IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

A Comprehensive Review to Assess the Knowledge, Attitude, and Practice about Cervical Cancer and Screening among Women in India

Sarbhjit Kaur Mann[1] and Dr. Jyoti Sharma[2]
Department of Community Health Nursing[1,2]
Shri Jagdishprasad Jhabarmal Tibrewala University, Jhunjhunu Rajasthan, India

Abstract: *Background: 90% of deaths from cervical cancer occur in low- and middle-income nations. It is the second most frequent malignancy among women worldwide. In India, there are roughly 96,922 new instances of cervical cancer detected each year.*
Objective: to examine Indian women's knowledge, attitudes, and screening practices about cervical cancer.
Methods: PubMed and Google Scholar, two electronic health sciences databases, were searched for studies released between March 2012 and March 2020. The search terms "Cervical Cancer screening," "knowledge," "attitude," "practice," AND "India" were used. The review contained 19 papers that met the eligibility requirements. For the statistical application, SPSS-V.23 statistical software was utilized.
Results: The study comprised 7688 women. Participants in the study ranged in age from 12 to 65. Women's overall awareness of cervical cancer was 40.22%. The women's knowledge of risk factors, symptoms, and indicators was deemed sufficient. 32.68% of women were aware that being married young was a risk factor for cervical cancer, while 23.01% of women stated that starting sexual activity young was a prevalent risk factor as well. For 30.75% of women and 28.86% of males, respectively, the most prevalent signs and symptoms were intermenstrual bleeding and foul-smelling discharge. In terms of knowledge, attitude, and practice on cervical cancer screening, 20.31%, 43.64%, and 13.22% of women were observed, in that order.
In conclusion, more efficient methods of communication, education, and information sharing are needed to raise women's awareness of cervical cancer

Keywords: cervical cancer, screening, knowledge, attitude, practice, India

I. INTRODUCTION

In 2018, there were 31,1000 cervical cancer-related deaths worldwide and 570 000 new instances of the disease. After lung cancer (0.7 million cases), colorectal cancer (0.8 million cases), and breast cancer (2.1 million cases), cervical cancer is the fourth most frequent malignancy among women. In India, it ranks as the second most common cause of cancer in women between the ages of 15 and 44. In India, there are approximately 96,922 new cases of cervical cancer detected each year (estimates 2018). Although the number of instances of cervical cancer is decreasing in the industrialized world, poor nations are disproportionately affected by this disease, with a 35% higher chance of having cervical cancer than in wealthy nations. India accounts for over 25% of the world's cervical cancer deaths.

Because cervical cancer has a lengthy pre-invasive phase, it is curable. Reducing death rates from cervical cancer in women requires early identification and treatment. Thankfully, there is a lengthy premalignant phase for cervical cancer, which gives doctors the chance to screen for the disease and treat it before it spreads and becomes aggressive. Population-based screening for cervical cancer using Pap smears or cytology is a crucial secondary preventative intervention that increases the rate of cure for those who get the disease. When effective screening systems are in place, early identification and treatment through screening can prevent up to 80% of cervical cancer cases in wealthy nations. However, access to widespread, efficient screening is restricted in developing nations, which increases the number of cervical cancer deaths. Several statistics state that although 68%–84% of women in affluent nations have Pap smear screenings, just 2.6%–5% of women in India do so. This is one of the primary causes of individuals receiving advanced

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

diagnoses in India. Human papillomavirus (HPV) types 16 and 18 infection is the primary risk factor for cervical cancer development. HPV-DNA viral load quantification and integration, as well as E6/E7 expression, are potential biomarkers that can predict the progression of lesions to cervical cancer.

There are still not many extensive screening programs in place in India, despite the fact that there is enough data to support the use of screening as a beneficial intervention. The best way to prevent cervical cancer is to be aware of the condition and to get screened early. The main reasons why the incidence of cervical cancer is rising are a lack of knowledge, a bad attitude, and inadequate practices on screening and preventive measures.

Despite the implementation of a specific cancer control program in India, screening has not shown to be successful in reducing the overall disease burden. According to studies, women's awareness about cervical cancer is inadequate, and while they have a positive attitude, there is a poor uptake of real practice among them because of societal stigma. This research was carried out because there is a shortage of literature on Indian women's knowledge, attitude, and behavior (KAP) on cervical cancer and screening for it. The study's findings offer insights into contemporary attitudes, practices, and awareness surrounding cervical cancer and screening. These insights are valuable for developing educational programs that target specific populations and better their understanding of cervical cancer and screening.

II. MATERIALS AND METHODS

A thorough search of all published works in the electronic databases PubMed and Google Scholar from 2012 to March 2020 was carried out. We located all English-language research that discussed cervical cancer screening practices, knowledge, awareness, and attitudes in India. Articles that provided quantitative information about women's knowledge, awareness, attitudes, or practices regarding cervical cancer and screening in India were accepted for inclusion. The search yielded additional medical terms (cervix, cervical, cancer, neoplasm, cervical neoplasms, screening, and primary diagnosis of cancer) based on the expansion of the primary concepts of "Cervical Cancer," "Cervical Cancer screening," "Cervical Cancer knowledge," "Cervical Cancer attitude," "Cervical Cancer awareness," and "Cervical Cancer practice." Using "OR" and "AND" operators, the subject and text word searches were conducted independently in PubMed and Google Scholar before being combined. For example, "Cervical Cancer screening" or "cervical screening" AND "Cervical Cancer knowledge" or "Cervical Cancer attitute" were combined terms. The bibliography of included articles, some excluded review articles, forward citation searches, and other sources of gray literature were found.

Study Selection

Included were only those papers that included quantitative evidence about knowledge, awareness, attitude, and practice regarding cervical cancer and screening in India. The method of selecting the retrieved articles is depicted in Figure 1. PRISMA guidelines were followed when conducting our review. Thirteen hundred published studies written in English were found in the first database search. Due to study titles and studies carried out outside of India, 1188 studies were disqualified. After reading the abstracts of the remaining 192 research, 163 publications were removed because they were either published before 2012, duplicate articles, or non-cross-sectional study designs. Ten of the 29 studies that remained were disqualified because they involved healthcare practitioners and only included partial data. The review ultimately included 19 cross-sectional study designs that focused on KAP related to cervical cancer and its screening, done in various contexts such as hospitals or communities, and published between March 2020 and March 2020. These studies met the inclusion criteria.

Inclusion Criteria

Cross-sectional, English-language research on knowledge, awareness, attitude, practice, and screening for cervical cancer carried out in a variety of contexts, such as hospitals or Indian communities, and published between 2012 and March 2023.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

Exclusion Criteria

Qualitative research, case reports, case series, past reviews, and information on cervical cancer screening rates. studies carried out among health professionals, studies published in languages other than English, and studies carried out in high- or low-income nations outside of India.

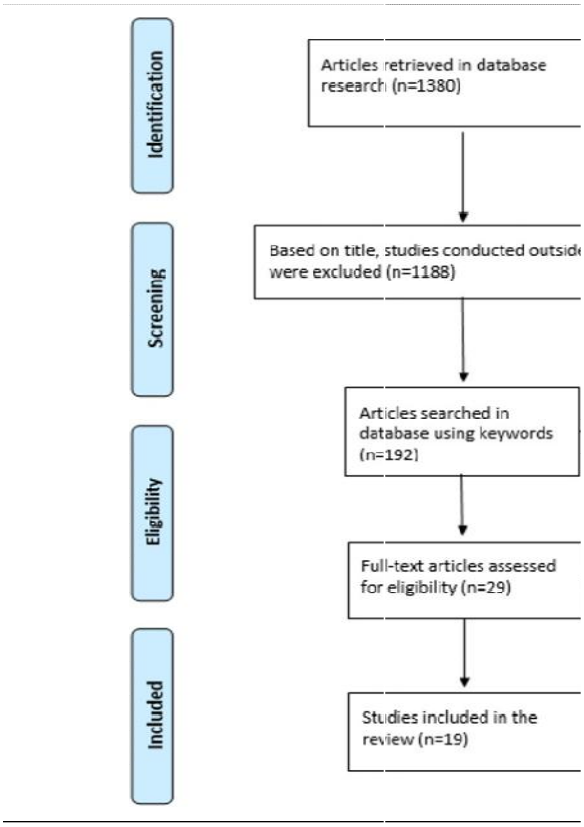

Figure 1. Summary of literature search and review process.

Data Extraction and Synthesis

The lead author and nation, the year the study was published, the sample size, the sampling technique, the age group and knowledge of cervical cancer, the signs, symptoms, and risk factors of cervical cancer, screening, attitude, and screening practice were all retrieved as important features of the studies. All papers' major outcome data were indexed in Microsoft Excel after duplicates were eliminated. Afterwards, textual data interpretation was taken out and put into a Microsoft Word document. The literature search was conducted separately by two writers, who found citations for KAP on cervical cancer and screening. Following the application of the inclusion and exclusion criteria, full-text publications were located and their eligibility evaluated. For statistical applications, statistical software such as SPSS-V.23 was utilized.

III. RESULTS

The review contained nineteen studies that satisfied the inclusion criteria. In all, 7688 women between the ages of 12 and 65 were included in these research, which were conducted as 19 separate studies. Cross-sectional studies from hospitals and communities were included in the analysis. The majority of research was done in big cities including Tamil Nadu, Delhi, Noida, Bengal, Kerala, and Lucknow. The majority of women were married, and between 5% and 66% of them were illiterate (Table 1).

The review's studies found that, as a result of India's low literacy rate, women there still lack the necessary knowledge and attitudes regarding cervical cancer and screening methods. The evaluated publications demonstrated that adequate

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

knowledge, attitude, and practice of cervical cancer screening were independently correlated with age, education level, and per capita income. (Table 1).

Table-1. Characteristics of Studies Included in the Review.

Author	Study Design	Year of study	Sample Size	State	Population Characteristics	Results
S. Aswathy et al[9]	Cross- sectional study	2012	809	Kerala-Survey conducted in Rural area	Age-15-50 years Literacy rate-64.4% Marital Status- 88.4% Married Women Socioeconomic status-59.6% belongs to lower socioeconomic status	1. Knowledge of Cervical Cancer-72.1% 2. Knowledge of PAP Smear-13%
Raychaudhuri and Mandal[10]	Cross- sectional study	2012	221	Bengal-Survey conducted in Village and Urban slums	Age-15-49 years Marital Status- 88.7% married women Education-28.1% illiterate population	1. Knowledge of Cervical Cancer-87.3% 2. Knowledge of PAP Smear-9.5% 3. Knowledge of HPV Vaccine-14.5% 4. Knowledge of Risk factors- Intercorse at early age-65.5%, Non-maintainance of personal hygiene-83.3%
Ramavath and Olyai[11]	Cross- sectional study	2013	1000	Calcutta, Lucknow, Gwalior, Vishakhapatnam, Ahmadabad	Age-13-19 years Education-23.8% illiterate population Socioeconomic status- 9% lower socioeconomic status	1. Knowledge of Cervical Cancer-23.8% 2. Knowledge of HPV-28% 3. Knowledge of HPV Vaccine-32.8% 4. Practice of HPV Vaccine-74.4%
Showket Hussain et al[12]	Cross- sectional study	2014	1570	Delhi, Noida- Survey conducted among rural and urban schools	Age-12-22 years Education-Educated school going girls (6-11 standard) Marital Status- unmarried school going girls	1. Knowledge of Cervical Cancer-16.36% 2. Knowledge of HPV Vaccine-10.31% 3. Practice toward HPV Vaccine-11.01% 4. Knowledge of Risk Factor- HPV infection-10.25%
Sidharthar et al[13]	Cross- sectional study	2014	400	Puducherry- Hospital Based survey with 90% women from rural communities	Age-18-60 years Education-31.1% illiterate population	1. Knowledge of Cervical Cancer-44.5% 2. Knowledge of PAP smear-12.2% 3. Knowledge of HPV Vaccine-2.8% 4. Knowledge of Risk Factor- Multiple sexual partner-15%, Non-maintainance of personal hygiene-7.5% 5. Knowledge of signs and symptoms- Post coital bleeding-15.3%, Post menopausal bleeding-10.3%
Kumar and Tanya[3]	Cross- sectional study	2014	83	Manglore, Karnataka- Hospital based Survey	Age30-60 years Education-10.8% illiterate population Marital Status- 92.8% married	1. Knowledge of Cervical Cancer-18.07% 2. Knowledge of screening -14.45% 3. Practice toward PAP Smear-7.2% 4. Knowledge of Risk factor- intercourse at early age-22.9%, multiple sexual partners-15.7% 5. Knowledge of signs and symptoms-abnormal vaginal discharge-25.3%, intermenstrual bleeding-26.5%
Singh et al[14]	Cross- sectional study	2014	450	Delhi- Hospital based survey, 76.1% lived in urban slums	Age-15-64 years Education-66.6% illiterate population Marital Status- Majority married women Family income-79.3% had family income less than Rs. 5000	1. Knowledge of PAP Smear-40% 2. Attitude toward screening-18.2% 3. Practice toward screening-19.6%

(continued)

DOI: 10.48175/568

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

Table-1. (continued)

Author	Study Design	Year of study	Sample Size	State	Population Characteristics	Results
Montgomery et al[15]	Cross- sectional study	2015	202	Karnataka	Age-25-45 years	1. Knowledge of Cervical Cancer-15% 2. Practice toward PAP Smear-5% 3. Knowledge of HPV Vaccine-36%
Bansal et al[16]	Cross- sectional study	2015	400	Bhopal- Hospital based survey	Age-15-45 years Education-17.5% illiterate population Marital Status-77.5% married women Mean family income-Rs.4905	1. Knowledge of Cervical Cancer-65.5% 2. Attitude toward screening-76.2% 3. Practice toward screening-9.5% 4. Knowledge of Risk factor- intercourse at early age-16.5%, Continuous use of OCP's 22.5%, multiple sexual partners-27.7% 5. Knowledge of signs and symptoms-intermenstrual bleeding-29.2%, fowl smelling discharge- 23%
Arunadevi and Prasad[17]	Cross- sectional study	2015	200	Tamil Nadu- Hospital based survey	Age- 21-50 years	1. Knowledge of Cervical Cancer-38% 2. Knowledge of HPV Vaccine- 6.5% 3. Knowledge of Risk factors- non maintenance of personal hygiene- 20%, multiple sexual partners-32% 4. Knowledge of signs and symptoms- abnormal vaginal discharge-24%
Elamurugan et al[18]	Cross-sectional study	2016	200	Puducherry	Age- 20-60 years Marital status- 85.5% women were married Education-1.5% population was illiterate	1. Knowledge of Cervical Cancer-86% 2. Knowledge of Screening-84% 3. Attitude toward screening-72% 4. Practice toward screening- 25%
Pattupara et al[19]	Cross-sectional study	2016	400	Rishikesh- Survey was conducted among women visiting hospital OPD	Age-18-65 years	1. Knowledge of Cervical Cancer-7% 2. Knowledge of Screening 3.25% 3. Knowledge fo Risk factor- intercourse at early age-1.5%, continuous use of OCP's- 2.5% 4. Knowledge of signs and symptoms- abnormal vaginal discharge-2.75%, post menopausal bleeding-2.75%
Bathija et al[20]	Cross- sectional study	2016	200	Hubli, Karnataka- Survey conducted in Urban Slums	Age-15-45 years Education-30% illiterate population Marital Status- 83.5% Married population Socioeconomic status- 54% lower socioeconomic status	1. Knowledge of Cervical Cancer-15% 2. Knowledge of PAP Smear-2% 3. Knowledge of HPV Vaccine-0.5% 4. Knowledge of risk factor- non maintenance of personal hygiene-67%, multiparity-16% 5. Knowledge of signs and symptoms-48%, intermenstrual bleeding-72%
Varughese et al[21]	Cross- sectional study	2016	304	Ludhiana, Punjab	Age-25-45 Education-50.3% illiterate population Marital Status-92.8% married women Socioeconomic status-84.2%	1. Knowledge of Cervical Cancer-28.9% 2. Knowledge of PAP Smear-4.3% 3. Knowledge of HPV Vaccine-6.6% 4. Knowledge of risk factor-7.9%

(continued)

DOI: 10.48175/568

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

Table-1. (continued)

Author	Study Design	Year of study	Sample Size	State	Population Characteristics	Results
Patra et al[22]	Cross- sectional study	2017	373	Delhi- Women of rural resettlement colony	Age-30-60 years Education- 65% illiterate population Marital Status- Married women Mean Income- Rs.764	1. knowledge of Cervical Cancer-53.88% 2. knowledge of PAP smear as a screening technique-4.02% 3. Positive attitude toward screening-24.125% 4. Knowledge of risk factors- non maintenance of personal hygiene-28.68% 5. Knowledge of signs and symptoms- Post menopausal bleeding-24.12%, intermenstrual bleeding-21.44%
Narayana et al[23]	Cross- sectional study	2017	403	Anantpur District, Andhra Pradesh- Hospital based survey	Age-30-39 years Education-51.8% illiterate Marital Status-89% married women	1. Knowledge of Cervical Cancer-74.6% 2. Practice toward screening-13.4% 3. Knowledge HPV Vaccine-74.6% 4. Knowledge of risk factors- intercourse at early age-36.2%, multiple sexual partners- 38.4% 5. Knowledge of signs and symptoms-Post coital bleeding-20.6%, intermenstrual bleeding-48.3%
Nelson et al[24]	Cross- sectional study	2018	100	South Tamil Nadu- Survey was conducted among the women of rural area in South Tamil Nadu	Age-25-50 years Literacy rate was 100% Socio-economic status-Only 28% belonged to lower middle class family	1. Knowledge of Cervical Cancer-68% 2. Knowledge of Screening-47% 3. Practice toward screening-8%
Ahlawat et al[25]	Cross- sectional study	2018	200	Delhi- Survey was conducted in Urban Slums	Age-15-45 years Education-5.5% illiterate population	1. Knowledge of Cervical Cancer-56.6% 2. Knowledge of screening- 44% 3. Knowledge of risk factor-intercorse at early age-42%, multiparity-36.5% 4. Knowledge of signs and symptoms- post menopausal bleeding-40%, intermenstrual bleeding-47%
Reichheld et al[26]	Cross- sectional study	2020	175	Vellore, Tamil Nadu- Survey conducted among urban health center	Age-25-65 years Education-28.4% illiterate population Marital status-77.6% married population Socioeconomic status-70.4% lower socioeconomic status	1. Knowledge of Cervical Cancer-53.14% 2. Knowledge of PAP Smear-13.1% 3. Knowledge of HPV Vaccine-0.6% 4. Knowledge of Risk factors-multiparity-3.4%, multiple sexual partners-4% 5. Knowledge of signs and symptoms-post menopausal bleeding-5.7%, intermenstrual bleeding-14.9%

DOI: 10.48175/568

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

Nineteen of the examined studies provided information on cervical cancer. Women's total awareness of cervical cancer was 40.22%. Women exhibited a sufficient level of awareness regarding the risk factors. Thirteen of the 19 studies reported having knowledge of risk variables. The most common risk factor, according to 32.68% of the women, was early marriage, followed by early sexual activity initiation age, which was indicated by 23.01% of the women. A common risk factor for cervical cancer, according to 25.22% of women, is poor personal cleanliness (Figure 2).

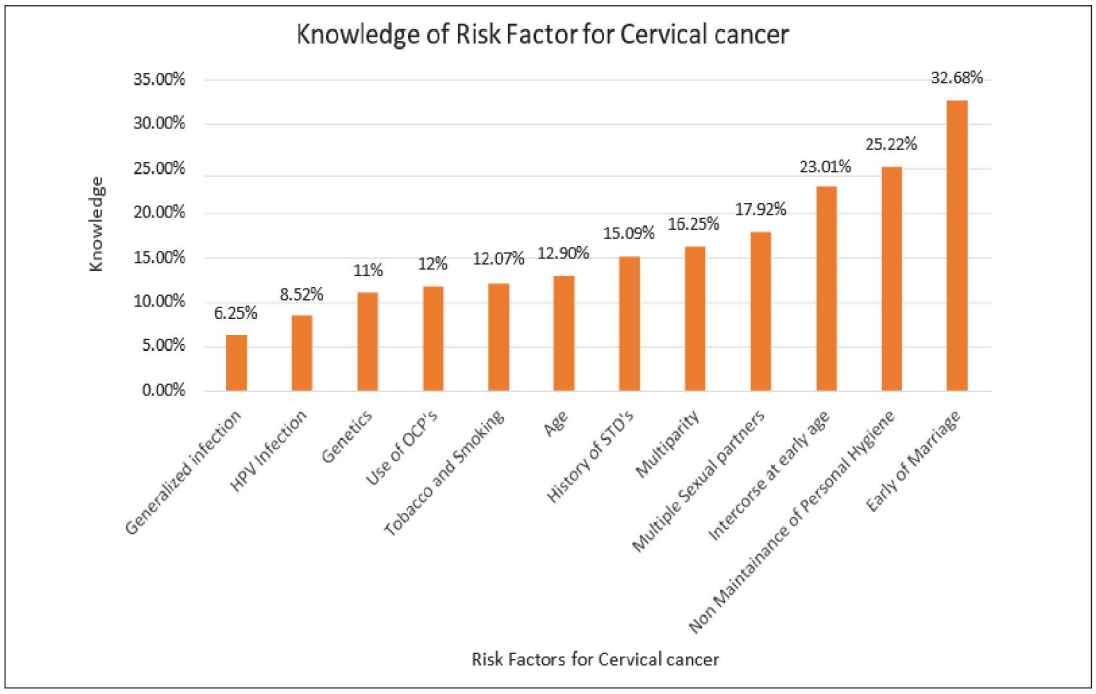

Figure 2. Distribution of knowledge of risk factors of cervical cancer.

The analyzed publications demonstrated that there was also a sufficient level of awareness of indications and symptoms. According to 38% of the women surveyed, vaginal bleeding is one of the main indicators and symptoms of cervical cancer. The most prevalent sign and symptom reported by 30.75% and 28.86% of women, respectively, were intermenstrual bleeding and foul-smelling discharge (Figure 3).

20.31% of respondents knew about PAP smear screening, according to the review. Of the ladies, 43.64% had a positive attitude about screening. Screening was practiced by 13.22% of women. In terms of HPV vaccination knowledge and practice, it was found that 35.68% of women had already received the vaccine and 20.14% of women knew about it (Figure 4).

IV. DISCUSSION

This study looked at the most recent research on Indian women's knowledge, attitudes, and practices around cervical cancer and screening for it. Numerous factors, such as low knowledge and awareness, low perceived risk, delayed signs and symptoms in the early stages, social stigma associated with cancer, fear of cancer, cost, obligations to family, and embarrassment, can be blamed for the low uptake of cervical cancer screening.

According to the most recent review, just 40.22% of people were aware of cervical cancer. Anorlu, Yifru, and Asheber's studies in developing and impoverished nations produced findings that were similar. These findings, however, stand in contrast to a study done on women visiting a South Indian hospital's obstetrics and gynecology department, where 74.6% of the participants had knowledge of cervical cancer. According to a different research by Chande and Kassim, over 75% of people had heard of cervical cancer. Despite the introduction of the National Cancer Control Programme in India, the participants' level of information regarding cervical cancer was low. This could likely be attributed to the fact that primary healthcare facilities are frequently overworked and underfunded. Despite cytology

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

being thought to be a superior screening method, VIA is being made available to women between the ages of 30 and 69 due to a lack of funding. The analysis revealed that nearly half of women are aware of the signs, risk factors, and ways to avoid cervical cancer. This agrees with results from a related study carried out by Mukama et al. in Northern Uganda. The research found that among 32.68%, 25.22%, and 23.01% of women, respectively, having several sexual partners, getting married at a young age, and not maintaining good personal cleanliness were substantial risk factors for cervical cancer. According to Dhodapkar SB et al., visiting doctors at the pre-clinical period and being younger at initially were risk factors for cervical cancer.

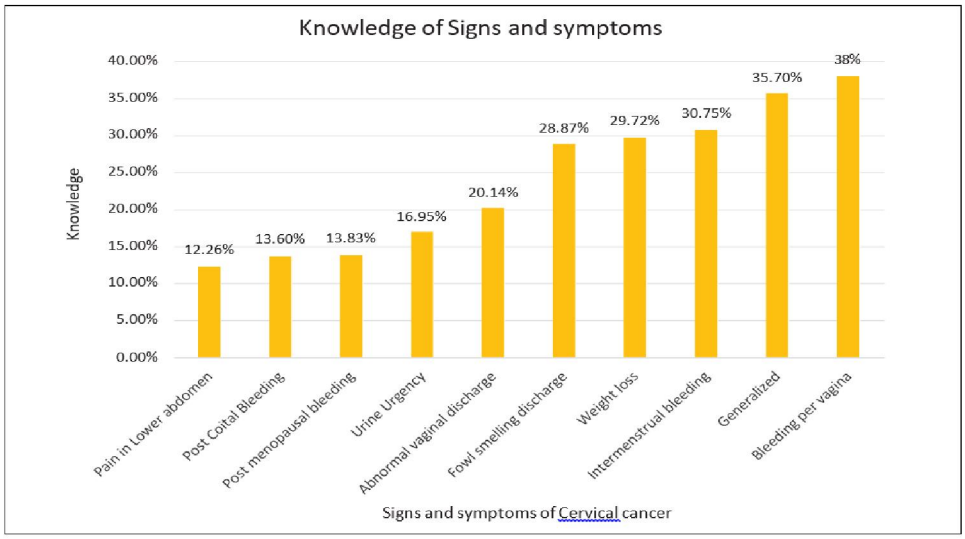

Figure 3. Distribution of knowledge of signs and symptoms of cervical cancer.

Regarding the telltale signs and symptoms of cervical cancer, 38% recognized vaginal bleeding, 30.75% recognized bleeding during menstruation, 29.72% recognized weight loss, and 28.87% recognized foul-smelling discharge as typical symptoms. According to a study conducted by Singh et al., 66% of female participants and 79% of female respondents recognized foul-smelling vaginal discharge as a symptom of cervical cancer, respectively. According to a study by Shah et al., 94.2% of respondents listed vaginal discharge, 86.9% listed menstrual irregularity, and 66.6% listed pain as a symptom. Additionally, a study by Narayana et al. (2017),

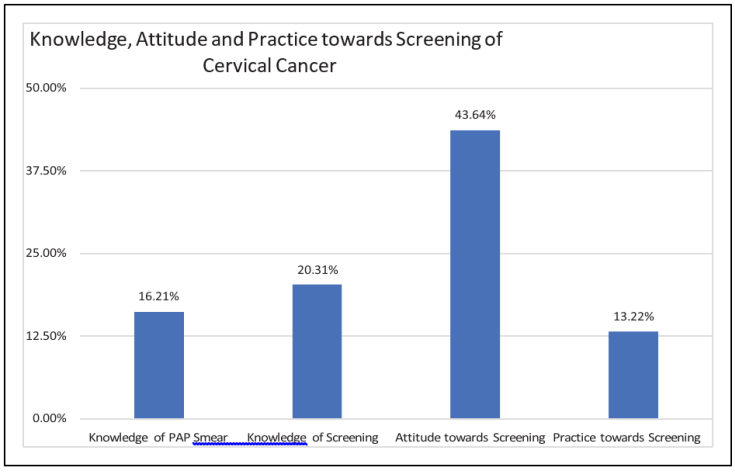

Figure 4. Knowledge, attitude and practice toward screening of cervical cancer.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

Multiple sexual partners, having sexual relations, and having a lower socioeconomic status by 13%, 48%, and 13%, respectively. Multiple male sexual partners and sexually transmitted infections or viruses were recognized by 88.3% of respondents, according to research by Amos D. Mwaka et al. Just 8 (11.5%) of the respondents in a Shah et al. study knew that having several sexual partners is one of the risk factors. The incidence of cervical cancer has decreased recently due to improvements in personal hygiene and lifestyle. The fact that 64.2% of the 403 women who responded to the survey knew something about the symptoms and signs of cervical cancer could help to explain some of the drop rates for the disease. Women living in rural and urban regions are less aware of cervical cancer, which highlights the need for education efforts to increase their understanding of the disease's symptoms, risk factors, and preventive measures. Women who are aware of cervical cancer are more likely to seek early screening and medical attention as preventative measures.

A large body of research revealed a disconnect between community women's awareness of cervical cancer and their actual adoption of screening. Although a lot of women are aware of cervical cancer, very few are aware of its signs, and even fewer have had a screening. Despite the limited uptake, many women reported a positive outlook and a willingness to be screened.

In the current review, the appropriateness of information, attitude, and practice about cervical cancer screening was found to be 20%, 40.8%, and 13.8%.When compared to analogous research conducted in Argentina, Kuwait, and Northeast Brazil, these results were extremely low.14 Only 20.3% of participants knew about cervical cancer screening, according to the review. 40.2% of respondents had a positive attitude toward cervical cancer screening, but there is still a difference between practice and perception—only 13.8% of respondents did so. As a screening test, PAP smears were seen to have been performed on just 16.21% of the population. The majority of the ladies appeared to have a good attitude about screening. Women who were aware of cervical cancer had a higher likelihood of receiving early diagnosis and sought out early medical advice. Additionally, women had a positive attitude as seen by their willingness to take part in screening programs when offered.

Comparably, the frequency of cervical cancer screening was incredibly low in this hospital-based, cross-sectional survey conducted by Narayan et al. (2017), at 5.4%; this is comparable to the WHO's anticipated 5-year screening prevalence of 5% for developing nations.In contrast, most participants in a cross-sectional survey of women at a primary health center in Tamil Nadu (75.42%) knew about cervical cancer, and many of them thought they were at risk (50.58%). Though only 31% of those screened had had a Pap smear, 69.96% of those who had not were willing to have one. Similar findings were also made by Bansal et al. in a study of 400 women of reproductive age who visited a Bhopal hospital's outpatient department. Of these women, 65.5% had heard of cervical cancer, only 9.5% had ever had a screening test, and 76.25% had a positive attitude toward the idea of screening. Out of the 809 women who were interviewed in Kerala, 74% knew that early screening can identify cervical cancer, but only 6% had actually had a screening test done15. In a similar vein, no subjects in a study conducted by Dhodapkar SB et al. were aware of the VIA screening approach. Of the people who were aware that Pap smears can detect cervical cancer, just five (4%) had ever had one performed.

According to our assessment, 35.68% of participants had received HPV vaccinations, while 20.14% of participants were aware of the procedure. Similar to this, study participants in Narayana et al. (2017) thought that HPV vaccine and early screening helped prevent cervical cancer; nevertheless, the majority of the women (86.6%) had never been screened. Only 8% of female respondents to our review were aware that HPV vaccination poses a risk for cervical cancer. Governments in low- and middle-income countries (LMICs) and health development organizations must provide population-based HPV vaccinations in addition to education efforts on HPV's connection to the genesis of cervical cancer. If not, the community may pay less attention to cervical HPV infection prevention measures such immunizations, postponing sexual activity, and having many male partners.

In line with several research carried out around the globe, our study found that age, education, and per capita income were major characteristics that were independently connected with the appropriateness of knowledge, attitude, and practice of cervical cancer screening. The fact that more educated women are aware of cervical cancer screening could be a sign that these women are better communicators and information absorbers.

According to our review, women's understanding about cervical cancer has slightly increased over time. This has been demonstrated to be important in some settings, such as a Delhi research where just 16.36% of participants knew what

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

cervical cancer was. In a similar vein, the KAP survey from 2017 and 2018 revealed that 53.88% and 56.80% of participants knew about cervical cancer, respectively. In India, women who die from cervical cancer often do so as a result of a delayed diagnosis. The review basically shows that Indian women are largely poor in health literacy with reference to cervical cancer. The best way to avoid cervical cancer is to increase one's health literacy, which includes understanding about illnesses and early detection. The main factors contributing to the rise in disease prevalence include inadequate knowledge, a negative mindset, and subpar screening and awareness practices about cervical cancer. The most frequent cancer among Indian women is still cervical cancer, even with the availability of an easy and reliable screening test.

V. CONCLUSION

The analysis comes to the conclusion that while Indian women have a reasonable understanding of cervical cancer and a positive attitude toward screening, there is still a need to put this knowledge into practice. India urgently needs to increase the capacity of its health system to enable effective programs for screening for cervical cancer and to enhance community-level initiatives to raise awareness of the disease and screening options. Thousands of young women and their families would be spared a grave disaster because to these efforts.

Advantages

As far as we are aware, this is one of the first reviews that provide information on Indian women's knowledge gaps regarding cervical cancer, screening, and related demographics. Policymakers can use this information as a guide to create educational programs on cervical cancer screening and prevention, raising women's awareness and encouraging screening uptake, which will reduce the disease's burden.

Limitations

Research conducted in diverse geographic regions and the variability of the population data gathered from multiple research combined into one. The age range and sample methods were two examples of non-uniform variations. Combining these kinds of data could result in a lot of heterogeneity, which could be biased.

REFERENCES

[1]. Ahlawat P, Batra N, Sharma P, Kumar S, Kumar A. Knowledge and attitude of adolescent girls and their mothers regarding Cer- vical Cancer: a community-based cross-sectional study. *J Mid-life Health*. 2018;9(3):145.

[2]. Anorlu RI. Cervical Cancer: the sub-Saharan African perspective.

[3]. Arbyn M, Weiderpass E, Bruni L, de Sanjose´ S, Saraiya M, Ferlay J, Bray F. Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *Lancet Global Health*. 2020;8(2): e191-203.

[4]. Arunadevi V, Prasad G. Knowledge and awareness of Cervical Cancer among women in rural India. *Int J Curr Res Rev*. 2015; 7(21):29.

[5]. Aswathy S, Quereshi MA, Kurian B, Leelamoni K. Cervical cancer screening: current knowledge & practice among women in a rural population of Kerala, India. *Indian J Med Res*. 2012;136(2): 205-210. PMID: 22960886; PMCID: PMC3461731.

[6]. Bansal AB, Pakhare AP, Kapoor N, Mehrotra R, Kokane AM. Knowledge, attitude, and practices related to Cervical Cancer among adult women: a hospital-based cross-sectional study. *J Nat Sci, Biol, Med*. 2015 Jul;6(2):324.

[7]. Bathija GV, Mallesh S, Gajula M. A study on awareness of Cer- vical Cancer among women of reproductive age group in urban slums of old Hubli, Karnataka, India. *Int J Community Med Public Health*. 2016;3(9):2579-2583.

[8]. Chande HM, Kassim T. Assessment of women's knowl- edge and attitude towards carcinoma of the cervix in Ilala Municipality. *East Afr J Public Health*. 2010 Mar 1;7(1): 74-77.

[9]. David Moher AL. Preferred reporting items for reviews and meta- analyses: the PRISMA statement. *Ann Internal Med*. 2009.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

[10]. Dhodapkar S, Chauhan R, Thampy S. Knowledge and awareness of Cervical Cancer and its prevention among nursing staff of a tertiary care teaching institute in South India. *Int J Reprod, Contracept, Obstetr Gynecol*. 2014;3(4):1056.

[11]. Elamurugan S, Rajendran P, Thangamani S. Cervical cancer screening: awareness, attitude, and practice of indian women. *Tropical J Med Res*. 2016;19(1):42. *Front Pharmacol*. 2019;10:484.

[12]. Gedam JK, Rajput DA. Knowledge, attitudes, and practices among healthcare providers on Cervical Cancer, human papil- loma virus and it's vaccine at ESI PGIMSR, MGM Hospital Parel Mumbai, India. *Int J ReprodContraceptObstet Gynecol*. 2017; 6(9):3855-3860.

[13]. Hussain S, Nasare V, Kumari M, Sharma S, Khan MA, Das BC, BharadwajM.Perception of human papillomavirus infection, Cer- vical Cancer and HPV vaccination in North Indian population. *PLoS One*. 2014;9(11):e112861.

[14]. Kumar HH, Tanya S. A study on knowledge and screening for Cervical Cancer among women in Mangalore city. *Ann Med Health Sci Res*. 2014;4(5):751-756.

[15]. Montgomery MP, Dune T, Shetty PK, Shetty AK. Knowledge and acceptability of human papillomavirus vaccination and Cervical Cancer screening among women in Karnataka, India. *J Cancer Educ*. 2015;30(1):130-137.

[16]. Mukama T, Ndejjo R, Musabyimana A, Halage AA, Musoke D. Women's knowledge and attitudes towards Cervical Cancer pre- vention: a cross sectional study in Eastern Uganda. *BMC Women's Health*. 2017;17(1):9.

[17]. Mwaka AD, Orach CG, Were EM, Lyratzopoulos G, Wabinga H, Roland M. Awareness of Cervical Cancer risk factors and symp- toms: cross-sectional community survey in post-conflict northern Uganda. *Health Expect*. 2016;19(4):854-867.

[18]. Narayana G, Suchitra MJ, Sunanda G, Ramaiah JD, Kumar BP, Veerabhadrappa KV. Knowledge, attitude, and practice toward cervical cancer among women attending obstetrics and gynecol- ogy department: a cross-sectional, hospital-based survey in South India. *Indian J Cancer*. 2017;54(2):481.

[19]. Nelson SB, Naveenkumar Viswanathan NA, Priyanka B. A cross- sectional study on Cervical Cancer and its prevention among women of age group 25-50 years in a rural area of South Tamil Nadu, India. *Int J Community Med Public Health*. 2018;5(6):2536.

[20]. Patra S, Upadhyay M, Chhabra P. Awareness of Cervical Cancer and willingness to participate in screening program: public health policy implications. *J Cancer Res Therap*. 2017;13(2):318.

[21]. Pattupara AJ, Dhiman N, Singh A, Chaturvedi J. Knowledge, attitude & practice study on screening of cervical cancer among women visiting a tertiary care center. *Menopause*. 2016;39:11.

[22]. Ramavath KK, Olyai R. Knowledge and awareness of HPV infec- tion and vaccination among urban adolescents in India: a cross- sectional study. *J ObstetrGynecol India*. 2013;63(6):399-404.

[23]. Raychaudhuri S, Mandal S. Socio-demographic and behavioural risk factors for Cervical Cancer and knowledge, attitude and prac- tice in rural and urban areas of North Bengal, India. *Asian Pac J Cancer Prev*. 2012;13(4):1093-1096. doi:10.7314/apjcp.2012.13. 4.1093. PMID: 22799287.

[24]. Reichheld A, Mukherjee PK, Rahman SM, David KV, Pricilla RA. Prevalence of cervical cancer screening and awareness among women in an urban community in south India—a cross sectional study. *Ann Global Health*. 2020;86(1):30. *Reprod Health Matters*. 2008;16(32):41-49.

[25]. S˘arenac T, Mikov M. Cervical cancer, different treatments and importance of bile acids as therapeutic agents in this disease.

[26]. Shah V, Vyas S, Singh A, Shrivastava M. Awareness and knowledge of Cervical Cancer and its prevention among the nursing staff of a tertiary health institute in Ahmedabad, Gujarat, India. *Ecancermedicalscience*. 2012;6:270.

[27]. Shekhar S, Sharma C, Thakur S, Raina N. Cervical cancer screen- ing: knowledge, attitude and practices among nursing staff in a tertiary level teaching institution of rural India. *Asian Pacific J Cancer Prevent*. 2013;14(6):3641-3645.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, April 2024

[28]. Siddharthar J, Rajkumar B, Deivasigamani K. Knowledge, aware- ness and prevention of Cervical Cancer among women attending a tertiary care hospital in Puducherry, India. *J ClinDiagn Res: JCDR*. 2014;8(6):OC01.

[29]. Singh M, Ranjan R, Das B, Gupta K. Knowledge, attitude and practice of Cervical Cancer screening in women visiting a ter- tiary care hospital of Delhi. Indian journal of cancer. 2014 Jul 1; 51(3):319.

[30]. Singh S, Narayan N, Sinha R, Sinha P, Sinha V, Upadhye J. Awareness about Cervical Cancer risk factors and symptoms. *Int J Reprod, Contracept, Obstetr Gynecol*. 2018;7(12):4987-4991. doi:10.18203/2320-1770.ijrcog20184953

[31]. Srivastava AN, Misra JS, Srivastava S, Das BC, Gupta S. Cervical cancer screening in rural India: Status & current concepts. *Indian J Med Res*. 2018;148(6):687.

[32]. Vora K, Mcquatters L, Saiyed S, Gupta P. Knowledge, attitudes, and barriers to screening for cervical cancer among women in India: a review.

[33]. Yifru T, Asheber G. Knowledge, attitude and practice of screen- ing for carcinoma of the cervix among reproductive health clients at three teaching hospitals, Addis Ababa, Ethiopia. *Ethiop J Reprod Health*. 2008;2:1-6.