

Information Support for Distance Nursing Students at the University of Zambia, School of Nursing Sciences

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ABSTRACT

Distance learning nursing students have specific information needs when it comes to their studies and learning. Nursing students also have specific information needs; and distinct information seeking behavior that is unique to their sector and practice. In order to meet these information needs and information seeking patterns, libraries and librarians have to be cognizant of the situational context of the student nurses. The study was aimed at assessing distance nursing students' use of and satisfaction with University of Zambia Medical Library services; and finding out challenges that distance nursing students face in accessing these services. The methodology adopted for the study was a survey method, limited to the School of Nursing Sciences undergraduate students. Thirty seven respondents (37, 88.1%) out of a sample of 42 students answered the emailed questionnaires. Structured questions were analyzed quantitatively using SPSS version 20, whilst opened ended questions were analyzed thematically. The study established that nursing students were using various internet technologies for mainly study purposes. Although the students visited the library to access reading materials during residential school, they were nevertheless, not very satisfied with the services that they were receiving from the Medical Library; which service was not accessible when they were away from the institution. Additionally, the students faced challenges such as lack of access to prescribed reading materials, library services, knowledge of and access to essential databases and online

resources, and that they had limited skills to search for information. However, supporting nursing distance learners require that libraries and librarians pay attention to the requirements of learning using the distance or online learning mode. It is expected that libraries will ensure that they design and deliver information literacy courses through different learning methods so that they can assist students effectively find the relevant information that is needed for a student that is learning in a distance or online mode. This expectation has been heightened by the onset of the corona virus disease (2019 remove the year) (COVID-19) which has forced most institutions to think creatively; by adopting ways and means of engaging with various sectors of their constituencies; and in higher education institutions in particular, they have embraced e-learning and web conferencing facilities. This is a strategy that libraries must take if they are to effectively reach out to distance nursing students so that they can meet the students' information needs. This sentence has been recast.

Keywords: Distance Education; Nurse Education; Nurse Students; Information Support; Information Needs; Information Seeking; University of Zambia

1. INTRODUCTION

There has always been a shortage of nurses in Zambia. As a result of this shortage, the department of Post Basic Nursing was established in the then School of Medicine of the University of Zambia in 1976; a joint effort of the University of Zambia, the Ministry of Health and the World Health Organization (University of Zambia, 1984). This need for nurses in the country has been exacerbated by the high disease burden as nurses are the main caregivers in health facilities (The General Nursing Council (GNC), 2002; Carter, Mukonka, Wanless, Howard-Hunt, & Notter, 2018). On the 1st of January 2017, this department became an independent School of the University of Zambia, thereby continuing to offer both undergraduate and postgraduate programmes (University of Zambia, 2018). These programmes are delivered under different modes of learning; full time and distance as well as online. The School of Nursing Sciences has six (6) departments: Basic and Clinical Sciences; Education, Management and Leadership; Mental Health and Psychiatric Nursing; Midwifery, Women's and Child Health; Public Health Nursing and Research, Monitoring and Evaluation (University of Zambia, 2018). As Schools of Nursing Sciences worldwide increase enrollments of distance nursing students,

increasing numbers of nurses and nursing students continue to be spatially located far from the educational institutions providing basic or continuing nursing education. The increase in student enrolments has been made possible by the rapid developments in technology. And that is why Sacchanand (2002, p. 1) has argued that *“distance education has been moving very fast from correspondence education to online education or web based delivery of education. The Internet and World Wide Web broaden the scope of conventional distance education to anywhere, any time and any pace”*.

It is well established that nurse practitioners require continuous learning in order for them to learn new skills and to keep pace with new developments in their profession as well as improve their practice. This continuous learning is known as Continuous Professional Development (CPD). The CPD process ensures that nurses and midwives update their knowledge and skills to use in clinical practice (McCarthy & Illiffe, 2013). This updating of skills can only be attained through CPD, lifelong learning. Without access to timely and relevant information to support learning and research, this goal may be difficult to attain. It is against this background that this paper sought to investigate the information support that distance nursing students get from the University of Zambia Medical Library.

2. LITERATURE REVIEW

The provision of quality library services to those who learn at a distance is one of the most exciting and challenging developments that has occurred in contemporary librarianship; providing library services to learners who are not physically able to come to the library; as traditionally, the library has been focused on providing these services from a building. However, in today's context, this has not always been possible, as increasingly, students are choosing various modes of study such as online and distance learning instead of being on campus full time. That's why any student, whether they are nursing professionals learning on a distance basis, are entitled to library services and resources equivalent to those provided for students and faculty in regular campus settings (American Library Association, 2006; Sasso, 2016). Therefore, library services for students will have to keep pace with modern developments in both technology and modes of education delivery; as more distance learning students are being enrolled so that the quality of education offered especially for health professionals (nurses in

particular) are maintained to the standards required and approved by the regulatory authorities in the country.

According to Tury, Robinson and Bawden (2015) the provision of distance education has significant implications for library services; and academic libraries must adapt their services to accommodate these learners. Ritterbush (2014)) has argued that the growth of online learning has forced academic libraries to respond to this change, by adopting library services that meet the needs of users in recognition of their diversity and their varied spatial locations. Furthermore, the *American Library Association' (ALA) Standards for Distance Learning Library Services* (American Library Association, 2006) states that irrespective of the physical distances involved, every user should be provided with the appropriate library and information services that the institution has to offer. Hence library staffs are there to provide traditional reference services to students as well as being experts in the search and retrieval of evidence within the evidence based practice (EBP) paradigm; and increasingly provides information services in the online environment. Furthermore, information literacy skills are recognised as vital to the success of the concept of EBP, which provides an opportunity for libraries to collaborate with nursing faculty in the development and delivery of information literacy programmes embedded in the nursing curriculum (Schulte & Sherwill-Navarro, 2009). These information literacy programmes are essential to effective usage of library services by students. In this regard, Cassner and Adams (2012) identified some of the roles that librarians and libraries play in distance education vis-à-vis information provision which may include: (1) helping with searching and locating resources for assignments; (2) teaching them how to use these resources; and (3) supporting their educational needs.

Tury, Robinson and Bawden (2015, p. 4) highlighted a few disadvantages related to distance learning in relation to information needs which included *“lack of time; limited access to crucial support networks such as peers, tutors and librarians; delayed feedback; and technology which can fail, is often expensive to implement and often requires specialised skills to be used effectively”*. All these disadvantages might have an impact on the library services that libraries offer to distance learners and therefore they have to take them into account if they have to have an effective service. In contrast, Hallyburton and John (2010), and Argüelles (2012) believe that

librarians are trained professionals who find and assess information, and that the libraries where they work often hold valuable resources, therefore nurse educators and librarians can work together to educate nursing students on finding credible information, no matter their location. This assertion calls for a collaborative relationship between the provider of the library service and the users of that service in order for it to be effective and meet the needs of the user; and this service can be enabled by online access. This belief has been supported by Raraigh-Hopper (2010, p. 73) who was of the view that the most common library services offered to distance learners included: “*remote access to online library catalogues; electronic databases; electronic books and journals; online information literacy tutorials; electronic research guides on academic and special interest topics; electronic general library guides; Ask-A-Librarian (chat, e-mail, or telephone); interlibrary loan; electronic reserves; and document delivery services*”. These are all services that add value to distance library services and are offered via online platforms. And that is why, Hallyburton and John (2009) have surmised that to bridge the gaps that disadvantage distance learners in relation to information literacy and lifelong learning, nurse educators, their students, and librarians must work together and use as many communication formats as needed to accomplish their goals. Some of the tools that librarians could utilise are “*the use of Virtual Learning Environments, such as discussion boards and other innovative technologies. It is critical to note that though this cannot entirely support information literacy training, it could remove the sense of isolation felt by some distance learners*” (Owusu-Ansah & Bubuama, 2015, p. 13).

3. PURPOSE OF THE STUDY

The purpose of this paper was to investigate information support that distance nursing students receive from the University of Zambia Medical Library.

3.1 Specific Objectives

- i. assess distance nursing students use of and satisfaction with current library services, and;
- ii. establish challenges that distance nursing students face in accessing library services.

4. METHODOLOGY

The study adopted a survey methodology that was purposefully limited to; firstly, the School of Nursing Sciences at the University of Zambia (UNZA) undergraduate students. The study was

limited to the UNZA Nursing School because it offers distance learning programmes for nurses. Secondly, it was limited to 2nd year up to 5th year students. Therefore, first year students were excluded from participating in the study as it was felt that they were relatively new to the School of Nursing Sciences and would not have informed knowledge or experiences to share. A survey methodology was adopted of the study for it “deals mainly with collection, analysis and presentation of data relating to the present time, reflecting the present state of affairs in social, economic and political activities. Survey method is approached through the methods of personal interview, mailed questionnaires (both surface and email), telephone, personal discussion, electronic survey”. In libraries, it is usually used “*to make a specialised type of investigation to improve library services. Library surveys are conducted either to assess an existing situation or to check [the] library system or to evaluate the area of librarianship in order to remove shortcomings or inadequacies and to plan further*” (Singh, 1998, p. 8).

4.1 Data Collection

The data collection instrument used was a semi-structured questionnaire. The initial plan was to administer the questionnaire when students came for their residential school. A residential school is a period within a university academic calendar, when distance learning students physically come to campus for face to face interaction with tutors, lecturers, and supervisors; and it is at this time that they come to the library. However, it was difficult to locate distance nursing students physically or meet them face to face, either in interviews or focus groups during the study period. Therefore, the questionnaire designed for the study was emailed to the respondents. This was after obtaining a mailing list of the distance nursing students from the Dean of the School. Thirty seven (37, 88.1%) respondents out of a sample of 42 responded to the 20 questions that were on the survey instrument.

4.2 Data Analysis

The questionnaire had a mixture of both open-ended and closed ended questions. Closed ended questions were analyzed quantitatively using SPSS, by using descriptive statistics. These were then put into categories and presented in figures and tables. Descriptive statistics are useful in giving results in a summary form, for instance grouping them into males or females; frequencies, average years of experience or average ages of the respondents (Greasley, 2007, p. 7–13). The purpose of statistical analysis in any research “is to summarise observations or data in such a

manner that they provide answers to the hypothesis or research questions" (Connaway & Powell, 2010, p. 262). The questions on the questionnaire that were opened ended were analysed thematically; which entailed reading the responses, putting themes together and categorising them, coding them and then looking for patterns and trends in the data. Thematic analysis is a *"method of examining data to gain meaningful comprehension of participant perspectives. Thematic analysis identifies patterns within the data enabling the researcher a detailed understanding of the research data. It is a useful method for analysing qualitative data as it looks for patterns from participant communication that is not constrained by any limitations to the responses"* (Swart, 2019, p. 2). Additionally, personal narratives to the questions by the respondents were used in reporting the results.

5. FINDINGS AND DISCUSSION

5.1 Background Characteristics of the Respondents

There were a total of 37 respondents; of which 28(76%) were female, while 9(24%) were male indicating that the majority of the respondents were female. There were 8(22%) of the respondents who were aged between 26-30 years, while 2(5%) respondents were aged between 31-35 years, 13(35%) respondents were aged between 36-40 years, while 7(19%) were aged between 41-45 years and the other 7(19%) were aged between 46 and above. This shows that most of the student nurses were aged between 36-40 years. A total of 6(16%) student nurses were in their 2nd year of study; while 14(38 %) of them were in the 3rd year; 16(43%) of the student nurses were in the 4th year and 1(3%) were in the 5th year. This shows that most of the respondents were in their 4th year of studies. Further, the majority of the respondents were from Lusaka province (14, 38%), whereas 6(16%) of them were from the Copperbelt province; Eastern province had 4(11%) and 3(8%) were from Northern Province, North Western province and Southern province respectively. Central province, Luapula province, Muchinga province and Western Province, had 1(3%) respondents each. (*Table 1*). This study is in line with other findings that there were more female students (Aladeniyi & Owokole, 2018, p. 98) as opposed to males. However in another study in Nigeria, there were more male students who were undertaking studies in the distance learning mode (Olajide & Adio, 2017, p. 8); indicating that this mode of study is popular among both males and females.

Table 1: Background characteristics of respondents

	<i>Characteristic</i>	<i>Number</i>	<i>%</i>
Gender	Male	9	24
	Female	28	76
	Total	37	100.0
Age	26 to 30 years	8	22
	31 to 35 Years	2	5
	36 to 40 years	13	35
	41 to 45 years	7	19
	46 years and above	7	19
	Total	37	100.0
Year of Study	First Year	0	0
	Second year	6	16
	Third Year	14	38
	Fourth Year	16	43
	Fifth Year	1	3
	Total	37	100.0
Province	Lusaka	14	38
	Copperbelt	6	16
	Eastern	4	11
	Northern	3	8
	Southern	3	8
	North Western	3	8
	Central	1	3
	Luapula	1	3
	Muchinga	1	3
	Western	1	3
	Total	37	100.0

5.2 Purpose and Use of the Library

The majority of the respondents indicated that it was important to use the library (36, 97.3%). Another 32(86.5%) felt it was very important to supplement the provided course material with information from the library. They further indicated that the major reason for visiting the library was to access prescribed/recommended reading materials 21(36.2%), whilst others said they visited the library to read 21(36.2%). The purpose for which the student nurses used the library is well tabulated in *Table 2*. These findings generally agree with other studies done elsewhere in Africa, that the majority of students visit the library to access materials for their learning and research purposes. For instance in Nigeria, it was established that the “majority of the respondents agreed that they use the library resources for the purpose of obtaining general information, for examination, for assignment and for research” (Aladeniyi & Owokole, 2018, p. 96). In other studies in Nigeria, it was recognised that students used the library for various

purposes, mainly: for assignments, for examinations, research, leisure and recreation; and others for reading magazines and newspaper articles, with the majority using the library for their studies (Olajide & Adio, 2017, p. 11).

Table 2: Purpose of using the library

<i>Purpose of using the library</i>	<i>Responses</i>		<i>Percentage of cases</i>
	No.	%	
To access prescribed/recommended materials	21	36.2	36.2
To use computers	4	6.9	12.9
To read	21	36.2	67.7
To photocopy	3	5.2	9.7
To print	1	1.7	3.2
To access research materials	8	13	25.8
Total	58	100	187

Further, to find out if nursing students had access to any other library near where they lived, only 8 (21.6%) respondents indicated that they had made special arrangements, 14(37.8%) indicated that they had no special arrangement, while 15(40.5%) of the respondents indicated that they were not aware of any library nearby. Most of the student nurses 35(94.6%) indicated that they don't usually have access or get help from the UNZA Medical Library when they were not in residential school. This means that if students do not come for residential school, there is no library support. A thematic analysis of the results revealed that 35(94.6%) of the distance nursing students at the University of Zambia were of the view that University of Zambia Library Management should decentralise its services by introducing medical library services in the provinces, a suggestion raised by Chawinga and Zozie (2016) in their study on "*Information needs and barriers to information sources by open and distance learners in Malawi*". In this study, the majority of students suggested the introduction of satellite information centres in various parts of Malawi. Looking at the distances where the students came from and the period they stayed away from university campus, it would be necessary to introduce library services in provincial centres in Zambia, where students can access both online and print resources. In this context, the first provincial libraries have been opened in Kitwe (Copperbelt Province) and Livingstone (Southern Province) by the University of Zambia. This shows the University of Zambia Library establishing libraries in provinces to respond to the needs of students. It has been argued that successful library services to distance learners are those that are "*characterised by*

flexibility, reliability, availability, user-friendly, portability, efficiency and service ability” (Sacchanand, 2002, p. 2).

5.3 TRAINING on how to Access Information

It is well noted that training in the use of library resources encourages the uptake and use of those library resources, be they print or e-resources. To find out if nursing students had attended any training on how to access information in the library, the majority 35(94.6%) of the respondents indicated they had never attended any information literacy training while 2(5.4%) indicated that they had attended a training. In Croatia, researchers there had contrary findings as the majority of their respondents (63%) reported that they received formal training at university (Tanacković, 2018) and this might have led to high usage of their materials. This means training in information is important to the uptake and use of library resources. It is a challenge that librarians in the UNZA medical library should take cognisance of; if they have to move in tandem with what is happening the world over. The advent of COVID-19 means that important services in whatever sector in the world will increasingly be offered in the online environment; especially in the education sector. If distance learning students do not have training on how to effectively retrieve learning materials from the online space; then this may have an impact on their learning.

The information literacy programmes that UNZA medical library may introduce do not necessarily have to be face-to-face courses, but they could be online modules delivered through Webinars using modern web conferencing platforms such as Zoom, Google Hangouts Meets, Skype, UberConference, Cisco WebEx Meeting, Ring Central Meetings etc. However, it is important for the medical library to move with urgency to come up with a comprehensive information literacy programme for distance education students as Owusu and Bubuama (2015, p. 13) puts it: *“that academic librarians must endeavor to implement comprehensive information literacy programmes to overcome the challenge of awareness of library services”*. (See Table 3).

Table 3: Frequency of training in the use and access of library resources

	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>
Yes	2	5.4	5.4
No	35	94.6	94.6
Total	37	100.0	100.0

5.4 Google as a Research and Study Retrieval Tool

It was important to find out what retrieval tool students used to access information for research and study; and therefore respondents were asked if they used Google for research and study. The results indicate that the majority 34(92%) used Google for research and study, while 3(8%) did not use Google. The students were further asked if Google was helpful, and 29(78%) indicated that it was helpful while 5(14%) indicated that it was not helpful and the other 3(8%) did not respond. This is a clear indication that distance nursing students at the University of Zambia prefer using Google to search for information than other databases when searching for scholarly information. These results are similar to that of Tanacković (2018) who asserted that students feel much more comfortable when searching using Google than a library catalogue or academic databases. This comfortability could be due to the fact that Google offers access to information resources without requiring one to log in with a password making it easy to start any search. Sometimes, a free search in Google might retrieve a lot of material that may not be relevant to the user, especially if the search strategy was not well formulated. This worries librarians, who feel that a large search may have a low precision retrieval rate and may frustrate the user. It is for this reason that Jones et al. (2011, p. 28) has asserted that “browser-based search engines, for example, maximize search results, leading to long, undifferentiated list of both appropriate and inappropriate information resources” and therefore may waste the time of the user and frustrate the user in the process. However to the contrary, Brahme (2010) in her study of doctoral distance students at Pepperdine library in the United States of America found out that all residential students and 90% of distance students used the Pepperdine library research databases to find material for their literature reviews. In the same study, Google was only utilised to a limited extent by the students. This may be because in this study the focus was undergraduate UNZA nursing students who may still be novices in research while the former study (Pepperdine) was a study of doctoral students who may be experienced and understand better the importance of using scholarly materials to produce good research results. Nevertheless, in a study of undergraduates at the University of Zambia which sought to find out the use of the University

Library vs. Google, it was established that about 35% of the respondents in that study used e-resources databases provided by the library whilst 64.6% used Google as a research retrieval tool; again showing the dominance of general search engines such as Google in the research and study process (Makondo, Kanyengo, & Kakana, 2018). These findings point to the fact that students require knowledge and skills of effective searching so that even as they utilise Google, perhaps they could utilise Google Scholar which has scholarly literature that is indexed and carefully selected for academic purposes.

5.5 Methods of Accessing Information

The majority (47%) of the respondents accessed information through their mobile phones while (36%) of them accessed information using their personal laptops/computers at home, (11%) accessed information from Internet cafes while (6%) of the respondents indicated they used laptops/computers at work. The results tend to suggest that the majority of student nurses accessed the information needed for their studies through the mobile phone. *See Fig. 1.* This may be attributed to the nature of work of nurses as it could be difficult to access a computer or laptop at work due to time limitations, while accessing information on the mobile phone or at home during their spare time might be easier. It could also mean that mobile phones might be more easily affordable and accessible to the nurses. In a systematic review study of mobile devices used by nursing faculty, it was found that in the years 2000s and later, Personal Digital Assistants (PDAs) were more prevalent, whilst after the years 2010s and above, there is increased evidence of the use of mobile Smartphone's by nursing students during undergraduate training (Lee, Min, Oh, & Shim, 2018).

Although online resources could be accessed from anywhere; it is worth noting that the students indicated challenges with accessing online databases and e-resources due to either high internet costs or lack of appropriate tools to connect to the internet. This has been reported in other parts of the world where distance learners have difficulties in accessing learning materials using the online environment (Olajide & Adio, 2017; Owusu-Ansah & Bubuama, 2015). However, what is important is that in a study on student perceptions on using Smartphone's during practical's in a community *“students perceived that Smartphone's' potential in clinical education remains largely unharnessed. They felt there may be missed opportunities to provide better care with*

enhanced access to evidence based materials, to engage with patients through the use of educational media, and to enhance communication between students, faculty, and healthcare workers" (Beauregard, Arnaert, & Ponzoni, 2017, p. 3).

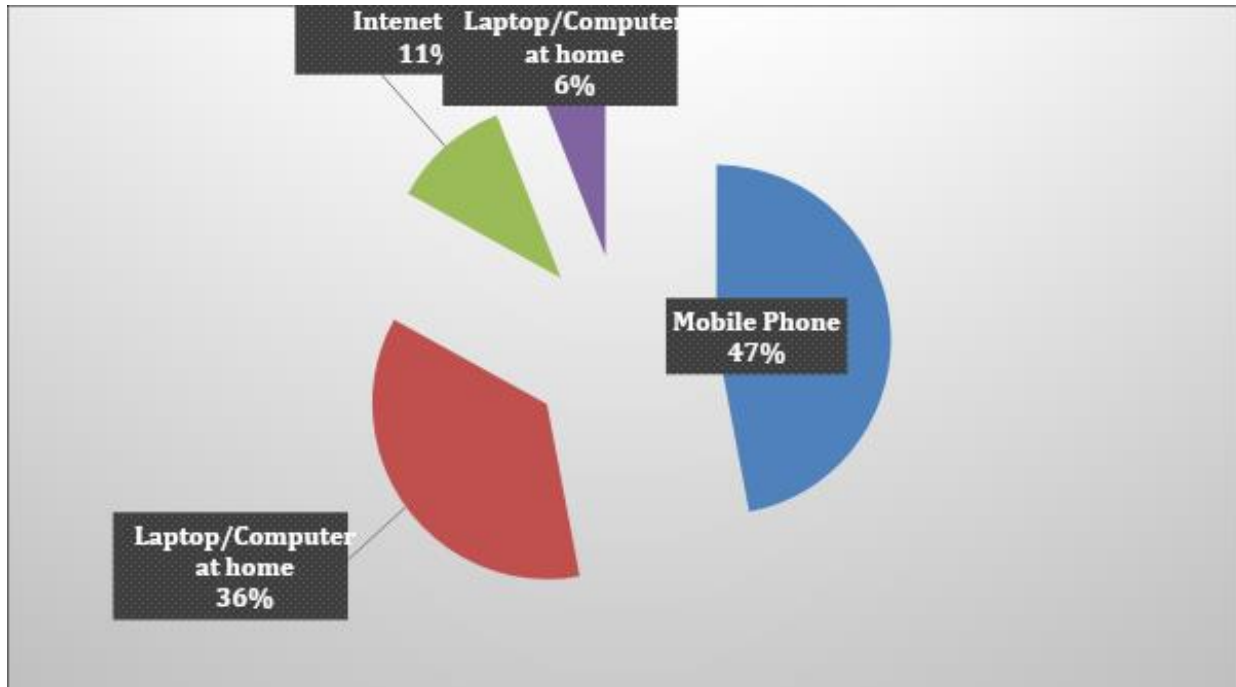


Fig. 1: How information is accessed

5.6 Challenges that Distance Nursing Students Face in Accessing Information

The student nurses were asked what challenges they faced with regard to accessing information for study and research. See Table 4. The results revealed that the majority (35, 94.6%) of students lacked access to prescribed/recommended materials, this was followed by lack of access to library services (34, 91.9%); followed by 32(86.5%) students who felt that lack of knowledge of essential databases and online resources was a hindrance to their studies. Additionally, limited skills to search for information was considered a challenge by 30(81.0%) of the students; a finding that other researchers have established in several studies (Jones et al., 2011; Makondo et al., 2018). The high cost of information services (bundles for Internet) was regarded as a challenge by 28(75.7%) of the students which is similar to other study findings in Africa. Olajide and Otunla (2015, p. 10) identified lack of, and inability to access equipment, lack of time, and inability to utilise technology as key challenges to nursing students, more so for those pursuing

studies via distance education learning mode. Furthermore, lack of lack of competency in searching, inadequate computer technology skills, and lack of interest were individual challenges (Olajide & Otunla, 2015, p. 10). Moreover, 27(72.9%) of the respondents indicated that lack of time and distance to the library were a challenge that hindered them from accessing information resources. Others, 25(67.6%) and 23(62.2%) of the respondents attributed poor Internet network and access in rural areas, as well as lack of proper orientation on how to access information resources as challenges respectively. Lack of time, combined with lack of library access and databases or computer access was found to be great obstacles to distance nursing students in Nigeria (Olajide & Otunla, 2015, p. 10).

The majority of the students further revealed that the major challenge faced was lack of access to prescribed materials and recommended books in line with Owusu-Ansah & Bubuama’s, (2015) conclusion that borrowing library books was a challenge faced by distance learners in accessing library services at the University of Ghana. These results might be because distance nursing students do not borrow books when they are not in residential school, while they also lack knowledge of how to access books which may be available for free online. Moreover, the distance learning student nurses also confirmed lacking skills of searching for online resources and databases which could contain some of the prescribed reading materials they lacked. It is in this connection that the University of Zambia library system is urged to institute means and ways of enabling these distance learners to borrow books when they are away from the University. In the case of the University of Zambia, strengthening provincial centres with functional libraries might be a way of enabling the student nurse’s access to library materials when they are not in residential school.

Table 4: Challenges distance nursing students face in accessing information for research/ study

<i>No.</i>	<i>Challenges</i>	<i>Frequency</i>	<i>%</i>
1	Lack of access to prescribed/recommended materials	35	94.6
2	Lack of access to library services	34	91.9
3	Lack of knowledge of essential databases and online resources	32	86.5
4	Limited skills to search for information	30	81.0
5	High cost of information services(bundles)	28	75.7
6	Lack of time and distance to access reading materials	27	72.9
7	Poor internet network in rural areas	25	67.6
8	Lack of proper orientation on how to access resources	23	62.2

Generally, nursing students face several barriers to information access. As Tury, Robinson and Bawden (2015) have highlighted a few disadvantages related to distance learning which included amongst others; lack of time, limited access to crucial support networks such as peers, tutors and librarians; delayed feedback; and technology which can fail, and is often expensive, was also revealed in this study, in that 75.7% and 72.9% of the students reported having difficulties with the high cost of information services as well as lack of time and long distance respectively. Although it might appear that there is too much information available especially on the internet that nursing students could access, other factors such as information searching skills that affect the way nurses' retrieve online information may hinder them from utilising this online information resource. That is why Jones, Schilling and Pesut (2011, p. 25) have argued that *"despite the plethora of free-of-charge web-based information and widespread access to information resources in the workplace, nurses find that much of the information is not very useful for clinical practice: too much undifferentiated information or incomplete information"*. In a study done at the University Teaching Hospital in Lusaka Zambia, nurse challenges with access to information were:

"lack of access to information resources, poor information and communication technology infrastructure, lack of support from hospital administration, lack of time to read, poor information sharing culture among nurses, lack of awareness on available research information, high cost of information services, lack of access to journal/reports, limited skills to search for information, lack of authority to change patient care and procedures, too much information to search from, unwillingness of doctors to cooperate with implementation, burden to search for research information, unwillingness to change or try new ideas and belief that the best information for nursing does not need research"(Monde, Akakandelwa, & Kanyengo, 2017, p. 4).

5.7 Serving the Distance Nursing Students Better

Respondents were further asked to indicate what measures they felt the UNZA Medical Library could put in place in order to overcome the challenges they faced. *Table 5* indicates that the majority 35(94.6%) of the respondents suggested that the UNZA medical library must orient or train students on use of University of Zambia print and online resources. In this situation, some

of the student nurses emphasised that: *“We need training on the full package of Medical Library services and how to access them in order to make these services available to those who live in distant areas”*. As alluded to earlier, information literacy training is an important aspect of today’s library user education programmes (Olajide & Adio, 2017; Owusu-Ansah & Bubuama, 2015). Additionally, another (34, 91.9%) of the students felt that decentralising the services of the medical library to provincial centres would help counter these challenges. And yet, other respondents, 30(81.0%) suggested that Medical Library management should collaborate with provincial libraries in colleges as well as public libraries. Lastly, some of the distance nursing student’s respondents (54%) suggested that the medical library could create a platform to interact with the students when not in residential school. This is very true in that with modern technological tools, it is easier to reach students with information. Social media apps such as Instant Messenger, Threema, Viber, Skype, Google Hangouts, Wechat, Line, Kakao Talk, WhatsApp, Telegram, etc. could be used to stay in touch with students and the UNZA medical library. In a study on *“Use of social media amongst students at the University of Zambia”*, 55.1% of the students were found to be using social media in particular WhatsApp for school work and 79.7% of them use it to obtain new information (Akakandelwa & Walubita, 2017, p. 7) and the library could capitalise on this interest and use it for library services. In another study on *“Use of Social Media to Support Nursing Students’ Learning in Zambia”* it was asserted that *“training of nurse professionals evolve in the midst of high technology use, more and more students may seek to prefer the use of social mobile media as a tool for continuous learning. Since the overall goal of nursing students is to successfully complete training, many students may opt to use social media platforms such as WhatsApp that are user friendly”* (Wahila, Mwape, Lyambai & Kabinga-Makukula, 2018: 1248). Indeed students will use whatever platforms that are easy to use and accessible to them for their studies.

Table 5: Recommendations on how to improve library services

<i>No.</i>	<i>Suggestions on how to improve services</i>	<i>Frequency</i>	<i>%</i>
1	University Management to decentralise medical library services to other provinces	35	94.6
2	Medical Library to orient/train students on use of University of Zambia online resources	34	91.9
3	Medical Library management to collaborate with college libraries and provincial libraries in provinces	30	81.0
4	Medical Library to create a platform to interact with distance students	20	54.0

6. CONCLUSION AND RECOMMENDATIONS

The study has revealed that distance nursing students require a diverse set of information to meet their study needs, and that these information needs can be met with information from various sources. However, the nursing students have faced several challenges in accessing the requisite information for their studies. It has also not been easy to access library services provided by the University of Zambia Medical Library due to non-availability of the service when students are away from the university. Even though the UNZA Medical library offers e-resources to all students; access to these resources is limited to those students that have access to good internet. In this context, it is important that the library expands and strengthens its provincial libraries so that distance nursing students can access library facilities from the provincial centres. Moreover, the library can still collaborate or partner with the libraries in the provinces through the Zambia Library Services and the Schools of Nursing libraries to help distance nursing students have access to relevant and quality information resources. It remains for the University of Zambia Medical Library to be proactive, adopt new technologies and organise itself in such a way that it responds to the needs of distance nursing learners that supports students according to their programme, time, learning environment, information needs irrespective of spatial location. Librarians and libraries are therefore called to change their strategies, and play an indispensable role in helping distance nursing student's access quality information in different formats, a role that should never be overlooked.

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