INFORMATION SEEKING BY NURSES IN THE AMINU KANO TEACHING HOSPITAL, KANO, NIGERIA

Yahya Ibrahim Harande*, Binta Ladan Faruok**

**Faculty of Education, Department of Library and Information Sciences, Bayero University, Kano, Nigeria.
Email: yaibrahimah@yahoo.com*
***Faculty of Education, Department of Library and Information Sciences, Bayero University, Kano, Nigeria.
Email: bfladan@yahoo.com*

Abstract *The present paper examines information needs and information seeking behaviour of the professional nurses at Aminu Kano Teaching Hospital, Nigeria. One hundred and sixty practicing nurses served as the respondents to this research. The findings of the research indicate that majority of nurses (91%) are aware that they need current information to function professionally well. Most of the nurses (62%) expressed their urgent need of information resources to handle cases for maternal and childcare health issues. A significant number of the nurses (24%) indicated their need for professional training. In order to fight diseases in the community, 22% of the nurses showed their need for this purpose. The medical library services in the hospital were indicated as adequate (52%) by the respondents despite the absence of current information resources. Some challenges and problems such as slow Internet connectivity and lack of staff training were expressed by the respondents (87%) as hindering their effective professional performances. The paper recommends for the provision of very strong Internet connectivity, on the job constant training of the professionals and provision of current information resources in the medical library for the professionals to meet the information needs of their clients and render evidence based professional services.*

Keywords: *Information Need, Information Seeking Behaviour, Professional Nurses, Teaching Hospitals, Universities, Nigeria*

INTRODUCTION

Professional nurses globally are expected to keep abreast of the developments taking place in their field of practice. This paves way for the nurses to deliver quality and evidence based practices for the enhancement of their services to their patrons and patients. It is pertinent therefore for the nurses to be smart and vigilant in sourcing relevant health information for their patients. Evidence-based practice and services can only be achieved when relevant health information resources are provided, accessed and used. Newman and Doran (2012) opined that recognition of information needs is important because this cues the nurse to complete patient care tasks with consideration of evidence informed resources. Similarly, Ndosi and Newell (2010) offered that nurses need access to reliable evidence-based information sources to allow them to exercise professional judgment in the best interest of their patients. It is quite interesting to know that nursing as a science course drive its knowledge through research and this condition make it incumbent upon the practitioners to be utilising the findings for their effective practices. Magda, Safaan, and Okby (2016) observed that nursing is a science and it is essential to drive its knowledge from the findings of research. Research findings define, explain, and identify phenomena fundamental to nursing profession. The outcome of these scientific researches builds a strong foundation for the nursing professionals in their healthcare delivery and activities. On a similar dimension, Spath and Buttlar (1996) opined that research and its application in the clinical setting result in improved patient care and provide a strong scientific knowledge base for nursing.

Nursing care delivery is highly needed in the developing countries, more especially Nigerian environment. The reason for this as explained by Ajayi (2005) was that there is growth in information increases in the cases of patient admitted into hospital, new discovery of diseases and illnesses and demands on output and productivity from the patients and society as well as criticism of the insensitivity of some nurses to their patients' plight.

Nursing profession world over is experiencing changes, new trends of practices and innovations.

Therefore, the paradigm shift in the profession could be seen clearly on the way and manner in which the nurses operate and render services in this information age. According to Jones, Schilling, and Pesut (2011), nurses need to possess basic skills for accessing relevant, accurate and current information to keep their knowledge up-to-date and hence

adopt best medical practices. The advent of the digital practices and approaches that sandwiched almost all human endeavours has not spared the nursing profession. Majid *et al.* (2013) opined that advances in information technology have had a radical impact on healthcare delivery. The convergence of information and technology provides faster access. Both the nurses and the patients tend to significantly benefit from their use of information technologies. This new experience brings about changes in the method and manner in which the nurses handle their patients and the way they generally operate. Mc Cymont (1996) opined that nurses requirements for, and use of, information are changing. Similarly, Ajayi (2005) observed that the literature of nursing theory and practice is large, and much has been written on the use (actual, potential and desirable) of information by nurses. There is very high demand of healthcare delivery and services in Nigerian environment mainly because of the constant increase in the population of the country. Rasch and Cogdill (1999) observed that the growing demand for primary care and the increasing importance of nursing practices NPs in meeting that demand make it imperative that we understand the ways in which these clinicians address information needs.

LITERATURE REVIEW

Information need is described as an anomalous state of knowledge (Belkin, Oddy, & Brooks, 1982) or a gap in individual's knowledge in sense-making situations (Dervin & Nilan, 1986). Wilson (1981) points out that there must be an attendant motive when a person experiences an information need. Line (1974) opines that information need is what an individual ought to have for his work, his edification, his creation etc. The extent of the need of information determines the seeking behaviour exhibited by the person in need of the particular information. Information seeking behaviour, on the other hand, is a broad term which involves a set of actions that an individual takes to express information needs, seek, evaluate and select information, and finally uses this information to satisfy his/her information needs. (Padma, Ramasamy, & Renugadevi, 2013). Hence the understanding of information needs and information-seeking behaviour of individuals and various professional groups is essential as it helps in the planning, implementation and operation of information system and services in the given work settings.

Many studies have been conducted to investigate the information needs and information seeking behaviour of various groups based on their subject interest, occupation, information environment, geographical location etc. Information needs and seeking behaviour of health practitioners, including nurses have also been a popular area of research. Rasch and Cogdill (1999) conducted an

exploratory study on the information needs and information seeking on a sample of nurse practitioners in North Carolina. Their findings revealed that the information needs of the nurses relate to drug therapy, diagnosis, and other therapy. Fakhoury and Wright (2000) made a cross sectional survey to investigate communication and information needs of community psychiatric nurses attached to community mental health teams in the United Kingdom. Royle *et al.* (2000) undertook a study to determine the clinical information needs of nurses; adopting an existing clinical information system to address their expressed needs; and evaluate nurses' use of and satisfaction with the enhanced system. Thirty-nine nurses on a medical teaching unit in a hospital in Canada participated in the project. The needs assessment informed the design of the system and the various strategies to promote its use. Focus groups, online questionnaires, and computer log files were used to describe use of and satisfaction with the system. Results showed that a pre-existing hospital information system, drug information, and 'basic texts' were the most frequently used databases. Nurses were satisfied with the system and indicated that it helped them to keep up with educational and professional development.

In an information needs assessment at Lowell General Hospital (LGH), Massachusetts, Beales (2002) found that health professionals were unable to get to the LGH library to pursue their information needs, and also found time too limited to fulfil their obligatory educational activities. A pilot study conducted by Xu *et al.* (2005) to find out nurses' information needs and searching behaviour in acute care settings revealed that nurses' information needs are different from what is reported in the literature in terms of physicians' information needs. Revere *et al.* (2007) reviewed the public health literature to identify the information needs of public health professionals. The results revealed that although few formal studies of information needs and information-seeking behaviours of public health professionals have been reported, the literature consistently indicated a critical need for comprehensive, coordinated, and accessible information to meet the needs of the public health workforce. Major barriers to information access include time, resource reliability, trustworthiness/ credibility of information, and information overload. They concluded that there is a critical need for public health digital knowledge management systems designed to reflect the diversity of public health activities, to enable human communications, and to provide multiple access points to critical information resources.

In a paper that provided the first phase of a broader literature review of the information and learning needs of healthcare providers in developing countries, Pakenham-Walsh and Bukachi (2009) reported that a Medline search revealed 1762 papers, of which 149 were identified as potentially relevant to the review. Thirty-five of these were found to be

highly relevant. Eight of the 35 studies looked at information needs as perceived by health workers, patients and family/community members; 14 studies assessed the knowledge of health workers; and 8 looked at healthcare practice. The studies suggest a gross lack of knowledge about the basics on how to diagnose and manage common diseases, going right across the health workforce and often associated with suboptimal, ineffective and dangerous healthcare practices

Similarly, in a report that synthesises findings from 33 articles identified through literature review using the PubMed, Medline, CINAHL, and PsycInfo the Model Systems Knowledge Translation Centre (2010) provided a brief summary of what is currently known about meeting the clinical information needs of health professionals (including nurses) and provides recommendations for addressing these unmet needs was provided. Majid *et al.* (2011) investigate the use of different medical information sources by nurses and their literature searching skills. A total of 1,486 nurses from two public hospitals in Singapore participated in the study. The results show that human and printed sources were used more frequently by the nurses as compared to online sources. For literature searching, nurses were using basic search features, and less than one quarter of them were familiar with Boolean and proximity operators. The study suggests that hospital libraries should play an active role in improving literature searching skills of nurses. Also through a review of literature published over 44 years, Prakasa (2013) examined the information needs and use of healthcare professionals by focussing on different types of professionals in the medical field such as medical faculty members, general practitioners, nursing professionals, family physicians, clinicians, etc. His findings show that although different categories of professionals had different types of need to satisfy healthcare professionals generally need up-to-date information to serve the society in a better way. However, Andualem, Kebede, and Kumie (2013) used a cross sectional quantitative study design complemented with qualitative method to investigate the information needs and seeking behaviour among health professionals working at public hospital and health centres in Bahir Dar, Ethiopia. Findings of the study show that about 58.0% of the respondents accessed information by referring their hard copies and asking senior staff. Age, sex, income, computer literacy and access, patient size, work experience and working site were significantly associated with information needs and seeking behaviour. Kostagiolas, Martzoukou, Intas, and Niakas (2014) used a survey, informed by the Wilson's macro-model for information seeking behaviour, to investigate the online information needs and Internet seeking behaviour of nurses using a small sample of nurses working in public hospitals in Greece. The results indicate that interpersonal information resources, other nurses (33.3%) and medical doctors (35.6%) received the highest

percentages of utilisation together with the conventional resources (33.3%). Moreover, general search engines such as Google also received high percentages of utilisation.

The Nigerian Scenario

The information needs and seeking behaviour of nurses in Nigeria have also been investigated by many scholars, researchers, and information professionals. Among them was Ajayi (2005) who studied the information needs and information seeking behaviour of professional nurses at the Obafemi Awolowo University Teaching Hospital (OAUTH) Ile Ife, Nigeria. The result is that nurses need current information. Using a questionnaire, Nwagwu and Oshiname (2009) collected data from a sample of 250 nurses at the university college Hospital, Ibadan, Nigeria to determine the information needs and seeking behaviour of nurses. Almost all the nurses (94%) searched for information in order to improve their knowledge, while only 25.5% reported searching information for patient care purpose. Results also shows that colleagues topped the list of information sources regularly used, even though 59.3% reported finding the sources adequate.

Baro and Ebhomeya (2013) used a descriptive survey to investigate the information needs and seeking behaviour of nurses in two hospitals in Bayelsa state. Findings show that the main types of information needed by needs of the nurses were how to avoid contracting HIV-AIDS from patients, information about the outbreak of diseases and new discoveries in nursing. In a more recent study on the information needs of nurses in some selected hospitals in Ekpoma, of Ondo State in Nigeria, Onyia and Oni (2016) found that most nurses in the study need information in the area of diagnosis, drug therapy, health development and medical information on the Internet. The inability to access foreign nursing journals and a lack of awareness of how to use medical databases were the challenges to their information seeking.

Similarly, Anyanwu., Oparaku, & Benson, (2016) conducted a study on meeting the information needs of nurses for effective healthcare delivery in Nigeria using the Federal Medical Centre, Owerri, Imo State. They found that Internet, journals, and books were the major sources consulted by nurses and the factors militating against easy accessibility to health information among nurses include inadequate training of nurses in the use of information resources, lack of access to Internet amongst others. Stocking of medical libraries with current materials on nursing as well as automation of health and medical libraries were identified as strategies for solving the problems of accessibility to health information. Although attempts have been made by scholars to study the information needs of healthcare professionals in Nigeria, so

far not much is known about the information needs of nurses in the northern part of the country. Most studies done on information needs of nurses are concentrated in the south -east and south-western parts of the country.

METHODOLOGY

The instrument used for data collection was questionnaire. It was distributed to the nurses in their different units of the hospital and wards. The questionnaire was divided into two sections; demographic data section and information needs of nurses section which include adequacy of information sources and challenges faced in the process of information seeking to satisfy their information need. Generally, all nurses were involved in this study irrespective of their, category, nomenclature and cadres. A total of 200 sets of questionnaire were distributed, out of which 160 were returned and found useful (80 per cent). Percentile was used in the analyses of the data collected for the study.

OBJECTIVES OF THE STUDY

The objectives of the study were:
- To determine the information needs of the nurses.
- To unveil their information seeking behaviour.
- To determine the adequacy of information sources used by these professionals.
- To examine the challenges faced by the nurses when seeking for information.

THE AMINU KANO TEACHING HOSPITAL

The Aminu Kano Teaching Hospital (AKTH) at Kano in Nigeria was established in 1988, but it became fully operational in 1997 to cater to medical, clinical and other health needs of the faculty of Medicine. The hospital has a medical library dedicated for this purpose. This library is a branch of the main library of the Bayero University Kano. The library is mannered by a qualified professional librarian, assisted by another five qualified professional librarians. The total number of the professionals in the library is six. Other para-professional staffs are also found in the library. Considering the nomenclature of the staff, the library is offering all information services offered by the main library of the university. Information resources such as books, journals, and other medical information resources are housed by this library. The library stocked 8,526 volumes of books and 4,523 titles of journals.

FINDINGS/DISCUSSION

Demographic Information of the Nurses

Information on the demography of the nurses has shown that 113 (71 per cent) were males and 47 (29 per cent) were females. Majority of the nursing professionals ages were found to be within the range of 30-40 (62 per cent).

Information Needs

Table 1 exhibits the types of information needs that are needed by the professional nurses of the teaching hospital. In the Table, one could see conspicuously that the nurses' information needs on material and child care issues top the list. This information indicates that females and children are the two groups that patronises the teaching hospital regularly and consistently. Therefore, information that is relevant, current and useful is highly needed by the nurses to be able to address the information needs and queries of their patrons. Professional training was ranked second. This clearly shows that the professional nurses' needs on the job professional training to be able to render relevant and effective evidence-based services to their patients. They surely need to be trained and re-trained consistently in order to keep abreast of the current happenings and developments in their field of practice.

Information on diseases is also needed by these professional nurses in order to handle their patients' requests and queries appropriately. Diseases such as diabetes, HIV, and malaria are prevalent in Nigerian environment. Therefore, cases of diseases can only be addressed seriously by the nurses only if they have access to pertinent information. Information is needed by them to be able to assist the infected to eradicate the disease completely or manage it. The susceptible, the potentials, and the generality of people need information to avoid contracting the disease. The Federal Government and the non-governmental organisations in the country are fully engaged in combatting these diseases from the nooks and crannies of the Nigerian environment. The programme of the Roll Back Malaria (RBM) from Nigerian environment and societies could positively serve as an example. Medical libraries have a very good role to play in aiding the professionals with pertinent information resources so that their information needs could be satisfied.

Table 1: Information Needs of Nurses

Health Issues	Responses	Percentage
Maternal and child care	80	63
Professional training	62	24

Health Issues	Responses	Percentage
Diseases (HIV, malaria diabetes)	57	22
Government health programmes	36	13
Telemedicine (computers, Internet)	34	12

Need for Current Information

The nurses were asked whether they need current information for their professional practice and for research purposes. Table 2 shows that 91 per cent nurses are fully aware and they need current information for their professional practices. They constituted the majority, while 6 per cent could not see the necessity and need for current information for them to function well and effectively. Only 3 per cent of the respondents are undecided on this issue.

The respondents were asked why they needed current information. Their responses include the following:

- to render reliable service as a nurse
- to update my knowledge and clinical skills
- to keep myself abreast of recent development in the field of nursing
- to know the current disease trend in the field of nursing
- to keep myself updated
- to practice effectively
- to be as perfect as possible in my profession

The responses above testify to clear manifestation that the nurses are fully aware of the necessity and importance of current information for their effective functioning in their professional practices. According to Kostagiolas, Bairaktarist, and Niakas (2009), healthcare professionals require a constant provision of high quality information for updating their knowledge and improving their practices and skills. From this point of view, the nurses must be very smart and constant in trying to update themselves for efficient and good services. On the part of the information providers, current and relevant information must be housed in their resources so that effective information services could be provided. Similarly, Lappa (2005) opined that current research on information needs, practices and behaviour assists in providing evidence for the development of library and information services. This shows that librarians could assist the nurses with current materials and resources for their professional services and other activities. Bertulis and Cheeseborough (2008) observed that a wide range of healthcare professionals (physicians, nurses, administrative,

and technical personnel, etc.) tend to increasingly appreciate library and information services. Professionals can only support and appreciate the existence of library in their midst, if that library is playing the role of problem solver to their information needs. That is why Kostagiolas *et al.* (2009) posited that library and information services should be acknowledged as an invaluable resource of scholarly communication, skill development and information seeking.

Table 2: Need for Current Information

Awareness of need	Respondents number	Percentage
I need current information	146	91
I do not need current information	10	6
Undecided	4	3
Total	160	100

Evaluation of Information Sources

The professional nurses were asked to assess and evaluate the information sources they used for their professional practices in terms of their adequacy in meeting the information needs of their patients. The result in Table 3 shows that 52 per cent of the nursing professionals have indicated adequacy of the information sources used in ushering professional services in the hospital, while 42 per cent indicate lack of the adequacy of the information sources available in the hospital. Only 6 per cent of the respondents are silent to the question.

The expression of adequacy of information sources by the nursing professionals could be mainly because of the availability of standard medical library in the hospital. Additionally, any information received from the library could have been very useful and pertinent for their professional services. Turner, Stavri, Revere, and Altamore (2008) believed that with an understanding of information needs, librarians can play an important role in locating pertinent resources and improving the organisation and access to public health information. Similarly, the finding corroborates that of Wakeham (1996) who concluded that nurses used the library as their primary source of information. Other sources of information such as meetings, notice boards, seminars, workshops, interactive sessions, and colleagues could have been very relevant, timely and applicable to their professional practices. The library resources and environment could be pertinent and conducive for the nurses' evident based practices.

Table 3: Adequacy of Information Sources Used

Adequacy of information	Number of respondents	Percentage
Adequate	83	52
Not adequate	67	42
No response	10	6
Total	160	100

Challenges Faced in the Process of Information Seeking of the Nurses

Table 4 shows clearly that 87 per cent of the professional nurses faced some challenges when seeking for information. Some of the professionals (10 per cent) expressed that they do not experience any challenge. Only 3 per cent could not express their views concerning this issue.

The nurses were asked on challenges they are facing when seeking for information. They responded as follows:

- non-functional e-library.
- information peculiar to Africa and Nigeria are scarce.
- poor networking services.
- inadequate updated magazines and journals concerning my profession.

Answers provided by the nursing professionals indicate that they face problems and challenges in the process of information seeking in the teaching hospital. Poor Internet connectivity could cause a barrier between the professionals and the enormous health information and literature that are available on the net. They tend to miss relevant information on evidence base practices (EBP) in other environments that could be found on the Internet. This scenario provide uncomfortable situation to the professionals and this could reduce their zeal to work effectively and efficiently. Information age is witnessed in every sphere of life of the human beings, nursing profession inclusive. Therefore, availability and functionality of e-library is of paramount importance for the survival of the professionals. Similarly, Harande (2013) opined that as communication has now become popular and easy through the Internet, so has the issue of health information disbursement. Internet nowadays provides useful information in almost all aspects of human endeavour. The aspects of health care, health information, drugs administration, medicine, first aid activities, and other health and allied services, are treated proactively on the Internet. Lack of African as well as Nigerian information on professional practices that could be used by the nurses could cause a lot of problems in rendering services. This condition could prevent the nurses from rendering evidence-based

practices to their teeming patients. These services are highly needed in Nigerian environment and many developing countries in Africa and other continents.

Table 4: Challenges Faced when Seeking for Information

Challenges faced	Number of responses	Percentage
Challenges	139	87
No challenges	16	10
No response	5	3

Conclusion and Recommendations

Healthcare delivery services are quite important for healthy growth of any community globally. Information that is current is considered very important and relevant for effective practices by the professionals. The result of this study shows that the nurses in Aminu Kano Teaching Hospital are fully aware and conscious that they need current information for their evidence-based practices, effective services and for their professional growth, and carrier development.

For the enhancement of nursing profession and their services, recommendation is hereby proposed that medical library resources in this hospital should be further enriched with information and communication technologies (ICTs) facilities so that the nurses could fully utilised the resources. Strong Internet service must be provided for the use of the nurses, medical personnel and other health and allied workers within and outside the hospital. Students and health researchers could also benefit from this effort. Along this line, Bertulis and Cheeseborough (2008) observed that a wide range of healthcare professionals (physicians, nurses, administrative, technical personnel etc.) tend to increasingly appreciate library and information services. Additionally, training of the nursing personnel on health information literacy by the medical library must be enhanced. With these series of experiences, the nurses could be vibrant and active in discharging their utmost duties.

Current, comprehensive, relevant, appropriate, and suitable African as well as Nigerian information resources needs to be provided extensively by the medical library for the professionals' use and consultations in providing effective, pertinent and proper answers to queries received from the patients. The resources could also assist, help, support and introduce new professional knowledge and experiences from other environments that could eventually guide the practicing nurses in the provision of evidence based services that are exceedingly needed in this environment.

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