

Perception of Health Information Management Professionals on the Importance of Computer System in Health Information Management in Obafemi Awolowo Teaching Hospital, Ile- Ife, Osun State, Nigeria

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Abstract:- Healthcare system in this contemporary time is moving towards digitalization with respect to management of patients' health information, this is however pertinent to achieve improved healthcare quality, Information and Communication Technology (ICT) in hospital settings.

The process therefore requires migrating from paper records to Electronic Health Records (EHRs) particularly in Africa where it has been a lingering challenge. However, adopting technology in the management of patient records will provide more accurate and details patient's profile. This study therefore investigated perceptions of health Information Management Professionals on the importance of computer system in health information management in Obafemi Awolowo University Teaching Hospital ,Ile-Ife, Osun- State, Nigeria. A descriptive survey design was adopted and thirty (30) Health Information Management Professionals were randomly selected from Obafemi Awolowo Teaching Hospital.

The result revealed that majority of Health Information Management Professionals agree that computer science is of high importance in Health Information Management as it was seen as critically important for effective clinical documentation and patients' management care. It was recommended among others that governments at all level should provide adequate and updated facilities for hospitals to enhance effective Electronic Health Records (EHRs) with required training for Health Information Management Professionals.

Keywords:- Perception, Health Information Management, Computer Science, Professionals Importance, Osun-state.

I. INTRODUCTION

Health Information Technology (HIT) involves dimension of information and communication technologies that are expedient for collection, transmission, displaying and saving the patient information. [1]

Computers are one of most veritable tools with high level of accuracy, speed, updating information and presence of world wide web. The knowledge of computer science remains vital part of existence as they are being used on daily basis as exigency demands. [2]

In the past, role of computer science in hospital setting and among public health professionals were not prominent. [3]

However, in recent times, technology has been prominent and is at its peak, every field is therefore influenced by computer application and health information Management in hospital setting is therefore paying a pivotal role in efficient Patient management care. [4]

However, the role of computer science cannot be overemphasised as it is required for the formation and maintenance of patients' record important in health surveillance and also pertinent to Health Information System as it is required in explaining geographical Information system and Electronic medical records.

Computer Science is also being used in statistical analysis of various data and hence enhances health professionals to be innovative and contend with contemporary challenges. [5]

Information and communication technology (ICT) is mostly used as an extended synonym for information technology [6]. It is a more specific term that emphasizes the role of unified communications and the integration of communications. It comprises of computing technology, the Internet and other accessories which enable users to

access, store, transmit, and manipulate information. Cruickshank [7] established that peoples’ attitude towards computer and computerization becomes more favourable as their experience of computers and computer technologies increases. In line with this assertion, Fairley [8] maintained that the rapid advances in userfriendly interfaces of the computer have lessened the need to know the intricacies of how the machines work. In the same vein,, the Internet is a global system of interconnected computer networks that uses the standard internet guidelines for billions of users [9]. Equally, it depicts history with the development of electronic computers in the 1950s and was first introduced to the public by the University of California Los angeles [10]

It is equally worthy to know that application of Health Information Technology minimises medical errors cost and paper work. It also increases efficiency, quality of health care and empowerment of patients and clinicians [11]

However, despite all these advantages, acceptance of health Information Technology by health professionals must be of paramount. Overtime findings reveals that in most countries, acceptance of computer science among health professionals was very low as particularly observed among aging groups [12] .Hence, need to investigate into the perception of Health Care workers particularly Health Information Professionals on the importance of computer science in securing effective Electronic Health Records in health institutions as concern developing countries.

II. AIM OF THE STUDY

Both National and International development advocate for accessibility to Healthcare information , However, implementation of Health Information Technology (HIT) has therefore become indispensable through health care professionals particularly Health Information Management. In Nigeria few studies exist that illustrate the perception of Health Information Management professionals on the adoption of Technology. Therefore, this study will:

- assess knowledge utilization and perceptions of computer science application among Health Information Management professionals.
- provide the opportunity for healthcare organizations to improve quality of care and patient safety through effective Electronic Health records.
- provide comprehensive, reliable, relevant, accessible, and timely patient information to each member of the healthcare team
- make the information collection more efficient, readable, and more easily disseminated
- reduce human error in the documentation of patient information in Obafemi Awolowo Teaching Hospital Ile-Ife, Osun- State Nigeria.

➤ *Research Questions*

In order to achieve the objectives of this study, following are research questions:

- How critical is electronic health information needed in meeting your organization goals as Health Information management Professional?
- How important is computer system to you as Health Information Management Professionals?
- How can you rate your performance in relation to Electronic Health Record as Health Information management Professional?
- What is your perception about computer application as Health Information management Professional?
- What are the barriers to the implementation Electronic Health Records in your institution (EHR)?

III. METHODOLOGY

The Research work was conducted at Obafemi Awolowo Teaching Hospital Ile-Ife, Osun- State Nigeria. Descriptive survey research design was adopted for the study. Data was generated from the respondents on their perception on the importance of computer science in Health Information Management. The research design is concerned with the totality of the plan used in executing a research study. It lays out the plan for investigation the research questions and details of the study which flows from the specific questions asked. [13]

Thirty (30) Health Information Management professionals were purposely selected for the study which comprised of males and females

➤ *Methods of Data Collection*

Data collected was analysed using descriptive statistics. The descriptive statistics was used to present details of the demographics using frequencies, percentages, means and standard deviations. How can you rate your performance in relation to Electronic Health Record as Health Information management Professionals

➤ *Ethical Consideration*

After the participants were duly informed of the purpose and users of the study, their right to either stay or withdraw from the study and after assurances of utmost confidentiality of data to be obtained, informed consent was received from them.

IV. RESULTS

Age range	Frequency	percentage
21-30	10	33.33%
31-40	15	50%
41-50	5	16.67%
Total	30	100%

Table 1:- Age Range of the Respondents

Table 1 shows 33.3% of the respondents are between the ages of 21-30years, 50% of the respondents are between the ages of 31-40 while 16.67% respondents are between 41-50 years. It shows that higher percentages of the respondents are in their active working group which may enhance their suitability to adapt to computer application.

SEX	Frequency	Percentage
Male	25	83.33%
Female	5	16.67%
Total	30	100

Table 2:- Gender Distribution of the Respondents

Table 2 shows the distribution of the respondents by gender, 83.3% of the respondents are male while 16.67% are female, it shows that male are far more than the females among the respondents.

Item	Critically important	Important	Neutral	Low important	Not important	Total
Clinical quality	10 (33.33%)	5 (16.67%)	3(10%)	2(6.67%)	5(16.67%)	30(100 %)
Patience service	15 (50%)	4 (13.33) %	1(3.33%)	6 (20%)	4 (13.33%)	30 (100 %)
Operation service	8(26.67%)	8(26.67%)	4 (13.33)	2 (6.67%)	8 (26.67%)	30 (100 %)

Table 3:- Respondents' answer on how critical is electronic health information needed in meeting your organization goals as Health Information management Professional?

In table above, majority of the respondents opined that electronic health information is critically important in meeting organisation goals. 33.33% opine is critically

important in clinical quality, 50% agree is critically needed in patience service while 26.67% agree is critically important in operation service.

Level of importance	Respondent	Percentage
Not important	6	20%
Very Important	24	80%
Total	30	100%

Table 4:- shows respondents on how important is computer system in Health Information Management

The table above reveals the perception of the respondents on how important computer science in Health Information Management, higher percentage of the respondents (80%) opined that computer application very important while only 20% of the respondents stated that computer system is not important in Health Information Management.

Performance	Respondent	Percentage
Low	6	20%
High	24	80%
Total	30	100%

Table 5:- Respondents rating their performance in relation to Electronic Health Record as Health Information management Professional.

In table above, respondents rated their performances in relation to Electronic Health Record (HER), it shows that majority of the respondents (80%) rated their performances high which depicts that most of the Health Information management Professional are already adapted to computer application in Obafemi Awolowo Teaching Hospital Ile-Ife, Osun- State Nigeria.

Acceptance of EHR	Respondent	Percentage
Easy	10	33.33%
Difficult	5	16.67%
Satisfying	10	33.33%
frustrating	5	16.67%

Table 6:- Respondents' perception about computer application as Health Information Management Professional

Table above reveal respondents' perception about computer application as Health Information Management Professional, 33.33% of the respondents perceived that computer application is easy and equally satisfying respectively however, 16.67% opined that computer application is difficult and frustrating equally. It can be deduced that majority of the Health Information Management Professionals are adapted to Electronic Health Records at Obafemi Awolowo Teaching Hospital Ile-Ife, Osun-State Nigeria.

	Not a barrier	Minor barrier	Major barrier	Total
Lack of Computer skills	15 (50%)	10 (33.33%)	5 (16.67%)	30
Lack of uniform industry standards	9 (30%)	16 (53.3 %)	5 (16.67%)	30
Poor administrative policy	10(33.33%)	18 (60%)	2 (6.66 %)	30
Inadequate Training	8 (26.67%)	12 (40%)	10 (33.33%)	30

Table 7:- shows respondents' barriers to the implementation of Electronic Health Records (EHR)

The table above shows that respondents' perception of barriers to implementation of Electronic Health Records, It reveals that large percentage (60%) of the respondents perceive poor administrative policy as a minor barrier to implementation of Electronic Health records. Equally, about 16.67% and 33.33% of the respondents perceived that lack of computer skills and inadequate training are major barriers to Electronic Health records in Tertiary Health Institution. However majority of the respondents (50%) perceived computer skills not a barrier which depicts that majority of Health Management Professionals in the institution are computer literate.

V. DISCUSSION

The study assess the perception of the Health Information management professionals on the importance of computer application in Health information system, however research questions were raised to achieve the target objectives. The respondents were asked how critical is Electronic Health Record (EHR) needed in meeting their organization goals as Health Information management Professional, larger percentage of the respondents opined that Electronic Health Record is critically needed for Clinical quality, Patient service and Operation service. This position agrees with Chaudhry et.al (2006) [14] who reported that technology has been adjudged by both health care experts and health care consumers as having critical roles to play in the transformation of healthcare.

Equally, 80% of the respondents agree that computer is very important in Health Information Management, this equally upholds the findings of Ibrahim et.al 2015 [15] who reported that virtually all the participants across healthcare professions indicated that computer application is very important in management of health information to improve medical care quality. Also, Strivastava et al. in 2014 [16] stated that studies among resident doctors, dentist, medical laboratory scientists and students revealed that they have good knowledge about the importance of computer application in health information. Similarly respondents who are Health Information Management Professionals rated their performance high which agrees with Ibrahim et al 2015 [15] who stated that health care professionals were advance in the use of electronic mail, internet, use of word processor i.e. Microsoft Word in which Health Information Management Professionals are leading. This equally supported the findings of this study in which higher percentage of the respondents find computer application easy and satisfying. However, in contrast to most literature, acquisition of computer skills is perceived

as a barrier in achieving effective Electronic Health Record in the study area.

VI. CONCLUSION

The Electronic Health Records (HER) provides the essential infrastructure required to enable the adoption and effective use of new healthcare modalities such as integrated care, evidenced-based medicine, computer-based decision support, care planning and outcomes analysis. Therefore, the benefits that support implementation of an EHR are clear, there are still barriers too, therefore the concept is still not accepted. However, this could also be said of almost every other area of positive change and improvement within healthcare system. There must be more involvement by the government and the private sector to make changes where possible to instigate, motivate, and provide incentives to accelerate the development of solutions to overcome the barriers. There are obviously advantages and disadvantages to both the paper medical record and the Electronic Health Records (EHR).

The study therefore reveals that knowledge and level of adoption of computer science among Health information Management Professionals in the institution was considerably good, however, rate of technology knowledge and adaptation need to be improved. This may be due to lack of structured training and computer accessibility. The institution must provide computer access to staff. Also by reinforcement of educational infrastructures, provide the possibility of increasing knowledge of health information technology among Health Information Professionals.

RECOMMENDATIONS

- Education on Electronic Health Information (EHR) is required for training of staff to allow them to know the nature of EHR itself
- Computerization should only be made a priority as it supports the overall objectives of the Health institution
- There must be more involvement by the government and the private sector to make changes possible to instigate, motivate, and provide incentives to accelerate the development of solutions to overcome the barriers of computerization of Health information

ACKNOWLEDGEMENT

Appreciation goes to all who contributed to the success of this article.

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