Nursing Students' Experience with Information Literacy Skill

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Abstract

This study examined the searching skills and extent of usage of electronic databases by Nursing, Midwifery and Public Health Nursing students in the University of Health and Allied Science (UHAS). The focus was on forty (40) level 300 students drawn from a universe of two hundred and forty six (246) of the School of Public Health (SPH). The study used quantitative method approach and the survey instruments were questionnaire, interview and observation. The data collected were analyzed and classified into the following themes: usefulness, extent of use, determinants of use of e-databases, searching skills, and main drawbacks of learning information literacy skills (ILS). Although all the respondents strongly agreed that e-databases are indispensable for academic and professional practice, findings revealed that majority of them have low quality of searching skills and that accounts for the sparse use of the e-databases. This positive association is proven by Pearson's chi square test (0.000). The study also established that students' attitude, academic loads and methodology of teaching were the challenges hindering the acquisition of ILS of students. As a consequence, the study recommends that Academic librarians should intensify their education on e-databases, the development of research guides and encourages stronger collaboration with faculty members in the teaching of ILS so that student nurses would be more adept in searching for information to enhanced scholarship and professional practice.

Keywords

Information Literacy Skills, Academic Librarians, Faculty, Electronic-Database, Nursing, Midwifery, Public Health Nursing, Information Professionals

1. Introduction

Universities prepare students for professional careers. This enables individuals

to participate with greater understanding of issues that affect region, community and their chosen fields. The 21st century has brought tremendous changes in higher education globally as a consequence of new information and technical developments. According to [1], these changes exclusively affect every facets of society and levels of education. New ways of learning, acquisition, storage and retrieval of information are evolving based on e-resources teaching, e-library organization and life-long learning. The [2] points out the academic significance of the e-library as an organized collection of selected digital resources created to support scholarship, research and teaching. In the light of these developments, students need high level of information literacy skills (ILS) in every phase of their education in order to function productively in the ever changing information environment.

As a result of these demands, universities are undergoing major changes globally in relation to information literacy (IL). Key among the structures is electronic database. Huge cost is sunk in the e-resources to satisfy the teaching, learning and research needs of its faculty and students. To compensate the effort of the university and the funding agents, students are expected to optimally appreciate and use the e-resources for the benefit of all. However, there is widespread concern about lack of searching and evaluation skills, particularly among students; this is evident in the literature [3]. In another study, [4] confirmed students' repertoire of poor search skills, which include selecting search terms, evaluating web sites, and citing sources appropriately. [5] posited that IL is conceivably the foundation for learning in our contemporary environment which experiences continuous technological change. But regrettably, due to lack of skills, students are not able to avail themselves with the numerous advantageous e-databases which are presented to them.

[6] asserts that students need some levels of ILS to make decisions about academic matters. [7] observes that ILS enables one to make efficient and effective use of information sources, and that an information literate person should possess specific online searching skills. [8] concurred that ILS has created limitless opportunities for open access to information. [9] reiterated that, effective decision making in health care delivery relies on timely and accurate information. This assertion by McNeill makes a strong case for the acquisition of searching skills for all professionals. [10] echoed similar view that Nurses specifically deal with an increasingly complex information and decision on continuous basis. Therefore a major goal of nursing programs must include online searching competencies for higher knowledge [11] argued that IL is a cumulative experience of a range of courses, activities and assessments. Thus, it requires collaboration between faculty and academic librarians on one hand and the management of institutions on the other. [12] held a similar view that, integrated curriculum approach results in advanced IL skills, increased access to and use of evidence to support decision making. Students' high searching skills is a precursor of extensive use of library electronic resources including e-databases. Some draw-

backs of learning ILS are attributable to methodology of teaching, students' attitude and other academic loads. In a related study [13] posits that, users' behaviour influences the usage of e-databases, and that other factors that stimulate usage of e-databases are; ease and speed of access, preferred types of materials, good searching skills, and limitless access among others. Factors that account for the low patronage of the e-database are akin to environment and circumstantial. [14] indicated that, usage of e-databases in developing countries is generally low because of poor ICT infrastructure. [15] hold a strong view that if respondents were not aware of most of the e-databases provided them, they are inclined to use common search engines to satisfy their information needs.

Although there are copious insights into students ILS learning approach and other educational factors that enhances skill mastery [16] but there is virtually no study conducted on same with nursing students of School of Nursing and Midwifery (SONAM) UHAS. Whether or not these numerous studies on the ILS assessment and usage of e-database have a direct effect on the respondents, remains an open question. This necessitates research to better understand the factors responsible for the use or lack thereof of subscribed e-databases (e-databases) by the participants. The result of this study is what the management of the institution, faculty and the academic librarians need for policy direction in order to prosecute their core educational mandate.

This study attempted to contribute to the knowledge base by examining the ILS of students and its effect on utilization of e-databases, factors that influence the use of school subscribed e-databases and challenges encountered in learning ILS. Further research is expected to validate the association between ILS and increase evidence-base practice in the field of work [17].

The purpose of this study is to investigate the ILS and its effect on utilization of e-databases, identify challenges and prospects the institution is facing with the e-resource funding for policy direction. Further research is expected to validate the association between information literacy skills and increase evidence base practice in the field of work.

1.1. Problem Statement

In an information society, where access to information and critical evaluation of that information is central to economic and personal well-being, ILS are as essential as basic reading and writing. The value thus attached to ILS in relation to formal education cannot be overemphasized. This culminated in the huge investment made by the institution in the area of ICT in order to harness its benefit for the general development of all [18], puts it succinctly in his study that, ILS leads to independent learning and creates a greater responsibility on the learner of becoming dynamic thinker with creative, analytical and efficient mind instead of mere regurgitation of facts.

Sampling several nursing courses, assignments and exams, it revealed that

students are limited in ideas and arguments, in-text citations, referencing and poor evaluation skills just to mention a few. It is possible that students are not taken advantage of the library databases and other materials that their lecturers recommend for further reading. Evidence are abound that sophisticated information literacy skills are beneficial to academic success, therefore it suffice to say that students are generally not doing what is expected of them to achieve the desired goal. This phenomenon is worrying and had consequently engaged the lecturers and school authorities for a swift and lasting solution. Also, the library staff had made an observation regarding the use of library e-materials particularly the subscribed e-databases. It revealed that the library patrons who visited library seldom use the e-databases and the few who use it often sought the assistance of the library staff in order to accomplish a task. This was confirmed in a study [17] conducted in KUVEMPU University to assess the computer literacy and information literacy of the post graduate students reveal that majority of them do not possess the ability to identify the key concepts in the given information environment. Majority of the respondents in the above study opined that the computer literacy and information literacy programmes are very important for them. In the light of this, the academic librarian is motivated to conduct an empirical research to confirm or refute the assertion that students lack of searching skills accounts for the low patronage of e-databases.

1.2. Significance of the Study

Accessing information by Nursing, Midwifery and Public Health Nursing students of the University of Health and Allied Sciences will be of interest to a large number of institutions that are unaware of the students searching skills and the extent of utilization of the subscribed e-databases the schools have invested in for the promotion of scholarship and research work. Although this study concentrates on few students for reasons of economy and time, it will be useful to a wide range of situations particularly where factors are similar to the studied institution.

Notwithstanding the contribution to new knowledge, policy decisions regarding investments in the area of IL programmes and activities that could accelerate the achievement of a desired outcome shall be taken by the school authorities. Whereas findings will help academic librarians and faculty members in redesigning and developing IL instructions that are compelling, students will also renew their interest in ILS acquisition for academic and professional development.

1.3. Objectives of the Study

Given the importance of e-databases as a valuable basis of information to teaching and learning as well as research, the main purpose of this study was to assess students of SONAM's ILS and utilization of e-databases of UHAS Library. As a complement of the main issues investigated, challenges of navigation or access to

e-databases are also matters of concern. The following are the specific objectives of the study.

- To examine whether students use the school subscribed e-databases.
- To determine the level of searching skills of students.
- To examine factors that influence the use of school subscribed e-databases.
- To examine the challenges encountered in learning ILS.

1.4. Research Questions

The study attempted to answer the following research questions:

- Do you use the school subscribed e-databases?
- What levels of searching skills have you?
- What are the factors that influence the use of the school subscribed e-databases?
- What are the challenges encountered in learning ILS?

1.5. Limitation of the Study

The scope of study is not only narrowed to a single university in Ghana but to one school of Nursing and Midwifery (SONAM) of UHAS. It also examined only level 300 students who were assumed to be of the same age bracket. Higher levels of students (e.g. level 400, and graduate students) are likely to have altered the results of the study. This is corroborated by [19], who found that doctoral research scholars of Goa University, India are consummate users of e-databases. [20] concurred that usage of e-databases is predicated on the purpose and level of study.

2. Methodology

Positivist approach is the research philosophy adopted for this study. This scientific approach allows the use of quantitative data to answer research questions. [21] defined quantitative method as a process of assigning numbers to observe events on a phenomenon and using the rules of mathematics, probability and statistics to make statement about a phenomenon. The study made use of a survey and a quantitative design and utilized data from primary and secondary sources to justify the use of the above approach. While the primary data were obtained through the questionnaires on 40 level 300 students of the SONAM, the secondary data were derived from relevant articles and papers. In selecting the respondents, one-sixth of the population was taken as a sample fraction from each stratum [Nursing (190), Midwifery (50) and Public Health Nursing (6)]. A purposive sampling technique was adopted for observing 10 students who visited physical library at the time of collecting data. The study sample from the population was admissible against the backdrop of the position of [22], which refers to Krejcie and Morgan's sampling formula, which suggests a sample should be about 10% of the population size. Retrieval and completion rate of the questionnaire was 100% and this was attributable to spot on collection of the instru-

ment. The questionnaire was made up of four (4) sections consisting of 17 items. Section one comprises the levels of students and their awareness of e-databases. Section two has to do with usage/access of e-databases. Whereas section three dealt with library service and importance of e-databases to academic and professional work, section four covered searching skills and challenges. Data was critically analyzed using SPSS software according to objectives set out to be examined.

2.1. Data Presentation and Analysis

Findings from the fieldwork realized from the solicited views of respondents to appropriately address the hypothesis (research question) are discussed below. Analysis of data and the results were presented in tables and charts using frequencies and percentages. The results of the analysis are grouped under the following sub-headings:

- Usefulness of e-databases.
- Determinants of use of subscribed e-databases.
- Searching skills versus use of subscribed databases.
- Main drawbacks of learning ILS.

In addition to the analyses are some considerations in the literature.

2.2. Usefulness of E-Databases to Academic and Professional Practice

Table 1 below summarizes the responses of opinion of respondents in relation to the usefulness of subscribed e-databases. The result indicated that 40 respondents representing 100% were of the view that, subscribed e-databases are indispensable for academic and professional practice.

2.3. Searching Skills and the Extent of Use of Subscribed E-Databases

The first and the second objectives of the study sought to examine the level of searching skills of respondents and its impacts on the use of s-e-databases. It was however found from the study that 4 and 5 of the respondents have very high and high skills respectively use at least 2 times a day of the s-e-databases. Of the 13 respondents with high skills, 7 of them representing 54% use the e-databases for at most 2 times a day. Only 1 respondent representing 7% who had high searching skills accesses subscribed e-db once a week. Whereas, none of the respondents with low searching skills access e-db for at least 2 times a day 4 of them do access it for at most 2 times a day and 11 of them representing 73% do so for only once a week. From Table 2 below, it follows that 9 out of 40 respondents

Table 1. Usefulness of subscribed e-db to academic and professional practice (N = 40).

Opinion	Frequency	Percent
Strongly agree	40	100

Source: field data, 2016.

representing 22.5%, 11 out of 40 respondents representing 27.5% and 20 out 40 respondents representing 50% use subscribed e-db for at least 2 times, at most 2 times and once a week respectively. The findings clearly shows that majority of respondents (19 out 20 have low and very low searching skills) this means they do not use subscribed data as expected. Table 2 below summarizes searching skills of respondents versus degree of use of subscribed e-db.

Statistically, there is strong association between the above variables (searching skills of respondents and degree of use of subscribed e-db). Chi-Square Tests which measure the degree of relationship between variables indicated a positive significance with Pearson (significance value of 0.000) with an internal consistency and reliability of Cronbach Alpha of 0.890. It follows that a change in one variable has a corresponding effects on the other. In this case however, there is a direct effect on usage of subscribed e-db given the searching skills of a respondent. This is seen in Table 3 below.

The cross-tabulation of searching skills by extent of use of subscribed e-databases yields the following joint frequency which is shown in Table 2 below.

2.4. Factors That Influence the Use of Subscribed E-Databases

In relation to the determinants of usage of subscribed e-db, opinion of respondents were collected and organized in Table 4. The opinions of respondents were of three (3) categories. Ease and speed of access, good searching skills and unlimited access to the e-databases. Majority of respondents, 20 of them

Table 2. Chi-square tests.

Chi-Square Tests			
Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
	36.197	6	0.000

Result of Table 2 above, SPSS generated.

Table 3. Extent of use of subscribed e-databases (N = 40).

Searching skills	Extent of use of subscribed e-databases			Total
	At least 2 times a day	At least 2 times a day	Once a week	
Very high	4	0	0	4
High	5	7	1	13
Low	0	4	11	15
Very low	0	0	8	8
Total	9	11	20	40

Source: field data, 2016.

Table 4. Stimulus (s) of use of subscribed e-databases (N = 40).

Opinion	Frequency	Percent
Ease and speed of access	20	50
Good searching skills	17	42
Unlimited access to the databases	3	8
Total	**40**	**100**

Source: field data, 2016.

Table 5. Main drawback of learning ILS (N = 40).

Opinion	Frequency	Percent
Methodology of teaching	13	32
Other academic load	12	30
Students attitude	15	38
Total	**40**	**100**

Source: field data, 2016.

representing 50% alluded that ease and speed of access influences the use of subscribed e-db while good searching skills follows with 17 respondents representing 43%. The last category has the lowest number of respondents with a percentage of 7.

2.5. Main Drawback of Learning ILS

Table 5 gives a summary of the major drawbacks of learning ILS which is the fourth objectives of this study. Of the three categories, students' attitude tops the list with 15 respondents representing 37.5 per cent. Methodology of teaching and academic loads follows with a difference of 1 respondent between them. The outcome above demonstrated that all of the drawbacks are critical for ILS learning.

3. Discussion of the Findings, Conclusions and Recommendations

The summary, conclusions and recommendations from the study are organized in two (2) parts. Whereas the first part is the summary of findings that has implications on the objectives of the study the second part covers the conclusions drawn from the study and recommendations made from the study for further research.

Summary of the Key Findings

Summary of findings of the study are stated under the following sub-headings:

Usefulness of e-databases, Extent of use of e-databases, Searching skills, Factors that influence use of e-databases and Main drawbacks of learning ILS.

Of the four (4) categories of responses on the usefulness of e-databases, strongly agree had prominence. All the 40 respondents representing 100 per cent said e-databases are indispensable as far as academic and professional practice is concerned. This popular claim by respondents justifies the investment made by the institution in the area of information literacy skill acquisition and e-library structures. With regards to the extent of use of e-databases, those with low skills do not use the e-databases as often as expected. Even though they acknowledge the importance of it, as much as access requires some amount of skills which was absent, motivation for usage will inevitably be low. Majority of the respondents (23) of them representing 58% have low searching skills. However, 20 respondents representing 50% use the databases once a week. Knowing how indispensable e-databases is for academic work, student with low searching skills will most often depend on their study mates who are skillful for sharing or else, they will rely on the library staff for their information need. As to the factors influencing the use of e-db, ease and speed of access had the highest number of response (20) representing 50%. Good searching skills had 17 responses representing 43%. Ease and speed of access as well as good searching skills are notably the most influential factors. The reason is that, most students have low tolerance for hitches and delay in accessing information. Unlimited access to the e-databases has the lowest number of response because respondents are aware of the limitless access to information for as long as one has high searching skills.

In relation to major drawbacks of learning ILS, students' attitude tops with 15 respondents. Between methodology of teaching and academic loads is a difference of 1 respondent. Given the percentages of the responses of the categories one could infer that all the drawbacks are critical for ILS learning.

4. Conclusion

ILS promotion among the students is critical in order to address the sparse usage of e-databases. Undoubtedly, ILS is a prerequisite to evidence-based medical practice which has the potential to bring cost of healthcare delivery in the country down. [23] in their study echoed the importance of ILS to the Nursing profession. Appropriate investment must be made in the area of information infrastructure including optimal method of teaching and learning ILS. Information professionals of the institution must be creative, flexible and professional in their delivery. [24] corroborates that instructors must possess the requisite skills to pass on. Training of ILS must be practically oriented and evaluative rather than procedurally and abstractly modeled. Students must be encouraged also to increase their visits to the library where one-on-one consultation can be done with the library. This will lead to effective acquisition of quality searching skills. He went on further to suggest that students must be encouraged to have a portfolio of their work on what they are taught in IL program. Instructors will then check

portfolios and make a remark and subsequently submit the revised work for final assessment and evaluation. This collection of their accomplishments will stimulate excitement; heighten interest and tolerance in the application of knowledge and skills in the area of information search. [25] could not agree with them more and said that effective and systematic assessment of student progress in ILS and achievement increases knowledge and searching skills. With these thoughtful interventions, time is a resource factor, thus students should be given sufficient learning time that will in turn serve as the basis for optimal use of e-databases [26].

5. Recommendations

Given the importance of ILS acquisition, it will be in the interest of the school to make the teaching and learning of ILS more compelling, friendly and ambitious by offering more practical instructions to students with a focus on one-on-one information searching guide. Also, Academic Librarians and their staffs should intensify their education on the importance and use of databases to students. Information professionals of the institution must be creative, flexible and professional in their delivery. There must also be a strong collaboration between academic librarians and Faculty members regarding planning of the syllabus and time-table. Expansion of the internet bandwidth is a critical consideration and should not be compromised as far as teaching of ILS and usage of e-database is concerned. If students have ease and speed of access, it will motivate them to use subscribed e-databases frequently hence promote scholarship and research.

6. Further Research Scope

This study was limited to Nursing, Midwifery and Public Health Nursing SONAM of UHAS. The theme can be extended to other schools in Ghana. The research can also be conducted on a large scale with large sample size considering more relevant variables to the topic.

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