

2016

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**MEETING THE INFORMATION NEEDS OF NURSES FOR EFFECTIVE
HEALTHCARE DELIVERY IN NIGERIA: A CASE STUDY OF FEDERAL MEDICAL
CENTRE, OWERRI, IMO STATE**

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Abstract

The study focused on meeting the information needs of Nurses for effective health care delivery in Nigeria with Federal Medical Centre, Owerri as case study and the area of study is South-East, Nigeria.. The descriptive survey method was used. The nominal roll of Federal Medical Centre, Owerri was used to derive the population of the study which is 300 and the sample of the study is 171. The questionnaire was used as instrument for data collection. The data collected was analysed using the simple percentages and tables. The findings of the study revealed that the nurses had need of information to care and manage patients as well as to improve their knowledge in clinical areas. Internet, Journals and books were the major sources consulted by nurses even though they still consult other medical database. The nurses are not satisfied with the information sources they consult. The factor 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. The study concludes that the medical libraries should carry out users study to enable them meet the information need of nurses.

Keywords: Information needs; Nurses; Health care; Owerri; Nigeria;

Introduction

Good health care delivery is necessary for the socio-economic development of any country (Njongmeta and Ehikhamenor 1998; Bill and Otiike, 2003). Health care delivery has become a crucial factor in national development, especially in Sub-Saharan Africa where the average mortality rate is high as a result of scourge of diseases and poverty (Adanigbo, 2006). There is an adage which says that health is wealth.

Health is defined by the World Health Organization (WHO) as a state of complete physical, mental, social and spiritual well-being not mere absence of disease or infirmity (Ajayi, 1993; Mbawonku, 1998). Health is a basic need that must be satisfied for any society to move forward. An unhealthy person cannot be happy and a country with many sick people loses man hours with the result that productivity will be low.

Health workers are professionals who play the vital role in maintaining a healthy population. They are trained medical professionals who are responsible for taking care of patient and play a major role in the prevention of diseases. They are people who protect and improve the health of their communities. They engage in actions whose primary aim is to enhance health. The health workers include medical doctors, nurses, pharmacists, laboratory scientists and community health officers. They perform the vital function of ensuring that people are well both mentally and physically. The health workers need health information in performing their official duties. They need continuous information so as to keep abreast with recent development in the field of medicine. The society is dynamic, so there are rapid changes in theory and practice of health care delivery.

Nurses are seen as an essential group of health workers. Nursing focuses on health, promotes and prevention of illness. Nursing is a science that promotes quality of life as defined by

population, communities, families, and individuals, throughout their life experience from birth through the end of life. According to the International Council of Nurses, Nursing encompasses autonomous and collaborative care of all ages, families, groups and communities, sick or well in all setting..." (Wikipedia, 2009). Nursing dictionary also sees nursing as "the practice in which a nurse assists the individual sick or well in the performance of those activities conducive to health or its recovery (or to peaceful death) that would perform unaided if he had the necessary strength, will or knowledge ..." (Wikipedia, 2009).

Nurses irrespective of their specialty or work setting treat patient, educate patients and the public about various medical conditions. The nurse's record patient's medical histories and symptoms perform some diagnostic tests, analyze result, operate medical machinery, administer treatment and medication and help in patient follow up and rehabilitation. Nurses also educate the public on warning signs, symptoms of diseases, diet, and nutrition and exercise program. Nurses observe the patients and record their observations. Nurses form the majority of clinical employees of hospitals and they are consulted more than other health workers.

Nurses are responsible for the implementation of the doctor's prescription and orders; and maintain surveillance over patient health. While the doctors/physicians prescribe drugs, the nurses administer the drugs, the nurses administer the drugs. The importance of nurses cannot be overemphasized because they play a crucial role in health care delivery. They help the doctors, pharmacists and laboratory scientists to provide effective health care to patient. In fact, nurses coordinate all health care activities of patient in their care.

The role of nurses in health care delivery information is a very crucial tool for nurses and how they acquire and use the information are key determinants of their performance. This

recognition underpins the nurses need for access to useful information and necessary skills for using such information (Nwagwu and Oshiname, 2009). The inability of nurses to obtain useful information they need for their job portends great danger as they are likely to fall back on whatever little and outdated information available for their job. This situation will result in the decrease in their performance on the job will affect health care delivery in the country. Information as seen as processed data.

In view of the crucial role nurses play in ensuring that people are healthy both physically and mentally, their real information needs should be known to enable them have the right kind of information they require for the provision of effective services to patients in Imo state. So far, not much is known about the information needs in developing countries. What is known about information needs of nurses is based on research in developed countries (Nwangwu and Oshanime 2009).

Statement of the Problem

Nurses play a vital role in health care delivery. Usually they are more in number than other clinical employers and they are easily available to take care of patients quite unlike doctors who are seen more in their consultation rooms. The nurses need current accurate and timely health information to perform their duties effectively.

However, it seems that the nurses are neglected as not many studies have been carried out especially in developing countries about their information needs. Some studies in the past confirm that studies are rarely carried out to ascertain the information needs of nurses to enable them perform this noble role in caring for patients.

Furthermore, there is concern that since not much is known about information needs of nurses, it might be difficult to assemble and provide current information that are relevant for taking care of the patient. Knowledge to improve practice in the clinical area and information needed to support lifelong learning and formal course of study required by nurses are more difficult to find especially those that work in rural areas. Moreover, there is also the concern that nurses may lack information seeking skills, computer skills and procedure for nursing documentation. There is the likelihood that most of the nurses are not computer literate with the result that they cannot have access to electronic resources within and outside the library. In addition, as a result of poor knowledge of use of libraries, some of them cannot have access to the information in libraries. Finally, in some hospitals, libraries do not exist with the result that is difficult to obtain information necessary for carrying out clinical duties.

These gaps are likely to reduce patient's care especially in critical situation in which information is urgently required. This situation may result in increase in death rate of patients who would have been cured if the adequate information were available. It has therefore become necessary to device means of meeting the information needs of nurses to enable them perform their duties effectively.

Research Questions

The research questions of this study are as follows:

- i. What are the work-related information needs of nurses?
- ii. What are the information sources utilized by the nurses?
- iii. To what extent are the information needs of nurses met?
- iv. What problems do nurses encounter in meeting their information needs?

- v. What are the strategies for improving the provision of effective health information to nurses?

Literature Review

Health information need of nurses and other health workers are the needs that enable them to perform their job effectively. Health information need is the desire of health professionals especially nurses to locate and get information to satisfy their needs.

Nurses need information to help them take adequate care of patients. In a research carried out by Turner, Stavri, Revere and Altimore (2008), the objective was to identify and access the information needs of and resources of public health nurses in a local health department. The methodology was semi structured in-depth interviews conducted with seventeen public health nurses at a local public health department in Oregon. Interview transcripts were analyzed using a constant comparative method to assess the information nurses sought and used in their work. The result showed that the average time each nurse worked at the health department was seven years. The result also showed that information needs of the nurses differed according to employees' position and roles. Although the health department nurses shared a common professional background, they were employed in a variety of position including clinical office nurses, home visit nurse, nursing assistant, women's health specialists, school nurse, nursing supervisor, communicable disease nurse, bioterrorism liaison, and health department director. Information needs differed greatly depending on the respondent's position and professional role in the department.

Cogdili (2003) studied information needs and information seeking behaviour of nurses' practitioners in two phases of data collection. The initial phase of data collection was the

administration of a questionnaire to three hundred nursing practitioners (NP) who were asked to report their experience of needing information as a result of patient encounters, as well as their experience of seeking information. The second phase of data collection entailed a series of interviews with twenty NPs after encounters with patients to collect data on instances of information needs and information seeking.

Results of this study indicate that Nursing Practitioners most frequently need information related to drug therapy and diagnosis in that order. The Nursing Practitioners with a master's degree were found to experience information needs more frequently than their colleagues who had not received master degree. Blythe and Royle (1993) assessed nurse's information needs in their work environment. The sample of this study consisted of thirty-four eligible nurses in a thirty two bed general medical and hematological and oncology unit of a teaching hospital. In gathering data ethnographic approach was adopted. A researcher with training in qualitative method observed the participants for forty hours in their work setting over a period of six weeks and questionnaires were given to all nurses participating in the project. The result showed that nurses engaged in two broad types of information seeking. First, they sought information to help them to make decision about care of individual patients.

In a study of the information needs and information seeking behaviour of nurses at University College Hospital, Ibadan by Nwagwu and Oshiname (2009), a total of 201 questionnaires were returned. The result showed that 99.5% of the respondents needed information on outbreak of diseases, 99% respectively needs new remedies and nursing processes while 98.5% need results of scientific research. General information (98.5%) and information

about to prevent avoid contracting HIV/AIDS from patients (98.0%) appeared to be of high priority to nurses than economic or business information.

Ajayi (2005) 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 nurse's need current information. According to Adanigbo (2006) 120 questionnaires were administered to nurses, 20 questionnaires to doctors, and 7 questionnaires to pharmacists. The result showed that majority of the nurses (120 or 95.2%) needed information to keep up to date, 114 or 90.5% needed information for managing patients, 95 or 75.4% of the nurses need information for supporting diagnosis medical doctors on the other hand needed information for solving clinical problems (12 or 85.7%), managing patients (11 or 78.6%) and keeping up to date (10 or 71.4%) majority of the pharmacists 7 or 100% needed information on supporting diagnosis, acquiring new drugs, and undertaking research respectively. Ocheibi and Buba (2003) in their study on information needs and information gathering behaviour of doctors in Maiduguri Nigeria used a total of 225 medical doctors from both government establishments and the private hospital and 158 questionnaires were returned. 50 or 31.6% of the respondents needed specific medical information, 39 or 24.7% needed general medical information while 19 or 20% of the respondents needed reference information, 21 or 13.3% needed research and teaching information while 100.3% needed information for preparing publications.

A work on health information need in Cameroon by Njongmeta and Ehikhamenor (1998) is made up to 125 respondents with 38.8% as nurses 34.4% represent physicians while 8.0% represents pharmacists and 4.8% represent physiotherapists. The respondents needed information

for current awareness (64.0%), to support diagnosis 53.6%), patient management (52.0%), about new drugs (46.4%), for research purposes (32.8%) and 21.6%) for teaching purposes.

In the study by Ajayi and Akiniyi, (2004) health information to primary health care workers in selected Local Government Areas in Nigeria, aimed at identifying the information needs of health workers 120 nurses, 80 midwives, 50 public health officer, 8 doctors and 5 pharmacists. A stratified random sampling of 263 primary health care workers was used. The result showed that 205 (77.9%) of the respondents needed information on SARS, 197 (74.9%) needed information on HIV/AIDS, 121 (46.0%) on EPP, ORI and breast feeding, 117 (44.5%) on the tele medicine, 85 (32.3%) on education and training, 46 (17.5%) on government activities.

In a study on information needs of the rural physicians by Dee and Blazek (1993) data was collected from twelve rural physicians in central Florida through face to face interviews and observations. From the review of 144 patient charts, 48 produced unique factual patients care questions. The result showed that patients needed information on diagnosis, treatment and drug therapy.

Oduwale (1998) studies information need of medical doctors in teaching hospitals. This study was carried out during the 1997/98 session and was limited to medical doctors and was teaching hospitals in Nigeria OSUTH, UCH, LUTH, 70 respondents were selected out of 105. Out of the seventy copies of questionnaires administered sixty three were returned representing 90% response. The result showed that 31 (49.2%) need information for management of patient, 37 (58.7%) needed information on new drugs, 40 (63.5%) needed information on diagnosis while 19 (30.2%) needed information for research.

Most of the literature reviewed on nursing did not discuss extensively about the caring of patient especially promotion of health advocacy and promotion of safe environment and publication in shaping health policy especially in developing countries. In a study carried out by Gonzalez-Gonzalez, Dawes, Sanchez-Maeteos, and Reisgo-Fuerles (2005) identified the information needs of primary care physicians. It was observed that 112 primary care physicians in Spain were studied. The information needed include diagnosis (53%), treatment (26%), management (7%) epidemiology (1%).

According to Oduwale (1998) medical officers in teaching hospitals indicate that 49 (97.8%) of them use conference proceedings and 45 (71.4%) use seminars and workshop. According to Ocheibi and Buba (2003), 7 or 4.4% of doctors use conference papers. Ajayi and Akinniyi (2004) also stated that 187 (71.1%) of the respondents make use of seminars workshops and courses. Okoro and Okoro (2005) identified that doctors make use of conferences and seminar 404 (60%) of the respondents use conferences and seminars (Okoro and Okoro, 2005). Gbadamosi (2005) his contribution stated that 185 or 93% make use of meeting/symposia/conferences. Nweke (1992) stated that 81.7% of human and veterinary medical scientist use conference proceedings.

Research Methods

In this research, descriptive survey method is used. The area of study is south east, Nigeria. The nurses in Imo state Federal Medical Centre will be studied. The population of this study is made up of 300 nurses in Federal Medical centre Owerri Imo State Nigeria. The nominal role of Federal Medical Centre was used to derive the population of the study. The sample of this study is 171 nurses. The respondents will be selected through simple random sampling. The questionnaire will be used for data collection. The questionnaire will be administered to 171 nurses in Federal

Medical Centre, Owerri. The questionnaire was be administered personally buy the Researcher and his Research Assistant. The data collected will be analyzed through the use of simple percentages and tables.

In this research on meeting information needs of nurses, 171 questionnaires were administered to nurses in Federal Medical Centre Owerri, Imo State Nigeria. Out of the 171 questionnaires, 140 valid questionnaires were filled and returned by the respondents representing 81.9% return.

Table 1: Information needs of Nurses

Information needs	Frequency	Percentage
Care and management of patients	60	42.9
Information to improve knowledge in clinical areas	61	43.6
Information to support lifelong learning	43	30.7
Occupational hazard	23	16.4
New drugs/new remedies	54	38.6
Nursing process and procedure	30	21.4
Anatomy and physiology	29	20.7
Palliative care	1	0.7

In table 1 above, the respondents checked more than one item so the total responses are more than 140. The above table indicates that 60(42.(%) of the respondent require information on care and management of patients; 61(43%) need information to improve knowledge in clinical areas; 43(30.7%) need information to support lifelong learning; 23(16.4%) need information on

occupational hazard; 54(38.6%) need information on new drugs, 30(21.4%) require information on nursing process and procedures, 29(20.7%) need information on Anatomy and Physiology, while 1(0.7%) need information on Palliative Care. This result tallies with the findings of Royal College of Nurses (2005) that indicated that nurses need information to improve practice in clinical areas and to support lifelong learning and in formal course of study. It also tallies with the findings of Nwagwu and Oshinaime (2008) who studies information needs and information seeking behavior of nurses at University College Hospital University of Ibadan, Nigeria. This study showed that nurses need information on new drugs / new remedies

Table 2: Information sources used/consulted by Nurses

Information Sources	Frequency	Percentage
Internet	81	57.9
Journals	59	42.1
Books	58	41.4
Nursing colleagues	41	29.3
Other health professionals like doctors	45	32.1
Medical / Health libraries	40	28.6
Electronic data bases like Medline Cenahlete	16	11.4
Website like Royal society of Nursing website	10	7.1

It should be noted that sum of the frequency is more than 140 because each respondent checked more than it.

Table 2 above shows that the major information sources used by nurses are internet 81(57.9%), the second information sources utilized is journal 59(42.1%), the third major information source utilized by nurses is books 58(41.4%). It should also be noted 45(32.1%) used other health professionals like doctors, 41(29.3%) used nursing colleagues, 40(28.6%) used health/medical libraries. Electronic data bases are used by 16(11.4%) respondents while some of the nurses electronic journals in the internet and e-books. This tallies with the finding of Nwagwu and

Oshinaime (2009), other information sources that are widely used include books and professional colleagues like doctors and other nurses.

Table 3: Health Information system/data bases used by nurses.

Health Information System	Frequency	Percentage
Medicine database	46	32.9%
RCN website	26	18.6%
Index medicns	20	14.3%
Health star	13	9.3%
No response	35	25%
TOTAL	140	100

Table 3 above is on health information systems utilised by nurses. Majority of the nurses 46(32.9%) indicated they used medicine data base 26(18.6%) used RCN website while 20(14.3%) used index mediums. The worrisome aspect of the finding is that 35(25%) of the respondents did not check any item may be because they are not conversant with information systems. This is in consonance with the findings of RCN Royal college of Nurses (2005) which stated that 51.9% of the respondents used electronic data bases like medicine.

Table 4: Level of satisfaction derived from use of information sources

Level of Satisfaction	Frequency	Percentage
Satisfactory	66	47.14%
Not satisfactory	72	51.43%
No response	2	1.43%
	140	100

In table 4 above, most of the respondents said they were not satisfied with the information sources provided while 66(47.14%) said they were satisfied with the information sources provided 2(1.43%) did not make any statement / response.

Table 5: Problems of Access to Health Information needs

Problems	Frequency	Percentage
Lack of access to internet	37	26.4%
Inadequate training of nurses in the use of information resources	54	38.6%

Inadequate training of library and information professionals	23	16.4%
Lack of current materials on nursing	28	20%
Lack of document delivery services, selective dissemination of information and inter library lending	28	20
Lack of users study/survey to ascertain the information needs of nurses	34	24.3
Health information is tucked away in files marked “secret” or “confidential”	20	14.3%

In table 5 the respondents ticked (checked) more than one item with the result that the responses were more than 140. In the table above, 54 (38.6%) of the respondents emphasized the need to train nurses on how to use information resources 37 (26.4%) indicated lack of access to internet. In Nigeria the bandwidth and is very low, so there is always poor access to internet especially during rainy season and harmattan period. In the table also 34(24.3%) said the problem is lack of user survey or community analysis to ascertain the real information need of nurses, 28(20%) of the respondents respectively checked lack of current materials and lack of document delivery services and selective dissemination of information; 23(16.4%) said the problem of lack of access to information needs of nurses is because of inadequate training of librarians and other information professionals on the way of provision of effective information. also 20(14.3%) said health information is tucked away in files marked “secret” or “Confidential”.

Table 6: Recommendations on ways of improving access to health information needs of nurses.

Recommendations	Frequency	Percentage
Training of nurses on the use of ICT and health	-	-
Stocking of medical libraries with current materials nursing	82	58.6%
Carrying out users study to identify/ascertain the information needs of nurses	48	34.3%
Automation of health/medical libraries	48	34.3%
Encouraging nurses to attend conferences and workshops on effective use of information materials	10	7.1%

Provision of standard medical library	35	25%
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In table 6 above most of the respondents 82(58.6%) indicated that nurses should be trained on the use of ICT and health information systems, 48(34.3%) of the respondents respectively recommended the stocking of medical libraries with current materials (books & Journals and carrying out users study, 35(25%) of the respondents recommended provision of standard medical library and this was elicited from the other questionnaire item other please specify. It should also be noted that the respondents checked multiple items in this question 20(14.3%) recommended that health/medical libraries should be automated while 10(7.1%) of the respondent subscribed to organizing and encouraging nurses to attend conferences.

Conclusions

This study has identified some of the information needs of nurses which include provision of information needed in clinical areas and information for care of patient. The information sources utilized by nurses were also identified and it is clear that the users are not satisfied with the services made available to them. It is therefore necessary to ensure that current library materials on nursing in book and non-book format that are relevant to the needs of nurses are provided on a regular basis to enable them perform their duties effectively. The medical libraries should carry out users study to enable them meet the information needs of nurses.

Recommendation

The following recommendations are made in this study.

First, provision of adequate information is synonymous with knowledge of information needs of users. Therefore medical libraries should carry out users study to identify the information needs of users for the purpose of meeting information needs of users. This could be done through

sociological survey by administering questionnaires, through in house use of materials and through identifying if the information needs of users are available in the medical library.

The medical libraries should be linked to the internet to sustain the interest of nurses who use the internet outside the confines of their libraries. Installing internet in medical libraries encourages effective use of information materials and access to current materials like electronic journals and electronic books. The medical libraries should be fully automated through the use of library software like KOHA, Millennium, Alice for Windows, X-Lib etc. Although there is a lot of interest in the use of soft copies of books, effort should also be made to provide current books and journals that are found in traditional libraries to augment information obtained from the internet.

Furthermore, the medical establishment should train and retrain the nurses in areas like use of the library, information literacy etc. this could be carried out through attending conferences and seminars. Other on the job and off the job training methods could be used to achieve the desired result. The librarians and other information professionals should be trained and retrained to enable them provide effective services to nurses and other health workers.

Moreover, the medical libraries should introduce services like document delivery services and selective dissemination of information. The librarians in medical libraries should try to remain relevant by being ICT complaint (learning how to use ICT) and ensure that users needs are matched with their profile. The libraries should also ensure that effort is made to provide the information needed by users even if it involves getting outside the confines of your library or going to other libraries to obtain materials needed by users that are not available in your library. When a library starts to meet the information needs of the users by going the extra mile, the number of library users will increase. Poor reading habit among Nigerians to some extent could be

linked to lack of provision of adequate resources. Effort should be made to ensure that the needs of the users are met at all cost to encourage them to make effective use of the library.

Library materials for recreational reading should be acquired and made available to patients because books have healing effect-bibliotherapy. The right kind of materials should be given to patients to read which may improve or speed up their healing.

The medical librarians should use good public relations and advocacy to attract the hospital management to increase the budget set aside for the library.

The librarian should liaise with the Nigerian Library Association (NLA) and Medical Library Section of Nigerian Library Association should go on advocacy visit to management of hospital to intimate them of the importance of medical library in improving the services offered by nurses and other health professionals.

Medical librarians are aware that no simple library can provide all the materials user need. They should therefore engage in interlibrary lending to enable them satisfy the needs of their users.

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