Determinants Of Nurse-Midwives Related Factors On Computer Technology Utilization In Nursing Practice Among Nurse - Midwives In Kwale County, Kenya

ELVIS DAGAMRA* **Dr. Rosemary Okova *** **Dr. Calvin Otieno.***

* School of midwifery*
** Mount Kenya University*

DOI: 10.29322/IJSRP.10.04.2020.p10078
http://dx.doi.org/10.29322/IJSRP.10.04.2020.p10078

***Abstract*-** The purpose of this study was to determine Nurse-midwives related factors in the utilization of computer technology in nursing practice amongst Nurse-midwives in Kwale County. **Method** used was institution based descriptive cross-sectional design which was done in Kwale County and the targeted population were the nurse-midwives working at Msambweni, Kwale and Kinango Hospitals with a sample size of 141. **Results** Nurse- midwife related factors as my independent variable the study showed that self-rated computer knowledge significantly affected utilization of computer technology (χ^2 (1, *N*=141) =26.338, *p*=<0.001). Attitude significantly influenced utilization of computer technology (χ^2 (1, N=141) =4.098, p=0.043). On **conclusion** Majority of the nurse-midwives had negative attitude towards utilization of computer technology. The researcher gave his **recommendation** as per his research objective on **determining nurse-midwives related factors** The County health committee in conjunction with Nurse Managers and supervisors should address the issue of negative attitude amongst the nurses through supportive supervision, provision of technical infrastructure and on job training. The Kwale County Director of nursing services should involve the Nurse Managers and supervisors in policy making at the higher level of management. Nurse managers/supervisors should take an initiative of passing the knowledge of computer technology utilization to their juniors through on job training and create room for them to train in computer application

I. INTRODUCTION

Background information.
Good training and practice coupled with positive attitude towards new technology application by nurses-midwives make use of computer technology which will assist them promote standardised and well informed patient care delivery; and this will actively encourage proficient practice and secured care. (Newbold, Klein & Douglas J. V. 2015). It is expected that all nurses around the globe be abreast with information communication and technology (ICT) for their empowerment when it comes to making the right interventions in the provision of nursing care to patients or clients (Newbold, et al 2015). Thus there is need to dedicate all the resource towards computer technology application across the board. Provision of health services is confronted by prominent disease condition every other time and the only way out to cab this menace is indulging in utilization of computer technology which is in cooperated in information, communication and technology. It is a fact that nursing plays a major role in any healthcare delivery system, and therefore it should be appreciated that nursing profession is faced by all the challenges that come together with all the disease conditions (Smedley, 2015). There is always resistance in bringing change to any professional discipline and it is necessary to consider before the introduction of the change as positivity or negativity will dictate the success of that change. Introduction of ICT can be followed by actively utilization of the service if there is positive response as opposed to negative perception where users may shy away from using the technology (Bond, 2013). According to free dictionary by Farlex, (2012) the definition of computer technology is the activity of designing, constructing and programming computers. However for the purpose of this research the operational definition will be a scientific strategy put in place through the use of a computer to simply work or activities by designing, manipulating and programming a computer to meet the desired objectives of a person or a certain

entity. During 1990s any health system in Japan that was eager to adopt electronic medical records (EMRs) was given incentives by the Japanese government to encourage the efforts; this is according to a study which was conducted by Kuroda and others (Kuroda, Kashiwagi, Hayashi, Nakayama, Oda, Yamase, Nakaki, 2017). In a study which was done by USA department of health and human services it was realised that to boost the morale of the health workers; USA had to give rewards to health facilities that practiced EHRs (USA Department of Health and Human Services 2013).

In order to ensure uptake of computer utilization the national and state government in Australia allocated a lot of money in health information systems; this is according to a study done by Eley, Soar, Buikstra, Fallon, & Hegney (2013).

All these efforts by these governments were aimed at bringing uniformity and compatibility of health service delivery and all nurses should be able to embrace this development for them to stay relevant in the healthy delivery systems.

In Kenya utilization of computers is not a common practice in the nursing activities especially in the public health institutions though there is some evidence of utilization of computers in private (non- governmental) and few GOK facilities.

Nursing informatics in healthcare service delivery gives opportunity to the nurse-midwives to determine and do away with nursing practices that are not maximising on productivity and better patient care. Electronic records can be adopted from the normal paper recordings to coming up with clinical decision support systems, thus promoting health service to the recipient of care, leading to standardised care, acceleration of decision-making, which further promotes harmonization of actions (Seidlitz, Blatz, Jennings, La Rocca, 2013).

In a study conducted in Canadian hospitals, where triangulation paradigm methodology was applied it was shown that the use of IT, by means of palmtops, enhanced quality of life in Job places and care of patients, enabling the application of scientific evidence in patient care and nursing practice (Health Metrics Network, 2014)

II. LITERATURE REVIEW

2.2 Nurse-midwives related factors on utilization of computer technology

2.2.1. The resistance to change-attitude of nurse-midwives towards utilization of computer technology.

Worldwide studies have shown that Nurse-midwives' resistance to change to new information technology is expected; that was revealed in study done by Mehdi, Iahouei, Hassan Baba Mohhame on Nurses' attitudes towards the benefits of utilizing computer technology in Iran (Mehdi Kahouei, Hassan Baba Mohhamed, Hasamedin Askari majdadi 2014).A Module of Electronic Medical Record for Patient Care in Two University Hospitals of Iran they revealed that resistance to upcoming technology among Nurse-midwives is seen as a normal response. Determining the likely obstacles early enough can be utilized in coming up with methods that help in developing computer programme on Nurses' willingness to change (Mehdi et al, 2014). They concluded that to adopt a new technology, involvement of the users in the initial stages in order to get their opinions was of paramount importance. (Mehdi et al, 2014). Nursing informatics which is embedded in computer technology essentially dates back to the days of Florence Nightingale, who realised not only the importance of data and its relationship to patient outcomes and quality nursing care, but also how data could promote innovation in health service delivery (McBride, 2016). In the late 1980s it came into its own as a discipline of nursing that intended to address the better use of data and information for the improvement of patient care. (Weaver, Delaney, Weber and Carr RL Eds 2016). The Australian nursing body revealed that by 2017 more than 85% nurse-midwives utilized computer technology in their nursing practice (Australian Nursing Federation, 2017). Utilization of computer technology is not solely the province of informatics specialists, it is high time that all nurses embrace computer technology for better health care delivery and to be relevant to the current trends in healthcare demands. (Cooper, Hamer 2014). Evidence-based practice will become the order of the day in nursing practice and will replace the routine ways of doing things. In Africa a study which was done in Ebonyi state in Nigeria revealed that the introduction of new technology is affected by the response of the user of the technology which may be positive or negative. Many Nurse-midwives in Ebonyi state, like every other citizens, resisted the introduction of new technological developments because they felt it would jeopardise their job or profession (Wachter, 2016). It should be appreciated that new innovations and know how should be in line with imparting the right skills to the workers to apply the new innovations. Service providers believe that introduction of new technology is accompanied by new ways of

doing things and added reward and in the other hand any system that is bringing the new technology on board has high hopes that some staff will be rendered redundant which will lead to decreased operational costs. To reverse this trend therefore, there is need to train the nurse-midwives to cope with the change rather than declaring them redundant.

2.2.3 Inadequate Trained Nurse-midwives on Computer technology

All around the globe it has been found that the best way to motivate nurse-midwives to embrace utilization of computer technology is by imparting the right knowledge to the service provider through the formal channels and putting the knowledge acquired into practice (Lee, 2015). Studies have revealed that empowering nurse-midwives by providing the necessary logistics at their disposal enables them to put their knowledge in practice. (Tennet, Becker, & Kehoe. 2015).

In a study by Tennent and others (2015), they found that, there is need for nursing educators to be literate in utilization of computer technology for them to pass the same to their learners and instil confidence in them. (Tennent, Becker & Kehoe, 2015; Warren & Connors, 2017).

In Africa it is believed that literate work force in computer technology is very crucial in ensuring attainment of the required progress as far as computer technology is concerned. Currently the trained nursing informaticians are few and they are sporadically distributed (Hersh, Margolis, Quiros, Otero, 2013). In an e-Capacity meeting which was conducted in Bellagio in 2008 it was concluded that there was need to come up with a general model of empowering nurse-midwives in computer technology application to increase the number of trained workforce in computer technology. (The Rockefeller Foundation, 2013).

III. MATERIALS AND METHODOLOGY

3.1 Research Design

It was a cross-sectional descriptive study design which employed quantitative parameter which was done at Kwale County and specifically in Kinango sub county Hospital, Kwale sub county Hospital and Msambweni County referral hospital amongst nurse – midwives which aimed at establishing the determinants of computer technology utilization among nurse-midwives in nursing practice.

Equation;

$$n = \frac{N}{1+N(e)^2}$$

N was the sample size of my target population in the 3 hospitals which was 187 and was an equivalent to the number of Nurse-midwives in those Hospitals.

e was the level of precision at 95% confidence level e = 0.05

Where n was the sample size to be determined

n = 187⁄1+187(0.05)2 = 127.42759 = 128

10% margin error 10% of 128 = 12.9 = 13

Sample size was 128 + 13 = 141

3.9 Data Collection Tool

A self-administered objective questionnaire was developed and used for the study. It was in English language as the service providers were conversant with that language and there was no need for translation to another language. The questionnaire included computer attitudes statements that were rated on a five-point Likert scale ranging from '1' (Completely object) to '5' (Completely concur). The scale was informed by published literature (Kaya N, 2014) and took the rural African settings into account. (Boonstra A, Broekhuis M. 2013) Among the computer attitudes statements some were negatively and others were positively phrased however to avoid prejudice when it came to giving response, the flow of the questions were framed in a random manner.

3.13 Ethical Considerations

Approval to conduct the study was obtained from Mount Kenya University Ethical Committee; further consent was sorted at, Kwale county ethics committee. Authority wasl also be sorted from (NACOSTI). The sole purpose of the research was to improve nursing practice and fulfillment of academic requirement thus the respondents were informed that there would be no payment for their participation and that was why it was conducted during their normal working hours. The participants' were reassured that their dignity, anonymity was upheld and no names appeared on the questionnaires.

IV. RESULTS AND DISCUSSION

4.4 :Determinants of Nurse- midwives related factors on utilization of computer technology

4.4.1 Knowledge and computer technology utilization

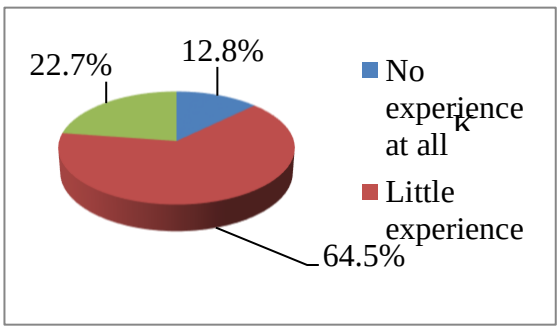

Figure 4. 1: Self-rating of computer knowledge by respondents

Figure 4.4 above shows that 18 (12.8%) had no computer experience at all, 91(64.5%) had little experience and 32(22.7%) were experienced. Computer knowledge was cross-tabulated against utilization of computer technology.

Table 4. 1: Association between knowledge and utilization of computer technology

Count

		What is your level of computer knowledge?		Total
		Experienced	Little or no experience	
Utilization vs non-utilization	Utilization	27	36	63
	Non-utilization	5	73	78
Total		32	109	141

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	26.388[a]	1	.000		
Continuity Correction[b]	24.351	1	.000		
Likelihood Ratio	27.838	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	26.200	1	.000		
N of Valid Cases	141				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.30.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for Utilization vs non-utilization (utilization / non-utilization)	10.950	3.892	30.806
For cohort What is your level of computer knowledge? = Experienced	6.686	2.733	16.356
For cohort What is your level of computer knowledge? = Little or no experience	.611	.489	.762
N of Valid Cases	141		

Table 4.18 above shows that the self-rated computer knowledge significantly influenced utilization of computer technology (χ^2 (1, N=141) =26.338, p=<0.001) whereby, those who rated themselves as being experienced were 11 times likely to utilize computer technology.

This revelation tallies very well with a study which was conducted by Hersh et al, in Ghana which showed that experienced computer users who are best called Informaticians stand a better chance in application of computer technology utilization than those who have little knowledge in computer operations.(Hersh, Margolis, Quiros, Otero, 2013).

4.4.2 Attitude and utilization of computer technology

Respondents' attitudes towards computer technology, was assessed using a set of 10 likert form statements, against which they were to respond as follows: Completely Object (CO), Object (O), Whichever (W), Concur (C) or Completely Concur (CC). These responses were coded as 1,2,3,4 & 5 respectively to facilitate mathematical operations. Statements 3, 5, 7 & 9 were negatively phrased and were therefore reverse coded before analysis. Those who completely objected, objected or said "whichever," were considered as having a negative attitude, while those who concurred or completely concurred were considered to have a positive attitude.

This is illustrated below on page 60.

Table 4. 2: Overall attitudes towards computer technology utilization

Likert statement	CO (%)	O (%)	W (%)	C (%)	CC (%)
Computer training should be included in basic nursing training	5.7	2.1	2.1	34.8	55.3
Use of computers will make documentation easier for nurses	7.1	6.4	3.5	73	9.9
Use of IT in health care by nurses increase workload***(reverse-coded)***	10.6	22.7	3.5	42.6	20.6
Quality of health care will improve with computerization	7.1	5.7	6.4	43.3	37.6
Only computer department staff should be assigned to handle computers***(reverse-coded)***	2.1	15.6	5.7	39	37.6
Use of IT in nursing practice increases nursing professional status	6.4	12.1	3.5	43.3	34.8
Cost of computer use in nursing is too expensive***(reverse-coded)***	3.5	22.7	1.4	47.5	24.8
Nurses should be encouraged to specialize in computer studies	10.6	12.1	7.8	58.9	10.6
Computerizing nursing practice will alienate nurses from clients***(reverse-coded)***	6.4	10.6	2.1	53.9	27
Computer application knowledge should be a criteria in nurse promotion	27	29.1	7.1	24.8	12.1

Table 4.19 above shows that, over 50% of the responses either concurred or completely concurred, which was generally indicative of a positive attitude.

To determine the attitudes of individual respondents, the researcher computed a variable known as "attitude score", by summing up all the numerical codes assigned to the various responses. Those who scored at least 40 out of 50 were presumed to have a positive attitude, because, most of their responses must have been "concur" which had code 4(4×10=40). On the other hand, those who scored below 40 were presumed to have a negative attitude.

Figure 4. 2: Respondents' attitudes towards computer technology

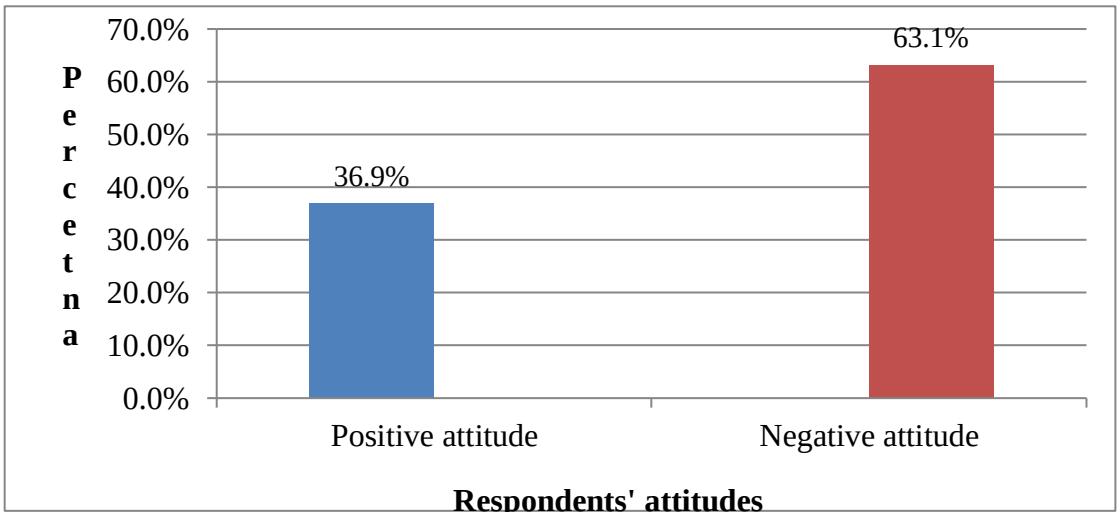

Figure 4.5 above shows that, 52(36.9%) of the respondents had a positive attitude, while majority of the respondents 89(63.1%) had a negative attitude towards computer technology. This demonstration agrees with a study conducted in Iran by Hassan Baba Mohhamed et al where they were investigating Nurses' attitudes towards the benefits of utilizing computer technology in Iran, which showed that Nurse-midwives' resistance to change to new information technology is expected and negativity always outweighs positivity on the same but to them they described it as normal response (Hassan Baba Mohhamed, Hasamedin Askari majdadi 2014).

Table 4. 3: Association between attitude and utilization of computer technology

Count

		Positive vs negative attitude		Total
		Positive attitude	Negative attitude	
Utilization vs non-utilization	Utilization	29	34	63
	Non-utilization	23	55	78
Total		52	89	141

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.098[a]	1	.043		
Continuity Correction[b]	3.418	1	.064		
Likelihood Ratio	4.097	1	.043		
Fisher's Exact Test				.054	.032
Linear-by-Linear Association	4.069	1	.044		
N of Valid Cases	141				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.23.

b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for Utilization vs non-utilization (utilization / non-utilization)	2.040	1.018	4.085
For cohort positive vs negative attitude = Positive attitude	1.561	1.010	2.412
For cohort positive vs negative attitude = Negative attitude	.765	.585	1.002
N of Valid Cases	141		

Table 4.20 above shows that, respondents' attitudes significantly influenced computer technology utilization (χ^2 (1, N=141) =4.098, p=0.043) whereby, those with positive attitude were 2 times likely to utilize computer technology. This scenario goes in line with a study which was done in Australian by Cooper which demonstrated that nurses who had positive attitude towards emerging information technology had an uptake rate of 85% compared to those who had negative attitude. (Cooper, Hamer 2014).

Attitude score was correlated against utilization score which demonstrated a positive correlation

.

Table 4. 4: Correlation between attitude and utilization of computer technology

		Attitude score	Utilization score
Attitude score	Pearson Correlation	1	.272**
	Sig. (2-tailed)		.001
	N	141	141
Utilization score	Pearson Correlation	.272**	1
	Sig. (2-tailed)	.001	
	N	141	141

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.21 above shows that there was a significant positive relationship between attitude scores and utilization scores (r (139) =.272, p=0.001)

4.3.8 Previous computer training and utilization of computer technology

Majority of the respondents i.e. 85(60.3%) had previous computer training while 56 (39.7%) had no previous computer training. This was cross-tabulated against utilization and chi squared tests of associations were performed.

Table 4. 5: Association between previous computer training and utilization of computer technology

Count

		Do you have previous computer training?		Total
		Yes	No	
Utilization vs non-utilization	Utilization	52	11	63
	Non-utilization	33	45	78
Total		85	56	141

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	23.561[a]	1	.000		
Continuity Correction[b]	21.910	1	.000		
Likelihood Ratio	24.831	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	23.394	1	.000		
N of Valid Cases	141				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 25.02.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for Utilization vs non-utilization (utilization / non-utilization)	6.446	2.924	14.211
For cohort previous computer training = yes	1.951	1.470	2.589
For cohort previous computer training = no	.303	.171	.535
N of Valid Cases	141		

Table 4.15 on page 55 shows that previous computer training significantly affected computer technology utilization (χ^2 (1, N=141) =23561, p=<0.001) whereby, those who had previous computer training were 6.5 times likely to utilize computer technology.

After identifying the nurse-midwives related factors that were significantly associated with utilization of computer technology (p values of <0.05), the researcher performed multiple regression analysis (binary logistic regression) to identify the nurse -midwives related factors that contributed significantly to the overall change in the dependent variable (utilization of technology). Variables were entered using forward selection method.

Table 4. 6: Regression analysis of socio-demographic characteristics influencing computer technology utilization

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	Training	1.864	.403	21.348	1	.000	6.446
	Constant	-2.318	.558	17.266	1	.000	.098
Step 2[b]	Department collapsed	1.872	.719	6.770	1	.009	6.499
	Training	1.863	.419	19.783	1	.000	6.446
	Constant	-5.870	1.549	14.350	1	.000	.003
Step 3[c]	Age collapsed	1.118	.495	5.102	1	.024	3.059
	Department collapsed	2.190	.754	8.437	1	.004	8.935
	Training	1.692	.430	15.509	1	.000	5.428
	Constant	-7.642	1.818	17.672	1	.000	.000

a. Variable(s) entered on step 1: training.
b. Variable(s) entered on step 2: department collapsed.

c. Variable(s) entered on step 3: age collapsed.

Table 4.17 above shows that, previous training (wald=15.509, df=1, p=<0.001, ExP (B)=5.428), departments that respondents were working in (wald=8.437, df=1, p=0.004, Exp (B)=8.94) and ages of the respondents (wald=5.102, df=1, p=0.024, Exp (B)=3.06) all contributed significantly to the overall change in the utilization of computer technology.

This demonstration in this study agrees in totality with the study which was done in Wales UK by Tennent et al, they found that, there is need for nursing educators to be literate in utilization of computer technology through proper training for them to pass the same to their learners and instil confidence in them. (Tennent, Becker & Kehoe, 2015; Warren & Connors, 2017).

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of major findings

Focussing on impact of nurse- midwives related factors, majority 64.5% had little experience with regard to self-rated computer knowledge. Self-rated computer knowledge significantly affected utilization of computer technology (χ^2 (1, N=141) =26.338, p=<0.001). Most respondents 63.1% had a negative attitude towards computer technology. Attitude significantly influenced utilization of computer technology (χ^2 (1, N=141) =4.098, p=0.043). There was a significant positive correlation between attitude and utilization of computer technology (r (139) =.272, p=0.001)

5.2 Conclusions

1.Most of the nurse-midwives had negative attitude towards utilization of computer technology.

2.Majority of the nurse- midwives had little experience in computer operating skills

3.Nurse-midwives who had previous training in computer application skills demonstrated a better knowledge on computer operation skills.

5.3. Recommendations.

The researcher gave his recommendation as per his research objective

To determine the impact nurse-midwives related factors in utilization of computer technology in Kwale County, Kenya.

1.The County health committee in conjunction with Nurse Managers and supervisors should address the issue of negative attitude amongst the nurses through supportive supervision, provision of technical infrastructure and on job training.

2.The Kwale County Chief Nursing Officer (County Director of nursing services) should involve the Nurse Managers and supervisors in policy making at the higher level of management.

3The Kwale County Chief Nursing Officer (County Director of Nursing services) through the Nurse managers/supervisors should take an initiative of passing the knowledge of computer technology utilization to their juniors through on job training and create room for them to train in computer applications.

4.Nurse Managers should encourage the nurse-midwives to undertake computer training to boost their knowledge in computer application skills.

REFERENCES

[1] Bond CS. (2013) ICT capacity assessment for nurses and setbacks for nursing educators. Viewed at: http://www.ncbi.nlm.nih.gov/pubmed/17408671. Accessed may22nd, 2018

[2] Eley R, Fallon T, Soar J, Buikstra E, Hegney D (2013):Causes of failure in the utilization of health informatics by nurses; Viewed at: http://www.ncbi.nlm.nih.gov/pubmed/19320784. Accessed April 23, 2018

[3] Farlex clipart (2014) collections Princeton University, Farlex Inc.

[4] Health Metrics Network; (2014) Capacity assessment on the uptake of ICT: Geneva, Switzerland: World Health Organization; 2014.

[5] Hersh W, Margolis A, Quiros F, Otero P (2013). Enhancing utilization of ICT utilization in the third world countries. Health Aff (Millwood) 2013; 29 (2):274–277. Accessed on 23rd May 2018.

[6] Kaya N. (2013) Determinants of ICT utilization by Nurses. Emerging technologies in Nursing practice pg; 29:

[7] 2014-2015

[8] Kuroda Y, Kashiwagi K, Hayashi M, Nakayama E, Oda M, Yamase H, Nakaki T(2017) An Over view of ICT utilization among nurses of Japan. J Nurs Sci. 2017, 4 (2): 79-84. Available at: http://doi.wiley.com/10.1111/j.1742-7924.2007.00076.x. Accessed April 9th, 2018 Google Scholar.

[9] Lee, T. (2015). Anxiety expressed by Nurses on the utilization of Computer technology in Taiwan. Journal of Clinical Nursing, 14, 344-353. Accessed on 20th April 2018.

[10] McBride AB (2014) Focusing on the use of ICT utilization among nurse midwives in the future. 3rd ed. Sudbury, MA Jones and Bartlett; 2014.

[11] Newbold, S., Klein, J.O., & Douglas J. V. (2015). An overview of nursing informatics education K. J. Hannah, M. J. Ball, & M. J. A. Edwards (Eds). Introduction to Nursing Informatics. US: Springer.

[12] Smedley A (2015): Why informtics in nursing. Comput informatics Nurs CIN. 2018, 23: 106-110 .View ArticlePubMedGoogle Scholar.

[13] Tennent, B., Becker, K., & Kehoe, J. (2015). Is the current education on e-Health addressing students' learning objectives and their expected goals? Paper presented at the Annual Ascilite 2015 conference, Central Queensland University.

[14] The Rockefeller Foundation (2013). Effects of computer technology on nursing service delivery. New York (NY):

[15] USA Department of Health and Human Services (2014): Press Release, accessed at http://www.ahadata.com/ahadata/html/AHASurvey Google Scholar on 23rd april 2018.

[16] Wachter R. (2016). Supporting e-Health to enhance quality patient care in England. National Advisory Group on Health Information Technology report in England.

[17] Weaver CA, Delaney CW, Weber P and Carr RL Eds (2016).An overview of the impact of Utilization in nursing practice in the current error: 2nd ed. Healthcare Information; New York city.

AUTHORS

First Author - Elvis Dagamra , School of midwifery, Mount Kenya University
Second Author – Dr. Rosemary Okova, School of midwifery, Mount Kenya University
Third Author – Dr. Calvin Otieno, School of Information Technology-,Jomo Kenyatta University of Agriculture and Technology