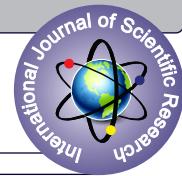# INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A DESRIPTIVE STUDY TO ASSESS THE RISK FACTORS FOR DEVELOPING CERVICAL CANCER AMONG INDEGENOUS WOMEN AT SELECTED AREA OF DHALAI DISTRICT OF TRIPURA WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET

Nursing

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ABSTRACT

In most of the developing countries including India, cervical cancer is the most common malignancy among females. The risk factor of cervical cancer is HPV infection, smoking, long term use of oral contraceptive pills, multiple sexual partners, weakened immune system, poor hygiene, etc. The situation is more alarming in the rural areas where the majority of women are ignorant about the hazards of cervical cancer. Indigenous women are more vulnerable to develop cervical cancer due to lesser awareness. **Aims:** The aim of the present study to assess the risk factors of cervical cancer among the indigenous women at selected area of Dhalai, Tripura. **Method And Material:** A quantitative research approach with descriptive research design was selected, using 150 indigenous women who satisfy the inclusion criteria were selected as samples from Dhalai District of Tripura using non probability purposive sampling technique and the risk factors of cervical cancer among indigenous women were assessed through structured questionnaire. **Result:** Out of 150 respondent 46.7% respondents belong to the age group of 25-31. 100% of these are not the have any aware any HPV awareness programme. 60% respondent was married between age of 19-22 years. 74.67% respondents use birth control Pill. 67.4% of them use pills more than 5 years. 93.3 % of the respondent has one sexual partner and 84.77%. Respondent use cloth. 92.7% of them didn't have a foul-smelling vaginal discharge. The risk factors for cervical cancer found to significantly be associated are age in years, type of family, educational qualification, family monthly income, occupation, exposure to x-ray or any radiation, aware of HPV vaccine, these findings showed that the indigenous women are at risk of developing cervical cancer as they had many factors contributing to it. **Conclusion:** Cervical cancer is a serious health concern, but there are certain risk factors that can increase a women's likelihood of developing the disease. Early detection and prevention are key in reducing the incidence and mortality rates of cervical cancer. Women should discuss their individual risk factors with their healthcare providers and follow recommended screening guidelines to help prevent and detect cervical cancer early.

KEYWORDS

Cervical cancer, Risk factors, Indigenous women, Information booklet, Cervical screening, HPV infection.

INTRODUCTION

Cervical cancer is the second most common cancer among women worldwide, accounting for approximately 500,000 new cases and 300,000 deaths annually (WHO, 2020). In India, cervical cancer is the third most common cancer among women, with an estimated 122,844 new cases and 67,477 deaths in 2020 (ICMR, 2020). Indigenous women are disproportionately affected by cervical cancer due to various socio-economic and cultural factors, including limited access to healthcare, lack of awareness, and cultural barriers (WHO, 2019).

Cervical cancer remains a significant public health challenge globally, ranking as the fourth most common cancer and the fourth leading cause of cancer-related death among women, with over 660,000 new cases and approximately 350,000 deaths reported worldwide in 2022. Notably, low- and middle-income countries (LMICs) bear a disproportionate burden, accounting for 88% of cases and 90% of death.

In India, cervical cancer is the second most common female-specific cancer after breast cancer. According to the Global Burden of Disease Study, Tripura has an age-standardized incidence rate (AAR) of about 10.64 per 100,000 women, with a declining trend over recent years. National Cancer Registry Programme data further highlight a substantial disease burden in Tripura, with an AAR of 8.6 per 100,000 women, and notable estimates in terms of years of life lost (YLL) and disability-adjusted life years (DALYs).

Alarmingly, survival rates in Tripura are among the lowest in India. A study published in The Lancet Regional Health Southeast Asia found that while the national average five-year survival for cervical cancer stood at approximately 52%, Tripura recorded one of the lowest survival rates at only 31.6% This stark disparity suggests significant gaps in healthcare accessibility, early detection, follow-up, and treatment infrastructure, especially in the northeastern region

Within Tripura, cervical cancer emerges as the most prevalent cancer among women, accounting for 17.6% of all female cancer cases, followed by breast cancer at 13.8%, based on data from the Population-Based Cancer Registry (PBCR) for 2010–2014. These figures underscore both the importance of addressing cervical cancer and the need for localized research among vulnerable populations such as indigenous women.

Empirical investigations further highlight significant epidemiological concerns: in one hospital-based study, about 90% of women screened were HPV-positive, with HPV-16 detected in 53%, and among those with abnormal cytology, 42% were confirmed to have cervical cancer. High parity also emerged as a strong epidemiologic risk factor for HPV infection. However, overall cervical screening prevalence in Tripura remains low—only 0.7% among women aged 30–49 years, as per NFHS-based analysis.

Tripura's healthcare infrastructure, particularly in the Dhalai district, remains constrained. As of 2010–11, Dhalai had only 270 hospital beds-a reflection of limited secondary and tertiary care capacity. This infrastructural gap likely contributes to delayed diagnosis and poor survival outcomes, particularly among indigenous communities residing in hard-to-reach areas.

Objectives Of The Study:
1. To assess the risk factors for developing cervical cancer among the indigenous women.
2. To find out the association between the risk factors for developing cervical cancer among the indigenous women with their selected socio demographic variables.
3. To develop and disseminate information booklet on regarding prevention of cervical cancer among the indigenous women.

Research Methodology:
Research Design: A quantitative research approach was adopted using a descriptive survey design.

Setting Of The Study
The study was conducted in community areas of Tirubamchara, East Lambuchara, West Lambuchara, West Amtali, and Bilashchara at, Tripura.

Population And Sample: The study population included indigenous women aged 18–45 years residing in the selected areas.

Sample Size: 150 women fulfilling the inclusion criteria.

Sampling Technique: Purposive sampling.

Inclusion Criteria
• Indigenous women aged 18–45 years.
• Willing to participate and available during data collection.

Exclusion Criteria
• Women already diagnosed with cervical cancer.
• Women with a history of cesarean section delivery.

Tools For Data Collection: A structured questionnaire was used, comprising:
- **Section A:** Demographic variables.
- **Section B:** Questions to assess risk factors (age of marriage, sexual history, contraceptive use, menstrual hygiene, smoking/tobacco habits, family history, and presence of symptoms).

The tool was translated into Kokborok and back-translated to English for accuracy.

Validity And Reliability: Content validity was established by six experts in Obstetrics and Gynecology. Reliability was assessed through split-half method (Spearman-Brown) with r = 0.67518, α = 0.806, indicating high reliability.

Pilot Study: A pilot study was conducted on 18 indigenous women in January 2023 at Baghaichari, Kamalpur, to test the feasibility and clarity of the tool. No major modifications were required.

Data Collection Procedure: Data were collected between 3rd January and 28th January 2023 using a self-reporting method. Each participant took approximately 40–45 minutes to complete the questionnaire. After data collection, an information booklet on cervical cancer prevention was distributed.

Ethical Considerations
- Approval was obtained from the institutional ethics committee.
- Permission was taken from the Chief Medical Officer (CMO), Dhalai district.
- Informed consent was obtained from each participant.
- Confidentiality and anonymity were strictly maintained.

Data Analysis: Data were coded and entered into a master sheet.
- **Descriptive Statistics:** Frequency, percentage, mean, and standard deviation.
- **Inferential Statistics:** Chi-square test to assess the association between selected demographic variables and risk factors.

STUDY RESULTS
Table 1: Frequency And Percentage of Demography Variables (n=150)

Demographic Variables	Category	F	%
Age in years	18–24	19	12.7
	25–31	70	46.7
	32–39	47	31.3
	40–45	14	9.3
Marital Status	Married	150	100
	Unmarried	0	0
	Divorced	0	0
	Widowed	0	0
Types of Family	Joint	61	40.7
	Nuclear	57	38
	Extended	32	21.3
Educational Qualification	Primary	11	7.3
	Secondary	65	43.3
	Higher Secondary	49	32.7
	Graduate & Above	19	12.7
	Illiterate	6	4
Family Monthly Income (INR)	Less than 10,000	122	81.3
	10,001–20,000	28	18.7
	20,001–30,000	0	0
	Above 30,000	0	0
Occupation	Unemployed	0	0
	Housewife	48	32
	Private Job	10	6.7
	Government Job	2	1.3
	Self-employed	90	60
Family History of Cancer	Yes	14	9.33
	Breast Cancer	5	35.7
	Lung Cancer	3	21.4
	Stomach Cancer	4	28.6
	Cervical Cancer	2	14.3
	No	136	90.7
Age at Menarche (Years)	10–13	48	32
	14–16	100	66.7

	17–20	2	1.33
Chemical Exposure	Yes	3	2
	No	147	98
Exposure to X-ray/Radiation	Yes	49	32.7
	No	101	67.3
Awareness of HPV Vaccine	Yes	2	1.3
	No	148	98.7
Vaccinated with HPV Vaccine	Yes	0	0
	No	150	100

Findings Related To Association Between Risk Factors For Developing Cervical Cancer Among Indigenous Women With Their Selected Socio Demographic Variables.
- Age at marriage and first coitus were significantly associated with age in years.
- Problems during coitus were linked with age, family type, and educational qualification.
- Age at first childbirth showed significant association with age, family type, and education.
- Number of vaginal deliveries was associated with age, family type, and education.
- Vaginal deliveries after 35 years were closely associated with age.
- Birth interval between first and second child was related to family type, income, and occupation.
- Use of birth control pills was associated with age, family type, and occupation.
- Duration of pill use was significantly linked with age.
- Use of various birth control methods showed association with age.
- Number of sexual partners showed no significant association.
- Partner infections were linked with education and X-ray/radiation exposure.
- Tobacco/smoking habits were associated with age, family type, and education.
- Menstrual cycle regularity was linked with age.
- Napkin use was associated with age, education, income, occupation, and HPV awareness.
- Washing genitalia was related to age, education, and HPV awareness.

CONCLUSION:
In the conclusion of this present study represents that the researcher identified that early age of marriage, first coitus at early age, more than 3 number of vaginal delivery, history of vaginal delivery after 35 years, long time use of oral contraceptive pills, more number of sexual partners, usage of clothes during menstruation as napkin and drying it off indoor, not washing genitalia after sexual intercourse, presence of foul-smelling vaginal discharge were the risk factors of cervical cancer. The study findings revealed that there was a statistically significant association of selected risk factors with demographic variables such as age in years, type of family, family monthly income, occupation, educational qualification, exposure to X-ray or any radiation, aware of HPV vaccine. Thus, any kind of awareness programme such as development of an information booklet for the indigenous women will help them to improve their lifestyle and reduce the risk factors of cervical cancer.

Future Recommendations:
1. Implement community-based cervical cancer screening programs (Pap smear, VIA/VILI, or HPV testing) focusing on indigenous women in remote and high-risk areas of Dhalai district.
2. Develop culturally appropriate health education programs in local languages to increase awareness about cervical cancer risk factors, HPV vaccination, and the importance of early screening.
3. Integrate cervical cancer prevention and screening with existing maternal and child health services to improve accessibility and regular follow-up.

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