

EASTERN INDIAN SCREENING PROCEDURES FOR CERVICAL CANCER AND ASSOCIATED FACTORS: A CROSS-SECTIONAL STUDY.

Ritika Kedia

Assistant Professor, Department of Obstetrics and Gynaecology, Netaji Subhas Medical College and Hospital, Jamshedpur, Jharkhand, India.

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Abstract Background

Gynecological cancer is the second greatest cause of death worldwide for women between the ages of 15 and 44, after heart disease. Among women worldwide, the highest risk of cancer of the cervix has been reported in those living in low- and middle-income countries. Cancer of the cervix is more prevalent in areas where there is a lack of screening and prevention programs.

Objectives

In this study, women in Eastern India who had their cervical cancer screening habits evaluated, and the sociodemographic traits associated with those practices were identified.

Materials and methods

The study was designed as a cross-sectional that took place at the Gouri Devi Institute of Medical Sciences and Hospital, Durgapur, West Bengal, India. The study has been conducted for two years. Overall, a total of 100 participants were included to take part in the study. Ethical approval was granted by the Institutional Ethics Committee (IEC), Gouri Devi Institute of Medical Sciences and Hospital, Durgapur, West Bengal, India.

Results

Most of the participants were in the age group of 40 to 50 years. The education level among participants was that 40 participants had a primary level of education, 35 participants had a secondary level of education, and 25 participants had a higher level of education. It has been shown that most of the patients were not screened before.

Conclusion

This study highlights the discrepancy between cervical cancer awareness and screening practices in Eastern India, showing that whereas screening uptake is still insufficient, awareness of cervical cancer is high. Significant obstacles affecting screening participation include cultural beliefs, educational and socioeconomic inequalities, and financial limitations.

Recommendation

Financial, educational, and cultural barriers can be addressed by putting targeted interventions into place. This will increase the uptake of screening and, eventually, improve the outcomes for cervical cancer in Eastern India.

Keywords: Eastern India, cervical cancer, screening procedures, Sociodemographic variables, Public health initiatives.

Submitted: 2024-11-20 **Accepted:** 2024-12-29

Corresponding Author: Ritika Kedia

Email: ritikasethia@gmail.com

Assistant Professor, Department of Obstetrics and Gynaecology, Netaji Subhas Medical College and Hospital, Jamshedpur, Jharkhand, India.

Introduction

Gynecological cancer, including cervical cancer, is considered to be the second most common reason for the death of women worldwide who are between the ages of 15 and 44 [1]. It poses a substantial challenge to societies across the globe [2]. An estimated half a million new cases of invasive cervical cancer occur annually as a result of the unfortunate lack of screening among many women,

especially those living in rural regions [3]. Notably, most of these are seen to take place in developing nations, particularly those with low and middle incomes [2].

The risk of cancer of the cervix is highly seen among women worldwide, particularly in low- and middle-income countries. It is the fourth most frequent cancer in women and is especially prevalent in areas with insufficient screening and prevention measures [4, 5]. Cervical cancer is incredibly

prevalent in Eastern India, underscoring the importance of screening and early detection [6]. Incidence and mortality are decreased in the screening of cancer of the cervix; the screening procedures mainly included Papanicolaou smears or hepatitis virus testing. In Eastern India, screening methods are available, but their acceptance varies and is frequently insufficient [7]. Socioeconomic level, education, culture, healthcare infrastructure, and accessibility all have an impact on screening practices [8]. Inadequate healthcare resources and socioeconomic disparity are the main causes of Eastern India's low cervical cancer screening rates. Economically poor women may get the least accessibility to healthcare due to budgetary constraints and ignorance. Women's engagement in screening programs may also be impacted by cultural and societal perceptions of gynecological health [9, 10]. In this study, women in Eastern India who had their cervical cancer screening habits evaluated, and the sociodemographic traits associated with those practices were identified.

Methodology

Study Design

The study was designed as a cross-sectional that took place at the Gouri Devi Institute of Medical Sciences and Hospital, Durgapur, West Bengal, India. The study has been conducted for two years.

Patient Population

Overall, a total of 100 participants were included to take part in the study. Women older than 30 years of age who were either getting routine checkups or for getting follow-ups were included.

Study Procedure

Participants were informed about the study, and written consent was obtained. Medical record reviews and systematic interviews provided the data. Using a pre-made questionnaire, information was gathered about the participants' demographics, socioeconomic status, educational attainment, awareness of cervical cancer and screening methods, and screening history. Inquiries concerning screening barriers, such as expense, accessibility, and cultural perspectives, were also covered.

Statistical Analysis

The data was collected in Microsoft Excel, and statistical software SPSS version 20 was used for the analysis. In the study, categorical parameters were presented as the number of patients along with the percentages.

Ethical Clearance

Ethical approval has been granted by the Institutional Ethics Committee (IEC), Gouri Devi Institute of Medical Sciences and Hospital, Durgapur, West Bengal, India.

Results

Table 1 depicts patients' demographics. Most of the participants were in the age group of 40 to 50 years. The education level among participants was that 40 participants had a primary level of education, 35 participants had a secondary level of education, and 25 participants had a higher level of education. The socio-economic status of participants showed that most of the patients were from low-income status [45 (45%)], and the least were from high-income status [20 (20%)].

Table 1. Patient's Demographics

Characteristic	Values
Age (in years)	
30-40	39 (39%)
40-50	41 (41%)
50-50	20 (20%)
Education Level	
Primary	40 (40%)
Secondary	35 (35%)
Higher	25 (25%)
Socio-economic Status	
Low Income	45 (45%)
Middle Income	35 (35%)
High Income	20 (20%)

Data was presented as n (%)

Table 2 shows various awareness and screening practices that are followed for cancer of the cervix. It has been shown that most of the patients were not screened before. Although,

there was awareness of cervical cancer among most of the participants. Most of the participants, 55 (55%) were not screened ever before.

Table 2. Awareness and Screening Practices for Cervical Cancer

Characteristics	Values
Awareness of Cervical Cancer	
Yes	65 (65%)
No	35 (35%)
Awareness of Screening Methods	
Yes	60 (60%)
No	40 (40%)
Ever Screened	
Yes	45 (45%)
No	55 (55%)
Recent Screening (Within 2 years)	
Yes	30 (66.6%)
No	15 (33.4%)

Data was presented as n (%)

Table 3 depicts the barriers to screening involving financial constraints, lack of awareness, cultural and social attitudes, and accessibility issues. Among all the barriers, most of the participants faced financial constraints.

Table 3. Barriers for Screening

Barrier	Value
Financial Constraints	25 (45.5%)
Lack of Awareness	15 (27.3%)
Cultural and Social Attitudes	10 (18.1%)
Accessibility Issues	05 (9.1%)

Data was presented as n (%)

Discussion

The findings of this study highlight numerous important aspects of cancer of cervix screening techniques in the east part of India [11]. Despite the extensive knowledge of participants about cancer of the cervix, still less is known about the screening of participants. This discrepancy highlights the necessity of putting targeted initiatives into place to bridge the gap between actual screening methods and knowledge [12, 13]. According to survey results, just 45% of respondents had ever received screening for cancer of the cervix, and of those, very few people had done so in the preceding two years. This is far less than the suggested screening standards, which advocate for routine tests to improve early identification and lower cervical cancer mortality [14].

The challenges this study identified—financial constraints, a lack of expertise, cultural attitudes, and accessibility issues—are consistent with findings from earlier research carried out in similar settings [15]. Financial constraints were the most common barrier found, as 45.5% of participants who were not surveyed cited costs as a major

deterrent. This suggests that there is a significant chance to increase participation rates by lessening the cost burden related to screening [16].

Socioeconomic status and level of education were found to be significant factors influencing screening uptake. Participants with higher educational attainment and those from higher-income households were more likely to get screened [17]. This is in line with the published research that regularly shows a strong correlation between income, education, and health-seeking behaviors [18]. Effective measures to reduce these disparities include increased educational outreach, financial aid, and subsidized screening services. Cultural and societal perceptions also had an impact on the adoption of screening [19].

Cultural misconceptions and the unfavorable impression of gynecological health may discourage women from seeking screening services. To improve screening rates, community engagement, and educational programs must be put in place to lessen these cultural barriers [20].

Further studies with bigger and more diverse populations, together with longitudinal studies, might offer a more

thorough comprehension of cervical cancer screening practices and the factors that influence them. Even while most women are aware of cervical cancer, there are significant barriers that prevent many of them from getting screened.

Page | 4 **Conclusion**

This study highlights the discrepancy between cervical cancer awareness and screening practices in Eastern India, showing that whereas screening uptake is still insufficient, awareness of cervical cancer is high. Significant obstacles affecting screening participation include cultural beliefs, educational and socioeconomic inequalities, and financial limitations. Implementing focused initiatives that address these obstacles is crucial to raising screening rates. Increasing access to affordable screening services, enhancing educational outreach, and addressing cultural stigmas are a few of these tactics. Public health programs can be better crafted to improve early detection and reduce the prevalence of cervical cancer in the region by addressing these problems.

Limitations

The cross-sectional nature of the study is a major drawback; it offers a quick overview of the situation but cannot predict changes over time. Additionally, while 94 patients is a sufficient number for the first findings, it could not be a true representation of the Eastern Indian community as a whole.

Recommendations

Financial, educational, and cultural barriers can be addressed by putting targeted interventions into place. This will increase the uptake of screening and, eventually, improve the outcomes for cervical cancer in Eastern India.

Acknowledgment

We are thankful to the patients; without them, the study could not have been done. We are thankful to the supporting staff of our hospital who were involved in the patient care of the study group.

Data Availability

Data is available upon request.

Author contributions

RK contributed to the design of the research and collected and analyzed the data. RK also wrote and edited the manuscript.

Source of funding

No funding was received.

Conflict of interest

The authors have no conflicting interests to declare.

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PUBLISHER DETAILS:

Student's Journal of Health Research (SJHR)

(ISSN 2709-9997) Online

(ISSN 3006-1059) Print

Category: Non-Governmental & Non-profit Organization

Email: studentsjournal2020@gmail.com

WhatsApp: +256 775 434 261

**Location: Scholar's Summit Nakigalala, P. O. Box 701432,
Entebbe Uganda, East Africa**

