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Use of Information Resources by Student Nurses

Adebayo Afolabi Olajide
Bowen University, Iwo, Osun State, Nigeria., afolafemy@yahoo.ca

Aderonke O. Otunla Mrs
Bowen University Iwo, Osun state, Nigeria.

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Adebayo Afolabi OLAJIDE

Bowen University Medical Library,

Ogbomoso. Oyo State.

afolafemy@yahoo.ca

Aderonke Olufemi OTUNLA

Bowen University Library,

Iwo, Osun State.

aderonkeotunla@gmail.com

Abstract

Introduction: Information is crucial to the learning process and students explore various sources to meet their information needs.

Methodology: This work employed descriptive research design using a self-developed questionnaire to gather data from student nurses on the various information resources they use.

Result: The results of the research show that prints materials are the major information resources used by the students, who are active users of the library. Asking colleagues and librarians ranked highest among sources contacted for information. Ease of access and availability of information resources in the library were the most favoured characteristics when looking for information. Student challenges when accessing information resources include lack of time, location of library and attitude of library staff.

Discussion and Conclusion: Based on the findings, increasing information searches beyond print resources, collaboration between nursing faculties and librarians, periodic updates from the library, and training in the area of information access among are recommended.

Keywords: Information Resources, Nursing Students, School of Nursing, human resources, information.

Introduction: Knowledge growth depends on information. Students enroll in university education for the purpose of acquiring knowledge, which is imparted to them through various sources of information. The library is one of the major sources of information for students, which

is why every respectable learning institution maintains a supportive library. Use of information resources is even more important than their availability, because this is when information will transform into knowledge. Appropriate usage and processing within the mind combined with the already available knowledge of the user can lead to synthesis of new knowledge.

The slow pace of development in the developing world had been linked to a dearth of information in time past, but more recently, there seems to have been little improvement even with the greater availability of information resources (Lucas 2003). Popoola (2008) stated that productivity in academia is linked to information richness. The richness goes beyond availability to usage and assimilation. The information resources available in any institutional information system and now the vast array of open access resources must be accessed for use to occur.

The essence of every information resource is in its use and the impact it has on improving the knowledge base of the users. This work intends to explore the use of information resources by nursing students through the following research questions:

- How often do student nurses use the library?
- For what purposes do nursing students use the library?
- What are the major information resources used by nursing students?
- What are the factors considered when using information resources?
- What are the major sources of searching for information used by the student nurses?
- What is their level of relationship with the librarian?
- What are the challenges faced in the process of accessing information resources?

LITERATURE REVIEW

The library is the major traditional custodian of information, but with the advent of information technology, information may now be presented in various ways, sources and formats that are not necessarily restricted to the confines of a physical building or location called 'the library'. For learning to take place, learners must have access to information materials and resources no matter the format (Adeoye and Popoola 2011). Fatima and Ahmad (2008) stated that the use of library resources is necessary to help students meet their information requirements. Their

findings show that textbooks and journals are the most popular sources of information for student course work.

Regarding preferred resources of information, print resources were highly used by nursing students with over 70% using print journals at least once a week (Bartha 1995, Cogdil 2003, Pravikoff 2000 and Urquhart and Davies 1997. Bartha (1995) also found that 73% of nursing students found nursing journals to be most useful. Dee and Stanley (2005) stated that the choice of print journals has to do with ready availability, ease of access, and reliability of the information, compared to electronic journals which were not readily available.

Research has shown that since the mid-1990s, medical professionals' use of online information has increased exponentially. Verhey (1999) reports an underutilization of the available nursing literature with a reduction in textbook use. Pyne et al (1999) stated that there is minimal reliance on print journals while (Willinsky and Maggio 2011) cited in (McCulley and Jones 2014) found that 27% of the respondents used PubMed, but the most frequently used sources for health information were Google and Wikipedia. Dee and Stanley's (2005) work affirmed that most nursing students used the internet, particularly Google and yahoo. According to the authors, nursing students reported that they used medical research articles from quality databases for school assignments. The authors further found that lack of knowledge among the nursing students about librarians' capabilities hinders them, and that nursing students felt medical libraries were for physicians alone so the information may be too technical and incomprehensible for nursing or school related information needs. However, in the work of McCulley and Jones (2014), one of the two students interviewed commented, "I feel more at ease about accessing information and knowing that there is always someone (a librarian) I can ask whenever there is some confusion."

Research has shown that nursing students first consult human resources before turning to the library. For instance, Lathey and Hodge (2001) and Dee and Blazek (1993) found that due to time constraints, many health care professionals prefer to obtain information from resources that are convenient, easy to use, and reliable. Connaway, Dickey and Radford, (2011) and Solomons and Spross, (2011) affirmed that convenience, in terms of access to and ease of use of resources and time, has a significant influence on where people seek information. Professional superiors, colleagues, and other health care providers, especially physicians, are favorite resources for nursing information (Fakhoury and Wright, 2000 and Cogdill, 2003). Fakhoury and Wright

(2000) also discovered that among nurse practitioners, drug therapy and diagnosis were among the most frequent categories of information needs. The authors also found that nursing practitioners frequently used consultations with their primary supervising physicians, drug reference manuals and textbooks. Cogdill (2003) noted that 63% of the nurse practitioners preferred weekly consultations with physicians rather than non-human resources. Dee and Stanley's (2005) findings also confirmed that nursing students prefer human resources such as professional superiors, clinical supervisors, nurse colleagues, physicians and other health care providers. Pravikoff, Tanner, and Pierce (2005) reported that nurses often asked colleagues or peers or searched the Internet because they lacked the confidence and skills to search databases such as PubMed or CINAHL and did not know how to access full-text sources. Grefshein and Ranklin (2007) also corroborated that physicians first turn to colleagues, then to print resources; online and databases were infrequently consulted due to lack of time or search skills. This report is contrary to McDaniel et al (1998) and Curtis, Weller and Hurd (1997) who reported that nursing professionals have a wide range of computer and searching proficiencies. Bertulis (2008) points out that "nurses tend to base the selection of the information source on convenience and accessibility rather than quality."

On the issue of barriers to information searching, Miller et al. (2010) identified lack of equipment, inability to access equipment, lack of time, and inability to utilize technology as key challenges. These results are consistent with those of Tanner et al. (2004) who noted that nurses do not necessarily recognize the need to look beyond their immediate work environment for information resources; they use one another as the first source of professional information, and are limited by computer technology skills and accessible electronic information databases, a 21st century digital divide. Spenceley, et al, (2008) also found that lack of competency in searching, inadequate computer technology skills, and lack of interest are individual challenges. Lack of time, combined with lack of library access and database or computer access, are obstacles (Bertulis 2008; Dee and Stanley 2005).

Methods

Population

The target population for the study was the nursing students of three schools of nursing: Bowen University Teaching Hospital, School of Nursing, Ogbomoso; University College Hospital, School of nursing, Ibadan; and Oyo State College of Nursing, Eleyele, Ibadan.

Sampling Techniques and Sample

Purposeful sampling was carried out at three schools of nursing, each with a different funding model: one was a mission/private-own institution, one a federally-owned institution, and the last a state-owned institution. Nursing students in the second and third (final) years of their studies were included in the research. First year students were not invited to participate because they were just resuming at the time of data collection. A total of 300 questionnaires were distributed, with 100 questionnaires sent to each school.

Instrumentation

A questionnaire developed by the two researchers was used for the purpose of the research. The instrument was compared with surveys available in the literature to ensure applicability. The questionnaire was divided into five sections: Section A Biographical data; section B frequency and usage of library and information resources; section C purpose of using the library; section D factors considered in using information resources and Section E constraints and limitations to the use of information sources.

Data Collection and Analysis

Academic staff in all three schools of nursing assisted in the administration of the questionnaire during their classes to achieve high response rate. The questionnaire was paper based and the data were later entered electronically for the analysis.

Result and Analysis

Table 1 depicts the response rate by name of participating school. A combined response rate of 81% was recorded across the three schools. The results were analysed using frequency counts, tables and graphs.

Table 1: Distribution of the respondent by school and response rate.

Name of School	No Distributed	No returned	Response rate
College of Nursing, Eleyele, Ibadan	100	77	77%
BUTH, School of Nursing Ogbomoso	100	80	80%
UCH, School of Nursing Ibadan	100	86	86%
Total	**300**	**243**	**81%**

Table 2: Distribution of the respondents by Level/year of Study

Year of Study	Frequency	Percentage
Year 2	131	53.9
Year 3	112	46.1
Total	243	100

Table 2 shows that nursing students in year 2 have the highest response rate with 131 (53.9%) while students in year 3 have 112(46.1%) response.

Table 3: Frequency of use of Library by respondents

Times of use	Frequency	Percentage
Daily	89	36.6
2-5times a week	78	32.1
Once a week	50	20.6
Fortnightly	11	4.5
Monthly	8	3.3
Occasionally	7	2.9
Total	243	100

Table 3 shows that the majority of respondents use the library daily (N=89, 36.6%) or between two and five times a week (N=78, 32.1%). Meanwhile only 8(3.2%) and 7(2.9%) used the library monthly and occasionally respectively. The finding shows that the majority of nursing students use the library often.

Table 4: Purpose of using the Library (multiple responses)

Purpose of use	Frequency	Percentage
To read my notes	189	77.8
To do my assignment	165	67.9
To get Information about patients diagnosis/intervention	145	59.7
To borrow Library book	130	53.5
To prepare ahead for class	128	52.7
To use past project	112	46.1
To source for	108	44.4

scholarships/awards/grants		
To read newspaper/magazines	104	42.8
To access the Internet	100	41.2
To socialized with friends	98	40.3
To do group discussion/tutorial	89	36.6
To relax	76	31.3

Table 4 shows the purpose of use of the library by the respondents. The table reveals that to read notes tops the list with 189 (77.8%) respondents and is followed by using the library for the purpose of doing their assignment with 165 (67.9%) respondents. Some of the respondents also used the library to get information about patients' diagnosis/ intervention with 145(59.7%) respondent. Meanwhile, 76 (31.3%) respondents indicated that they visit the library in order to relax.

Table 5: Frequency and degree of use of information resources (multiple responses)

S/N	Information source	Frequently Used		Rarely Used	
		Frequency	Percentage	Frequency	Percentage
1.	Books	145	59.7	98	40.3
2.	Journals	123	50.6	120	49.4
3.	Encyclopedia	120	49.4	123	50.6
4.	Dictionaries	117	48.1	126	51.9
5.	Directories	112	46.1	131	53.9
6.	Newspapers/Magazines	108	44.4	135	55.6
7.	Internet resources	104	42.8	139	57.2
8.	Online database(Medline, PUBMED, etc)	102	42.0	141	58.0
9.	Human resources (Doctors, senior Nurses, etc.)	100	41.2	143	58.8
10.	Atlases	98	40.3	145	59.7
11.	Medical records/case note	96	39.5	147	60.5

12.	Teleconferencing/online workshop	94	38.7	149	61.3
13.	Bibliographies	89	36.6	154	63.4
14	Manuals	88	36.2	155	63.8
15.	Almanac	87	35.8	156	64.2
16.	Handbooks	86	35.4	157	64.6
17.	Gazettes	85	35.0	158	65.0
18.	Reports	84	34.6	159	65.4
19	Abstract/Index	83	34.2	160	65.8
20.	Biographies	82	33.7	161	66.3
21.	CD-ROM Databases	80	32.9	163	67.1

Table 5 above illustrates the various information resources used by student nurses. The frequently used section combines responses of very high and high while rarely used combines responses of low and very low. Books 59.7% and journals 50.6% top the list of most frequently used resources. CD-ROM Databases 32.9% and Biographies 33.7% are the least frequently used.

Table 6: Factors considered in using information resources

Factors	Frequency	Percentage
Ease of access	214	88.1
Availability in the library	210	86.4
Availability of power supply	202	83.1
Availability of computer and Internet to access e-resources	186	76.5
Currency of information sources	184	75.7
Colleagues comment	165	67.9
Duration require to access	130	53.5

Table 6 depicts the factors given the most weight by respondents when using information resources. 214 (88.1%) respondents considered ease of access as the first factor to consider in

using information resources. This was followed by 210 (86.4%) and 202 (83.1%) respondents who considered availability of information resources and availability of power supply in the library respectively as important factors.

Table 7: Major sources of searching for information (multiple choices)

Major Sources	Frequency	Percentage
Ask from colleague	178	73.3
Ask library staff	170	70.0
Use library catalogue (OPAC)	168	69.1
Check for alternative material	152	62.6
Abandon the search	**124**	**51.0**

Table 7 shows the major sources of searching used by the respondents. Respondents most frequently ask colleagues (73.3%). Asking library staff 170 (70%), or using the library catalogue 168 (69.1%) rated almost equally. 124 (51.0) responded that they will abandon the search.

Table 8: Respondents relationship with the library staff

Options	Frequency	Percentage
Very good	95	39.1
Good	78	32.1
Very poor	56	23.0
Poor	14	5.8
Total	243	100

The respondents were asked to indicate their level of relationship with the Librarian. Table 8 depicts that the relationship of the Librarian and nursing students are cordial. Pooling together very good and good, as well as very poor and poor, the results show that 173(71.2%) respondents have a good relationship with the Librarian.

Table 9: Challenges faced in accessing information sources

Challenges	Frequency	Percentage
Lack of time	168	69.1
Location of the Library is too far to hostel	140	57.6

Poor attitude of Library staff	136	56.0
Some of the information sources are not relevant to my needs	114	46.9
Information sources are difficult to locate on the shelves	112	46.1
Little or no knowledge about availability of resources	98	40.3
Lack of training on how to effectively used the information resources	87	35.8
The atmosphere is not conducive for studying	86	35.4
Lack of internet access to access online information sources	52	21.4

Table 9 shows the challenges most often faced in the process of accessing information resources. The major challenge is lack of time, as indicated by the majority (N=168, 69.1%) of respondents. Lack of training on how to effectively use the information resources was not ranked as one of the greatest barriers (N= 87, 35.8%), nor was lack of internet connectivity to access online information sources (N=52, 21.4%).

Discussion

The results and the analysis show that the most frequently used materials are books, journals encyclopedias, dictionaries and directories. These are primarily print materials and confirm what was reported by Cogdill (2003), Barta (1995); Pravikoff (2000); Rasch and Cogdill (1999); Urquhart and Davies (1997). Print material is highly used because in all three libraries there is inadequate internet service for use in the library; this is reflected in the 76.5% of respondents who rank internet access as one of the key factors when choosing which information resource to use because two of the institutions are undergoing installation and/or renovation of their digital library as was observed during the research period. Frequent use of the internet 42.8% and online databases 42.0% corroborates the work of (Dee and Stanley 2005) CD-ROM Databases are the least frequently used because the format is becoming unpopular and because of an absence of adequate computers in two out of the three institutions. Biographies followed the least used because they may have little or no relevance to their work except for leisure or personal information.

Ease of access tops the list of factors considered in using a resource, as also found by (Connaway, Dickey, & Radford, 2011; Solomons & Spross, 2011); Followed by it is the availability in the library (Bertulis 2008), (Dee and Stanley 2005). Duration of time required to locate a material is rated high and this has also been discovered by (Grefshein and Ranklin 2007) as they have found student nurses complain of lack of time.

The response on frequency of use of the library shows that 69.7% of respondents are active users of the library, visiting at least two times a week this probably indicate the importance of library to nursing students. The level of relationship with the library staff is also quite high at 71.2%, indicating that the student nurses recognize the benefit of seeking assistance from the library staff. This coincides with the findings of (McCulley & Jones 2014) but is contrary to the work of (Dee and Stanley 2005) who found that student nurses did not know that librarians could help them.

Our results differ from those of other authors (Grefshein and Ranklin2007, Dee and Stanley 2005, Cogdil 2003) with regard to seeking information from colleagues. While their findings ranked colleagues as the most important source of information ours show colleagues as ranking below the average at only about 41%. On the issue of source for finding information, the use of human resources (asking from their colleagues) is the highest with 73%. There is a fundamental difference between using colleagues as sources of information and using them as where information can be found. This was discovered in this work since they may ask their colleagues where and how they locate a material in the library or internet does not mean that they are depending on them for the information or taking the information in its entirety from them. Following this is asking the library staff as 70%. The highest challenge reported by students is lack of time; this is consistent with other works (Lathey and Hodge 2001). Location of the library and poor attitude of library staff are the next highest factors affecting use of library. The work shows that the level of knowledge of student nurses about use of the internet to access online information seems to be high, since most of them belong the the millennia generation who are information technology savvy; contrary to the work of Bertulis 2008); (Dee & Stanley 2005) which identify lack of databases access and computer as significant obstacles to use of information resources.

Recommendation and Conclusion

From this study, the following are some of our recommendations:

- Student nurses from the sample used should explore more information resources available on the internet or electronically and not rely only on print resources
- Libraries in nursing schools should endeavour to provide adequate computer and online facilities for the use of their students, so as to enable them to have access.
- Nursing school libraries should provide different online or virtual platforms of access for the student nurses, so that the barriers of distance and lack of time to come to the library will be reduced.
- Student nurses should not prioritize convenience and ease of access over quality of the information. The currency and authority of the sources must be considered since clinical practice is changing rapidly.
- Students should develop personal skill in searching for information via the library. Colleagues may not be aware of the best resources or the full breadth of all that is available in the library, so the OPAC and online databases should be used more regularly to ensure they benefit from the best sources in the library.
- There should be greater collaboration between student nurses and librarians so as to ensure the students know the extent of the resources that are available in the library and also how to use them. Periodic collection updates from the library should be sent to student nurses.
- Information access training should be organized for the student nurses in the library.
- Librarians must try to improve the attitude of other library staff towards student nurses so they feel comfortable accessing the library more regularly. Librarians can organize training or send other staff for training so as to educate them about good library etiquette; this will prevent the attitudes of library staff from affecting the student nurses' use of the library.

Nursing students needs to sharpen their searching skills in the library beyond asking for assistance from their colleagues and librarians. Also, other information materials should be explored, particularly in moving beyond prints resources as the major source of information. Libraries should also provide necessary infrastructure for accessing information from the internet coupled with improving library staff attitude towards users.

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