GSC Biological and Pharmaceutical Sciences
eISSN: 2581-3250 CODEN (USA): GBPSC2
Cross Ref DOI: 10.30574/gscbps
Journal homepage: https://gsconlinepress.com/journals/gscbps/

(RESEARCH ARTICLE)

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Knowledge of Pap smear test among reproductive age group women of Kathmandu, Nepal

Rabindra Kumar Rokaya [1,*], Rajeena Moktan [2], Asmita Thapa [2], Pabina KC [2], Reshma KC [3], Priti Rawat [2] and Sanjiv Kumar Pandey [4]

[1] *School of Pharmacy, Karnali Academy of Health Sciences, Jumla, Nepal.*
[2] *Nagarik College of Health Sciences, Purbanchal University, Bhaktapur, Nepal.*
[3] *School of Nursing and Midwifery, Karnali Academy of Health Sciences, Jumla, Nepal.*
[4] *Nepal Pharmacy Council, Kathmandu, Nepal.*

GSC Biological and Pharmaceutical Sciences, 2024, 26(01), 155–161

Publication history: Received on 20 November 2023; revised on 06 January 2024; accepted on 09 January 2024

Article DOI: https://doi.org/10.30574/gscbps.2024.26.1.0546

Abstract

Cervical cancer is a malignant tumor of the lowermost part of the uterus and a major cause of morbidity and mortality among women in the world. Globally, it is the fifth leading cause of cancer-related deaths among women after cancers of the breast, lungs, stomach and colorectal in developing countries. About 80% of new incidences of cervical cancer occur in developing countries, usually, with less comprehensive cervical cancer prevention programs. The objective of the study is to assess the level of knowledge on cervical cancer and Pap smear tests among Reproductive age group women. A descriptive study was conducted in Gokarneshwor-8, Kathmandu community on 105 respondents through non-probability purposive sampling techniques and data was collected using interviewers administered questionnaires. Out of 105 respondents, a majority (64%) respondents had adequate knowledge of cervical cancer and Pap smear tests, while 36% had inadequate knowledge. This study concluded that the majority of respondents had adequate knowledge of Pap smear tests while only thirty-six percent had inadequate knowledge. Though there is adequate knowledge, only a few respondents had ever done a Pap smear test. Still, there are existing gaps that need more education to connect knowledge with attitudes as well as to uplift the regular practice of cervical cancer screening for eligible women.

Keywords: Cervical cancer; Knowledge; Pap smear test; Reproductive age

1. Introduction

Cervical cancer is a malignant tumor of the lowermost part of the uterus and a major cause of morbidity and mortality among women in the world. Globally, it is the fifth leading cause of cancer-related deaths among women after cancers of the breast, lungs, stomach and colorectal in developing countries [1]. There are about 5,00,000.00 new incidences of cervical cancer and its related morbidity and mortality identified each year and about 80% of these occur in developing countries [2].

In Nepal, Current estimates indicate that every year, 2332 women are diagnosed with cervical cancer and 1367 die from the disease. Cervical cancer ranks as the 1st most frequent cancer among women in Nepal between 15 to 44 years of age. According to the National Cancer Registry Program (NCRP), cervical cancer is among the top 10 cancers in Nepal and states that cervical cancer accounts for 21.4% of all cancers in women aged 35-64 years [3]. In Nepal, the incidence of cervical cancer is 19.0 per 100,000 making. Nepal is the country with third highest cervical cancer rates in South Asia after India (22 per 100,000), and Bangladesh (19.2 per 100,000) respectively. The crude incidence rate of cervical

* Corresponding author: Rabindra Kumar Rokaya

cancer is 14.9 per 100,000 less than that of the world (15.1 per 100,000) the crude mortality rate is higher than that of the world (8.7 per 100,000 and 7.6 per 100,000 respectively) [4].

Cervical cancer develops when the cervix cells grow out of control, unlike the normal cells. The normal cells divide and grow in organized form, whereas the malignant cell continues to divide until they form growth or tumor. It is primarily caused by human papillomavirus (HPV); a sexually transmitted pathogen that could be prevented with safe sexual practice and using vaccines among others. The risk of cervical cancer among females may increase in those who had sex at an early age, multiple sexual partners, smoking, multiple pregnancies, and biological heredity. Women diagnosed with cervical cancer present no symptoms but unusual bleeding, unpleasant stinking, unusual fluid flow from the vagina, and bleeding after sexual intercourse are the most identified indicators [5,6].

The morbidity and mortality rates of cervical cancer are very high, so early detection and treatment are the only solution. There are different cervical cancer screening techniques. Among them Pap smear test has been proven to be a very useful and effective tool to reduce mortality through early diagnosis [7,8]. The Pap smear test is one of the cervical cancer screening tests that look for precancerous cell changes on the cervix that might become cervical cancer if they are not treated appropriately. It is a procedure in which cells and mucus are collected from the cervix smeared onto the slide or a bottle of liquid and transported to the laboratory for cytological examination. According to the American Cancer Society, Pap smear tests should be started at the age of 21 regardless of sexual initiation or other risk factors. According to the updated guidelines, women ages 21 to 29 should be screened with a Pap smear test every 3 years. Women ages 30 to 65 can then be screened with Pap smear and HPV co-testing every 5 years. The best time to have cervical cancer screening is between 10 to 20 days after the first day of the last menstrual period [9].

According to WHO, 2013 cervical cancer is curable. The main culprits for high mortality rates were the lack of effective prevention, early detection, and treatment programs, and access to available preventive programs. Therefore, early screening is mandatory to reduce the incidence of malignancy.it is the only preventable cancer if detected at its early stages. If not detected it is a deadly disease once it reaches the invasive stages. Cervical screening screening is mostly conducted when women come to the hospital for other medical problems and sometimes only when women present with symptoms that are noticeable and painful. Women's practices are reported to be curative rather than preventive in Nepal. The screening rate is very low in Nepal, which is only 2.4% of all women aged 18-49 years. This low rate is due to a lack of national standards, restricted government support and lack of knowledge and awareness [9]. A household survey carried out in Nepal among 816 women found that 87.0% had no knowledge of the Pap smear test and only 4.7% of women had undergone a Pap smear test. A study has shown that coverage of Pap smear tests is 15.7% which is lower than global coverage [10]. Rarely do Nepalese women undergo cervical cancer screening. Thus this study was designed to assess the knowledge of Pap smear tests among reproductive-age women in a part of the capital city of Nepal, Kathmandu.

2. Material and method

The study was conducted among the married Reproductive age group women 15 to 49 years of Attarkhel, Gokarneshwor -8 municipality, Kathmandu regarding knowledge of Pap smear tests. Participants were chosen for the study based on judgment relying on eligible representatives who meet the research study criteria. The sample size was determined using: n = z^2*p*q/e^2 where, n= sample size, p= Prevalence, q = 1-p, e= margin error, z= 1.96 at a 95% confidence interval. As per the study, the prevalence of knowledge of Pap smear tests among women of reproductive age was 7.3% [1]. Therefore, the sample size was 104.

The tools used for data collection were questionnaires according to the objectives of the researcher. It contains three parts; Part I: socio-demographic information, Part II: Question related to knowledge regarding cervical cancer, and Part III: Question related to knowledge regarding Pap smear test. An ethical clearance letter letter was obtained from the IRB of Nagarik College of Health Sciences (ECL-79/80-72). Also, an approval letter was taken from the local governmental authority as a formal permission letter to collect data from the respective ward. Reproductive age group women who meet the eligibility criteria were explained about the objectives and written or verbal consent was taken. Confidentiality was assured by securing all the information that was provided by the respondents and ensuring that the information of respondents wouldn't be disclosed to anyone outside the research team. The anonymity of the respondents was assured by not including identifier data like names that would link responses to specific individuals. The collected data was first edited, coded, classified, and tabulated. The data was entered into SPSS for further analysis. The data analysis was done using descriptive statistics in terms of mean, percentage, frequency, and standard deviation. The analyzed data was presented in the form of a table.

3. Result and discussion

3.1. Part-I: Respondent's socio-demographic Information

The analysis of the socio-demographic characteristics of respondents showed that the maximum number of respondents out of 105 were from 20-39 years (70.5%) while the minimum number of respondents were from 10-19 years (2.9%) as given in Table 1. Regarding religion, the maximum number of respondents were Hindu (80%) while the minimum number of respondents were Christian (2.9%). In terms of education, the majority of respondents were literate (89.5%) and the maximum level of education was secondary (31.4%) whereas the minimum education level is that they can just read and write (12.4%). About 42.9% of respondents were house makers while 15.2% of respondents worked in the agriculture field. The maximum age of marriage of respondents was 20 years (17.1%) and the minimum age of marriage was 14 and 15 (1%). The majority of respondents do not have any family history of cervical cancer (81.9%) whereas, only 7.6% of respondents have a family history of cervical cancer.

Table 1 Socio-demographic profile of respondents

S.N	Characteristics	Frequency	Percentage
1	**Age**		
	10-19(Adolescents)	3	2.9%
	20-39(young adulthood)	74	70.5%
	40-59(Middle adulthood)	28	26.7%
	Mean± standard deviation	34±7.37	
2	**Religion**		
	Hindu	84	80%
	Buddhist	18	17.1%
	Christian	3	2.9%
3	**Education**		
	literate	94	89.5%
	No education	11	10.5%
4	**Education level**		
	Read and write	13	12.4%
	Primary	24	22.9%
	Secondary	33	31.4%
	Higher Secondary	24	22.9%
5	**Occupation**		
	House maker	45	42.9%
	Agriculture	16	15.2%
	Business	39	37.1%
	Others	5	4.8%
6	**Age of marriage**		
	Below 20	40	38
	Above 20	65	62
	Mean±Standard Deviation	20.55±3.22	

7	**Family history**		
	Yes	8	7.6%
	No	86	81.9%
	Don't know	11	10.5%
8	**Have you heard about cervical cancer?**		
	Yes	105	100
	No	-	
	If yes source of information		
	Family or friends	27	25
	Health personnel	48	46
	Textbooks	4	4
	Social media	18	17
	Others	8	8
9	**Have you heard about cervical cancer screening**		
	Yes	105	100
	No	-	-
	If yes source of information		
	Family or friends	27	26
	Health personnel	52	49
	Textbooks	-	-
	Social media	19	18
	Others	7	7
10	**Have you ever had a pap smear test?**		
	Yes	41	39
	No	64	61
	If **yes, the reason for a pap smear test**		
	To prevent cervical cancer	13	12
	Advise healthcare personnel	22	21
	Friends or family advice	1	1
	The test was free of cost	3	3

3.2. Part II: Knowledge Regarding Cervical Cancer among Reproductive Age Group Women

Table 2 Knowledge regarding cervical cancer among respondents

S.N	Items	Frequency	Percentage
Q1	What do you mean by cervical cancer?		
	Correct	82	78
	Incorrect	23	22
Q2	The risk factor of cervical cancer is		

	Correct	93	89
	Incorrect	12	11
Q3	The common symptoms of cervical cancer are		
	Correct	93	89
	Incorrect	11	11
Q4	Is cervical cancer preventable?		
	Correct	89	85
	Incorrect	16	15
Q5	What is the treatment for cervical cancer?		
	Correct	48	46
	Incorrect	57	54
Q6	What is the prevention of cervical cancer?		
	Correct	65	62
	Incorrect	40	38
Mean± Standard Deviation		4.48±1.294	

3.3. Part III: Knowledge of Pap smear test among Reproductive Age Group Women

Table 3 Knowledge regarding Pap smear test among respondents

Items	**Correct**	**Incorrect**
	Frequency (%)	**Frequency (%)**
Purpose of pap smear test	72(69)	33(31)
Who should be screened	100(95)	5(5)
At which interval of time, women should do a pap smear test	25(24)	80(76)
Pap smear can detect all types of female genital cancer	59(56)	46(44)
Pap smear is an inexpensive and. treatment	56(53)	49(47)
Which is the best time for a pap smear test	70(67)	33(35)
Which stage of cancer does a pap smear help to detect	67(64)	38(36)
What activities should be avoided before doing a pap smear test	77(73)	28(27)
Pap smear is successful in reducing….	95(90)	10(10)
How long a pap smear test does takes	88(84)	17(16)
Who can consider stopping pap smear test	65(62)	40(38)
What is the reason for more frequent pap smear test	57(54)	48(46)
Do you know what the alternative methods for cervical cancer screening besides the pap smear test	20(19)	85(81)
There is no need to have a pap smear if it is not advised by a doctor	16(15)	89(85)
Mean± Standard Deviation	8.83±2.592	

Our study showed moderate knowledge of pap smear tests in the study population as shown in Table 3. In contrast, A cross-sectional study conducted on knowledge, attitudes, and practices about Pap smear among married women in

Duhok City Iraq 400 women showed that Only 7.3% had good knowledge about Pap smear, 33% had had a positive attitude and 9.5% of them practice it which is very less compared to our study [2].

3.4. Scoring Table

The scoring was done with 14 questionnaires related to knowledge of Pap smear tests among reproductive age group women excluding the questionnaire related to the socio-demographic characteristics of the respondents.

Table 4 Scoring table

Level of knowledge	Percentage (%)
Adequate	≥mean value
Inadequate	≤mean value

The respondents scoring less than the mean value were regarded as having inadequate knowledge whereas, respondents scoring more than the mean value was regarded as an adequate level of knowledge as given in Table 4.

3.5. Respondent's level of knowledge

Table 5 Level of knowledge of respondents

Level of knowledge	Score
Adequate	64%
Inadequate	36%

The study result of the research conducted to assess the level of knowledge on Pap smear tests among reproductive age group women residing in Gokarneswor-8, Attarkhel revealed that the majority (64%) of respondents had adequate knowledge of Pap smear tests, while 36% had inadequate knowledge.' A similar cross-sectional study was conducted to assess the level of knowledge and acceptability of cervical cancer screening among 425 adult women visiting gynecological OPD of Bharatpur Hospital. A result shows that 58% had good knowledge of cervical cancer screening 66.4% of respondents had good knowledge of Pap smear tests and 33.6% had poor knowledge [11] as given in Table 5.

4. Conclusion

The study concluded that the majority of respondents had adequate knowledge of Pap smear tests among the women of the age group between 20-39 years while only thirty-six percent had inadequate knowledge. Though there is adequate knowledge, only a few respondents had ever done a Pap smear test. There are existing gaps that need more education to connect knowledge with attitudes as well as to uplift the regular practice of cervical cancer screening for eligible women. A comparative study related to this topic can be done in different urban and rural communities of Nepal and also the study can be done on a larger scale so that a representative sample can be ensured which may help generalize the findings of the study.

Compliance with ethical standards

Acknowledgment

The authors would like to thank the management team of Nagarik College of Health Science and Local Government authorities of Attarkhel, Gokarneshwor -8 municipality, Kathmandu for their constant timely support and unreserved guidance during the study period.

Disclosure of conflict of interest

The authors have no conflict of interest to disclose.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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