, and the permanent nature of the procedure. Simultaneously, it should emphasize the advantages of medical management, which could include non-invasive treatments, reduced risks, and potentially preserving fertility.

A significant difference ($p = 0.008$) in socioeconomic status was noted between the two groups. The Surgical group had more participants from the lower socioeconomic strata compared to the medical group. The findings from our study present a compelling insight into the preferences for medical or surgical treatments concerning uterine pathology, emphasizing the influence of socioeconomic factors, particularly socioeconomic class and access to government health insurance schemes^{13,17,18}. Patients belonging to lower socioeconomic classes exhibited a clear preference for surgical intervention when confronted with uterine pathology. This inclination towards surgery could be attributed to various factors. Government health insurance schemes, such as Ayushman Bharat, likely played a pivotal role. These schemes often provide coverage for surgical interventions, making them more accessible and affordable for individuals from low-income backgrounds. Surgical treatments, especially covered by such insurance programs, may be perceived as a one-time expense, potentially appealing to those seeking a definitive solution without ongoing expenses. These findings are consistent with previous research by Shekhar C *et al.*, (2019)¹⁴, Kumari D *et al.*, (2019)¹⁷ and Jindal M *et al.*, (2021)¹³, which highlighted that individuals from lower socioeconomic backgrounds often face barriers to accessing medical treatments, leading them to resort to surgical options which may be more readily available or perceived as more cost-effective.

Conversely, individuals with higher socioeconomic status displayed a preference for medical management. This preference might stem from: Those with higher socioeconomic status often have better access to information and healthcare resources. They might be more aware of non-invasive medical

management options and seek such treatments owing to their perceived advantages, including fewer risks or quicker recovery. The observed preferences highlight how socioeconomic factors can significantly influence treatment choices, potentially leading to disparities in healthcare utilization and outcomes.

Occupational differences were evident ($p = 0.001$) among the groups. The Medical group had more home makers and labourers, while the surgical group comprised a higher number of individuals in business and services. Previous studies have produced mixed results regarding the association between occupation and treatment choices. For instance, a study by Bossicket *al.* (2018) reported that individuals in labour-intensive occupations were more likely to choose surgical interventions due to the desire for a quicker return to work¹⁹. However, other studies have not consistently supported this association. More research is needed to explore the complex relationship between occupation and treatment preferences further. There was no statistically significant difference in the place of residence (urban or rural) between the two treatment groups. This finding contrasts with some prior studies that have suggested rural patients might have limited access to surgical facilities, leading to a higher preference for medical treatments^{14,17,20}. However, the lack of a statistically significant difference in this study might be due to improvements in healthcare infrastructure and services in rural areas, reducing the disparities in treatment choices between urban and rural populations.

These findings underline the intricate interplay between socio-demographic factors and treatment preferences for hysterectomy. Understanding these associations is crucial for tailoring patient education, counselling, and treatment approaches. Addressing concerns related to surgery, imparting comprehensive information, and considering socioeconomic and educational backgrounds while devising treatment plans could enhance patient satisfaction and adherence to recommended treatments^{4,21}. Additionally, these findings stress the importance of a nuanced, patient-centric approach in healthcare, acknowledging diverse backgrounds and preferences when providing treatment options. Such considerations are essential for promoting equity in healthcare delivery and improving overall patient outcomes^{4,21}. Addressing patient concerns, such as fear of surgery and the desire for non-invasive approaches, becomes pivotal in ensuring patient satisfaction and compliance with treatment plans^{11,22}. For instance, providing comprehensive information about the long-term implications, costs, and risks associated with both medical and surgical management could help align patient preferences with the most suitable treatment option^{11,22}. Furthermore, these findings advocate for a holistic approach to healthcare delivery, encompassing not only clinical efficacy but also patient-centered care that respects individual preferences and addresses concerns, ultimately

improving overall treatment outcomes and patient satisfaction.

CONCLUSION

With the above study it is stated that even the patients who can be managed medically (as patients with AUB) showed their preference for surgical management as most of them want one time treatment and no need for long term follow up visits as it can save their time and expenses. So with the proper counselling regarding risks involved in surgical management, its long term consequences and enhancing their understanding about their disease we can reduce unnecessary hysterectomies in patients.

In this study we found that patients who have no formal education, who are of low socioeconomic status and old age patients have less knowledge about hysterectomy and medical management. Addressing these disparities requires a multifaceted approach that encompasses patient education, equitable access to healthcare resources, and policy initiatives aimed at improving coverage and options within healthcare schemes. Such efforts are pivotal in striving for equitable healthcare delivery and ensuring that treatment decisions are driven by patient needs rather than socioeconomic constraints. Further research is necessary to explore the underlying factors driving these treatment preferences to develop targeted interventions and enhance patient outcomes.

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