

Analysis of Hysterectomy in India : NFHS-4 Survey

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Motivation

- Understanding the healthcare needs of women in India:
Hysterectomy is a common surgical procedure, and understanding the reasons why it is performed in India can provide insight into the healthcare needs of women in the country.
- Improving healthcare outcomes: By studying the analysis of hysterectomy in India, one may be able to identify areas for improvement in the care provided to women who have undergone the procedure, leading to better outcomes for patients.

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- Examining the reasons for hysterectomy in India and identifying any trends or patterns in the indications for the procedure.
- Identifying the role of cultural or societal factors in the decision-making process for hysterectomy in India.
- Understanding the impact of hysterectomy on the quality of life of women in India.

What is Hysterectomy?

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Depending on the specific case, the procedure may involve removing just the uterus (subtotal or supracervical hysterectomy) or the uterus and the cervix (total hysterectomy). In some cases, the ovaries and fallopian tubes may also be removed (oophorectomy and salpingectomy, respectively).

Data Source

The data for the present study was drawn from the fourth round of National Family Health Survey (NFHS-4), which was conducted during 2015–16 under the stewardship of the Ministry of Health and Family Welfare (MoHFW), Government of India and coordinated by the International Institute of Population Sciences (IIPS), Mumbai.

- Survey collected information from the nationally representative sample of 601,509 households; with 699,686 women aged 15–49 years, 204,735 from urban and 494,951 from rural areas and 112,122 men aged 15–54 years, 35,526 from urban and 76,596 from rural areas with an overall response rate of 98 percent.

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- Analysis is concentrated only on the 540,671 ever married women aged 15–49 years as prevalence of hysterectomy among never married women of the age group 15–49 years was much lower (0.3 percent)
- Data set was available in the public domain for research use; hence, no approval was required from any institutional review board.

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- Analyses were conducted using the svy function in STATA Version 13

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- if yes , women were asked further questions regarding the timing and place of and the reason for the hysterectomy.
- Independent variables : Age , Women education , Caste , tribe , Religion , Residence , Wealth index , BMI , Marital Status , Parity , Region , Time , Place of hysterectomy .

Prevalence and geographical pattern of hysterectomy in India

- Percentage of hysterectomies carried out among women aged 30–49 was the highest in Andhra Pradesh, which at 16% is much higher than the national level of 6 %. The state of Telangana ranked second, where 14% women aged 30–49 had undergone hysterectomies, followed by Bihar (11%), Gujarat (8%), and Tamil Nadu (6%).

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- Among UTs, Dadra Nagar Haveli showed the highest prevalence of hysterectomy (7%), whereas Lakshadweep (2%) had the lowest prevalence. There is a considerable variation in the proportion of women aged 30–49 undergoing hysterectomy by different geographical regions in India.

Median age

- half of those who reported to have had a hysterectomy had undergone it by the age of 34 years among women aged 30–49 years. The median age at hysterectomy was about 2 years higher among urban women (35.3 years) than rural women (33.7 years). Women with no schooling had a hysterectomy at a younger median age (34 years) than women educated up to 12 or more years of schooling (38.4 years).

Socioeconomic differentials in hysterectomy

- The level of hysterectomy increases with an increase in age. About 3 % of women aged 30–34 reported having undergone a hysterectomy; this proportion increased to 5 % among women aged 35–49, 8 % among women aged 40–44, and to 11% among women aged 45–49 .

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- The risk of hysterectomy was higher among women with no schooling. Around 8 % of women with no schooling had a hysterectomy compared with only 3 % women with higher education. 7% women aged 30–49 with “primary complete” level of education and 5 % women with “secondary complete” level of education had undergone a hysterectomy .

- A higher proportion of other backward class women (7%) reported having undergone a hysterectomy compared with 6 % women belonging to other than scheduled castes, scheduled tribes, and other backward class. Among scheduled caste women, the prevalence was 6 %, and among scheduled tribe women, it was 5 %. The percentage of hysterectomized women was the highest among Hindu women (6%), followed by Christian women, and the lowest among Buddhist/Neo Buddhist women (3%).

Results

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- Rural women (7%) were at a higher risk of hysterectomy compared with urban women (5%). A smaller proportion of women (5%) from the lowest wealth quintile had undergone hysterectomy compared with 7 % from the third and fourth quintiles.

Health Institutions where hysterectomy is performed

- less than one-third (32%) of hysterectomies in India were done in public health facilities and the rest in private health facilities at the national level , private sector more than (70%) in jharkhand , (72%) Uttar pradesh and Bihar (82%).

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- a very small proportion (nearly 1%) of nongovernmental organizations (NGOs) or not-for profit trusts.

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- Maharashtra (61%), Karnataka (56%), Andhra Pradesh (55%), and Tamil Nadu (51%), more than 50% women had undergone hysterectomies because of excessive menstrual bleeding and pain .
- Women aged 30–49 years gave uterine rupture (14%), uterine prolapse(8%), Cancer (6%) as one of the reasons for hysterectomy . hysterectomy

- Regional pattern of hysterectomy among women in India:
Evidence from a recent large scale survey
<https://www.tandfonline.com/doi/full/10.1080/03630242.2019.1687634>
- Prevalence, sociodemographic determinants and self-reported reasons for hysterectomy in India
<https://journals.sagepub.com/doi/full/10.1177/17455065211017068>
- Patterns of hysterectomy in India: a national and state-level analysis of the Fourth National Family Health Survey (2015–2016)
<https://obgyn.onlinelibrary.wiley.com/doi/full/10.1111/1471-0528.15858>
- Hysterectomy in India: Spatial and multilevel analysis
<https://journals.sagepub.com/doi/full/10.1177/17455065211017068>

Analysis of Hysterectomy in women Aged 15-49 years:NFHS

Data

- The survey covered 601,509 sampled households and 699,686 women (ever-married or never-married) aged 15–49 years with a 97% response rate. We used a weighted sample of 699,405 women and 517,030 ever-married women for the analysis after removing missing information/discrepancies.

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- The other variables considered in the statistical models include age at marriage (<20 years, 20–30 years, >30 years), parity (no children, first, second and three or more), use of sterilization (no, yes)

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- Andhra Pradesh had the highest prevalence of hysterectomy cases (8.9%), followed by Telangana (7.0%), Bihar (5.0%), Gujarat (4.2%) and Dadra Nagar Haveli (3%). The prevalence of hysterectomy was the lowest in the states/union territories of Lakshadweep (0.9%), Assam (0.9%), Mizoram (1.0%), Delhi (1.1%) and Meghalaya (1.1%).

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- With the increase in education, the prevalence of hysterectomy decreased. Nearly 6% of women with no education had a hysterectomy than 1% of women with higher education.
- Level of education was negatively associated with hysterectomy. Women with no education had 55% higher chances of having a hysterectomy than women with higher education.

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- Nearly 4% of women from the middle wealth index (the highest among all) had hysterectomy than women from the richer (3.5%) and the richest (3.1%) quintile.

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- Correlated with profit incentives under the national health insurance scheme and unregulated private healthcare.
- hysterectomy increased significantly if a woman was enrolled

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Reasons

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- Medical reasons for hysterectomy include uterine cancer and other non-cancerous uterine conditions such as fibroids, endometriosis, prolapse and other uterine disorder .
- Causes of hysterectomy in the country were excessive menstrual bleeding (45.8%), fibroids/cysts (17.6%), uterine disorders (12.7%), uterine prolapse (7.6%) and other causes (16.2%)
- Reference :
<https://journals.sagepub.com/doi/epub/10.1177/17455065211017068>