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## INFORMATION SEEKING BEHAVIOUR OF PRACTICING NURSES IN KENYA: AN EXPLORATORY CASE STUDY OF KENYATTA NATIONAL HOSPITAL

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### Abstract

*The objective of the study was to provide new insight on how practicing nurses at KNH find information to support clinical decisions. Previous research in the field, demonstrate that information seeking behavior has an effect on the nursing care and practice. The study adopted descriptive survey design; the target population was 1723 practicing nurses. Structured questionnaires were used to collect data. Data was analyzed by use of likert scale and Microsoft excel and presented through tables, charts, figure, graphs and percentage. Four information needs were cited by practicing nurses at KNH; patient care, in-service presentation, presentation at a professional meeting/seminar and*

*scholarship application/career development. The most preferred source of information was human sources such as colleagues and doctors. Internet came second as preferred source of information. Public libraries and personal libraries were rated lowly. Practicing nurses at KNH were aware of reference books, textbooks, personal contacts such as colleagues and doctors as sources of information. The insights from the study will help health organizations in design of information services, guide future researchers and contribute to the professional knowledge.*

**Keywords:** Information literacy, Evidence based practice, Health information

### BACKGROUND

Information seeking behavior can be defined as purposive seeking of information to satisfy an information need or solve a problem (Wilson, 2000). Literature in the field of information seeking behavior is vast and researchers tend to focus on small cohorts of professionals. Medical profession is one of the professions that researchers have focused on.

The medical profession is one of the most dynamic fields in the history of mankind. The field is anchored on solid research based evidence, best

practices and well established procedures. Since research is a key pillar in the field, there is exponential growth of literature in medical and healthcare literature (Majid, Foo, Luyt, Xue, Yin-Leng, Chang, and Mokhtar, 2011). Over the last decade, medical profession has increasingly adopted evidence based practice (EBP). EBP is the integration of clinical expertise, patient values and best available external research into the decision making process for patient care and clinical refers (Sackett, 2002).

Nurses form the largest group of health professionals all over the world and the case is no different in Kenya. Much research work has

examined the information seeking behavior of nurses to determine how their clinical decisions are informed (Needleman, 2016; Stertler, 1998; Eileen, 2005). The researchers have concluded that nurses share many characteristics with other colleagues in the profession such as doctors as far as their information seeking behavior is concerned.

Layton, (1995) and Majid et al., (2011) noted that historically, nurses have made less use of medical and health research findings compared to other health professionals such as doctors and clinicians, this phenomenal has been explained by Majid et al., (2011) to nurses having little time and possessing few information literacy skills. To address the phenomenal, health organizations and nursing schools need to understand, what kind of information do nurses such for, how do nurses interact with information, where nurses source for information, and when do nurses seek information.

### **SIGNIFICANCE OF THE STUDY**

The research reflected on information seeking behavior of practicing nurses at KNH. The insights from the research findings will help nursing schools across the country in design of information literacy curriculum, help health organizations in design of information literacy policies and staff trainings, guide future researchers and contribute to the professional knowledge.

### **STATEMENT OF THE PROBLEM**

The study focused on information seeking behavior of practicing nurses at Kenyatta National Hospital, Kenya.

### **OBJECTIVE OF THE STUDY**

The objective of the study was to provide new insight on how practicing nurses at KNH find information to support clinical decisions.

## **LITERATURE REVIEW**

Information seeking is a major step when solving a problem or making a decision, the quality of information used is very important (Marshall, 1992). Wilson, (2008) notes that it is important to understand the information seeking behavior of a particular group of people in order to serve them better having understood their information needs and working environment. Information seeking behavior differs from one group of individuals to another depending on culture, working environment and information needs.

Reddy & Dourish, (2002) established that working environment forms a framework or “rhythm” that defines the profession’s information needs and how they seek information. For example routine patient care in the nursing profession directly defines the clinical information needs of nurses.

Nursing knowledge is drawn from multiple information sources and nurses need multiple information sources to meet their information needs, they need latest medical knowledge based on solid research on top of best practices to support their clinical decisions and provide necessary education to patients (Stanely & Dee, 2005)

In their research on information needs of rural public health nurses in Oregon, Anne, Zoe, Debra and Rita, (2008) using semi-structured in-depth interviews, concluded that nurses in public health care have information needs ranging from need to know the regulations, policies and laws governing public health, research findings to support Evidence Based Practice, clinical procedures and personal information needs such as employment opportunities, investment and personal hygiene. They also concluded that information need of nurses depend on job position and professional responsibilities, however on average nurses’ information needs of public nurses can be grouped into; clinical procedures, primary health care,

family planning, conducting health research, community outreach and personal needs.

The findings are similar to those of Royal College of Nursing, (2015) in its research on information needs of nurses, although using a different research methodology of comprehensive literature review concluded that nurses are motivated by need to support clinical decisions, academic purpose, personal needs and regulatory framework in their search for information.

A multicenter survey carried out in five countries (Egypt, China, India, Kenya and Thailand) on health workers, noted that textbooks were the most popular sources of clinical information, journals and medical databases were the least popular (Page, Kinly, Qian & Macharia, 2005)

Marshall, Morgan, Klen, Thompson and Wells, (2014) in their research on the value of library services in nursing practice, noted that nurses preferred obtaining new information through “social means” over other sources of information, a phenomenal that was attributed to busy working schedules, inadequate information skills and poor library services infrastructure.

## **METHODOLOGY**

The research adopted descriptive survey design. Descriptive survey is a research design which employs interviews or questionnaires to a sample population. It can be employed in social science when the researcher want to collect information about people’s opinions, habits, perceptions or any other social science issue (Kombo, 2006). Descriptive survey was deemed suitable for this research because it presented the opportunity to combine both the qualitative and quantitative research deign.

The research was carried out at Kenyatta National Hospital. KNH is the largest national referral and teaching hospital in Kenya. In line with the title and objective of the study, the target population

constituted 1723 practicing nurses working at KNH. For the purpose of this study, practicing nurse is a person who is trained in scientific basis of nursing and has been licensed to practice nursing in Kenya by Nursing Council of Kenya.

Stratified and purposive sampling techniques were chosen for this research. Through stratified sampling the entire population was divided into departments to ensure all nursing departments at KNH were represented in the research and proportionate number of respondents assigned to each department. The study adopted questionnaires to collect data. Herman, (2000) defines questionnaire as a research instrument consisting of questions designed to solicit information from respondents.

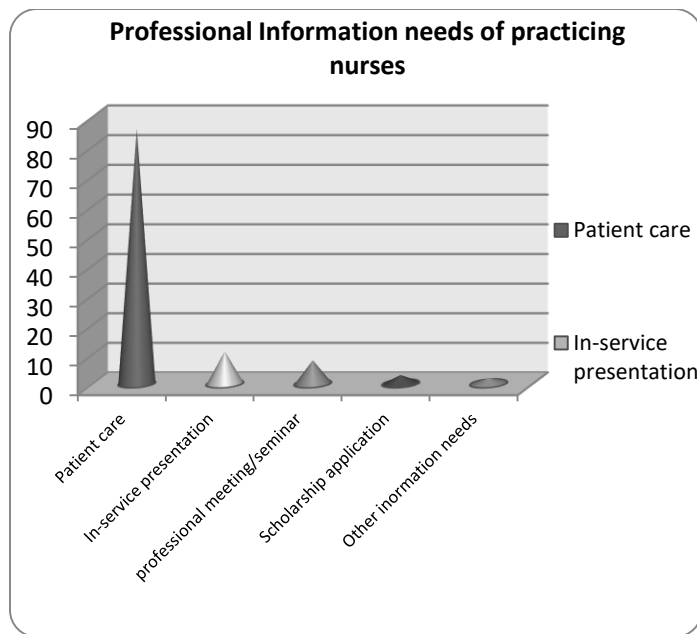
Considering that health practitioners are more often busy, Jacobsen, (2011) recommends use of well-structured questionnaires with relatively few questions to researchers investigating aspects of health workers. The questionnaires provides flexibility in that it allows the health workers complete the questions in their free time unlike other methods of data collection such as interviews and focus groups.

During data collection the respondent, participated in the excise voluntarily and consent was sought though an introduction letter that informed the respondents on the objectives of the research, the questionnaire was anonymous to protect the privacy of the respondents and information obtained was treated as confidential.

## **RESULTS**

### **Information Needs of Practicing Nurses**

Figure: 1 Professional information needs of practicing nurses



Source: Research data 2017

Nurse's work environment is complex, understanding their professional information needs is key to identifying research utilization. In this context the section intended to determine for what professional information needs, practicing nurses sought information after graduating from nursing school, as shown in figure 1, 163(86%) of respondents reported seeking information for patient care, another 21(11%) sought information for in-service presentation, 15(8%) sought information for presentation at a professional meeting/ seminar, 6(3%) sought information for scholarship application, and 3(2%) sought information to meet other professional information needs not listed in the questionnaire, all on career development.

The fact that practicing nurses at KNH mostly seek information on patient care 163(86%), can be attributed to the fact that patient care is the primary role of nurses in any hospital. Nurses are expected to administer medication, maintain patient records, provide basic health education to patient and give feedback to doctors.

The findings of this study are similar to those of Royal College of Nursing, (2015) in its research on information needs of nurses, although using a different research methodology of comprehensive literature review concluded that nurses are motivated by need to support patient care decisions, academic purpose, personal needs and regulatory framework in their search for information.

### Awareness of Information Sources for Medical and Healthcare Practitioners.

This section sought to determine whether practicing nurses have knowledge on information sources for medical and healthcare practitioners. The respondents were asked to select information sources they were aware of from a list of potential information sources for medical and healthcare practitioners. Table 1 presents the response, all the respondents 189(100%) were aware of reference books, textbooks, colleagues & doctors as sources of information. 107(56%) were aware of medical databases such as POPLINE and MEDLINE as sources of information, 32(17%) were aware of Research publications as sources of information.

Books still remain popular sources of scholarly information, the reason why all practicing nurses at KNH are aware of them. Colleagues and doctors were also recognized has source of information by all practicing nurses at KNH probably because they are easily accessible. The findings reflect those of other researchers such as Thompson and Wells, (2014); Aitlan, (2010) and Stanley, (2005) which concluded that nurses are aware of the popular sources of information such as books, colleagues, medical databases and professional blogs.

Low awareness of research publications as sources of information 32(17%), can probably be attributed to lack of publicity of research work by Research Organizations and Universities in Kenya or low research work in Kenya. More research however

needs to be carried out on the subject to establish the reasons behind.

Table: 1 Awareness of information sources for medical and healthcare practitioners

Practicing nurses' awareness of potential information sources for medical and healthcare practitioners.				
Source of Information	Yes		No	
	Frequency (n=189)	Percentage	Frequency (n=189)	Percentage
Reference books e.g. medical dictionaries and medical encyclopedia	189	100	0	0
Textbooks	189	100	0	0
Colleagues and doctors	189	100	0	0
Medical databases e.g. POPLINE, MEDLINE	107	56	82	46
Nursing Council of Kenya	96	50	95	50
Research publications e.g. from NGO's, Research Institutions and Universities	32	17	157	83

Source: Research data 2017

**Sources of Information for practicing nurses.**

Research on nurse's information seeking behavior suggests that knowledge of an information source does not guarantee its use (Griffiths, 2003). That is why the study sought to determine the information seeking behavior of practicing nurses. The respondents were asked to select their preferred source of information whenever they have an information need using Likert scale 1-5, where 1- indicated strongly disagree; 2- disagree; 3- uncertain; 4- agree; 5- strongly agree. The responses are presented in table 2.

Table: 2 Preferred source of information

Source	Rating										Mean Score
	Strongly agree (5)		Agree (4)		Uncertain (3)		Disagree (2)		Strongly disagree (1)		
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
Personal contacts (i.e. colleagues, supervisor, physician, doctors)	163	86	20	11	4	2	2	1	0	0	4.8
Internet/ world wide web	80	42	94	50	9	5	4	2	2	1	4.3
Public library	65	35	72	38	11	6	25	13	16	8	3.7
Personal library	16	8	20	11	49	26	74	39	30	16	2.5
Other sources	5	3	3	2	41	22	75	40	65	34	2.0

Source: Research data 2017

From table 2, it is observed that personal contacts (i.e. colleagues, supervisor, physician, doctors) is the most preferred source of information by practicing nurses with a mean score of 4.8, this can be out of necessity rather than choice because colleagues and doctors are readily available compared to other sources of information. For example nurses at KNH could not easily access medical databases because the hospital had not subscribed to any professional medical databases not unless they use the available open source databases. Fox J., Richter J. and white N. (2003) in their study on nurse's information seeking behavior, noted that due to time restrictions, nurses preferred colleagues and Internet as sources of information more than other sources.

The findings of this study reflect those of Aitlan, (2010) who in his research on preferred information sources for clinical decisions concluded that when nurses are faced with a clinical question, they were

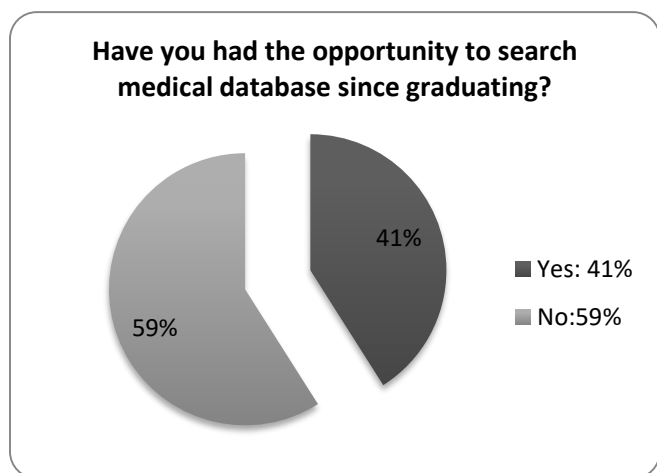
more likely to consult a colleague over any other source of information.

Personal contacts were followed closely by Internet/ World Wide Web with a mean score of 4.3, then Public libraries with a mean score of 3.7. It is therefore a fair conclusion that personal contacts, Internet and public libraries are crucial sources of information for practicing nurses, since they all have a mean score above 3 which is the neutral score. Personal Library and other sources recorded the lowest rating with mean score of 2.5 and 2.0 respectively.

**Access to and use of online medical databases**

Considering that online medical databases usually contain the most up-to-date research based medical and health-care information, long before it is published in books and other secondly sources of information, the study sought to know if practicing nurses had the opportunity to use an on-line medical database since graduating from nursing school.

Figure: 2 Access to medical database after graduating from nursing school.



Source: Research data 2017

Figure 2 demonstrates that only 78(41%) of the respondents had the opportunity to access an on-line medical database since graduating from nursing school. The findings suggest that regular

use of electronic medical databases is not the norm among practicing nurses at KNH. The findings can be attributed to lack of access to medical databases since the hospital has not subscribed to any Medical database.

**Preferred formats of information sources**

The research also sought to know the formats of information that practicing nurses found most useful.

Table:3 Preferred formats of information sources.

Format of Information	Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree		Mean Score
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
Unpublished information formats (i.e information from personal contacts)	113	86	18	9	4	2	2	1	1	0.5	4.00
Print materials (i.e Books)	83	44	71	36	10	5	23	12	2	1	3.73
Electronic information formats (i.e online Medical databases, websites)	14	1	25	6	47	24	80	60	11	8	2.56
Others (i.e CD-ROMs, Microfilm)	1	0.05	5	3	87	46	91	48	4	3	2.50

Source: Research data 2017

The study established that unpublished information formats such as verbal information from colleagues was the most preferred format of information source with a mean score of 4.00, followed closely by print media such as books with a mean score of 3.73, electronic formats came a third with a mean score of 2.56. Other formats such as CDROM and Microfilm were rated lowly with a mean score of 2.50.

The fact that verbal information was the most preferred format of information, can be attributed to the preference of colleagues and doctors as sources of information who are likely to offer

information verbally than in any other format. Formats such as CDROM and Microfilm were list preferred probably because the technology is becoming obsolete because of the continued rise of digital media.

### Conclusion

The aim of the study was to provide new insight on how practicing nurses at KNH find information to support clinical decisions. The study established that practicing nurses at KNH had knowledge of information sources for medical and healthcare information, however few made use of medical databases despite them containing quality research based information to support evidence based practice.

The study further established that practicing nurses at KNH mostly used colleagues (doctors, clinicians and other medical professionals) as the main source of information. The phenomenon has been attributed by previous research to colleagues being readily available and being perceived to deliver relevant information within the context of the problem at hand. To improve on this aspect, the study recommends KNH management to create a conducive environment with adequate socializing opportunities for nurses to share professional knowledge.

The study recommends that the hospital should establish an information center to acquire information resources and develop specialized information services as well as information literacy programme tailor made to nurses and other medical practitioners to meet their information needs and in support of evidence based practice.

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