Female nurses' knowledge, competence and involvement in cervical cancer screening in health care settings in Osun State, Nigeria

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Abstract

Background: Nurses are involved in reproductive health services and should provide cervical cancer screening. This study investigated nurses' knowledge, competence and extent of documentation of cervical screening at the three levels of care in Osun State.

Methods: Multi-stage sampling technique was used to select 130 female nurses from all levels of care in Osun state. Out of the 130 respondents, 65(50%), 30(23.1%) and 35(26.9%) were from tertiary, secondary and primary health care facilities respectively. A self-administered questionnaire, observational checklist and documentation checklist were used to assess knowledge, competence and documentation of findings. Data was analyzed using SPSS version 20.

Result: The mean age of respondent was 39.34±7.24 years. Cervical inspection during intra-uterine contraceptive device insertion and Visual Inspection of cervix with Lugol's Iodine solution were available procedures at all levels of care. Pap smear screening was available in the tertiary institutions. Findings showed that 50(76.9%), 17(56.7%), and 24(68.6%) of respondents scored over 50% in the knowledge assessment scale from the tertiary, secondary and primary health care facilities respectively. Twenty-six (42.6%) respondents across the three levels of care scored less than 50% in the competence assessment scale. There was no association between level of knowledge and type of facility (X^2 = 1.619, df=1, p=0.05). Seven (58.3%), 2(14.3%) and 1(2.9%) of respondents fully documented findings at the tertiary, secondary and primary care levels respectively.

Conclusion: Majority of female nurses had good knowledge and conduct different types of cervical cancer screening but majority had low competence and inadequately documented their findings.

Key Words: Nurses, knowledge, competence, documentation, cervical cancer screening.

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Connaissances, compétences et implication des infirmières dans le dépistage du cancer du col de l'utérus dans les établissements de soins de santé à Osun, au Nigéria

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Abstrait

Objectif: On s'attend à ce que les infirmières participent activement au dépistage des femmes en âge de procréer pour le cancer du col de l'utérus, ce qui a constitué un fardeau majeur pour la santé publique dans les pays en développement comme le Nigeria. Cette étude a exploré les connaissances, la compétence, l'étendue de la documentation de dépistage par les infirmières aux trois niveaux de soins dans l'Etat d'Osun.

Méthodes: La conception descriptive utilisant la technique d'échantillonnage à plusieurs étapes a été utilisée pour sélectionner 130 infirmières; 65 (50%) établissements tertiaires, 30 (23,1%) secondaires et 35 (26,9%) établissements de soins de santé primaires. Le questionnaire auto-administré, la liste de vérification d'observation et la liste de contrôle de la documentation ont été utilisés pour évaluer les connaissances, les compétences et la documentation des résultats. Les données ont été analysées à l'aide de SPSS version 20.

Résultat: L'âge moyen du répondant était de 39,34 ± 7,24 ans. L'inspection cervicale pendant l'insertion de l'IUCD et VILI étaient les deux services de dépistage disponibles à tous les niveaux de soin. Le dépistage du Papanicolaou n'était disponible que dans les soins tertiaires. Les résultats montrent également que 50 (76,9%), 17 (56,7%) et 24 (68,6%) répondent à des établissements de soins primaires secondaires, ont obtenu 50% et plus dans l'évaluation des connaissances. Les niveaux de compétence variaient de 4 (33,3%) tertiaires, 7 (50%) secondaires à 15 (42,9%) pour les établissements de soins de santé primaires. L'étude a montré que 7 (58,3%) des dossiers des clients inspectés avaient toutes les informations au niveau tertiaire, tandis que la majorité au niveau primaire n'avait aucune information documentée 18 (51,4%).
Il n'y avait pas d'association entre niveau de connaissances et de compétence ($X2 = 1,428$, $p = 0,490$).

Conclusion: La majorité des infirmières dans les établissements de santé étudiés ont une bonne connaissance du cancer du col de l'utérus, mais la plupart sont incompétents et présentent une documentation inadéquate des résultats.

Mots-clés: Infirmières, Connaissance, Compétence, Documentation, Dépistage du cancer du col de l'utérus.

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INTRODUCTION

The burden of cervical cancer globally, regionally and in Nigeria is demonstrated by high number of women at risk and the morbidity and mortality associated with the disease. In 2016, cervical cancer was documented as the 4th cause of female cancer worldwide and the second most common female cancer in women aged 15 to 44 years in the world (1). Worldwide, women aged 15 years and above who were at risk of cervical cancer in millions were 2716.830 worldwide, 2174.580 in less developed region and 542.250 in more developed nations (2). Cervical cancer disproportionately affects developing nations where about 85% of cervical cancer deaths occurred (3). Though readily detectible in its pre-malignant stage, cervical cancer remains one of the most challenging cancer burdens for the country with Nigeria ranking 31st among 53 countries with an incidence by age standardized rate of 29.0 and mortality ranking of 32nd and mortality age standardized rate of 17.5 (4). The challenge is surmountable with services that can reach women to begin screening early to identify clients at risks and those with precancerous condition of the cervix that could span over 10 – 15 years before becoming cancerous (5). When detected early and managed promptly, mortality from cervical cancer will be minimal.

Procedures for screening for cervical cancer either for early detection of the precancerous stage or confirmation of cervical cancer could include Papanicolaou (Pap) smear and cytological screening, Visual Inspection of the cervix with Acetic acid, (VIA) and Visual Inspection with Lugol's Iodine solution (VILI). The aim of using VIA to detect and treat cervical dysplasia in asymptomatic women is to prevent the development of cervical cancer and to complement Pap smear screening (5). Visual Inspection of the cervix with Acetic acid helps in the recognition of clinically normal (acetic acid test negative) from abnormal cervix (acetic acid test positive) and promotes referral of abnormal cases for further evaluation, diagnosis, and appropriate treatment. With inadequate cytological screening programmes in Nigeria the use of VIA and VILI for mass screening and appropriate referral protocol for cytological investigation in the nearest clinical sites where such are available would increase reach and early screening of more women where the facility is available.

In many parts of the world, nurses, majority of who are also women, are pivotal to cervical cancer prevention and management (6, 7,17,18,19). They are also focus of investigation as service providers and target of service delivery (8, 9, 10) With training and written clinical practice guidelines (8, 9), that also provide basis for documentation, nurses' capacity for active involvement in cervical screening have become best practice to ensure improved access for women in developed and developing countries. Involvement of nurse-midwives who provide maternity services for women and also drive family planning services delivery portend a viable solution to reaching many women in the reproductive age category for cervical screening at all levels of care, primary, secondary and tertiary in Nigeria.

The Nursing and Midwifery Council of Nigeria, by building capacities of teachers in Midwifery schools in Nigeria and incorporating the contents (theory and practice) of VIA, VILI and Pap smear to the midwifery curriculum and examination ensured the average midwife has the competence to conduct the procedure in all facilities where women can be accessed and in community outreach programmes. Despite the preparation of the nurse-midwife in Nigeria to conduct these procedures, little is documented about the extent to which they are currently provide cervical screening services at all levels of care in Osun State. From anecdotal observation, the utilization of hospital-based prevention programme is extremely poor, leading to a small percentage of the population at-risk being reached. Failure to ensure that nurses who have contact with women at all levels of care perform the procedures as desirable limits women's access to preventive efforts towards the prevention of cervical cancers. Little is known about nurses' competence, and documentation of cervical screening procedures at the three levels of care in Osun State.

Documentation is a written or electronically recorded, non-optional expectation in every nursing action that describes the status of a client, the care or services given to the client. It is an accurate, complete, organized, time related recording that should meet set standard (11). Quality documentation of nursing care is an integral part of every nursing procedure and this also applies to cervical cancer screening procedure by nurses. Appropriate documentation of findings in a screening procedure will not only help prompt intervention, but will also improve data base for decision making for quality improvement.

This study was conducted to achieve three objectives of exploring nurses' knowledge of cervical screening procedure at the three levels of care in Osun State, assessing their competence in performing whichever of the procedures they engage in and the extent of documentation of the findings for every client screened.

MATERIALS AND METHODS

Adopting the descriptive design, data was generated in a cross sectional survey of nurses drawn from primary, secondary and tertiary health care facilities in Osun State. There were 693 Primary Health Care Centres (PHCC) located in all the 30 local government areas and one area office of Osun State and 311 nurses and midwives were working in the PHCC at the time of conducting the study. There were also nine state-owned hospitals according to the Federal constituencies with 591nurses and midwives. There were two tertiary institutions in the state, the Ladoke Akintola University of Technology Teaching Hospital, Oshogbo (LAUTECH) with 298 nurses and the Obafemi Awolowo University Teaching Hospital, Ile-Ife (OAUTHC) with 690 nurses. Nurses and midwives working in the ante natal, labor, post natal, gynecological wards and infant welfare, special treatment, family planning clinics and oncology clinic of these primary, secondary and tertiary institutions were the target of this study and they were 191 from all the settings used.

Multi stage sampling method was used to select 130 nurses across the three levels of care. In the first stage, the facilities to serve as sources of respondents were selected. The two teaching hospitals in Osun State were both selected. Two out of the nine (9) state hospitals were randomly selected. Three (3) local government areas (LGA) were randomly selected out of the thirty three (33) in the state and all the PHCC in the three LGAs served as sources of respondents for the study. The total number of nurses working in the ante natal, labor, post natal, gynecological wards and infant welfare, special treatment, family planning clinics and oncology clinics as were available at the three levels of care were compiled.

In the second stage, the sample size was calculated and 130 respondents were drawn from the selected health care settings among nurses using Yamane formula (8) in determining the sample size. To calculate the required sample size from the total number of nurses using Yamane formula (1968);

$$n = N/(1+N(e)^2)$$

where,
n- Sample size
N- Total number of participants
e- Precision level or sampling error (0.05)

$$n = 191/(1+191(0.05)^2) = 129$$

To determine the number of participants from each of the health facility, sample was selected proportionately thus:

From OAUTHC - $\frac{51\ (129)}{191} = 34.5 = 35$

From LAUTECH - $\frac{44(129)}{191} = 29.7 = 30$

From the PHCC- $\frac{51(129)}{191} = 34.5 = 35$

From the State Hospitals - $\frac{45(129)}{191} = 30.4 = 30$

Total number of nurses from all study sites = 130

In the last stage, sample units were randomly selected from nurses working in the relevant clinical sites from the two tertiary institutions (OAUTHC and LAUTECH), the two secondary care facilities (State hospitals in Ede and Osogbo) and all primary health care facilities in Ede North, Irepodun and Orolu local government areas. To make for the 130 respondents required for the survey and adopting simple random sampling using balloting, 65 were selected from the 95 nurses from the teaching hospitals, 30 from the 51 nurses in the two secondary facilities, and 35 from the 45 nurses from the primary health care centres.

Sixty one (61) nurses out of the 130 that participated in the quantitative study (12, 14, and 35 respondents from tertiary, secondary and primary health care facilities respectively) were observed conducting cervical cancer screening procedures and documentation of the report of the procedures.

The tool used to collect data was in five parts. The questionnaire administered to all respondents had three components. The first section collected data on socio-demographic characteristics including previous screening behaviour for cervical cancer of respondents using 12 test items. The second section collected data on which of the four practices of Cervical Inspection, Pap smear, Visual Inspection with

Ascetic acid, Visual Inspection with Lugol's Iodine Solution and Intrauterine contraceptive device insertion were done in the clinical sites. The third section contains a total number of 14 test items adapted from Engender Health COPE Toolbook (12) to assess the knowledge of the respondents on the anatomy of site of cervical cancer, organism associated, risk factors, prevention, time and methods of screening, as well as signs and symptoms of cervical cancer. The respondents were expected to agree to correct answers. For each correct option of the answers chosen, '2' points was awarded. The total score obtainable was 28 points. Score in the range of 0-13 points was considered 'low knowledge', while 14-28 points were considered as good knowledge on the basis of a 50% pass mark as it is conventional in professional examinations in Nigeria. The checklist to document nurses' competence in cervical cancer screening through observation of 61 out of the 130 respondents/the nurses while carrying out the procedures was also adapted from Engender Health COPE Toolbook (12) and Royal College of Nursing guidance for good practice in cervical cancer screening (9). Nurses' competence in this study focused on how well nurses are able to identify any abnormality in the cervix through pap smear or visualization of the cervix using iodine solution. The checklist used had two parts depending on the type of screening being done in such facility (Pap smear or VIA/VIL). In the checklist, a score of 2 denoted satisfactory, 1 denoted unsatisfactory and zero score indicated procedure not performed. The total test items in the first part used to assess for Pap Smear was 16 and the total score obtainable was 32. Any respondent that score between 16 and 32 points was said to be competent in cervical cancer screening procedure, the score of 0-15 denoted not competent. The test items in the second part for VIA/VIL were 15 and the total obtainable score was 30. A score between 0 and 14 denoted being incompetent, 15 to 30 was taken to be competent. To check the documentation of cervical cancer screening procedures conducted in clients' records the 9-item-checklist used was a scale measured at three levels of zero (0) for no record, one (1) for scanty or inadequate/incomplete information recorded, and two (2) for complete information recorded. The maximum score obtainable in this segment is 18. A score less than 18 was deemed incomplete and inadequate documentation of information while zero score indicated no documentation at all.

The face, content and construct validity of the instrument were established through reproductive health experts' review of the test items and the reliability of the final instrument was determined using the test-re-test reliability method with the instrument pilot tested twice over a fortnight among 10 nurses drawn from three clinical sites similar to the ones used for the study. The correlation coefficient for the instrument when the data generated were compared using the Spearman rho's correlation coefficient was 0.85 for the nurses' questionnaire on knowledge and practice of cervical screening, 0.78 for the observation check-list to assess competence in the screening for cervical cancer, and 1.0 for the documentation check-list. Approval to conduct study was taken from the ethical committees of the tertiary health care and permission to collect data was obtained from the overseeing boards of the secondary and primary health care settings before the study was conducted. Informed consent was also gotten from each of the respondent without any force.

RESULTS

One hundred and thirty (130) respondents participated in the study. The mean age of the respondents was 39.34±7.24 years with the age range of 26-55 years. Cervical inspection during intra-uterine contraceptive device insertion and Visual Inspection with Lugol's Iodine solution were the two screening services available at all levels of care. Pap smear screening was only available in the tertiary institutions. Table 1 shows the summary of the socio-demographic characteristics of the respondents. Majority of the respondents by training and qualification (98,75.4%) were expected to be able to perform cervical cancer screening. These were registerd nurse-midwives and the Bachelor of Nursing Science degree graduates. However, 22 (62%) of the respondents at the primary health care level were only registered nurses.

Table 2 shows that overall, 70% of respondents scored above 50% in the knowledge assessment scale though the number that scored above 50% at the secondary level was just over half. Table 3 shows that 57.4% of the respondents did not measure up to 50% score on the competency assessment scale and there was no significant association between competence performance level of respondents and clinical sites implying that inadequate performances were similar across board. Table 3 also showed

poor competence in cervical cancer screening among respondents at the tertiary and primary level but with average of 50% of respondents shown to be competent at the secondary care level though it must be noted that respondents in tertiary institutions were observed doing pap smear while those in the secondary and primary care settings were observed doing VILI. Table 4 shows that respondents with good knowledge and good competence were generally low and were just above 30% at the three levels of care. Table 5 shows poor level of documentation of reports at all levels of care by respondents though this seem to be fair at the tertiary level and hence the statistical significant association between level of care and pattern of documentation (Kruskal Wallis Test X^2=21.642, df=2, p=0.000).

Table 6 showed that only 23.1% of the 130 respondents have had pap smear screening before the study.

DISCUSSION

Nurses are strategically placed to drive massive screening, education, early referral and support for cervical cancer prevention and care by the dominance of female in the profession and practice settings that give them access to women of all ages. Nurses, in many countries of the world have been utilized to guarantee access to cervical cancer screening with appropriate guidelines (6, 7, 8, 9, 13). Performing cervical cancer screening to meet desirable standard by nurses would be informed by the knowledge and competence to conduct the different procedures. Findings from this study showed moderate to good knowledge about cervical cancer screening though this level of knowledge assessment was taken at the 50% level. Though nurses with basic nursing training without midwifery training are found in all the service settings, the predominance of nurses without midwifery training (62.9%) at the primary health care facilities poses as challenge to quality service delivery at the level that is supposed to serve large population at the community, grassroots level. Previous study of knowledge of cervical cancer among nurses has shown low translation of such to positive attitude and engagement in cervical screening (10). Findings from this study also support this observation. Despite the knowledge and conduct of the procedure by the nurses, they did not engage in screening behaviour as would be expected.

This study also showed below 50% competence performance level among nurses at the tertiary and primary levels of care and 50% competence performance level at the secondary level. The observed levels of low to moderate competence may be related to little emphasis placed on performance monitoring of care at all levels of care especially in the clinical sites of reference in this study. This observation has implications for development and dissemination of guidelines, additional training and performance appraisal at service level as means of quality control all the time.

Without appropriate clinical guidelines for nurses in cervical cancer screening as it is the usual practice in other countries (9), nurses in Nigeria may continue to perform at low level quite. This will continue to be at variance with evidence from nurses' demonstrated competence in cervical screening in other countries shown by comparative quality of screening among nurses when compared with quality of service by advanced nurse practitioners and physicians (16,17,18, 19). Demonstrated quality of cervical cancer screening by nurses in other parts of the world suggests the possibility of also promoting higher competence in cervical cancer screening to increase access to the services by more women.

In Nigeria, beyond incorporating knowledge and skills acquisition in basic midwifery training of nurses, guidelines and performance monitoring protocol are desirable to maximize enhanced quality and access to cervical cancer screening by women at all levels of care. Findings from this study also seemingly portend inefficient service deployment for cervical screening at the three levels of care in Nigeria considering the number of nurses that ought to get screened and the women that could be reached with education and full screening at all levels of care by high population of nurses in the health care delivery system.

Documentation of procedure for cervical screening by nurses observed was just fair at the tertiary level and far below expectation at other levels by the number of nurses observed to have fully documented the procedure. Documentation in nursing serves six purposes. These are for communication and continuity of care, quality improvement/assurance and risk management, establishment of professional accountability, legal reasons, funding and resource management and expansion of the science of nursing (11). All these apply in the context of appropriate documentation of cervical screening procedures by nurses in all clinical settings.

This study focused on nurses as service

providers primarily and as clients who should also engage in cervical screening secondarily thus their knowledge assessment was beyond what they know and do as women at risk of developing cervical cancer as it was the case in many previous studies. However, this study also showed low screening behaviour among the nurses, similar to findings among nurses in previous studies (14,15). This is a big challenge as nurses would be expected to serve as role models to other women. One way out of this observation is to ensure organizational commitment to making screening for non-communicable diseases by all workers mandatory and routine as to drive health promoting behaviour. This will not only be focusing on nurses and women but would become a culture for all workers. This is very desirable of health institutions who should lay examples for other organizations too. The extent to which our health institutions are also health promoting leaves more to be desired. From anecdotal observation many health care workers do not engage in health promoting behaviours such as screening as much as health institutions are less systematic about adopting the health promoting intiative as a policy drive for increased productivity of workers.

CONCLUSION

Nurses have professional obligations and high potential to increase access to cervical screening services for women at all levels of care in Nigeria. Findings from this study affirm that nurses currently perform cervical screening procedures subject to the resources provided by the clinical setting of practice at the three levels of care in Osun State but not optimally. Nurses' competence in performing the different procedures available in their settings and documentation of procedures were not optimal and need to be improved upon subject to performance appraisal through monitoring and feedback by whatever measures to be put in place by the management of various facilities.

Conflict of interest: The authors declare no conflict of interest.

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Table 1: Distribution of nurses by clinical sites and the samples units selected

Category of health facility	**Total number of nurses in the health facilities**	**Total number of nurses in the ante natal, labor, post natal, gynecological wards and infant welfare, special treatment, family planning clinics and oncology clinics**	**Sample size selected by levels of care**
Tertiary (OAUTHC& LAUTECH)	988	95	65
Secondary State Hospitals (Ede & Osogbo)	511	51	30
Primary (All PHCC in Ede North, Irepodun and Orolu LGAs)	311	45	35
Total	1890	191	130

Table 2: Socio Demographical Data of Respondents

	Tertiary Frequency (%) (n=65)	**Secondary Frequency (%) (n=30)**	**Primary Frequency (%) (n=35)**	**Total (N) Frequency (%) (N= 130)**
Marital status				
Single	2(3.1)	2(6.7)	8(22.9)	12(9.2)
Married	63(96.9)	28(93.3)	27(77.1)	118 (90.8)
Religion				
Christianity	56(86.2)	24(80.0)	29(82.9)	109(83.8)
Islam	9(13.4)	6(20.0)	6(17.1)	21(16.2)
Age in group(years)				
26-30	14(21.5)	2(6.7)	6(17.1)	22(16.9)
31-35	3(4.6)	11(36.7)	2(5.7)	16(12.3)
36-40	12(18.5)	2(6.7)	18(51.4)	32(24.6)
41-45	15(23.1)	13(43.3)	1(2.9)	29(22.3)
46-50	20(30.8)	2(6.7)	8(22.9)	30(23.1)
51-55	1(1.5)	0(0.0)	0(0.0)	1(0.8)
Ethnic Group				
Yoruba	59(90.8.3)	23(76.7)	33(94.2)	115(88.5)
Igbo	3(4.6)	5(16.6)	2(5.7)	10(7.7)
Others (Urhobo, Oron, Ibibio)	3(4.6)	2(6.7)	0(0.0)	5(3.8)
Number of children				
1	15(23.1)	0(0.0)	0(0.0)	15 (11.5)
2	16(24.6)	14(46.7)	0(0.0)	30(23.1)
3	20(30.8)	5(16.6)	19(54.2)	44(33.8)
4	12(18.5)	9(30.0)	8(22.9)	29(22.3)
Professional Qualification				
RN	4(6.2)	6(20.0)	22(62.9)	32(24.6)
RN/RM	43(66.2)	24(80.0)	10(28.6)	77(59.2)
BNSC	18(27.7)	0(0.0)	3(8.6)	21(16.2)
Years of service				
=5	14(21.5)	1(3.3)	2(5.7)	17(13.1)
6-10	2(31.1)	6(20.0)	8(22.9)	16(12.3)
11-15	9(13.8)	10(33.3)	17(48.6)	36(27.7)
15 and above	40(61.5)	13(43.3)	8(22.9)	61(46.9)

Table 3: Distribution of respondents by their knowledge on cervical cancer screening across the three levels of care

Knowledge of respondents about cervical cancer screening	**Tertiary Frequency (%) (n=65)**	**Secondary Frequency (%) (n=30)**	**Primary Frequency (%) (n=35)**	**Total (N) Frequency (%) (N= 130)**
Poor knowledge (less than 50%)	15 (23.1)	13 (43.3)	11(31.4)	39 (30.0)
Good knowledge (50% and above)	50 (76.9)	17 (56.7)	24 (68.6)	91 (70.0)

Kruskal Wallis Test = 1.619, df=2, p=0.206

Table 4: Distribution of the 61 respondents observed by levels of competence in cancer screening procedures across the three levels of care

Competence **of respondents in cervical cancer screening procedures about cervical cancer**	**Tertiary Frequency (%) (n=12)**	**Secondary Frequency (%) (n=14)**	**Primary Frequency (%) (n=35)**	**Total (N) Frequency (%) (N= 61)**
Competent (50% and higher in competence assessment scale)	4 (33.3)	7 (50)	15 (42.9)	26 (42.6)
Incompetent (Less than 50% in competence assessment scale)	8 (66.7)	7 (50)	20 (57.1)	35 (57.4)

Kruskal Wallis test = 0.0736, df=2, p=0.692

Table 5: Cross tabulation of knowledge and competence of the sixty-one (61) respondents observed conducting cervical cancer screening at the three levels of care

Observed Respondents' Knowledge and Competence in cervical cancer screening test conducted	**Tertiary Frequency (%) (n=12)**	**Secondary Frequency (%) (n=14)**	**Primary Frequency (%) (n=35)**	**Total (N) Frequency (%) (N= 61)**	Kruskal Wallis test
Good knowledge (50% and above score on knowledge scale) and competent (50% and above on competency score scale)	4 (33.3)	5 (35.7)	11 (31.4)	20 (32.8)	$X^2 = 1.428$ P= 0.490
Poor Knowledge (less than 50% score on knowledge scale and competent	0 (0)	2 (14.3)	4 (11.4)	6 (9.8)	
Good knowledge (50% and above score on knowledge scale) and incompetent	0 (0)	0 (0)	0 (0)	0 (0)	NA
Poor Knowledge (less than 50% score on knowledge scale and incompetent	8 (66.7)	7 (50)	20 (57.2)	35 (57.4)	

X^2= 1.428, df=6, p=0.490 NA= Not Applicable

Table 6: Respondents' documentation of clients' information in records with regards to cervical cancer screening procedures conducted

Rating of adequacy of documentation of screening	**Tertiary Frequency (%) (n=12)**	**Secondary Frequency (%) (n=14)**	**Primary Frequency (%) (n=35)**	**Total (N) Frequency (%) (N= 61)**
No documentation	0 (0)	5 (35.7)	18 (51.4)	23 (37.7)
Scanty incomplete information	5 (41.7)	7 (50)	16 (45.7)	28 (45.9)
All required information documented	7 (58.3)	2 (14.3)	1 (2.9)	10 (16.4)

Kruskal Wallis Test X^2=21.642, df=2, p=0.000

Table 7: Previous pap smear cervical screening practice by respondents

Have one pap smear before?	**Tertiary Frequency (%) (n=65)**	**Secondary=30(%)**	**Primary=35(%)**	**Total %**	Kruskal Wallis Test
Yes	25(38.5)	3(10.0)	2(5.7)	30(23.1)	X^2 =5.754 p= 0.160
No	40(61.5)	27(90.0)	33(94.3)	100(76.9)	
Done by whom?					
Nurse/Midwife	15(60)	0(0)	0(0)	15(50)	X^2 =5.800 P=0.055
Doctor	10(40)	3(100)	2(100)	15(50)	