SSR Institute of International Journal of Life Sciences
ISSN (O): 2581-8740 | ISSN (P): 2581-8732
Melavanki *et al*., 2025
doi: 10.21276/SSR-IIJLS.2025.11.1.4

Original Article

open access

Evaluating Knowledge, Utilization, and Barriers to Cervical Cancer Screening among Women at a Tertiary Care Center in Bagalkot

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Received: 06 May 2024/ Revised: 05 Jun 2024/ Accepted: 08 Aug 2024

ABSTRACT

Background: A woman's cervix is where cervical cancer begins to grow. The human papillomavirus (HPV), which is spread through sexual contact, is implicated in nearly all (99%) occurrences of cervical cancer. Women over 30 are most likely to have it. Beginning at age 30, women should have cervical cancer screenings every five to ten years. At age 25, women with HIV are screened every three years.

Methods: A descriptive survey design was conducted among married women with a sample size of 100 by a Non-random convenient sampling technique. Data was collected by a self-report method using structured & semi-structured closed-ended questionnaires to assess knowledge & utilization of CCS and a checklist to assess barriers of CCS. The data was analyzed by using descriptive and inferential statistics.

Results: The results depict that the majority of women, were (83%) found with average knowledge, (11%) with poor knowledge and only (6%) had good knowledge. In utilization, Majority of the subjects (77%) had never undergone CCS & remaining (23%) had undergone CCS. In barriers of CCS (71%) are identified as a personal barrier; (66%) as a major psychological barrier& (69%) as a major social barrier. There is a significant association found between knowledge of CCS with their selected socio-demographic variables. There is no significant association between knowledge and utilization of CCS.

Conclusion: The present study shows that most of the women have average knowledge (83%) about CCS. Hence, more research studies need to be conducted on similar topics, due to the lack of knowledge and utilization of CCS.

Key-words: Married women, Knowledge, Utilization, Barriers, Socio-demographic variables, Cervical cancer and its screening.

INTRODUCTION

Reproductive health is more than just being free from illness or disability; it includes all conditions of the reproductive system. The use of reproductive health services is influenced by several socioeconomic and sociocultural factors.[1]

How to cite this article
Melavanki S, Kamala KN, Natekar DS. Evaluating Knowledge, Utilization, and Barriers to Cervical Cancer Screening among Women at a Tertiary Care Center in Bagalkot. SSR Inst Int J Life Sci., 2025; 11(1): 6640-6647.

Access this article online
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Given that maternal mortality and morbidity are far higher in developing nations—particularly Bangladesh-than in the developed world, reproductive illness has caused concern among many stakeholders.[2] Cervical cancer is a worldwide public health issue, and it is especially prevalent in several LMICs (low- and middle-income countries).[3] According to GLOBOCAN 2020, 6–29% of all malignancies in Indian women were cervical cancers.[4] South-East Asia, Central America, and sub-Saharan Africa (SSA) have the greatest incidence and fatality rates of cervical cancer.[5] In the United States alone, it is anticipated that 4,280 cervical cancer-related deaths and 14,100 new cases will be reported in 2022.[6] The use of the services is further hampered by

doi: 10.21276/SSR-IIJLS.2025.11.1.4

widespread misconceptions and inaccurate information regarding screening testing.[7] Beginning in January 2018, women between the ages of 30 and 65 who had an HPV test alone during the previous five years were also considered up-to-date on cervical screening.[8] Compared to aggressive cervical cancer, cervical pre-cancers are diagnosed much more frequently.[9] Given the evidence that women with fewer lesions recover to normal on their own at earlier ages, the WHO recommends screening for cervical cancer only for women between the ages of 30 and 50. [10]

Cervical cancer can develop from a tiny percentage of HPV infections that remain.[11] The incidence and mortality of cervical cancer are still significantly higher in most nations than the threshold established by the WHO program on cervical cancer elimination, and the disease burden is still high in many parts of the world.[12]

Multiple sexual partners, early sexual contact, HPV acquisition, cigarette smoking, young age at first birth, use of oral contraceptives for more than five years, history of STDs, poor menstrual hygiene, and more than five pregnancies are risk factors for cervical cancer.[13] The most commonly used tests to diagnose cervical cancer are: Bimanual pelvic examination Human papillomavirus (HPV)typing test, Biomarker testing of the tumor Cystoscopy, Sigmoidoscopy and Biopsy etc.[14]

MATERIALS AND METHODS

The knowledge, use, and obstacles of cervical cancer screening among women who visited the Gynaecology Outpatient Department of SNMC and HSK Hospital Research Centre, Bagalkot were evaluated using a descriptive survey approach. Descriptive and inferential statistics were employed to organise and analyse the data, which was gathered using a structured closed-ended questionnaire to gauge knowledge, a semi-structured closed-ended questionnaire to gauge utilisation and a checklist to gauge cervical cancer screening barriers.

Study design- A non-experimental descriptive survey design was adopted for this study with a non-random convenient sampling technique used to collect the data from participants.

Setting of the study- The present study was conducted on women attending gynaecology OPD of SNMC and HSK hospital research centre Bagalkot.

Participants- In the present study participants were married women in the age group between 30-65 years. The sample consisted of 100 married women. They were selected using a non-random convenient sampling technique.

Instruments- The data was collected using a structured closed-ended questionnaire to assess the knowledge which comprises 26 items with a score of 1 for each item. The semi-structured closed-ended questionnaire was used to assess the utilization and checklist used to assess the barriers to cervical cancer screening.

Description of data collection instruments

Part I: Structured Questionnaire used to assess the socio-demographic and personal characteristics of married women which comprises 14 items.

Part II: Structured knowledge questionnaire used to assess the knowledge of cervical cancer and its screening which comprises 26 items. There were 5 items related to general aspects of cervical cancer screening, 14 items related to assessing knowledge on causes, risk factors, and clinical manifestations and 8 items related to assessing knowledge on screening, diagnosis & treatment of cervical cancer. A semi-structured questionnaire was used to determine utilization and a checklist was used to assess the barriers to cervical cancer screening.

Data Collection Procedures- The main study was conducted between 16/5/2024 to 2/7/2024 in the Gynecology OPD of SNMC and HSK Hospital research centre in Bagalkot, Karnataka. Married women's self-reports were used to gather data. The Administrative of S. Nijalingappa Medical College & HSK Hospital and Research Centre Navanagar Bagalkot granted formal authorisation before subject enrolment and data collection, and participants were informed of the study's purpose. They were questioned in Kannada and other languages that they could comprehend.

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Variable under study- The study variables for the present study were the assessment of knowledge, utilization and barriers to cervical cancer screening.

Sociodemographic Variables- Age, Religion, Educational status, Occupation, Type of family, Family monthly income, Area of residence, Marital status, Age of marriage, Age of first child, Age at Menarche, Parity, History of oral contraceptives, and awareness about cervical cancer Screening.

Statistical Analysis- Inductive statistics were used to analyse the collected data considering the study's goals statistically. The study participants' answers were compiled into a master sheet. The demographic data was analysed using frequencies and percentages. As inferential statistics, the mean and standard deviation were employed. With the help of their chosen sociodemographic factors, the Chi-Square (x^2) test was utilised to ascertain the relationship between cervical cancer screening utilisation and understanding of cervical cancer.

Ethical Approval- The institution's ethical committee obtained a certificate of ethical permission, and each participant gave written consent.

RESULTS

In this study, Majority of participants under the study (44%) were in the age group of 30 to 38; (77%) were from Hindu Religion. (31%) were from primary, secondary, and higher secondary. (63%) were housewife. (62%) under the study belong to the nuclear family. For the majority of participants (34%) the study's monthly income was 10,000/. (71%) under the study belong to rural areas. (75%) under the study were married (37%) under the study marriage age was above 18. (40%) under the study age of first child was 20 & above (50%) under the study age at menarche were between 13 to 14(43%) under the study have more than 2 children (87%) under the study have no history of oral contraception (67%) under the study were aware of cervical cancer screening. Percentage-wise distribution of knowledge of women regarding cervical cancer screening scores reveals that out of 100 women highest percentage (83%) had average knowledge, (11%) had poor knowledge and only (6%) of women had good knowledge (Table 1).

Table 1: Assessment of knowledge, utilization and barriers to cervical cancer screening.

Interpretations	Score	Frequency	Percentage
Poor knowledge	0—8	11	11%
Average knowledge	9—17	83	83%
Good knowledge	18—26	6	6%

Out of 100 women Majority of (77%) of the subjects had never undergone cervical cancer screening whereas the remaining 23% of subjects had undergone cervical cancer screening (Table 2).

Table 2: Percentage-wise distribution of participants based on utilization of cervical cancer screening

Utilization	Frequency	Percentage
Yes	23	23%
No	77	77%

Out of 100 participants never being invited to a CCS (71%) is identified as a major personal barrier; other barriers like participation in cancer screening make one worry (66%) as a major psychological barrier and Nobody accompanied to the place of cervical cancer screening (69%) as a major social barrier (Table 3).

doi: 10.21276/SSR-IIJLS.2025.11.1.4

Table 3: Percentage-wise distribution of participants based on barriers to cervical cancer screening

Distribution of participants based on barriers	Frequency	Percentage
Personal barrier		
Lack of information on importance of cervical cancer screening	48	48%
Lack of knowledge regarding procedure of CCS test	67	67%
Feeling pain during screening	59	59%
Not recognizing the necessity of screening	69	69%
Physically healthy women do not need Cervical cancer screening	66	66%
Much money needed for cervical cancer screening	70	70%
Non-availability of female gynaecologist for screening	56	56%
Never been invited to cervical cancer screening	71	71%
Psychological barrier		
It is embarrassing to go for cervical cancer screening	61	61%
Afraid of possible outcomes	60	60%
Fear of being screened by male gynaecologist	61	61%
Participating in cancer screening makes one worry	66	66%
Social barrier		
Nobody accompanied to the place of cervical cancer screening	69	69%
Lack of motivation from husband	9	9%
Lack of motivation from family members	12	12%
Not aware of the place where cervical cancer screening carried out	3	3%

Table 4: Assessment of Mean, SD related to Knowledge, utilization and its barriers regarding cervical cancer screening.

Assessment	Mean	SD
Knowledge	12.96	3.24
Utilisation	0.23	0.422
Barrier	0.77	2.02

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There is no significant association between knowledge and utilization of cervical cancer screening among women (Table 5).

Table 5: Association between knowledge with utilization of cervical cancer screening among women.

Variable	DF	chi-square	Table value	p-value	Interpretation
Utilization	1	1.656	3.84	0.19	NS

The chi-square calculated value for significant association between knowledge of women regarding cervical cancer screening with their selected socio-demographic variables reveals that there is a significant association found between the occupation (χ^2= 4.13; p-value=0.04) age at menarche (χ^2= 4.09 p-value=0.04) (Table 6).

Table 6: Association between knowledge score with their selected demographic variable

Socio-demographic variable	chi-square	Table value	p-value	Interpretation
Age	0.55	3.84	0.45	NS
Religion	1.81	3.84	0.17	NS
Education	0.03	3.84	0.85	NS
Occupation	4.13	3.84	0.04	Significant (*)
Type of family	0.6	3.84	0.42	NS
Monthly income	0.03	3.84	0.86	NS
Area of residence	0.32	3.84	0.56	NS
Marital status	0.43	3.84	0.05	NS
Age of marriage	0.35	3.84	0.50	NS
Age of first child	0.06	3.84	0.79	NS
Age at menarche	4.09	3.84	0.04	Significance (*)
Parity	0.22	3.84	0.63	NS
History of oral contraceptives	0.29	3.84	0.58	NS
Awareness of cervical cancer screening	0.18	3.84	0.66	NS

*Df=1 = Degree of freedom; α= 0.05; *= Significant; NS = Not significant; "p"<0.05*

DISCUSSION

The findings of the present study are discussed in light of previous scientific studies in this chapter and discussion regarding findings of the study is presented by the objectives of the study and hypothesis. The current study aims to assess the knowledge, utilization and barriers of cervical cancer screening among women attending Gynecology OPD of SNMC and HSK Hospital research centre Bagalkot". To achieve the objectives of the study, a Descriptive Cross-sectional design survey approach was adopted. The sample was selected Non-random convenience sampling technique. The sample comprised of 100 women. Percentage-wise distribution of married women according to their age in years reveals that out of 100 married women, a higher percentage (44%) were in the age group between 30 to 38 and the lowest 4% of Married women were within the age group of 55 to 65 years and above.

The findings of the present study are consistent and supported with the study conducted by Dadipoor *et al.*

doi: 10.21276/SSR-IIJLS.2025.11.1.4

[15] This study result shows that most participants in both groups were in the 30–39-year age group (51.5% as the case and 55.0% as the control). The mean and standard deviation of age in the case group was 30.33±4.892 and 31.35±6.149 in the control group. Percentage-wise distribution of women according to marital status reveals that, out of 100, the highest percentage 75% women were married, 17% were widows & lowest percentage (8%) were divorced & It reveals that the majority percentage of women (75%) under the study were married.

The findings of the present study are consistent and supported with the study conducted by Kumari *et al.* [16]. Out of a total number of 567 participants, 554 (97.7%) were found to be married, 1(0.2%) were found to be unmarried, 2(0.4%) were found to be divorced and 10(1.8 %) were found to be widowed. Percentage-wise distribution of knowledge of women regarding cervical cancer screening scores reveals that out of 100 women highest percentage (83%) had average knowledge, (11%) had poor knowledge and only (6%) of women had good knowledge.

The study's results were comparable to those of a study by Khanna *et al.* [17], a study to evaluate community health workers' knowledge, attitudes, and practices (KAP) regarding cervical cancer and screening in the Varanasi area of Uttar Pradesh. Of the 290 community health professionals who took part in the study, the mean age was 36.0±7.4 (SD), and more than one-third had poor knowledge (106, 36.6%), followed by moderate level (109, 37.6%), and fewer than one-fourth had good knowledge (62, 21.4%) regarding cervical cancer screening.

From March 1st, 2023 to March 31st, 2023, a descriptive survey design was used to determine the risk for cervical cancer and evaluate the preparedness for Pap testing in a tertiary care hospital in the Udupi District of Karnataka. According to the study's findings, 122 people (34.9%) had average awareness about cervical cancer, whereas 210 people (61.8%) had poor awareness. Just 8 people (2.4%) knew enough about cervical cancer.[18] Women's awareness of and use of cervical cancer screening are not significantly correlated.

In 2024, Melese *et al*. [19] conducted a study to evaluate the use of cervical cancer screening services in south-east Ethiopia. The study's findings contradicted those of their 2021 study, Associations between selected variables and utilisation of cervical cancer screening services among female health workforces in public health institutions Bale Zone. Has demonstrated a significant relationship at p-value <0.05 factors with a (p<0.25) 45 in the bivariable (unadjusted) analysis were included in the multivariable (adjusted) analysis. Thus, the hypothesis is approved.

Their chosen sociodemographic factors, such as occupation and age at menarche, are significantly correlated with their awareness of cervical cancer and its screening. The results of the study were comparable to those of the Gelassa et al. study [20]. This study examined the relevant relationships between knowledge about cervical cancer and factors such as domicile, family history of the disease, and accessibility to local healthcare resources. However, cervical cancer screening was independently linked to educational status, understanding of cervical cancer, information about cervical cancer, feeling at risk for cervical cancer, and knowing someone who has been diagnosed with the disease.

CONCLUSIONS

The focus of this study was to assess the knowledge, utilization and barriers to cervical cancer screening among women attending Gynecology OPD of SNMC and HSK Hospital research centre Bagalkot. The data was collected from 100 married women. The study proved that there is a significant association between knowledge with their socio-demographic variable. There is no significant association between knowledge and utilization of cervical cancer screening.

LIMITATIONS- The study was limited to the sample of 100 married women in the age group between 30-65 years who are attending Gynaecology OPD of SNMC and HSK Hospital research centre Bagalkot.

ACKNOWLEDGMENTS

We appreciate the helpful recommendations from the anonymous referees. There aren't enough words to convey how grateful I am to those helping hands, but my heart is full.

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doi: 10.21276/SSR-IIJLS.2025.11.1.4

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