DETERMINANTS OF EARLY AGE HYSTERECTOMY AND ASSOCIATED PHYSICAL AND PSYCHOSOCIAL PROBLEMS AMONG RURAL WOMEN: A COMMUNITY-BASED CROSS-SECTIONAL STUDY

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ABSTRACT

Objectives: Hysterectomy is the second most common major surgical procedure performed among women worldwide, with limited information about rural women. Hence, the study objectives were to estimate the prevalence of early-age hysterectomy among rural women and to determine socio-demographic factors, and physical and psycho-social problems associated with early age hysterectomy.

Methods: A community-based, cross-sectional study was conducted among rural women, residing in the villages under the rural field practice area of GSL Medical College, Rajahmundry; selected by two-stage sampling technique. A semi-structured schedule was used for the collection of data. Statistical analysis was done by applying Chi-square test.

Results: The prevalence rate of hysterectomy at early age was 9.28%, with a mean age of 34.38 years; it was significantly (p<0.05) associated with age, illiteracy, lower socio-economic status, working women, health insurance, early age menarche, marriage at early age, and parity of 3 or more children; joint pains, night sweats, hot flushes, depression, mood swings, disturbed sleep, and social conflicts were also associated significantly (p<0.05).

Conclusion: Hysterectomy at an early age, among rural women, indicates that there is a critical need to ensure better treatment options for gynecological morbidity, and quality reproductive health should be the priority area in health policies for women.

Keywords: Early age hysterectomy, Sociodemographic, Determinants, Physical, Psycho-social.

INTRODUCTION

India is the second-most populated country in the world, with a count of 1.2 billion; among female population, 55.3% were women of reproductive age group, between 15 and 49 years [1]. Among women, reproductive health is considered as an issue of vital importance. It is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. It has widespread implications on health, well-being, and development of the entire nation. Hysterectomy is the second-most common major surgical procedure performed in women worldwide [2]. It is a surgical procedure whereby the uterus of a woman is removed; primarily done to save women from uterus-related life-threatening problems. It is the leading reason for non-obstetric surgery among women in many high-income settings [3]. The majority of hysterectomies are performed for benign conditions to improve the quality of life. The most common indications for hysterectomy are fibroids, dysfunctional uterine bleeding, uterine prolapse and chronic pelvic pain [4]. The percentage of hysterectomies performed among women aged 30–49 was the highest in Andhra Pradesh, which is 16%, much higher than the national level of 6% [5]. Hysterectomy can cause several short-term physical side effects or emotional side effects. These effects during reproductive period will have repercussions not only on women but also on their families. Some studies have reported adverse sequelae of hysterectomy such as depression, psychosis, anxiety, and psychosomatic disturbances [6-8]. On the contrary, few studies concluded that hysterectomy does not lead to psychiatric disorders [9,10]. There is sparsity of Indian research in this area among rural women. Thus, the purpose of this study was to address the sparseness, with an attempt to identify the physical and psycho-social problems among rural women who underwent hysterectomy at an early age.

Research questions
1. What is the extent of early-age hysterectomies among women living in rural areas?
2. Is there any association between socio-demographic factors and early age hysterectomy?
3. Is there any association between early-age hysterectomy, and physical and psycho-social problems?

Research hypothesis
- Hypothesis-1: Among rural women, there will be certain socio-demographic factors associated with early age hysterectomy
- Hypothesis-2: Among rural women, early-age hysterectomy will be associated with physical, and psycho-social problems.

Objectives
1. To estimate the prevalence of early age hysterectomy among rural women
2. To determine sociodemographic factors associated with early-age hysterectomy
3. To determine physical and psycho-social problems associated with early-age hysterectomy.

METHODS

Study design
A Community based cross-sectional study.

Study setting

At housing units of women living in the selected villages of rural field practice area under Rural Health Training Centre (RHTC) attached to the Department of Community Medicine, GSL Medical College, Rajahmundry.

Study population

All women residing in the villages under rural field practice area of GSL Medical College.

Study participants

The participants were a sample of women from the selected villages of rural field practice area.

Inclusion criteria

Women between 18 and 36 years, residing in the village at least for a period of 6 months; who underwent hysterectomy before 36 years of age; those with benign conditions as indication for hysterectomy; who can understand and comprehend; and those willing to be a part of the study were included in the study.

Exclusion criteria

Women who underwent caesarean hysterectomy; underwent surgery for malignant conditions; those with psycho-social illness prior to hysterectomy; and women not available in spite of 2 visits, were excluded from the study.

Sample size

Based on the prevalence of hysterectomy from a previous study (p=8.9%) [11], a sample size of 129 was obtained, where p is the prevalence, q=1-p, and L is the allowable error taken as 5% (absolute precision). Including non-response rate of 10%, the total sample size was 142.

Sampling technique

Two-stage sampling technique; The RHTC caters total population of 40,871 living in 7 villages. 5 villages were selected by simple random sampling technique; from each village, 29 households were selected by systematic random sampling. From each household one participant was selected. The selection procedure was continued until the final sample size was reached.

Study period

Two months (21st September 2022 to 21st November 2022).

Study tools

A semi-structured schedule was used for the collection of data. The interview schedule was divided into 2 sections. The 1st section consisted of sociodemographic details of the study participants. The second section consisted of gynecological history findings, hysterectomy profile, and physical and psycho-social problems associated with hysterectomy.

Data collection

A total of 142 participants were enrolled for the study. Each selected housing unit was approached; the Interview was conducted in a room within the house or its premises where the respondent felt convenient. The study participants were explained about the purpose of the study, and were assured of the anonymity and confidentiality; Informed consent was taken, and information was obtained by applying semi-structured schedule method. The assessment instrument for each participant was provided with an identification code.

Statistical analysis

Descriptive statistics were computed to describe the sociodemographic characteristics of the study participants. Chi-square test was applied to determine the association between socio-demographic factors, and early age hysterectomy; early age hysterectomy, and physical and psycho-social problems after surgery.

Ethical approval

Ethical approval was obtained from the Institutional Ethics Committee, reference number GSLMC/RC:950A-EC/950A-09/2022. The purpose of the study was explained; Informed consent was obtained from the study participants before initiating the study. Complete privacy during the interview, anonymity, and confidentiality of the information was assured to the study participants.

Operational definition

Early age hysterectomy

A woman when hysterectomized at an age between 18 and 36 years of age, the procedure was considered an early age hysterectomy.

RESULTS

Out of a total of 142 participants, questionnaire of 2 participants was incomplete. Hence, after exclusion, the final sample size was 140. Out of total 140 women, 13 had hysterectomy at an early age. The prevalence rate was 9.28%, with a mean age of 34.38 years. After obtaining information about hysterectomy, the participants were divided into two groups: hysterectomy group (n=13) and non-hysterectomy or control group (n=127).

Table 1 represents that the majority (62.86%) of the study participants were between 28 and 36 years. High proportion (90.71%) of the sample belonged to Hindu religion; whereas a small fraction (8.57%)

Table 1: Sociodemographic profile of the study participants

Sociodemographic variables	n=140	Percentage
Age (years)		
18–27	52	37.14
28–36	88	62.86
Religion		
Hindu	127	90.71
Muslim	6	4.29
Christian	5	3.57
Others	2	1.43
Caste		
OC	58	41.43
OBC	43	30.71
SC	27	19.29
ST	12	8.57
Level of education		
Illiterate	11	7.86
Primary	62	44.28
Secondary	46	32.86
Higher	13	9.28
Undergraduate	6	4.29
Postgraduate	2	1.43
Occupation		
Agriculture	54	38.57
Animal husbandry	43	30.71
Small scale business	25	17.86
Education sector employee	2	1.43
Health sector employee	5	3.57
Unemployed/Homemaker	11	7.86
Work duration		
≤8 h/day	55	39.29
>8 h/day	85	60.71
Socio-economic status (modified BG Prasad classification)		
Upper	2	1.43
Upper middle	5	3.57
Middle	19	13.57
Lower middle	69	49.29
Lower	45	32.14
Head of the family		
Yes	32	22.86
No	108	77.14
Type of family		
Nuclear	73	52.14
Joint	23	16.43
3-generation	44	31.43
Health insurance		
Yes	26	18.57
No	114	81.43

belonged to scheduled tribes. A major chunk (44.28%) had a primary level of education, and 38.57% depended on agriculture as a source of income. Almost one-half (49.29%) of women belonged to lower middle socio-economic status, and more than half (52.14%) of them were from nuclear families. Notably, the majority (81.43%) has no health insurance.

Table 2 depicts that all (100%) women were married, majority (96.43%) attained menarche at age 13 years or less; more than half (58.57%) has marital life more than 10 years. Majority (68.57%) of women has two children, and more than three-fourth (79.28%) did not use any contraceptives for birth spacing. The greater fraction of women underwent cesarean section (87.14%), and tubectomy (70.71%).

Table 3 shows that among hysterectomy group, majority (92.31%) of women underwent hysterectomy at an age between 28 and 36 years. More than one-half (61.54%) of women took treatment for more than 5 years, before hysterectomy. A major fraction (84.62%) depended on Allopathy for their gynecological problem. The most common indication for hysterectomy was dysfunctional uterine bleeding (53.85%), and majority (69.23%) participated in decision-making for hysterectomy.

Table 4 reveals that a significant association was observed between early age hysterectomy and socio-demographic variables like: Age (28–36 years), Hindu background, illiteracy, lower socio-economic status, working women, work duration of more than 8 h/day, and health insurance.

Table 5 illustrates that significant association was observed between early age hysterectomy and gynecological history findings like: Menarche at early age, marriage at early age, parity of 3 or more children, non-utilization of contraceptives for birth spacing, and caesarean section.

Table 6 demonstrates that Chi-square test showed a significant association between early age hysterectomy and physical problems like: Joint pains, night sweats, hot flushes, urinary tract infection, burning of extremities, vulval itching, and dryness of the skin.

Table 7 explains that Chi-square test revealed a significant association between early age hysterectomy and psycho-social problems like: depression, mood swings, disturbed sleep, and social conflicts.

DISCUSSION

The prevalence rate of early-age hysterectomy among rural women was 9.28%, with a mean age of 34.38 years. A study conducted by Prusty *et al.* [12], reported that Tamil Nadu and Haryana have lowest prevalence rate of hysterectomy (0.6%). On the other hand, the state of Andhra Pradesh has the highest prevalence rate of hysterectomy (6.3%), followed by Telangana (5.5%), Karnataka (2.9%), and Punjab (2.3%). The proportion of women below 40 years of age who had hysterectomy was much higher in the southern states of Andhra Pradesh (42%) and Telangana (47%). The contrast findings could be due to variations between states regarding age, education, working status, socioeconomic status, parity, and insurance status of women.

In the present study, among women of hysterectomy group, majority (92.31%) were between 28 and 36 years. Dissimilar to this finding, Mathur *et al.* [13] revealed that a minor percent (11%) of women were hysterectomized at an age <40 years; The possible reason could be that in their study nearly three-fourth of the women were from an urban area, and their age and education status was high compared to rural women of the present study. Another study by Basu *et al.*, [14] reported that the perimenopausal age group was the most common one undergoing hysterectomy.

Dysfunctional uterine bleeding is a common gynecological concern characterized by bleeding that is irregular in volume, duration, or timing [15]. In the present study majority (53.85%) of women

Table 2: Gynecological history findings of the study participants

Variables	n=140	Percentage
Age at menarche		
≤13 years	135	96.43
>13 years	5	3.57
Marital status		
Unmarried	0	0
Married	140	100
Age at marriage		
18–20 years	54	38.57
21–30 years	86	61.43
>30 years	0	0
Marital life		
<10 years	58	41.43
>10 years	82	58.57
Number of children		
No child	6	4.28
1 child	11	7.86
2 children	96	68.57
3 or more	27	19.29
H/o contraceptive usage for birth spacing		
No	111	79.28
Condom	16	11.43
IUCD	11	7.86
OC pills	2	1.43
H/o caesarean section		
Yes	122	87.14
No	18	12.86
H/o sterilization (Tubectomy)		
Yes	99	70.71
No	41	29.29

Table 3: Hysterectomy profile of the study participants who underwent hysterectomy at early age

Variables	Hysterectomy group n=13 (9.28%)	Percentage
Age at hysterectomy		
18–27 years	1	7.69
28–36 years	12	92.31
Duration between presentation of symptoms and hysterectomy		
≤5 years	4	30.77
>5 years	9	69.23
Duration of treatment taken before hysterectomy		
≤5 years	5	38.46
>5 years	8	61.54
Type of treatment taken prior to hysterectomy		
Allopathy	11	84.62
Homeopathy	2	15.38
Naturopathy	0	0
Ayurveda	0	0
Health care facility where hysterectomy was done		
Government hospital	5	38.46
Private hospital	8	61.54
Indication for hysterectomy		
Dysfunctional uterine bleeding	7	53.85
Fibroids	2	15.38
PID	1	7.69
Unhealthy cervix	2	15.38
Adenomyosis	1	7.69
Associated oophorectomy		
Yes	4	30.77
No	6	46.15
Don't know	3	23.08
Participated in decision making process regarding hysterectomy		
Yes	9	69.23
No	4	30.77

underwent hysterectomy with dysfunctional uterine bleeding as an indication. This result was similar to a study conducted in a rural hospital, in Central India (53.19%) [16]. Nonhormonal therapies such

Table 4: Comparison of sociodemographic characteristics between hysterectomy group and control group

Variables	Hysterectomy group (n=13) (%)	Control group (n=127) (%)	Chi-square statistic	p-value
Age (years)				
18–27	1 (7.69)	51 (40.16)	5.32	0.0210
28–36	12 (92.31)	76 (59.84)		
Religion				
Hindu	7 (53.85)	120 (94.49)	23.49	0.00003
Muslim	3 (23.08)	3 (2.36)		
Christian	2 (15.38)	3 (2.36)		
Others	1 (7.69)	1 (0.79)		
Caste				
OC	5 (38.46)	53 (41.73)	1.29	0.7302
BC	3 (23.08)	40 (31.50)		
SC	4 (30.77)	23 (18.11)		
ST	1 (7.69)	11 (8.66)		
Level of education				
Illiterate	5 (38.46)	6 (4.72)	24.23	0.0001
Primary	3 (23.08)	59 (46.45)		
Secondary	2 (15.38)	44 (34.64)		
Higher	1 (7.69)	12 (9.45)		
Undergraduate	1 (7.69)	5 (3.94)		
Postgraduate	1 (7.69)	1 (0.79)		
Working status				
Working	8 (61.54)	121 (95.28)	18.54	0.00001
Non - working	5 (38.46)	6 (4.72)		
Work duration				
≤8 h/day	1 (7.69)	54 (42.52)	5.99	0.0143
>8 h/day	12 (92.31)	73 (57.48)		
Socioeconomic status (modified BG Prasad classification)				
Upper	1 (7.69)	1 (0.79)	14.00	0.0072
Upper middle	2 (15.38)	3 (2.36)		
Middle	3 (23.08)	16 (12.59)		
Lower middle	2 (15.38)	67 (52.76)		
Lower	5 (38.46)	40 (31.50)		
Head of the family				
Yes	5 (38.46)	27 (21.26)	1.97	0.1594
No	8 (61.54)	100 (78.74)		
Type of family				
Nuclear	6 (46.15)	67 (52.76)	0.33	0.8463
Joint	2 (15.38)	21 (16.53)		
3-Generation	5 (38.46)	39 (30.71)		
Health insurance				
Yes	8 (61.54)	18 (14.17)	17.49	0.00002
No	5 (38.46)	109 (85.83)		

p-<0.05 was considered as statistically significant

Table 5: Comparison of gynecological history findings between the hysterectomy group and control group

Variables	Hysterectomy group (n=13) (%)	Control group (n=127) (%)	Chi-square statistic	p-value
Age at menarche (years)				
≤13	11 (84.62)	124 (97.64)	5.80	0.0159
>13	2 (15.38)	3 (2.36)		
Age at marriage (years)				
18–20	9 (69.23)	45 (35.43)	5.68	0.0171
21–30	4 (30.77)	82 (64.57)		
Marital life				
<10 years	3 (23.08)	55 (43.31)	1.98	0.1584
>10 years	10 (76.92)	72 (56.69)		
Number of children (Parity)				
No child	1 (7.69)	5 (3.94)	9.77	0.0206
1 child	2 (15.38)	9 (7.08)		
2 children	4 (30.77)	92 (72.44)		
3 or more	6 (46.15)	21 (16.54)		
H/o contraceptive usage for birth spacing				
No	5 (38.46)	106 (83.46)	15.86	0.0012
Condom	4 (30.77)	12 (9.45)		
IUCD	3 (23.08)	8 (6.30)		
OC pills	1 (7.69)	1 (0.79)		
H/o Caesarean section				
Yes	8 (61.54)	114 (89.76)	8.38	0.0037
No	5 (38.46)	13 (10.24)		
H/o sterilization (Tubectomy)				
Yes	10 (76.92)	89 (70.08)	0.26	0.6055
No	3 (23.08)	38 (29.92)		

p<0.05 was considered as statistically significant

Table 6: Comparison of physical problems between hysterectomy group and control group

Variables	Hysterectomy group (n=13) (%)	Control group (n=127) (%)	Chi-square statistic	p-value
Generalized weakness				
Yes (23)	4 (30.77)	19 (14.96)	2.14	0.1428
No (117)	9 (69.23)	108 (85.04)		
Joint pains				
Yes (25)	8 (61.54)	17 (13.39)	18.64	0.00001
No (115)	5 (38.46)	110 (86.61)		
Low back ache				
Yes (17)	3 (23.08)	14 (11.02)	1.60	0.2050
No (123)	10 (76.92)	113 (88.98)		
Night sweats				
Yes (6)	4 (30.77)	2 (1.57)	24.50	0.00001
No (134)	9 (69.23)	125 (98.43)		
Hot flushes				
Yes (23)	4 (30.77)	3 (2.36)	20.03	0.00001
No (117)	9 (69.23)	124 (97.64)		
Cardiovascular disorders				
Yes (6)	1 (7.69)	5 (3.94)	0.40	0.5243
No (134)	12 (92.31)	122 (96.06)		
White discharge per vagina				
Yes (30)	1 (7.69)	29 (22.83)	1.60	0.2050
No (110)	12 (92.31)	98 (77.17)		
Urinary tract infection				
Yes (12)	7 (53.85)	5 (3.94)	37.48	0.00001
No (128)	6 (46.15)	122 (96.06)		
Burning of extremities				
Yes (6)	2 (15.38)	4 (3.15)	4.30	0.0380
No (134)	11 (84.62)	123 (96.85)		
Constipation				
Yes (34)	3 (23.08)	31 (24.41)	0.01	0.9150
No (106)	10 (76.92)	96 (75.59)		
Itching of vulva				
Yes (39)	9 (69.23)	30 (23.62)	12.20	0.0004
No (101)	4 (30.77)	97 (76.38)		
Occasional bleeding per vagina				
Yes (19)	1 (7.69)	18 (14.17)	0.42	0.5157
No (121)	12 (92.31)	109 (85.83)		
Lower abdominal pain				
Yes (28)	3 (23.08)	25 (19.69)	0.08	0.7708
No (112)	10 (76.92)	102 (80.31)		
Weight gain				
Yes (49)	4 (30.77)	45 (35.43)	0.11	0.7370
No (91)	9 (69.23)	82 (64.57)		
Dryness of skin				
Yes (36)	8 (61.54)	28 (22.05)	9.62	0.0019
No (104)	5 (38.46)	99 (77.95)		

p<0.05 was considered as statistically significant

as ormeloxifene and tranexamic acid can be suggested as an alternative treatment option for heavy DUB [17].

Vijaya Lakshmi *et al.* [18] stated that the most common indication for hysterectomy was pelvic inflammatory disease (44%). Nazneen *et al.* [19] reported fibroids (36%) as the most common indication among admitted patients. In contrast to this finding, a study in Northern India reported that pelvic organ prolapse was the most common indication for hysterectomy [20]; the likely explanation for the difference was their study investigated women belonging to a rural area in Northern India, with age more than 35 years, and were multiparous. Unsupervised home deliveries, prolonged duration of labor, and inadequate rest and nutrition during puerperium might have led to extensive damage to the pelvic floor muscles, supporting ligaments of the uterus, thus resulting in pelvic organ prolapse.

In the current study, it was also observed that the majority (61.54%) of women underwent hysterectomy in private hospitals. Contradictory to this finding, a study by Shekhar *et al.* reported that the majority (61%) of hysterectomies in the northeast region were performed in public institutions [5].

Out of every 10 women, nearly 7 (69.23%) participated in decision-making process regarding hysterectomy; this finding was high compared to a study by Jindal *et al.*, [21] who reported that 43.6% of women were involved in decision-making process for hysterectomy.

As predicted in hypothesis - 1, among rural women, there are some sociodemographic factors associated with early age hysterectomy. Hindu religion, illiteracy, lower socio-economic status, health insurance, working women, and work duration of more than 8 h were found to be the socio-demographic determinants statistically associated with hysterectomy. Desai *et al.* [22] also reported that the prevalence of hysterectomy was associated with female illiteracy and women employment. Uneducated women and those from lower socioeconomic status have limited awareness of health check-ups, follow-ups, and health-seeking behavior. These factors may cause women to delay treatment or get treatment in the early stages of a reproductive health problem. Most of the rural women do not seek treatment for menorrhagia because of the cultural beliefs of impurity associated with menstruation.

Table 7: Comparison of psycho-social problems between hysterectomy group and control group

Variables	Hysterectomy group (n=13) (%)	Control group (n=127) (%)	Chi-square statistic	p-value
Depression				
Yes (13)	7 (53.85)	6 (4.72)	33.78	00001
No (127)	6 (46.15)	121 (95.28)		
Anxiety				
Yes (29)	3 (23.08)	26 (20.47)	0.04	8253
No (111)	10 (76.92)	101 (79.53)		
Mood swings				
Yes (20)	5 (38.46)	15 (11.81)	6.84	0089
No (120)	8 (61.54)	112 (88.19)		
Disturbed sleep				
Yes (35)	8 (61.54)	27 (21.26)	10.20	0014
No (105)	5 (38.46)	100 (78.74)		
Irritability				
Yes (27)	2 (15.38)	25 (19.69)	0.14	7081
No (113)	11 (84.62)	102 (80.31)		
Short-tempered behavior				
Yes (4)	1 (7.69)	3 (2.36)	1.20	2719
No (136)	12 (92.31)	124 (97.64)		
Social conflicts				
Yes (5)	2 (15.38)	3 (2.36)	5.80	0159
No (135)	11 (84.62)	124 (97.64)		

p<0.05 was considered as statistically significant

Dharmalingam *et al.* [23] addressed that higher parity increased the risk of hysterectomy. This finding is in agreement with the present study finding, where a significant association was observed between higher parity of 3 or more children and hysterectomy.

In the present study, it was also noted that the prevalence of hysterectomy was higher among insured women than among uninsured women; a similar study also reported that the likelihood of hysterectomy was higher among women belonging to households with health insurance [12].

Gynecological history of the participants indicated that there was a statistically significant association between early age hysterectomy and gynecological variables like: early menarche, early marriage age, multiparity of 3 or more children, nonutilization of contraceptives, and cesarean section. Singh and Govil [11] reported that the prevalence of hysterectomy among sterilized women was higher (5.2%) than non-sterilized women (3.4%). This finding is in line with the present study findings. Another study also concluded that the likelihood of hysterectomy was higher among women who were sterilized than unsterilized [12].

Questions on physical problems following hysterectomy revealed that the majority of women has joint pains, dryness of skin, vulval itching, and urinary tract infections. As predicted in hypothesis 1, there was a significant association between early age hysterectomy and physical problems such as Joint pains, night sweats, hot flushes, urinary tract infections, burning of extremities, vulval itching, and dryness of skin. The findings of the present study indicate that the prevalence of hot flushes was high (30.77%) in hysterectomy group compared to control group (2.36%). In contrast to this finding, Radha *et al.* [24] reported that 6.9% of women complained of hot flushes, mood disturbances, and panic attacks following hysterectomy and around 10% of participants reported non-specific complaints.

As predicted in hypothesis-2, the present study also demonstrated the association between early age hysterectomy and psychosocial problems such as depression, mood swings, disturbed sleep, and social conflicts. Vijaya Lakshmi *et al.* [18] found that among women who underwent hysterectomy, 4% reported depression and mood swings.

Limitations of the study
First, the sample size of hysterectomy group was relatively small. Second, whether the physical and psychosocial problems following

hysterectomy were of short term or long term was not assessed. Therefore, further research with a large sample size, and analysis of long-term problems following hysterectomy is recommended in future research.

CONCLUSION

The findings of the present study indicate that nearly 10 out of 100 rural women were undergoing hysterectomy at an early age. There is a significant association between early age hysterectomy, and sociodemographic factors, physical and psycho-social problems. Hindu religion, illiteracy, lower socio-economic status, health insurance, working women, and work duration of more than 8 h were found to be the sociodemographic determinants statistically associated with hysterectomy. In addition, early age menarche, marriage at an early age, parity of 3 or more children, non-utilization of contraceptives for birth spacing, and cesarean section were also associated. A considerable percent of women were associated with physical and psycho-social problems, following early age hysterectomy. This evidence highlights the critical need for a continuum of care for gynecological services for women through the life cycle.

AUTHORS' CONTRIBUTION

All authors contributed equally to this work. All authors have read and approved the final manuscript.

CONFLICTS OF INTEREST

Nil.

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