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# Knowledge, Attitude and Practice Of Cervical Cancer Screening Among the Healthcare Workers of Western Region, Nepal

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## ABSTRACT

**Introduction:** Cancer cervix being the only preventable cancer in the world is still the leading cause of cancer-related death in developing countries. Awareness and screening programs are a must for health care workers whose direct impact goes on society. Healthy people are found to be given services, but their health is often neglected. This study highlights health care worker's knowledge, attitude and practices on cervical cancer screening. This study aims to assess healthcare worker's knowledge, attitude and practice toward cervical cancer screening in the western region of Nepal.

**Methods:** A semi-structured questionnaire was distributed to health care workers from September 2020 to March 2021 eligible to participate in the study were included. A total of 115 participants were enrolled in the study.A descriptive measure for socio-demographic data was done. Determinants of knowledge and practice for screening were determined using the Chi-square test.

**Results:** The mean age of the participant was 27.92±5.49 (SD). More than half had poor knowledge (51%), followed by moderate knowledge (37%) and less than one eight had good knowledge (12%). 92 % know that cervical cancer is preventable but very less have undergone screening test.

**Conclusion:**There is an urgent need for educational intervention to change their attitude towards HPV vaccination and encourage cervical cancer screening program that helps in the prevention of cervical cancer. HPV vaccination should be kept in the immunization schedule and made easily available at a low cost.

***Keywords:****Health Knowledge, Attitudes, Practice; Papillomavirus Infections; Uterine Cervical Neoplasms*

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## INTRODUCTION

Human beings are blessed with modern medicine. The concept of the epidemiology of disease and its progression and its impact on an individual's physical, mental, social, economic and so on the aspect of life led to the innovative concept of the theory of disease and its management. Both curative and preventive aspect of management is focused on the modality of treatment. This study highlights healthcare worker's knowledge, attitude and practice on cervical cancer screening. One of the diseases is cervical cancer. Cancer cervix is the leading cause of cancer-related death in developing countries.[1] But in developing countries where access to regular screening is still lacking, it is the leading cause of cancer-related mortality. Up to two-thirds cases occur in low-economic countries.[2,3] Avoiding the risk factors, following the preventive measure like vaccination, timely screening, diagnosing and treatment as early as possible is the key to better health and life of women.[3,4] Awareness and screening programs are a must for health care workers whose direct impact goes on society.[5] Health persons are found to be given services but their health is often neglected.

This study highlights health care worker's knowledge, attitude and practices on cervical cancer screening. Cervical cancer is the only preventable cancer in the world. Human Papilloma Virus(HPV) is the proven aetiology for the pathogens of cervical disease.[6,7] Since cervical disease occurs due to persistent infection by high-grade HPV types along with other associated risk factors like demographic risk factors (ethnicity, low socioeconomic status, increasing age); behavioural risk factors (early coitus, multiple sexual partners, male partner with multiple prior sexual partners, tobacco smoking, dietary deficiencies); medical risk factors(cervical high-risk HPV infection, exogenous hormones like combination hormonal contraceptives, parity, immune-suppression, inadequate screening).

The western region of Nepal is one of the rapidly urbanizing areas but very few are found to be concerned about health. Women especially in health sectors are often found neglecting gynaecological examination. This experience gained over time and a huge number of patients with cervical cancer seen in short periods encouraged us to conduct this study among healthcare workers after all healthcare workers are the key to general population health. This study aims to assess healthcare workers knowledge, attitude and practice toward cervical cancer screening in the western region of Nepal.

## METHODS

A knowledge, attitude and practice survey on cervical cancer screening was distributed to health personnel of Charak Memorial Hospital. Doctors and nurses were enrolled in the study. More specifically the survey addresses healthcare worker's knowledge of risks, treatment and prognosis of cervical cancer, awareness of available screening methods, and their experience and attitudes to the different methodologies. All adult health workers were eligible to participate in the study which was conducted from September 2020 to March 2021.

A structured questionnaire in the English language through a review of literature from studies was designed and used to collect data before answering the questionnaire, the purpose of the investigation was explained to the participants and all participants were given verbal instructions on completing it. Then, the questionnaire was sent to participants who answered by themselves under the supervision of researchers and were informed about confidentially measures and the right to withdraw.

The questionnaire consists of three sections. First focus on socio-demographic characteristics: age, education level and marital status. The second section assesses the knowledge about cervical cancer like aetiology, risk factors, clinical symptoms, diagnostic methods, prevention, and treatment options. The third section assesses the health worker's practice if they have ever done any of the tests.

Bloom's cut-off points were used to categorize knowledge levels, where 80%–100% correct responses comprise a score of 15–19 and meant good knowledge, 60%–79% correct responses compriseda score of 11–14 and meant moderate knowledge, and <60% correct responses comprise score of ≤10 and meant poor knowledge. According to the results of the literature review participants with scores of 60% or higher were considered to be knowledgeable. The number of workers who achieved this for anyone score is defined as the knowledge rate. The questionnaire was in English.

Statistical analysis was performed using SPSS version 21. A descriptive measure for socio-demographic data was done. Determinants of knowledge and practice for screening were determined using the Chi-square test. A *p*-value <0.05 was considered statistically significant

## RESULTS

**Sociodemographic:** A total of 115 health workers participated in the study. Out of which 100 participants completed the questionnaire with a mean age of 27.92±5.49 (SD). The minimum age is 20 years and the maximum is 51years. More than half of the participants are married (59%). The majority of health workers are nurses (78%).

**Knowledge:** All of the health care workers could understand English properly. Based on Bloom's cut-off scoring more than half had poor knowledge (51%), followed by moderate knowledge (37%) and less than one eight had good knowledge (12%). (Table 1 and 2)

Most of the participants have good knowledge about the Human papillomavirus as a causative agent (83%) and it is transmitted sexually.

**Practice:** More than two third (71%) of the participants had not undergone practice (Table 3)

**Predictors of good knowledge and practice of screening**

Elder age participants are found to have more knowledge (p-value: 0.006) and practice screening (p-value:0.007). No significant difference in knowledge was observed concerning education level and marital status but married women are found to practice screening (p-value: 0.029). Participants with good knowledge have undergone screening (p-value: 0.004)

## DISCUSSION

This study was conducted to find out healthcare worker's knowledge, attitude and practice toward cervical cancer screening in the western region of Nepal. Knowledge about cervical cancer was poor but those with moderate and good knowledge are found to practice which is similar to other studies. [8,9] The present study has identified several critical gaps in health care professional knowledge, attitude and practice of cervical cancer screening, treatment and vaccination.

***Table 1: Knowledge regarding cervical cancer and its screening among healthcare workers participating in this study***

| Response | Frequency |
|---|---|
| **HPV is the etiology of cervical cancer(n=100)** | |
| Yes | 83 |
| No | 17 |
| **Risk Factors of cervical cancer(n=100)** | |
| Age of Woman | 67 |
| Use of tobacco or smoking | 66 |
| Immunosuppressant Medicine | 36 |
| Multiple Sexual Partner | 77 |
| HIV Infection | 43 |
| History of STD | 71 |
| **Clinical Symptoms present(n=100)** | |
| Yes | 69 |
| No | 31 |
| **Diagnosis (n=100)** | |
| VIA | 38 |
| Pap Test | 86 |
| HPV DNA Test | 40 |
| Cervical Biopsy | 83 |
| **Treatment of cervical cancer(n=100)** | |
| LEEP | 10 |
| Conization | 11 |
| Hysterectomy | 27 |
| **Prevention of cervical cancer (n=100)** | |
| Abstinence | 20 |
| Use of Condom | 52 |
| Vaccination | 50 |
| Regular Pap Test | 88 |

HPV= Human papillomavirus, VIA= Visual inspection with acetic acid, Pap= Papanicolaou, HPV DNA= Human papillomavirus deoxyribose nucleic acid, STD= sexually transmitted disease, LEEP= loop electro excision procedure

***Table 2: Distribution of participants according to the grading of knowledge***

| Grading of knowledge | Occupation | | Total n (%) |
|---|---|---|---|
| | Doctors n (%) | Nurses n (%) | |
| Poor knowledge (<60%) | 9 | 42 | 51 |
| Moderate knowledge (60-79%) | 9 | 28 | 37 |
| Good knowledge (80-100%) | 4 | 8 | 12 |
| | 22 | 78 | 100 |

***Table 3: Practice of participant concerning available test***

| Test | Frequency of practising (%) | P value |
|---|---|---|
| VIA | 12 | 0.007 |
| PAP Smear | 21 | 0.19 |
| HPV DNA | 2 | 0.001 |
| Cervical Biopsy | 3 | 0.937 |

More knowledge and program should be executed for healthcare workers as one health worker has many impacts on society.[10,11] Our study had more nurses than doctors.[12,13] More nurses have never undergone any of the tests, which is similar to our study and can be explained by the fact that aetiology, clinical symptoms, treatment, and prevention are part of the curriculum for medical personnel and are mandated for them to possess adequate knowledge about cervical cancer. Most of the participants have good knowledge about the Human papillomavirus as a causative agent (83%) and it is transmitted sexually. They were found to have a fair knowledge of the risk factors of cervical cancer like age of the woman (67%), use of tobacco or smoking (66%), multiple sexual partners (77%), and history of sexually transmitted infection (71%).

A total 50 participants correctly knew about the vaccination for cervical cancer. For further prevention and awareness, HPV vaccination should be included in the immunization schedule and must be made easily assessable. One of the reasons very few (2%) seem to know the implication of HPV DNA testing in diagnosing cervical cancer, could be its unavailability in the western region to date. 92 % know that cervical cancer is preventable. When asked about the treatment less than one-third (30%) seems to have adequate knowledge about the treatment of cervical cancer. Due to the limited size sample more needs to be studied before generalizing these findings.

## CONCLUSION

There is an urgent need for educational intervention—both formal and informal to change their attitude towards HPV vaccination and encourage cervical cancer screening program that helps in the prevention of cervical cancer to the general public as well as to health care workers whose direct impact is upon the community. HPV vaccination should be kept in the immunization schedule and made easily available at a low cost.

## CONFLICT OF INTEREST

None

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None

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