

Barriers in Meeting Information Needs of Nurses for Healthcare Delivery in General Hospitals in Nigeria: Survey of Jigawa State Hospitals

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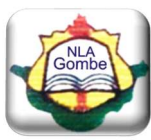
Abstract

This paper investigates the information needs and challenges meeting the information needs of nurses for healthcare delivery in general hospitals in Jigawa State- Nigeria. The study was based on survey research method using cross-sectional survey. The population of the study comprised of three hundred and eighty four (384) nurses drawn from the nine (9) general hospitals in the state. There was no sample size used because the entire population was used (census). Questionnaire was the only instrument used to collect data from the respondents. A total of three hundred and eighty four (384) copies were administered, and three hundred and fifty two 352 (92%) copies were returned and found useful for the analysis. The data collected was analyzed using descriptive and inferential statistics. The findings reveal that the nurses need information on palliative care and information on clinical decision making. The study further reveals that the nurses encountered various challenges in meeting their information needs for healthcare delivery. The study concluded that the nurses under study may not be able to provide effective healthcare services to their patients due to the challenges they encounter in meeting their information needs. Therefore, the study made the following recommendations: medical library should be available in each and every general hospital, Hospital Information System should be functional and Internet connectivity should be available and accessible to the nurses.

Keywords: Information Needs, Healthcare Delivery, General Hospitals, Jigawa State, Nigeria

Introduction

Healthcare delivery is the basic responsibility of every health professional, therefore health professionals need to have access to current and relevant information resources in order to provide effective healthcare services to their patients. Healthcare delivery is the provision of healthcare services to individual or community by health workers to improve their healthcare status. According to World Health Organization WHO (2004), healthcare is a service provided to individuals or communities by health service providers such as nurses, dentists,



medical doctors etc for the purpose of promoting, maintaining, monitoring or restoring health. The healthcare services are categorized into the following: Intermediate healthcare, Primary healthcare, Secondary healthcare and Tertiary healthcare.

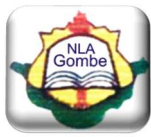
The study was conducted in Jigawa State; the focus was on general hospitals of the state. Jigawa State is one of thirty-six (36) States in the Federal Republic of Nigeria. The motto of the state is “*A New World*” which suggests a virgin land of full opportunities. The state lays between Latitudes 11.00⁰ N to 13. 00⁰ N and longitudes 8. 00⁰ E to 10.15⁰ E. Kano and Katsina State border Jigawa to the west, Bauchi State to the east, Yobe State to the northeast and to the north, Jigawa State shares an international border with the Republic of Niger. The maximum temperature is about 42⁰C usually between the months of March to September. Lower temperatures are recorded especially at nighttimes during the harmatan season, which is as low as 10⁰C during the period between October and February.

According to National population Census (2006), the state population is 4,348,649 people of which 51% 2,215,897 are males while the remaining 49% 2,132,752 are females. The population of the state is predominantly rural estimated at over 85%. Based on the National estimates, the life expectancy at birth in Jigawa State is 47.8 years for males and 48.5 years for females. About 68.7% of household heads are self-employed while 70% of them relying on subsistence agriculture as their main occupation. About 81.3% of the household heads have never had any formal educations; only 4.4% acquire a post-secondary education. The socio-cultural situation in Jigawa State could be described as homogeneous with Hausa/Fulani found in all parts of the State. Kanuri are largely found in Hadejia Emirate.

According to Abdurrahman (2014), Jigawa State has high mortality rates and for every thousand children born 98 will die by age 5 years, and the leading causes of ill health and death in the children are communicable diseases and malnutrition. Malaria, diarrhea diseases, respiratory tract infections and malnutrition. Mothers die frequently from complications of pregnancy and childbirth. Abdulkadir (2017), states that malaria is associated with (70%) of illnesses in pregnancy. The doctor - nurse population ratio in Jigawa State is reported to be only about 1:90,000 and 1:10,800 respectively all of which are pathetically below the national average of 1:333 and 1:1000 respectively.

In view of this, Jigawa State Strategic Plan (2015), states that only half 53% of the population in the state have access to medical services; the rate is higher in urban areas with 55%. There is a general shortage of resources for health service delivery except for drug supplies that is reported to have improved due to the introduction of sustainable drug supply scheme. Health facilities and major equipment are in general state of disrepair and require major rehabilitation or replacement. The State Ministry of Health (SMH) has responsibility for formulating state policies or translating national health policies for local implementation and regulating the services. Until recently this dual role of regulator and provider has compromised its role as oversight agency for all health services.

Jigawa State has Gunduma Health System (GHS) which is responsible of providing healthcare services to the people in the state. System is headed by a Director General who reports to the Commissioner of Health and who is supported by a team of directors; the team provides the secretariat for the Gunduma Board. The aim of the system is to coordinate and promote collaboration among all healthcare providers in the state and supervise and monitor health teams at other levels. There are nine (9) Gundumas each headed by a council to oversee service delivery at that level. Within each Gunduma is a hierarchy of health facilities ranging from General Hospital to Basic Health Clinic. There are nine (9) are general hospitals



in the state: Birniwa General Hospital, Birnin-Kudu General Hospital, Dutse General Hospital, Gumel General Hospital, Hadeja General Hospital, Jahun General Hospital, Kazaure General Hospital. Kafin Hausa General Hospital and Ringim General Hospital.

Research Objectives

1. To determine the information needs of nurses in General Hospitals in Jigawa State, Nigeria;
2. To identify the challenges encountered by the nurses in meeting their information needs;
3. To identify solutions to the challenges encountered by the nurses under study;

Statement of the Problem

Attainment of effective healthcare delivery through the use of information resources available has always been the priority of every health industries. Every health professional tries to use relevant information resources to satisfy his/her information needs. The role of information sources such medical libraries; internet, social media etc cannot be overemphasized. Nurses play vital role in the healthcare delivery, they usually constitute the highest number of health personnel in every hospital. Thus, nurses are actively involved in promoting healthcare services to the community they serve. But, many nurses find it difficult to identify which information sources to obtain information for healthcare delivery.

In Nigeria, most of general hospitals have no medical libraries, no internet connectivity and so on. As a result of this, they end up using information sources which are not current. In view of this, Ibegwan (2013), found that nurses in low-income countries such as Nigeria, currently lack access to health information they needed and this problem may lead to directly or indirectly to misdiagnose, error in treatment and cause unnecessary suffering, disability or even death. There is also problem related to the difficulty experienced by nurses in Nigerian hospitals to find information that could enhance their work and provide effective healthcare delivery.

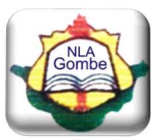
It is therefore common in Nigeria hospitals to see nurses waiting for a doctor or a senior nurse on what to do to a patients even at the emergency cases, such delay could make their medical condition worse especially when the situation is already critical or even cause death. In view of this, Adamu & Olaide (2013) cited Dee and Stanley (2005), asserted that most nurses rely only on their colleagues and books for medical information. It is against this background that, this study aims to investigate the challenges in meeting the information needs by nurses for healthcare delivery in general hospitals of Jigawa State, Nigeria.

REVIEW OF RELATED LITERATURE

Information Needs of Medical Personnel

People need information for different purpose. Therefore, information needs is defined based on the demand and purpose by which information is needed. Generally, information needs is the desire of an individual or group of individuals to obtain information to satisfy their needs, but the needs depend highly on the activities of such individual or group of individuals. For instance, information needs of lawyers differ from the information needs of nurses. Information needs of lawyers will be on legal issues while information needs of nurses will be on healthcare delivery. As such, each individual has his own information base on his/her demand. People need information for day-to-day activities and making informed decision.

In the context of this study, information needs could be depicted from the nursing point of view, as such various factors are likely to shape the information seeking behaviour of an



individual or a group of individuals, nurses inclusive. It is therefore, desirable to understand the purpose for which information is required, the environment in which the user operates, skills required for identifying the needed information, and types of information resources and to be used. Since nurses work within the healthcare industries and their main role is to provide healthcare service to the people to improve their health conditions. Therefore, the information needs of nurses can reflect on the information about drug therapy, drug prescription, diseases control etc.

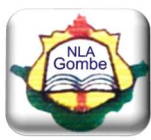
According Milton (2016), opines the information needs of health professionals are thus requirements that may drive health professionals into an information seeking process to meet their information gaps. Knowledge about the information needs, information behaviour and information seeking patterns of health professionals is crucial to effectively satisfy the felt information needs and improve the delivery of health care services in a country. Information needs in high income countries revealed that doctors mainly needed information in the following areas: clinical care. Information on diagnosis and treatment were also major information needs for primary care health professionals in Spain.

In view of the above, Momoh, Oni & Oshionebo (2015), in their study conducted on the information seeking behaviour of nurses in central hospitals in Delta State, Nigeria, reported that the areas nurses need information, about 68% of the nurses need information for diagnosis, 66% need information in the area of drug therapy and 62% need information in the area of health development and current medical treatment techniques. It can be said that, the information needs of nurses is for diagnosis, drug therapy and health development and current medical treatment.

According to Anyanwu et al (2016), information needs of nurses and other health workers are the needs that enable them to perform their job effectively. Health information need of 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. Again, Anyanwu et al (2016), reported that about 42% of nurses require information on care and management of patients, 43% need information to improve knowledge in clinical areas, 307% need information to support lifelong learning, 16.4% need information on occupational hazard 38.6% need information on new drugs, 21.4% require information on nursing process and procedures, 20.7% need information on Anatomy and Physiology, while only 0.7% need information on Palliative Care.

In another view, Egbunu & Jeminiwa (2012) cited in Vickery (1970), opines that the information needs of nurses reflect on the need for awareness about the ongoing in the field of medicine, and the need to keep abreast with the current progress in the nursing profession. Therefore, information need of nurses is generally on information about their patients, diagnosis and treatment. Based on the above discussion, information needs of nurses can mean any information resources, sources which nurses can use to acquire information to satisfy their information needs. Similarly, Just (2008), reported that about 59% of nurses need information on nursing care and information in providing basic nursing care for daily body function such as bathing, general hygiene care, about 83% indicated that they need information in providing basic nursing care for psychosocial or spiritual care.

However, Ibegwan (2013) cited Thomas et al (2004), that an information need of health professionals has three (3) components:



1. Information that is needed for decision making and that is already known by the nurses. This refers to the currently satisfied needs.
2. Information that is not known by the nurses but they recognize as being applicable to the decision-making process. This refers to consciously recognized needs.
3. Information that is important to the circumstance at hand but that the nurses do not realize is applicable, this refers to unrecognized needs.

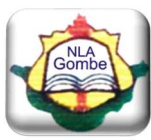
Thus, nurses also need information for decision making; therefore they need current and relevant information to make informed decision because any mistake in nursing profession may lead to serious damage or even death. As such, nurses need current and relevant information resources to be up informed and satisfy their information needs as well. Furthermore, Ibegwam (2013) cited in William et al (1992) categorized information needs of nurses by the reason that they began their search for information to, they are as follow:

- Assist in solving a new or unfamiliar health care problem.
- Update basic knowledge on topic through review.
- Obtain information from another specialty when dealing with patients with multiple problems.
- Highlight particular patient care concerns to other members of the health care team.
- Find out about a rare or unusual patient care problem.

However, Milton (2016), summarized the results on types of information sought by health professionals and the responses indicated that the main types of health information sought by health professionals were updates on new health issues, disease prevention and control and routine patient care. Similarly, Andualem et al (2013), found that about 97.3% of health professionals need information to update knowledge in order to support their daily activities, 98.8% of the health professionals preferred formal health information resources than informal health information resources while 56% of the health professionals need self-initiated information and question from patients, only 42.8% of the health professionals had access to internet/searching on Google engine at different places. Their study further concluded that almost all the health professionals had information needs.

In this regard, Just (2008) defined information need in context of nursing as any desire to have data, information, and knowledge to answer questions, solve problems, make sense of nursing care and practice situations, or make decisions about their nursing care and practice. Therefore, information need(s) of nurses denotes a state of requiring information or knowledge as a result of having information or knowledge gap for patient care/practice and professional development. In view of this, Thomas (2012) found that nurses sought information for decision making about individual patients' care, while 49% sought for medications and conditions of patients, 21% of the nurses frequently required information related to drug therapy and diagnosis and the sources they used most frequently were their professional colleagues, drug reference manuals and protocol manuals.

For the purposes of fulfilling information needs of individual nurses in their nursing care and practice, the information needs of nurses are related to nursing care activities and nurses' role-related functions, times related to patient care, the settings under which patient care is taking place and complexity of patient problems or patient care, patient expectation, a magnitude of information need, and purposes of information needs and uses. In general, nurses reported the need for information for professional development more than for patient care. In the real time practice, nurses need information for patient care more than for



professional development. However, no study has been conducted to assess what information nurses need and use for their specific nursing care activities.

In conclusion, information needs is generally seen as the desire of an individual to obtain information to satisfy uncertainty or an information gap. It can also be concluded that the main types of information needed by nurses are information on of diagnosis, treatment, patient care/practice, drug therapy, professional development and for decision making. There are other aspects of nursing profession which nurses may require information for healthcare delivery.

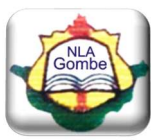
Barriers in meeting Information Needs by Medical Personnel

In the process of meeting the information needs, various challenges may be encountered. These challenges could be personal, economic, environmental, professionals, social etc. In view of this, Thomas (2012), enumerated the following challenges in meeting the information needs: environmental barriers, personal and demographic barriers, role related and interpersonal barriers and information Sources. Similarly, Andualem et al (2013), found that major of health workers identified challenges in meeting information needs such as geographical, organizational, economic related, educational, social/cultural barriers, poor personal initiation, time shortage, low prevalence of new cases. Their study further found that in developing countries where ICT infrastructure is available access and use of health information technology (HIT) is another challenge. It was also found that more than half 54% of health professionals encountered challenges in meeting information needs during their daily activities due to information limitation.

According to Ngozi & Ezeugwu (2014), stated that lack of access road network is a great hindrance to meeting the information needs. They also pointed out that even when the available information has been repackaged, delivery to the required places including rural areas is always a problem since most communities are inaccessible. To worsen the situation, information seekers in the rural setting in Nigeria is pitiful due to the fact that the mobile library services of the state library boards meant to serve these rural areas are now dead because there are no functional delivery vans to convey both the staff and their materials to the rural areas.

However, Egbunu & Jeminiwa (2012), conducted study on information needs and seeking behavior of Medical Doctors in Abuja Teaching Hospital-Nigeria found that health professionals faced some challenges while using information resources among which are: lack of time, lack of appropriate selection tools, lack of finding what they are looking for, lack of search skills and cost of information resources. Thus, health professionals including nurses encounter many challenges in seeking and using information for healthcare delivery. Anyanwu et al (2016), revealed that about 38.6% of nurses emphasized the need for training on how to search and use information resources, while 26.4% of the respondents indicated that there is lack of access to internet, also 24.3% of the respondents revealed that there is lack of user survey or community analysis to ascertain the real information need of nurses, 20% of the nurses indicated that there is lack of current information materials and lack of document delivery services and selective dissemination of information, only 16.4% revealed that there is lack of access to information.

However, Ibegwan (2013), states that there are several challenges that nurses face in accessing information for healthcare delivery these include: inadequate resources, untrained human resources, infrastructural problems including power outage, lack of awareness of information resources, unaware of the health trends, lack of time and training, lack of



effective search skills. In view of this, Momoh et al (2015) conducted a study on information Seeking Behavior of Nurses in Central Hospitals in Delta State Nigeria, revealed that access to the internet resources is another problem which nurses in Nigeria encounter in meeting their information need. Users of cyber cafes have several constraints, including high cost of accessibility, lack of privacy, and the fact that these cafes are typically rowdy. The study further found that 78% of the nurses strongly agreed that power outages is one of the major problems in using internet, 77% strongly agreed that there is lack of search skills, 71% have problem with high cost of the Internet access.

Anyanwu et al (2016) conducted a study of Meeting the information needs of nurses for effective healthcare delivery in Nigeria, found that 26.4% of nurses do not have access to internet, 24.3% said their problem is lack of user survey or community analysis to ascertain the real information need of nurses, less than half 20% of the respondents revealed that lack of current materials. According to Clarke et al (2013) found that the most common barrier nurses encounter is lack of training or search skills. They further reported that 86% of the respondents used google more than any other electronic resources on a monthly basis. The report also found information overload is another identified barrier to information needs of public health nurses.

Zhou & Nunes (2015), opined that barriers to knowledge sharing in Chinese healthcare referral emerged in four main themes: interpersonal trust barriers, communication barriers, management and leadership barriers, and inter-institutional barriers. A cause- consequence analysis of the identified barriers revealed that three of them are at the core of the majority of problems, namely, the absence of national and local policies for inter-hospital KS, lack of a specific hospital KS requirement, and lack of mutual acquaintance services.

From the discussions, nurses encounter many challenges associated with the seeking and using of information for healthcare delivery. It was found that the common challenges are lack of current information, lack of time, lack of medical libraries, high cost of information resources, poor internet connectivity, lack of search skills, lack of computer skills etc.

Methodology

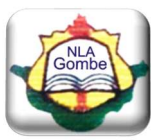
Survey method using Cross-sectional design was adopted in the study because it is usually conducted to collect data from respondents at one point in time, and it is used to identify the relationship between two variables. The population of the study was drawn from the nine (9) general hospitals in Jigawa State, Nigeria which was three hundred and eighty four (384)nurses in the hospitals and census was the sampling technique used in this study. Questionnaire was the only instrument used to collect data from the respondents, 384 copies were distributed and 352 copies of questionnaire were returned and found useful for analysis. Descriptive statistics was used to analyse the data.

Discussions and Analysis

Table One: Response Rate

Questionnaire	Frequency	Percentage
Administered	384	100(%)
Returned	352	92(%)
Not Returned	32	8(%)

Table two shows that 384 copies of questionnaire were administered to the respondents, out of which 352 (92%) were filled, returned and found useful for analysis, while 32 (8%) were not returned. The result also shows that there was high rate of returned the questionnaire administered to the respondents, which means that most of the respondents were within the



reach of the researcher. Therefore, the percentage realized was strong enough for analysis in the study.

Table Two: Information Needs of Nurses

Information Needs	N	Mean	Decision
Information on clinical decision making	352	3.7983	accepted
Information on Palliative care	352	4.0000	accepted
Information on drug therapy & prescription	352	3.9416	accepted
Information of patients' health conditions	352	1.9580	not significant
Information on disease control & treatment	352	1.9280	not significant
Information on patients' referral	352	3.9748	not significant
Information to educational development	352	1.9520	not significant

Table two represents the information needs of the nurses. From the analysis on table 2 above, it was revealed that majority of the respondents indicated they need information on palliative care (mean=4.0000), information on clinical decision making(mean=3.7983), and information on drug therapy & prescription (mean=3.9416). This shows that the nurses do not need information on all aspect of nursing profession.

Table Two: Challenges encountered by Nurses in meeting their Information Needs

STATEMENT	SA/A		UN		SD/D		Total (%)
	F	%	F	%	F	%	
Lack of search skills	235	83%	25	7%	27	10%	352 100(%)
Lack of time	222	77%	30	10%	35	13%	352 100(%)
Lack of awareness about the information sources	222	77%	25	7%	40	16%	352 100(%)
Lack of motivation to use the information resources	216	75%	40	16%	31	9%	352 100(%)
Lack of training	230	80%	20	6%	37	14%	352 100(%)
High cost of information resources	210	73%	25	7%	52	18%	352 100(%)
Unstable power supply	230	80%	31	11%	26	9%	352 100(%)
Poor internet connectivity in the hospitals	238	83%	22	8%	27	9%	352 100(%)
Lack of Medical Library	250	87%	30	11%	7	2%	352 100(%)
Lack of Medical databases	260	90%	0	0%	27	10%	352 100(%)
Lack of personal computers	180	63%	17	7%	90	30%	352 100(%)
Lack of adequate information resources	223	78%	12	4%	52	18%	352 100(%)
Lack of relevant information resources	200	70%	12	3%	75	27%	352 100(%)
Lack of accessibility to information resources	208	72%	18	5%	61	10%	352 100(%)

KEY

Very high —————> 70 – 100%

High —————> 60 – 69%

Low —————> 50 – 59%

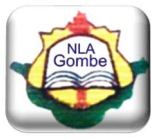
Very low —————> 00 – 49%

SA/A = Strongly Agree/Agree

UN = Undecided

SD/D = Strongly Disagree/Disagree

Table three indicates that majority 260 (90%) of the respondents showed that there is lack of medical databases, followed by 238 (83%) who confirmed that there is poor internet connectivity to search for online information, 235 (83%) revealed that they do not have search skills to search for information. With regard to print-information recourses 250 (87%) of the respondents showed that there is no medical libraries in their hospitals, followed by 230 (80%) who revealed that they do not have training on how to search for information,



another 230 (80%) of the respondents showed that there is unstable power supply in the hospitals, 223 (78%) of the respondents revealed that there is inadequate information resources, 222 (77%) of the respondents indicated that there is enough time to seek and used information, another 222 (77%) of the respondents indicated that they are not aware of the information resources to use.

Table three also indicated that majority 216 (75%) of the respondents showed that they are not motivated to use the available information resources for healthcare delivery, followed by 210 (73%) who confirmed that there is high cost of information resources, 208 (72%) of the respondents revealed that the information resources are not accessible to them, while 200 (70%) of the respondents indicated that the information resources are not relevant and 180 (63%) of the respondents revealed that they lack personal computers to connect to the internet when searching for online information for healthcare delivery.

Summary of the Marjory findings

The study found that the information needs of the nurses in general hospitals of Jigawa State-Nigeria are information on palliative care, information on patients' referral and information on clinical decision making. The study further found that the nurses encountered various challenges in meeting their information needs for healthcare delivery, among which are: lack of search skills, lack of time, lack of awareness, lack of motivation, lack of training, high cost of information resources, unstable power supply, lack of medical libraries and lack of medical databases.

Conclusion

The study concluded that the nurses under study need information on few aspects of nursing profession; they do not need health information on wider range on nursing profession. The study further concluded the nurses encountered various challenges in meeting their information needs for healthcare delivery, this implies that the nurses under study may not provide effective healthcare services to their patients due to the challenges they encountered in meeting their information. Since the hospitals have no libraries and there was no internet connectivity in the hospitals, therefore the information source is limited.

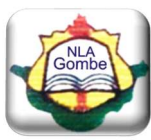
Recommendations made by the Study

Based on the findings and conclusions, the following recommendations were made:

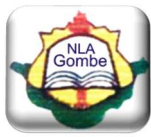
1. Medical library should be available in each and every general hospital with at least one professional librarian to organize and disseminate information to the nurses in the general hospitals the in the state.
2. The Hospital Information System should be functional in order to provide current and relevant health information to the nurses
3. Internet connectivity should be available and accessible to the nurses in order to enhance the use of electronic resources by the nurses in the general hospitals in the state.

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