PERCEPTION OF NURSES ON IMPACT OF INFORMATION SHARING FOR HEALTHCARE SERVICE DELIVERY IN TERTIARY HEALTHCARE CENTRES OF NORTH-EASTERN STATES OF NIGERIA

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Abstract
Perception of nurses on impact of information sharing for healthcare service delivery in tertiary healthcare centres of North-Eastern States of Nigeria was studied. The major objective of the study was to find out the perception of nurses on information sharing for healthcare service delivery. The study population was 1355 nurses, descriptive survey methodology was employed and systematic random sampling technique was used to select 271 respondents. The researcher personally administered the Questionnaire. Data was analyzed using descriptive statistics. The major findings of the study revealed high level of perception among nurses on the impact of information sharing on healthcare service delivery. It therefore, concludes that nurses need information in order to enhance their performance as well as professional development. The study recommends that nurses regardless of their speciality should be taught during their nursing education some aspects of library and information science curriculum in order to meet their different information needs.

Introduction
Information is an important component of co-existence as human actions and reactions depend on effective information or otherwise. Human interaction, understanding or conflict requires one form of information or the other. Organizational communication/information sharing becomes essential, especially in complex organizations, like the hospital, where effective information eases tension among the sick and family members. Goldhaber (2005) sees effective information as:

The lifeblood of an organization; the glue that binds the organization, the oil that smoothes the organization’s functions, the thread that ties the system together, the force that pervades the organization, and the binding agent that cements all relationships.

Effective information sharing improves mutual understanding among family members, improves business activities by educating customers on goods and services. Communication (interpersonal, group, mass or non-verbal) depends largely on information sharing. People, consciously or unconsciously, share information. It is right, therefore, to re-echo the assertion of Koinyan (2002) who says it is difficult to think of any human undertaking with effective pursuance, let alone achieving it, without adequate information sharing support.

Information society connotes the centrality and value of information sharing globally. Ojo (2005) asserts that information society is one in which economic and cultural life is critically dependent on information. Information becomes the main product or is essential to other products in a society. Uwaje (2001) believes that in today’s world that is dependent on information, what matters is what you know, not whom you know. This research investigates the perception of nurses on information for effective healthcare service delivery in Federal Medical Centers of North Eastern States of Nigeria.

Statement of the Problem
Information sharing is a vital tool that can be used to improve efficiency in an information-based society. Schols & deVeer (2005) opined that information sharing between different medical practitioners can be important in treatment. Similarly, Van Walraven (2008) concluded that health care could improve if
information from a patient’s health practitioner or family physician is available more regularly to other health practitioners in, for example, hospitals or other treatment centers. Both of these studies suggested that frequency of interaction among information holders is likely to be critical for information sharing. Similarly, Aliu (2010) asserts that human beings depend on information and nurses are not exception. They rely on information to meet with the challenges of the modern day medical centres.

Despite realizing the importance of information sharing, as observed by Van Walraven (2008), nurses particularly in North Eastern states of Nigeria are lagging behind in terms of sharing information. To facilitate healthcare services, nurses lacking in the knowledge of the various media of information sharing as well as sources of information, over-depend on the traditional media of sharing information. They rely on: ineffective organization of information sharing fora within and outside of the Federal Medical Centers, inappropriate use of media of information sharing, and the perception of nurses towards information sharing seems to be very low.

Against the background mentioned above, this study attempts to discover the perception of nurses on information sharing for healthcare service delivery.

Research Question
The research work was carried out to answer the following question:

1. What is the perception of nurses on the influence of information sharing on healthcare service delivery in the tertiary healthcare centres of North-Eastern states?

Impact of Information Sharing on Nursing Research
Nursing information sharing according to Barbaso (2010) is essential as far as the nursing care is concern because it facilitates development of new therapy methods as well as provides valuable information on medications, etc. similarly; Smith (2005) noted that information sharing opportunities exposes nurses to research. Nursing research is vital component to healthcare field; it helps implement new changes in the lifelong care of individuals and uses to develop treatments that provide the optimum level of care. Nursing research as observed by Barbaso (2010), focuses on developing and promoting high level of standard in the area of quality management of patients during long term illnesses. It develops advancements that aid patients in recovery, developing standards that help reduce the number of diseases in the community, promoting healthy lifestyles and preventing the onset of preventable diseases, helping to instill techniques and treatments that increase the quality of life in patients with degenerative diseases, as well as easing the transition for those who face death.

Sharing information in healthcare services therefore helps in facilitating the conduct of research, which is very important in healthcare delivery. The development of new medical therapies and cures would not happen without healthcare research and the active role in sharing the results of the researches. Behind every discovery of new medicine and treatment are thousands of people who are involved in healthcare research as well as sharing their findings. The explosion of technological advances and scientific efforts to disseminate new knowledge is placing healthcare professionals in a challenging position to keep them abreast of the state of the science (Barbosa, 2010).

Without healthcare research and sharing its findings as vividly noted by Maltz (2000), many diseases that can now be treated would cripple people or result in early death. New medications, new ways to treat old and new illness, new ways to prevent diseases in people at risks of developing them, can only develop in undertaking health research and sharing its findings. Nursing research focuses on developing and promoting high level of standards in the following areas: high quality management of patients during long term illness, developing advancements that assist patients in recovery. It develops standards that help reduce the number of diseases in the community, promoting healthy lifestyles, and preventing the onset of preventable diseases and illnesses, helping to instill techniques and treatments that increase the quality of life in patients with degenerative diseases, as well as easing the transition for those who are facing death. Journal articles normally have to pass through assessment by professionals before it gets published (Salman, 2007).
The researcher wishes to observe that, in-house training, workshops, seminars, conferences and pre-service training exposes nurses to the real nursing practice. When one shares information with his colleague, he is by extension improving the quality of health care delivery as well as the working output of the person with whom he shares the information. This assertion corresponds with what the Royal College of Nursing (2005) observed that access and sharing of information among nurses directly effects on putting evidence identified into practice. They argue that nurses with best access to information were more likely both to search for information and to change their nursing practice because of research.

Similarly, Van Walraven (2008) affirmed that health care delivery services could improve if information shares among the stakeholders in health care services. Schols & Deveer (2005) also viewed that sharing information between different medical professionals is of paramount importance in the treatment of patients. Kintz (2012) opined that sharing of information makes one to learn skills and competence, thereby making significant impact on nursing care services.

**Impact of Information Sharing on Nursing Technologies**

A growing number of new technologies are becoming available within nursing care that can improve the quality of care, reduce cost, or enhance working condition. Technology as Richardson and Asthana (2006) highlighted is altering the way medical professionals diagnose, treat, care for and manage patients. Information technologies break through, which were the products of information sharing have been key factor in the development of nursing care.

Many new technologies are becoming available within nursing care, such as dialysis equipment or new infusion pumps that change the staff’s daily routines. In addition, all kinds of technologies that support distance care, such as telecare technology, which all are products of information sharing have consequences for nursing practice. Technologies are aimed at increasing the quality of care, reducing healthcare cost or solving workforce problems Richardson and Asthana (2006). Despite the impact of training; workshops, seminars, conferences, and other opportunities for exposing the nurses to professional development, Adeye (2011) observed that environment and background of learner, individual differences, transfer and sharing of information, organizational bureaucracy still remain big challenge to nursing education and training face in Nigeria. Therefore, the contribution of training and re-training of nurses in order to contribute effectively to their organizational growth through adequate information resources is a viable tool for effective healthcare delivery, which this research work addressed.

**Methodology**

This is presented in the following subheadings:-

**Area of Study**

The area of study covers the entire North-Eastern states of Nigeria, comprising Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe states of Nigeria.

**Design of the Study**

This study uses descriptive survey design because of its efficacy in finding out the meaning and obtaining accurate result of the present research situation (Mohammed, 2006).

**Population**

The population of the study consisted of one thousand three hundred and fifty five (1355) nurses who work in the five (5) tertiary healthcare centres in North-Eastern states.

**Sampling Technique**

The sampling design used for the study was the systematic random sampling technique where nurses have equal chance of being selected as a member of the sample. A total of 271 nurses were chosen to represent the minimum number of nurses in the study area. While distributing the questionnaire it was ensured that none of the respondents was given a questionnaire twice. Taking into consideration the nature of the population and the sampling technique, a study sample of 20% of the total population was used as distributed proportionately among all the five tertiary healthcare institutions as suggested by Ofo (2001).
that 25%-35% is applicable where population runs less than a hundred and 5%-20% where it runs in thousand.

Table 3:2 Sample Size of the Population

<table>
<thead>
<tr>
<th>S/N</th>
<th>Tertiary Healthcare Centres</th>
<th>Total population</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yola</td>
<td>265</td>
<td>53</td>
</tr>
<tr>
<td>2</td>
<td>Azare</td>
<td>255</td>
<td>51</td>
</tr>
<tr>
<td>3</td>
<td>Gombe</td>
<td>300</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>Jalingo</td>
<td>260</td>
<td>52</td>
</tr>
<tr>
<td>5</td>
<td>Nguru</td>
<td>275</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1355</td>
<td>271</td>
</tr>
</tbody>
</table>

Instrumentation

Questionnaire was the instrument used for the collection of data. The instrument is subdivided into two sections; Section A solicits answers to demographic information of the respondents covering information of response rate, gender of the respondents, and their working experience; Section B asked questions relating to perceptions of nurses on information sharing for healthcare service delivery

Method of Data Collection

The data was collected by distributing the questionnaire using systematic random sampling technique to the nurses. A total number of 271 questionnaires were distributed and a total of 242 were returned giving a response rate of 89.29%

Method of Data Analysis

Descriptive statistics and Likert scaling were used to analysed the data.

Validation and Reliability

In order to ensure validation and reliability of the instrument, the questionnaire was vetted by senior colleagues from Bayero University, Kano and the Federal University, Kashere

The researcher runs Cronbach’s alpha in order to measure the internal consistency of the research instrument. Research questions were tested based on the variables and ensured that the research instrument was reliable for the conduct of this research. The research’s instrument was tested using SPSS 19.0 version from where the result below is generated:

Table 3.3 Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>No of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.674</td>
<td>88</td>
</tr>
</tbody>
</table>

Response Rate

Responses from the sampled nurses are recorded and presented in the table below that presents the distribution and return rate of usable questionnaire administered to the sampled nurses.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>S/N</th>
<th>Tertiary healthcare centre</th>
<th>No. Questionnaire Administered</th>
<th>No. of usable returned Questionnaire</th>
<th>Percentage returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yola</td>
<td>53</td>
<td>47</td>
<td>17.74%</td>
</tr>
<tr>
<td>2</td>
<td>Azare</td>
<td>51</td>
<td>46</td>
<td>16.97%</td>
</tr>
<tr>
<td>3</td>
<td>Gombe</td>
<td>60</td>
<td>56</td>
<td>20.66%</td>
</tr>
</tbody>
</table>
Table 4.1 presents a total number of two hundred and seventy one (271) copies of questionnaire that were administered to the sampled nurses, out of which 242 copies (representing 89.29%) were filled and returned and 10.71% were not returned. Considering the percentage of the filled and returned questionnaire, it is regarded adequate for valid analysis and interpretation and finally draw conclusions. The table also presents the respondents response rate based on personal observation as the researcher visited all the studied medical centers and distributed the questionnaire.

Demographic Data of the Respondents
The following tables provide detail analysis on the background information of the respondents. This information is essential to determine the gender and working experience of the respondents, which determines the rate at which respondents decode and share of information.

Table 4.2 Gender of the Respondents

<table>
<thead>
<tr>
<th>S/N</th>
<th>Tertiary healthcare centre</th>
<th>Gender of the respondents</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Yola</td>
<td>18</td>
<td>29</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Azare</td>
<td>18</td>
<td>28</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Gombe</td>
<td>27</td>
<td>29</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Jalingo</td>
<td>19</td>
<td>25</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Nguru</td>
<td>20</td>
<td>29</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>103</td>
<td>139</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td>42.56%</td>
<td>57.44%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2 presents that female nurses outnumbered their male counterpart as 103 respondents were male (representing 42.56%) while 139 were female (representing 57.44%). Hence, it is enough to say that the two genders were represented and the results obtained cover their views.

Table 4.4: Working Experience of the Respondents

<table>
<thead>
<tr>
<th>S/N</th>
<th>Tertiary healthcare centre</th>
<th>Working experience of the respondents</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0-5 yrs.</td>
<td>6-15 yrs.</td>
</tr>
<tr>
<td>1.</td>
<td>Yola</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>2.</td>
<td>Azare</td>
<td>28</td>
<td>08</td>
</tr>
<tr>
<td>3.</td>
<td>Gombe</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>4.</td>
<td>Jalingo</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>5.</td>
<td>Nguru</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>102</td>
<td>81</td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td>42.15%</td>
<td>33.47%</td>
</tr>
</tbody>
</table>

The data collected revealed that most of the 242 respondents have working experience of 0-5 years (42.15%), 33.47% of the respondents have a working experience of between 6 – 15 years, while 12.81% have 16 – 25 years of working experience and 11.57% have working experience of 26 – 35 years. These revelations indicate that the majority of the nurses have spent reasonable number of years working in the healthcare centers. The table indicates that over 57.85% spent over 5 years working as nurses in the centres. Hence, it was appropriate to conclude that they have abundant experience and information to share with their fellow colleagues and their views respected.

Perception of Nurses on the Impact of Information Sharing on Health Care Service Delivery
Nurses have different perceptions on the impact of information sharing on healthcare service delivery. Respondents present their perceptions below:

Table 4.12: Nurses perception on the Impact of Information sharing on Healthcare Service Delivery
Table 4.12 shows that 205 out of 242 respondents (representing 84.71%) agree that information sharing helps in developing new medical therapies with a mean rank of 3.98. While 30 of the total respondents representing about 12.40% disagree, 11 respondents, which stands for 4.55% remain undecided.

The result shows that sharing information helps in the discovery of new medicine as evidenced by 87.60% of the total respondents (212 out of 242) with a mean rank of 4.02. In this case, the remaining 30 (12.40%) and 4 (1.65%) respondents disagree or remain undecided. Moreover, 94.21% representing 228 out of 242 respondents agree that information sharing allows nurses to relate effectively with a mean rating of 4.18. However, 16 respondents (representing 6.61%) disagree on this assertion while only 2 (0.83%) of the total respondents remain undecided.

Furthermore, the result shows that 230 out of 242 respondents (representing 95.04%) agree that sharing information enhances the skills of nurses and allows for proper usage of modern nursing technologies with the respective mean rank of 4.18 and 4.17. While 14 (5.79%) and 15 (6.20%) of the total respondents disagree, only 4 (1.65%) and 1 (0.41%) respondent(s) remains undecided in respect of these impacts. Finally, it also indicates that 233 (96.28%) respondents out of 242 agree that sharing information helps in implementing new changes in lifelong care with a mean rating of 4.19. Meanwhile, 10 (4.13%) of the total respondents disagreed and only 3 (1.24) remain undecided.

Nurses, therefore, nurse positive impact on information sharing which they value because human beings are information-depended organism as asserts by Aliu (2012), Schols & deVeer (2005) and Van Walraven (2008). Nurses therefore need information badly in order to enhance their performance as well as professional development.

Conclusions and Recommendations
In conclusion, the study shows high level of perception among nurses on the impact of information sharing on healthcare service delivery. Nurses believe that without adequate information available at their disposal, they will become handicap towards discharging their duties. Hence, sharing information seriously affects healthcare service delivery.
Based on the findings of the study and conclusion drawn therefrom, the following recommendations are made:

i. There is need for nurses and other healthcare practitioners to explore more information sharing sources in order to enhance their productivity and output in nursing services.

ii. That nurses regardless of their speciality should be taught during their nursing education some aspects of library and information sciences curriculum in order to meet their different information needs (library user education).

iii. Government and philanthropies should be encouraged to donate generously towards improving infrastructural facilities in hospitals. Enabling environment should be created for businessmen to invest more in Information and Communication Technologies which will in turn improve and enhance sharing of information as well as healthcare delivery.

References


Royal College of Nursing (2005). *The Information Needs of Nurses*, London, Royal College of Nursing


