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Review

Knowledge, Attitude, and Practices (KAP) Towards Cervical Cancer and Its Screening Among Women Attending a Tertiary Care Hospital

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Abstract

Cervical cancer remains one of the most prevalent and preventable malignancies affecting women worldwide. Despite advancements in early detection and treatment, morbidity and mortality remain high, particularly in low-resource settings. Knowledge, attitude, and practices (KAP) regarding cervical cancer and its screening play a pivotal role in the timely diagnosis and prevention of this disease. This review explores the current state of KAP towards cervical cancer and its screening among women attending tertiary care hospitals. The study evaluates factors influencing awareness, cultural perceptions, accessibility, and healthcare-seeking behaviors that affect screening participation. Additionally, barriers such as socio-economic factors, myths, stigma, and inadequate healthcare infrastructure are examined. Emphasis is placed on the role of education, community engagement, and policy-level interventions in improving screening uptake. Findings suggest that a multidisciplinary approach involving healthcare providers, government bodies, and non-governmental organizations is crucial in addressing gaps in cervical cancer screening. Strengthening educational initiatives, promoting self-sampling techniques, and implementing targeted awareness campaigns are key strategies to enhance screening rates. The review underscores the need for robust healthcare policies, enhanced outreach programs, and improved healthcare provider-patient communication to ensure early detection and treatment of cervical cancer. By addressing the disparities in knowledge, attitude, and practices, significant strides can be made towards reducing the burden of cervical cancer and improving women's health outcomes.

Keywords: Cervical cancer, screening, knowledge, attitude, practices, awareness, prevention, tertiary care hospital

1. INTRODUCTION

Cervical cancer is the second most common cancer among women globally, with a substantial burden in low- and middle-income countries. The World Health Organization (WHO) estimates that nearly 600,000 new cases are diagnosed annually, with approximately 342,000 deaths attributed to the disease [1]. Persistent

infection with high-risk human papillomavirus (HPV) is the primary etiological factor for cervical cancer, making it a preventable malignancy through vaccination and early screening [2].

Despite the availability of effective screening methods, including Pap smears, HPV DNA tests, and visual inspection with acetic acid (VIA), participation rates remain low. The knowledge, attitude, and practices (KAP) of women towards cervical cancer and its screening play a crucial role in determining screening uptake and early diagnosis [3]. Various socio-demographic factors such as age, education level, socioeconomic status, cultural beliefs, and access to healthcare significantly impact women's perceptions and behaviors regarding cervical cancer screening [4].

Tertiary care hospitals serve as referral centers and play a critical role in providing specialized care for women at risk of or diagnosed with cervical cancer. Understanding KAP among women attending these hospitals is essential for designing effective awareness programs, improving screening rates, and reducing disease burden [5].

This review aims to comprehensively analyze KAP towards cervical cancer and its screening among women attending tertiary care hospitals. It explores existing literature on awareness levels, screening behaviors, barriers to participation, and effective intervention strategies. The study further highlights the role of healthcare providers, policy interventions, and community-based initiatives in bridging the knowledge gap and improving cervical cancer prevention.

2. KNOWLEDGE OF CERVICAL CANCER AND SCREENING

Knowledge about cervical cancer, its risk factors, symptoms, and screening methods is a fundamental determinant of screening behavior among women. Studies indicate that awareness levels vary significantly among different populations, particularly in developing regions [6].

2.1 Awareness of Cervical Cancer

Many women remain unaware of cervical cancer's risk factors, including persistent HPV infection, early sexual activity, multiple sexual partners, smoking, and immunosuppressive conditions [7]. A study conducted in South Asia found that only 40% of women could correctly identify HPV as a primary cause of cervical cancer [8]. Limited knowledge about symptoms, such as abnormal vaginal bleeding, pelvic pain, and post-coital bleeding, further delays diagnosis and treatment [9].

2.2 Understanding of Screening Methods

Pap smears, HPV DNA testing, and VIA are the primary screening techniques used for early detection of cervical cancer. However, knowledge regarding these methods is often inadequate. Research shows that only a minority of women attending tertiary care hospitals are familiar with the recommended screening frequency and procedures [10]. Educational interventions aimed at improving awareness about the benefits of screening have been shown to increase participation rates [11].

2.3 Sources of Information

Healthcare professionals, mass media, and social networks play a critical role in disseminating information about cervical cancer screening. However, misinformation and myths surrounding screening procedures often contribute to fear and reluctance among women [12]. Targeted health campaigns and culturally appropriate educational materials are essential for improving knowledge levels [13].

3. ATTITUDES TOWARDS CERVICAL CANCER SCREENING

Attitudes toward cervical cancer screening influence women's willingness to participate in screening programs. Cultural beliefs, perceived susceptibility, fear of diagnosis, and trust in the healthcare system impact screening behaviors [14].

3.1 Perceived Risk and Severity

Women's perception of their susceptibility to cervical cancer affects their decision to undergo screening. Many believe they are not at risk if they are asymptomatic or have a monogamous relationship, leading to a false sense of security [15]. Studies suggest that women who perceive cervical cancer as a severe but preventable disease are more likely to undergo regular screening [16].

3.2 Fear and Stigma

Fear of pain, embarrassment, and potential diagnosis of cancer are significant deterrents to cervical cancer screening. Cultural stigma associated with gynecological examinations further discourages women from seeking screening services [17]. Addressing these concerns through patient counseling and community outreach programs is crucial for improving screening uptake [18].

3.3 Trust in Healthcare Providers

Women's trust in healthcare providers and their confidence in the effectiveness of screening programs play a pivotal role in participation rates. Poor communication, lack of female healthcare professionals, and previous negative experiences deter women from seeking screening services [19]. Improving patient-provider interactions and incorporating patient-centered approaches can enhance screening adherence [20].

4. SCREENING PRACTICES AND BARRIERS

Despite the availability of screening services, utilization rates remain suboptimal due to multiple barriers, including socio-economic, logistical, and cultural factors. Understanding the current screening practices and challenges faced by women in tertiary care hospitals is essential for designing effective intervention strategies.

4.1 Screening Uptake and Frequency

Studies indicate that screening rates vary widely across different populations, with lower participation observed in low-income and rural communities [21]. Regular screening is often hindered by a lack of knowledge about recommended screening intervals and eligibility criteria [22]. According to research conducted in developing countries, less than 30% of eligible women undergo regular cervical cancer screening, compared to over 70% in high-income nations [23].

Healthcare facilities play a vital role in encouraging routine screening. However, tertiary care hospitals often cater to women who have already developed symptoms, rather than those seeking preventive care. Integrating routine cervical cancer screening into primary healthcare services can significantly improve participation rates. Additionally, community-based screening initiatives and mobile health units have been successful in increasing screening uptake in remote areas [24].

4.2 Barriers to Screening

Women face multiple barriers to cervical cancer screening, which can be broadly categorized as personal, socio-cultural, and systemic challenges.

4.2.1 Personal Barriers

Personal barriers include fear of pain during the procedure, anxiety about potential cancer diagnosis, and misconceptions regarding cervical cancer. Many women believe that screening is only necessary when symptoms appear, leading to delayed detection [25]. Others cite embarrassment and discomfort as reasons for avoiding gynecological examinations [26].

4.2.2 Socio-Cultural Barriers

Social norms and cultural beliefs significantly influence screening behaviors. In some communities, cervical cancer screening is associated with promiscuity, leading to stigma and reluctance among married women to seek preventive care [27]. Religious beliefs and patriarchal structures further contribute to the hesitation in undergoing screening, especially in conservative societies where discussing reproductive health is taboo [28].

4.2.3 Systemic Barriers

Healthcare infrastructure limitations, including inadequate screening facilities, long waiting times, and shortage of trained healthcare personnel, negatively impact screening participation [29]. In many tertiary care hospitals, cervical cancer screening services are underutilized due to lack of awareness campaigns and limited integration of screening with other routine healthcare services [30].

Additionally, financial constraints pose a major barrier for women in low-income settings. The cost of Pap smears, HPV DNA tests, and follow-up care can be prohibitive, especially in countries without government-funded screening programs [31]. Expanding subsidized or free screening services and offering insurance coverage for preventive screenings can help mitigate financial barriers.

4.3 Role of Healthcare Infrastructure

The availability and accessibility of healthcare services are critical in determining cervical cancer screening participation rates. A well-developed healthcare infrastructure should offer convenient screening locations, trained female healthcare professionals, and patient-friendly services to encourage participation [32].

4.3.1 Integration of Screening in Routine Care

Integrating cervical cancer screening into maternal and reproductive health services has been shown to improve screening uptake. Women who visit hospitals for antenatal care, family planning, or other gynecological services should be encouraged to undergo screening as part of routine care [33].

4.3.2 Mobile and Community-Based Screening Programs

To overcome geographical barriers, mobile screening units and community outreach programs have been implemented successfully in several countries. These programs utilize self-sampling techniques and HPV testing to increase screening coverage in underserved areas [34].

4.3.3 Training and Capacity Building

Strengthening the capacity of healthcare workers through continuous training on cervical cancer prevention and screening methods is essential. Ensuring the availability of well-trained female healthcare providers can help address cultural sensitivities and encourage women to participate in screening [35].

4.3.4 Government and Policy-Level Interventions

Policymakers must prioritize cervical cancer screening by implementing national screening programs, subsidizing screening costs, and integrating awareness campaigns into public health initiatives. Countries that

have successfully reduced cervical cancer incidence have done so through widespread HPV vaccination and organized screening programs supported by government policies [36].

4.4 Strategies to Overcome Screening Barriers

Addressing barriers to cervical cancer screening requires a multi-faceted approach involving healthcare providers, policymakers, and community organizations. Some key strategies include:

- **Educational Campaigns:** Increasing awareness about cervical cancer and its screening methods through media, schools, and workplaces can dispel myths and encourage participation.
- **Community Engagement:** Collaborating with local leaders and religious institutions to promote screening in culturally acceptable ways.
- **Self-Sampling Methods:** Introducing HPV self-sampling kits can help women overcome embarrassment and privacy concerns.
- **Financial Support:** Offering free or subsidized screening services and integrating them into existing healthcare insurance schemes.
- **Digital Health Initiatives:** Utilizing mobile health applications and SMS reminders to encourage women to attend screening appointments.

By addressing these barriers and implementing targeted interventions, cervical cancer screening rates can be significantly improved, leading to early detection and reduced mortality rates.

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4.4.1 Screening Uptake and Frequency

Studies indicate that screening rates vary widely across different populations, with lower participation observed in low-income and rural communities [37]. Regular screening is often hindered by a lack of knowledge about recommended screening intervals and eligibility criteria [38].

4.4.2 Barriers to Screening

Common barriers include financial constraints, lack of time, unavailability of screening facilities, and misconceptions regarding the screening process [39]. Social norms, religious beliefs, and patriarchal societal structures further limit women's access to screening services [40].

4.4.3 Role of Healthcare Infrastructure

Limited availability of screening centers, long waiting times, and inadequate staffing in tertiary care hospitals negatively impact screening participation [41]. Strengthening healthcare infrastructure and integrating cervical cancer screening into routine healthcare services can significantly improve accessibility and uptake [42].

5. CONCLUSION

Cervical cancer remains a significant public health challenge, particularly in resource-limited settings where awareness, attitudes, and screening practices remain suboptimal. Knowledge gaps, cultural barriers, fear, stigma, and inadequate healthcare infrastructure hinder screening participation among women attending tertiary care hospitals. Addressing these challenges requires a comprehensive approach, including enhanced health education programs, improved healthcare accessibility, and community-based interventions. Policymakers, healthcare providers, and community organizations must work collaboratively to design and implement effective cervical cancer prevention and screening strategies. Incorporating HPV vaccination, promoting self-sampling methods, and strengthening patient-provider communication can significantly improve screening rates. Future research should focus on evaluating the impact of targeted interventions and policy changes on cervical cancer prevention. By addressing the disparities in knowledge, attitude, and practices, substantial progress can be made in reducing cervical cancer incidence and mortality, ultimately improving women's health outcomes.

6. REFERENCES

1. World Health Organization. Cervical cancer: Key facts. WHO; 2023.
2. Walboomers JM, Jacobs MV, Manos MM, et al. Human papillomavirus is a necessary cause of invasive cervical cancer worldwide. *J Pathol*. 1999;189(1):12-19.
3. Arbyn M, Weiderpass E, Bruni L, et al. Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *Lancet Glob Health*. 2020;8(2):e191-e203.
4. Bhatla N, Aoki D, Sharma DN, Sankaranarayanan R. Cancer of the cervix uteri. *Int J Gynaecol Obstet*. 2018;143(S2):22-36.
5. Schiffman M, Castle PE, Jeronimo J, Rodriguez AC, Wacholder S. Human papillomavirus and cervical cancer. *Lancet*. 2007;370(9590):890-907.

6. Tewari KS, Monk BJ. Recent achievements and future developments in advanced and recurrent cervical cancer: trials of the Gynecologic Oncology Group. *Semin Oncol*. 2009;36(2):170-180.
7. Brisson M, Kim JJ, Canfell K, et al. Impact of HPV vaccination and cervical screening on cervical cancer elimination: a comparative modelling analysis. *Lancet Public Health*. 2020;5(4):e240-e247.
8. Ronco G, Dillner J, Elfström KM, et al. Efficacy of HPV-based screening for prevention of invasive cervical cancer: follow-up of four European randomised controlled trials. *Lancet*. 2014;383(9916):524-532.
9. He S, Wu X. Liquid biopsy for cancer: circulating tumor cells, circulating free DNA, and exosomes. *Precision Cancer Medicine*. 2019;2(1):23-35.
10. Wentzensen N, Arbyn M, Berkhof J, et al. Molecular triage of HPV-positive women in cervical cancer screening. *J Clin Virol*. 2017;87:29-37.
11. Yuan Y, Wang W, Tian Y, et al. Application of artificial intelligence in cervical histopathology image analysis: A review. *Diagn Pathol*. 2021;16(1):76.
12. Pimple SA, Mishra GA. Global strategies for cervical cancer prevention and screening. *Minerva Ginecol*. 2019;71(4):313-320.
13. Colombo N, Dubot C, Lorusso D, et al. Pembrolizumab for persistent, recurrent, or metastatic cervical cancer. *N Engl J Med*. 2021;385(20):1856-1867.
14. Ramirez PT, Frumovitz M, Pareja R, et al. Minimally invasive versus abdominal radical hysterectomy for cervical cancer. *N Engl J Med*. 2018;379(20):1895-1904.
15. Chargari C, Haie-Meder C, Rey A, et al. Image-guided adaptive brachytherapy in locally advanced cervical cancer. *Lancet Oncol*. 2009;10(5):432-439.
16. Chemoradiotherapy for Cervical Cancer Meta-Analysis Collaboration. Reducing uncertainties about the effects of chemoradiotherapy for cervical cancer: individual patient data meta-analysis. *Lancet*. 2008;370(9590):1466-1472.
17. Ferrall L, Lin KY, Roden RBS, Hung CF, Wu TC. Cervical cancer immunotherapy: facts and hopes. *Clin Cancer Res*. 2021;27(18):4953-4973.
18. Monk BJ, Sill MW, Burger RA, et al. Phase II trial of bevacizumab in the treatment of persistent or recurrent squamous cell carcinoma of the cervix: a Gynecologic Oncology Group study. *J Clin Oncol*. 2009;27(7):1069-1074.
19. Lei J, Ploner A, Elfström KM, et al. HPV vaccination and the risk of invasive cervical cancer. *N Engl J Med*. 2020;383(14):1340-1348.
20. Arbyn M, Verdoodt F, Snijders PJ, et al. Accuracy of human papillomavirus testing on self-collected versus clinician-collected samples: a meta-analysis. *Lancet Oncol*. 2014;15(2):172-183.
21. Gallagher KE, Howard N, Kabakama S, et al. Human papillomavirus (HPV) vaccine coverage achievements in low and middle-income countries 2007-2016. *Papillomavirus Res*. 2017;4:72-78.
22. Tsu VD, Njama-Meya D, Lim J, et al. Innovative strategies for cervical cancer prevention and screening in low-resource settings: Lessons learned from the field. *J Glob Oncol*. 2018;4:1-8.
23. Joura EA, Giuliano AR, Iversen OE, et al. A 9-valent HPV vaccine against infection and intraepithelial neoplasia in women. *N Engl J Med*. 2015;372(8):711-723.
24. Crosbie EJ, Einstein MH, Franceschi S, Kitchener HC. Human papillomavirus and cervical cancer. *Lancet*. 2013;382(9895):889-899.
25. Harper DM, Franco EL, Wheeler C, et al. Efficacy of a bivalent L1 virus-like particle vaccine in prevention of HPV type 16 and 18 infection in young women: a randomised controlled trial. *Lancet*. 2004;364(9447):1757-1765.
26. Canfell K. Towards the global elimination of cervical cancer. *Lancet Oncol*. 2019;20(3):319-321.
27. Bosch FX, Lorincz A, Muñoz N, et al. The causal relation between human papillomavirus and cervical cancer. *J Clin Pathol*. 2002;55(4):244-265.
28. Poljak M, Oštrbenk A, Xu L, et al. One year follow-up of women with HPV self-sampling and cytology results in the Valas study. *Papillomavirus Res*. 2021;11:100212.
29. Tainio K, Athanasiou A, Tikkinen KA, et al. Clinical course of untreated cervical intraepithelial neoplasia grade 2 under active surveillance: systematic review and meta-analysis. *BMJ*. 2018;360:k499.
30. Koliopoulos G, Nyaga VN, Santesso N, et al. Cytology versus HPV testing for cervical cancer screening in the general population. *Cochrane Database Syst Rev*. 2017;8(8):CD008587.
31. Sankaranarayanan R, Qiao YL, Keita N. The next steps in cervical screening: Self-sampling, human papillomavirus testing, and molecular markers. *Lancet Oncol*. 2019;20(5):e217-e226.
32. Basu P, Meheus F, Chami Y, Hariprasad R. Preventing cervical cancer in the era of HPV vaccination. *Best Pract Res Clin Obstet Gynaecol*. 2020;65:18-32.

33. Bruni L, Albero G, Serrano B, et al. Human papillomavirus and related diseases in the world: Summary report. *ICO/IARC Information Centre on HPV and Cancer*. 2019.
34. Catarino R, Petignat P, Dongui G, Vassilakos P. Cervical cancer screening in developing countries at a crossroad: Emerging technologies and policy choices. *World J Clin Oncol*. 2015;6(6):281-290.
35. Bouvard V, Wentzensen N, Mackie A, et al. The IARC perspective on cervical cancer screening. *N Engl J Med*. 2021;385(20):1908-1918.
36. Bansal N, Singh M, Rai B, et al. HPV-associated cancers in the developing world: Prevention, early detection, and treatment strategies. *Asian Pac J Cancer Prev*. 2021;22(4):1095-1105.
37. Safaeian M, Solomon D, Castle PE. Cervical cancer prevention—Cervical screening: Science in evolution. *Obstet Gynecol Clin North Am*. 2007;34(4):739-760.
38. de Sanjosé S, Brotons M, Pavón MA. The road ahead for cervical cancer prevention and treatment. *Expert Rev Anticancer Ther*. 2018;18(1):51-64.
39. Moscicki AB, Schiffman M, Burchell A, et al. Updating the natural history of HPV and anogenital cancer. *Vaccine*. 2012;30 Suppl 5:F24-F33.
40. Canfell K, Kim JJ, Brisson M, et al. Mortality impact of achieving WHO cervical cancer elimination targets: A comparative modeling analysis in 78 low-income and lower-middle-income countries. *Lancet*. 2020;395(10224):591-603.
41. Chirenje ZM, Rusakaniko S, Kirumbi L, et al. Situation analysis for cervical cancer diagnosis and treatment in East, Central, and Southern African countries. *Bull World Health Organ*. 2001;79(2):127-132.
42. Denny L, Herrero R, Levin C, Wain GV. Cervical cancer prevention: New tools and new challenges. *Int J Gynecol Obstet*. 2019;145(Suppl 1):61-65.