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KNOWLEDGE REGARDING PAP SMEAR AS A SCREENING PROCEDURE AMONG NURSES OF TEACHING HOSPITAL BIRGUNJ

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Abstract *The utilization of Pap smear screening helps to identify precancerous and potentially precancerous changes in cervical cells and tissue in the case of cervical cancer. The objective of the study is to find out the level of knowledge regarding Pap smear as a screening procedure and to measure the association between levels of knowledge regarding pap smear with selected demographic characteristics. Descriptive cross-sectional study design was adopted to conduct the study on Knowledge Regarding Pap Smear as a Screening Procedure among Nurses. As 103 nurses were selected by using Proportionate Stratified Random Sampling Technique from the different ward of National Medical College Teaching Hospital Birgunj. Data were collected through self-administered questionnaire. The obtained data were entered in epiData version 3.1 and then exported to Statistical Package for Social Sciences (SPSS) version 20. Data were analysed using descriptive statistics and inferential statistics.*

The study findings revealed that 71.8% were in age ≤24 years and 28.2% were above 24 years. Similarly, 53.4% had >1 year of experience and 46.6% had ≤1 year of experience in Nursing. Regarding the experience in the present ward, 53.4% had ≤1 year and 46.6% had more than 1 year of experience. The study findings revealed that the majority 65.0% of the nurses had adequate knowledge regarding Pap-smear as a Screening Procedure and only 35.0% had inadequate knowledge regarding the Pap smear. The finding also reveals that there is no statistically significant association between the level of knowledge and selected demographic variables.

The study concluded that more than two-thirds of nurses had adequate knowledge however one-third of had inadequate knowledge related to Pap Smear as a Screening Procedure. Nurses should be motivated and encouraged for self-directed learning and follow rational changes and development in their knowledge.

Keywords *Pap Smear Screening, Precancerous, Cervical*

INTRODUCTION

Cancer is the disease in which cells are divided abnormally and uncontrollably which has high potentiality to invade or harm other tissue. The factually cause is unknown however there are different schools of thought regarding the cause of the neoplastic change in the cells (Joshi, & Mishra, 2013).

The utilization of Pap smear screening helps to identify precancerous and potentially precancerous changes in cervical cells and tissue in the case of cervical cancer. Center of Disease Control recommends that every female has to start cervical cancer screening tests regularly within their first sexual contact or with the age of 21 years. The incidence of cervical cancer can be reduced through the screening of cervical cancer. Female having a regular screening of pap smear test or HPV screening has low risk or incidence of developing cervical cancer (Joshi, & Mishra, 2013). Pap smear screening is not necessary for those women who have the hysterectomy of vagina and cervix and have no history of cervical cancer or pre-cancer. HPV vaccinated women should also follow the screening recommendations for their age group (American CancerSociety, 2016).

Cervical cancer can lead to symptoms like irregular, intermenstrual (between periods) or abnormal vaginal bleeding after sexual intercourse, back leg or pelvic pain, fatigue, weight loss, loss of appetite, vaginal discomfort, or odorous discharge, and one swollen leg. More severe symptoms

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may arise at an advanced stage (World HealthOrganization, 2018).

Cervical cancer is that the fourth most prevalent cancer in women with an estimated 530,000 new cases in 2012representing 7.9% of all female cancers. Approximately 90% of the 270,000 deaths from cervical cancer in 2015 occurred in developing countries. The high death rate from cervical cancer globally might be reduced through a comprehensive approach that has prevention, early diagnosis, effective screening through cervical smear test or HPV test, and treatment programs. There are currently available vaccines that protect against common cancer-causing types of human papillomavirus and can significantly reduce the risk of cervical cancer (World Health Organization, 2018).

Cervical cancer is one of the most preventable and treatable forms of cancer which is prevented through the early screening of the pap smear tests and also can be prevented with HPV vaccination and can be managed effectively. Worldwide, cervical cancer remains a threatful condition to women's lives, and globally one woman dies of cervical cancer every two minutes (World Health Organization, 2018).

Cervical cancer is the nationwide most common cancer of women in Nepal, accounting for 21.4% of all cancer among 34-64year-old women. The national guidelines for cervical cancer screening by pap smear and its prevention (2010) call for screening at least 50%of women aged 30-60 years and for reducing the incidence of mortality due to cervical cancer by 10% with a recommended screening of cervical cancer among this group every five years. As of 2072/73, cervical cancer screening through Pap smear test has been expanded to 45 districts. Nurses from 68 government health facilities in Kaski and from 40 facilities in Chitwan were trained on visual inspection with acetic acid under the human papillomavirus (HPV) demonstration project in coordination with Child Health Division (CHD) with support from WHOin the reporting year(Annual report, 2073/74).

METHODOLOGY

A descriptive cross-sectional type of research design was adopted to find out Knowledge regarding Pap smear as a Screening Procedures among Nurses of NMCTH. All the nursing staff of NMCTH is included in this study. The studied population was all the nurses who had the academic nursing qualification and registered in Nepal Nursing Council of Nepal and working in any ward of National Medical College Teaching Hospital, Birgunj.

The probability sampling technique (ProportionateStratified random sampling technique-lottery method) was adopted for selecting nurses in all the wards of NMCTH. The sample size was calculated based on the prevalence of knowledge. The Knowledge and Utilization of Cervical Screening among Female doctors at Jos University Teaching Hospital and therefore the role of the gynecologists in screening was 93.5% (Tinuade, & et al. 2015). The Crochan formula was used to calculate the sample size. To reduce the non-response error, a 10% sample was added on it which is 103. The researcher herself developed a structured questionnaire on the basis of the objectives of the study. The tool was developed by reviewing related literature and consulting the research advisor and the subject expertise in the field. The questionnaire includes multiple-choice questions to assess the knowledge was scored 0 for incorrect answer and1 for the correct answer. The maximum score of the level of knowledge is the same as the total number of question i.e. 30 and the minimum score was 0.

Content validity was used to validate the instrument. The reliability of the tool was obtained by pre-testing it in 10 nurses (10% of the total sample) from Narayani Sub-regional Hospital who met the inclusion criteria for the accuracy of the tool. Reliability has not been checked for socio-demographic information and for structured questionnaire Kuder Richardson reliability test (KR 20 test) was used and the value of the result was found 0.7. The researcher had obtained formal approval from the Institutional Review Committee and obtained approval from theHospital Director of NMCTH for data collection. The informed consent had taken from the respondents to

assured the confidentiality, anonymity, privacy, and researcher had allowed discontinuing.
Data were encoded and decoded then were entered inepiData in version 3.1 after all the data entry data were exported to SPSSversion 20 program. For the descriptive statistics frequency, percentage, mean, range, and the standard deviation were calculated, for inferential statistics chi-square was checked to determine the association between dependent and independent variables.

RESULT

TABLE 1: Socio-demographic Variablesn=103

Variables	Frequency	Percentage
Age		
≤24	74	71.8
>24	29	28.2
Mean±SD; 23.86 (±4.343), Min. 16 Years, Max. 46 Years		
Marital Status		
Married	21	20.4
Unmarried/Single	82	79.6
Religion		
Hindu	85	82.5
Buddhist	4	3.9
Christian	5	4.9
Muslim	9	8.7
Area of Residence		
Urban Area	76	73.8
Rural Area	27	26.2
Type of Family		
Nuclear Family	59	57.3
Joint Family	43	41.7
Extended Family	1	1
Monthly Self –income		
≤15000	62	60.2
>15000	41	39.8
Mean±SD; 15467.16 (±3509.444), Min. 10000, Max. 25000		
Educational Qualification		
Bachelor of Science Nursing/BNS	31	30.1
Proficiency Certificate Level of Nursing	64	62.1
Auxiliary Nurse Midwife	8	7.8
Years of Experience in Nursing		
≤1 years	48	46.6
>1 years	55	53.4
Years of Experience in Present Ward		
≤1 years	55	53.4
>1 years	48	46.6

TABLE 2: Nurses Level of Knowledge Regarding Pap Smear as a Screening Procedure n= 103

Variables	Frequency	Percentage
Adequate Knowledge (≥15)	67	65.0
Inadequate knowledge (<15)	36	35.0
Total	**103**	**100.0**

TABLE 3:Mean Score of Knowledge of Nurses Regarding Pap smear as a Screening Procedure n= 103

Variables	Maximum Possible Score	Mean ±SD	Mean Percentage	Range

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General Knowledge Regarding Pap Smear	20	10.97±2.61	54.9	19-1
Knowledge regarding nursing care of Pap Smear	10	5.50±1.78	55.0	9-1
Total Knowledge Score	**30**	**16.48±3.79**	**54.9**	**28-3**

TABLE 4:Association between Knowledge Level with Socio- Demographic Variable

n= 103

Variable	Level of Knowledge		x^2	P value
	Inadequate Knowledge No (%)	Adequate Knowledge No (%)		
Age				
≤24	23 (31.1)	51 (68.9)	1.732	0.188
>24	13 (44.8)	16 (55.2)		
Marital Status				
Married	10 (47.6)	11 (52.4)	1.862	0.172
Unmarried/Single	26 (31.7)	56 (68.3)		
Religion				
Hindu	31 (36.5)	54 (63.5)	4.776	0.189**
Buddhist	2 (50.0)	2 (50.0)		
Christian	0 (0.0)	5 (100.0)		
Muslim	3 (33.3)	6 (66.7)		
Area of Residence				
Urban Area	28 (36.8)	48 (63.2)	0.456	0.500
Rural Area	8 (29.6)	19 (70.4)		
Type of Family				
Nuclear Family	20 (33.9)	39 (66.1)	0.984	0.611**
Joint Family	16 (37.2)	27 (62.8)		
Extended Family	0 (0.0)	1 (100.0)		
Monthly Self –income				
≤15000	24 (38.7)	38 (61.3)	0.968	0.325
>15000	12 (29.3)	29 (70.7)		
Educational Qualification				
Bachelor Level Nurse	5 (16.1)	26 (83.9)	0.214	0.644*
PCL Nurse	26 (40.6)	38 (59.4)		
ANM	5 (62.5)	3 (37.5)		
Years of Experience in Nursing				
≤1 years	15 (31.3)	33 (68.6)	0.542	0.462
>1 years	21 (38.2)	34 (61.8)		
Years of Experience in Present Ward				
≤1 years	17 (30.9)	38 (69.1)	0.848	0.357
>1 years	19 (39.6)	29 (60.4)		

Significantlevel at p-value≤0.05 **Linear-by-Linear association* ***Likelihood ratio*

DISCUSSION

Regarding socio-demographic variables, the findings of the present study indicated that among 103 nurses 71.8% of the nurses belong to age less than and equal to 24 years where (28.2%) of the nurses belongs to age more than 24 years with a mean age of 23.86 (4.34), minimum age of nurses were 16 and maximum age of nurses were 46 years. This result was more than the findings of the

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study done by Sherpa, Karki, Sundby, Nygard, & Clifford (2015), the finding of the study shows that out of 1033 participants 394 of nurses had minimum age 16 and maximum age 29 years old. Only 14% of nurses were age less than or equal to 24 years, and 15% of nurses were of age more than 24. Due to the high turnover rate of nurses, the hospital has to recruit new graduates with fewer professionals to experience hence most of the nurses belong to age less than or equal to 24 years.

Regarding the marital status of the nurses, the present study revealed that 79.6% of the nurses were unmarried and only 20.4% of the nurses were married which is inconsistent with the findings of the study done by Shekhar, Sharma, Thakur &Raina (2013), the findings of the study showed 86.6% of the nurses were married and only 13.3% of the nurses were unmarried. Due to more nurses are PCL nurses and the majority of the nurses' age is less than or equal to 24 years of age hence most of the nurses are unmarried.

Regarding the religion of the nurses, the present study shows that 82.5% of the nurses were Hindu, 3.9% of the nurses were Buddhist, 4.9% of the nurses were Christian and 8.7% of the nurses were Islam which was congruent with the findings of the study conducted by Pegu, Dhiman, Chaturvedi, & Sharma, (2017) which study findings showed 79.4% of the nurses were Hindu, 14.7% of the nurses were Muslim and 5.9% of the nurses were Christian. The majority of people in our country are from the Hindu religion hence most of the nurses belong Hindu religion.

Regarding the area of residence of the nurses, the present study shows that 73.8% of the nurses lived in the urban area and 26.2% of the nurses lived in the rural area which was congruent with the findings of the study conducted by Rahman,&Kar, (2015), the findings of the study showed 60.7% of the nurses lived in the urban area and 39.3% of the nurses lived in the rural area. Researchers interpreted that due to more facilities, high job, and education opportunities the majority of nurses are found living in the urban areas.

Regarding the type of family of the nurses, the present study shows that 57.3% of the nurses belong to the nuclear family, 41.7% of the nurses belong to joint family and only 1% of the nurses belongs to the extended family which was incongruent with the findings of the study conducted by Rahman&Kar (2015), the findings of the study showed 65.3% of the nurses belongs to the nuclear family and 34.7% of the nurses belong to the joint family. Researcher interpreted that lesser the people in the family lesser is the compromise and adjustment required, for absolute freedom and more flexibility in taking up jobs in different cities and hence may be better career growth hence most of the nurses belongs to the nuclear family.

Regarding the educational qualification of the nurses, the present study shows that 62.1% of the nurses were staff nurses, 30.1% of the nurses were B.Sc. nurses and 7.8% of the nurses were ANM. This was incongruent with the findings of the study conducted by Urasa&Darj (2011), the findings of the study showed 51.9% of the nurses were enrolled nurses and 48.1% of the nurses were Registered nurses. The researcher interpreted that most of the staff nurses and B.Sc. nurses were newly graduated and acquired less experience who were directly involved in patient care.

Through literature on socio-demographic variables such as monthly self-income, educational qualification, years of experience in nursing, and years of experience in the present ward was not found but these variables noticeably influenced the knowledge. The findings of the study showed that (60.2%) of the nurses had less than and equal to 15000 and (39.8%) of the nurses more than 15000 with a mean income of 15467.16 (3509.44) and minimum income is 10000 and maximum income is 25000. The findings of the study showed that (46.6%) of the nurses had less than equal to 1 year of experience in nursing and (53.4%) of the nurses had more than 1 year of experience. Researchers interpreted that more years of experience increased knowledge due to more up-to-date clinical procedures. The findings of the study revealed that (53.4%) of nurses had less than or equal to 1 year of experience in the present ward and (46.6%) of the nurses had more than 1 year of experience in the present ward.

Findings of this study showed that 65.0% nurses from the wards had an adequate knowledge score

regarding Pap Smear as a Screening Procedure while 35.0% of the nurses possess inadequate knowledge which was inconsistent with the study was done by Pegu, Dhiman, Chaturvedi& Sharma (2017) which indicated the 79% of nurses had average knowledge. Findings of another study done by Shekhar, Sharma, Thakur &Raina, (2013) study revealed 26.7% of the nurses had adequate knowledge based on scores, which unlike the present study.

In concern of two subscales of knowledge regarding Pap smear as a screening procedure which was general knowledge regarding pap smear and knowledge regarding nursing care of pap smear this study depicted that the nurses had occupied knowledge scores (54.9%) and (55.0%) respectively. The present study unveiled that knowledge score of general knowledge regarding pap smear has a better score than the knowledge regarding nursing care of pap smear however nurses must have possessed better knowledge on both subscales equally as nurses are directly involved in patient care hence knowledge regarding nursing care should be adequate.

Concerning the association between knowledge and socio-demographic variables, there is no association between the dependent and independent variables in the present study findings. This finding corresponds with a study done by Biobaku, Fatusi, &Afolabi (2018), the study reported that knowledge was not associated with age, marital status, or years of working experience. Findings of another study done by Dhendup&Tshering (2014), the study revealed there is evidence of a significant association between the increasing age, those who are married, and knowledge score which is inconsistent with the present study.

CONCLUSION

Based on the findings of the study, the following conclusion has been drawn that more than two-thirds of nurses had adequate knowledge however one-third of had inadequate knowledge related to Pap Smear as a Screening Procedure. Nurses need to be targeted first because of their pivotal role in any screening program. Nurses comprise a trusted source of health information and are one of the preferred personnel for receiving HPV, Cervical cancer, Vaccine knowledge, and education. Nurses themselves need to be properly informed about cervical cancer screening tests because of their own needs of well-being as women and also to improve their professional competencies in providing health education to the women in general population.

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