The Means and the Difficulties Faced by Maternal and Child Health Nursing Students in Obtaining Scientific Information in Practical training

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المستخلص

الهدف: تهدف الدراسه الى تحديد الوسائل والمصاعب التي يواجهها طلبة تمريض صحة الأم والطفل / كلية التمريض / جامعة بغداد في الحصول على المعلومات العلمية في التدريب العملي.

المنهجيه: تم اختيار عينة عمدية لمئة طالب وطالبة في فرع تمريض صحة الام و الطفل / كلية التمريض / جامعة بغداد بقسميها الصباحي المسائي ولفصلين دراسيين و تم جمع المعلومات من خلال ملأ الاستمارة الاستبيانية للفتره من تشرين الثاني ٢٠١٠ الى نيسان ٢٠١١ ، أستخدمت الوسائل الاحصائية الوصفيه في تحليل البيانات .

النتائج: أظهرت النتائج أن اعلى نسبة من افراد عينة الدراسة تتراوح أعمارهم بين (٢٠- ٢١) سنة ، الاغلبيه اناث ومن سكنة مدينة بغداد. كشفت نتائج الدراسة أن أكثر من نصف عينة الدراسة تحصل على المعلومات الخاصة بهم من كل من المكتبة والانترنت، وان أكثر من نصف عينة الدراسة يفضلون الإنترنت ، كما وأن أكثر من ثلثي عينة الدراسة تعتبر الكتب معلوماتها أكثر دقة.

وأظهرت نتائج الدراسة أن (٦٣ ٪) من عينة الدراسة يفضلون الإنترنت يرجع في معظمها إلى السهولة، واختصار الوقت من وجهة نظر الطلبه، نصف عينة الدراسة الذين استخدموا الانترنت يختارون ما هو مناسب من الموضوع ويتركون الباقي ، وأن أعلى نسبة (٦٧ ٪) من عينة الدراسة واجهت صعوبات في الإنترنت معظمهم ضعفهم وقلة المعرفة والمهارة بالانترنت والكمبيوتر من وجهة نظرهم ، وكان الغالبيه (٩٥ ٪) من عينة الدراسة لهم صعوبات في استخدام الكتب منها بسبب عدم وجود نسخ عديدة من الكتاب المطلوب ، وعدد قليل من الكتب حول الموضوع المطلوب لذا غالبية عينة الدراسة يعتمدون على زملائهم في الحصول على المعلومات من الانترنت.

التوصيات: توفيرالبرامج التعليمية للتمريض لتطوير التعلم الذاتي وموجهة نحو حل المشاكل، والمهارات خاصة في قاعدة بيانات والتعليم، وإدماج دورات الكمبيوتر في المناهج الدراسية، وتشغيل وتدريب أمناء المكتبات لتوفير معلومات عن المكتبات وخدمات المكتبة مع تقيم متقدم ودروسا موثوقة وفعالة للطلاب في كفاءة الكمبيوتر ، وتوفير التغذية الراجعة للطلاب.

Abstract:

Objective: The aim of this study is to determine the means and the difficulties faced by students of nursing maternal and child health nursing / College of Nursing / University of Baghdad in obtaining scientific information in practical training.

Methodology: A purposive sample of (100) Nursing college student - Maternal and Child Health Nursing Department were selected. Data were collected through the use of the questionnaire form during the period from the November 2010 to April 2011. Descriptive statistical procedures were used to analyze the data.

Results: The results showed that the highest percentage of members of the study sample aged between (20-21 years), females are the most inhabitants of the city of Baghdad. Results of the study revealed that more than half of the study sample to get their information from each of the library and the Internet, and that half the study samples prefer the Internet, and more than two thirds of the study sample is considered more accurate information books. The study results showed that the highest percentage (63%) of the study sample prefer the Internet is due mostly to ease and shorten the time from the student's point of view; half of the students who used the Internet choose what an appropriate topic is and leave the rest. The study results showed that the highest percentage (67%) of the study sample had difficulties in the Internet, most of their weakness and lack of knowledge and skill to the Internet and computer from their point of view, the bulk of the proportion (95%) of the study sample have difficulties in the use of books, including the lack

of copies and a few books on the topic that student want, so the majority of the sample depend on colleague in accessing information from the Internet.

Recommendations: Provision educational programs for nursing to develop learning-oriented and self-problem-solving skills especially on a database, integration of computer courses in the curriculum, training of librarians to provide information about libraries and library services with the progress of lessons in a reliable and effective assessment of students in the efficiency of the computer with the provision of feedback for students.

Key words: **Means, Difficulties, Maternal, Child Health, Nursing, Students, Scientific Information, Practical training**

Introduction:

Clinical education is considered as indispensable and vital part of nursing education [1]. However, some courses demand formatting of papers, the use of spreadsheet and database programs within a specific field of study, or using computer simulations in learning experiences. Many college courses also require students to use library databases and search engines to find research articles [2].

Nursing students were most likely to rely on colleagues and books for medical information, while other resources they frequently cited included personal digital assistants, electronic journals and books, and drug representatives [3].

Nursing students made more use of all available resources, but lacked database-searching skills. Nursing students were eager for more patient care information, more database training, and better computer skills, therefore, health sciences librarians have the opportunity to meet the nurse's information needs and improve nurse's clinical information-seeking behavior and provide nurses with access to library or reference books, so they can use their intelligence and skill to find answers to their questions [3].

Educators have an important role in the successful completion of a student's clinical education. The clinical educator's approach, experience and knowledge have an influence on the students. Students encounter certain problems during their clinical practice under the supervision of educators **[1]**.

As practical instructors find that many students at third year of an undergraduate maternal and child health nursing program facing difficulties in obtaining information that might need in clinical area (for example assignment, reports, or seminar) or they depend on one student in preparing the subject for the group. Many students suffer from poor self-dependent or can making decision about their work. Quality in nursing practice is dependent upon educational preparation of nurses to solve problem, think critically and make decisions in today's health care system to pursue ongoing learning for professional development [4].

It is very important that clinical education be organized in such a way that students have opportunities to use their theoretical knowledge in practice and to reflect during their practical work. Integration of theory and practice during clinical training has been emphasized as a necessary component [5].

Methodology:

A survey study was conducted to determine the means and the difficulties faced by students of nursing maternal and child health nursing / College of Nursing / University of Baghdad in obtaining scientific information in practical training during the period November 2010 to April 2011.The study was conducted at Nursing College / University of Baghdad / Maternal and Child Health Nursing Department during two semesters in 2010/2011.Non probability sample (purposive sample) consist of one hundred undergraduate nursing students (3rd year) from both sex who had been enrolled in maternal and child health nursing department. The total number of the nursing students enrolled in the 3rd year (n= 155 nursing students) at the maternal and child health nursing department/

Nursing college / Baghdad University. Only 100 students who agree to participate in this study (80 students at morning section and 20 students at evening section) during two semesters in 2010 / 2011. The questioner form consists from 2 parts:

Part 1: general information such as age, sex, residence.

Part 2: questions related to the means and difficulties that faced by Maternal and Child Health Nursing Students - Nursing College in obtaining scientific information such as place of information, internet information, student information preference, reasons for preference, means of obtaining the information, how accessing information from internet, the difficulties facing students during their study .

The investigator had introduced her plan to study participants and explained the objectives, the importance of the study and the nature of the study which is voluntary and confidential, and that the information disclosed would be just for research purposes. It carried out in the classroom in the college at the end of lecture.

Limitations of the Study:

1. Some of the questionnaire forms are not completely answered so excluded from the sample.

2. Only some of 3rd year's students participate in the study.

3. The participants completed an anonymous questionnaire form, some students turn back it immediately while others take time in answering the questions.

Results of the study:

Table 1. Distribution of Study Sample According to Demographic Variables

Demographic Variables	F	%
Age group (Years)		
20-21	**55**	**55**
22-23	17	17
24-25	14	14
26+	14	14
Total	**100**	**100%**
$\overline{X}=$ 22.78 ± 4.009		
Sex		
Male	43	43
Female	**57**	**57**
Total	**100**	**100%**
Location		
Baghdad	**70**	**70**
Middle	23	23
East	4	4
North	3	3
Total	**100**	**100%**

F=Frequency,   %=Percent, $\overline{X}$=Mean

Table (1) shows that the highest percentage (55%) of study sample at age group (20-21) and the mean of age was **22.78 ± 4.009**, while the lowest percentage (14%) of them was (24-25, and more than 26) years respectively. Regarding sex more than half were female while (43%) of them were male. Regarding location two third of study sample were from Baghdad while the lowest percentage (3%) of them were from north.

Table 2. **Distribution of Study Sample According to the Means of Obtaining Information**

Means of obtaining information	F	%
Place of information:		
Library	15	15
Internet	31	31
Both	**54**	**54**
Information preference:		
Library	41	41
Internet	**51**	**51**
Both	4	4
Lectures	4	4
Accurate information from their point of view:		
Book	**77**	**77**
Internet	23	23
Total	100	100

F=Frequency, %=Percent

Table (2) shows that the highest percentage (54%) of study sample getting their information from both library and internet, while the lowest percentage (15%) of them was used library. Half of study sample preferred internet, while (4%), (4%) of them preferred information from both internet and library and lectures respectively. More than two third (77%) of study sample considered books more accurate information, while (23%) of them consider internet more accurate.
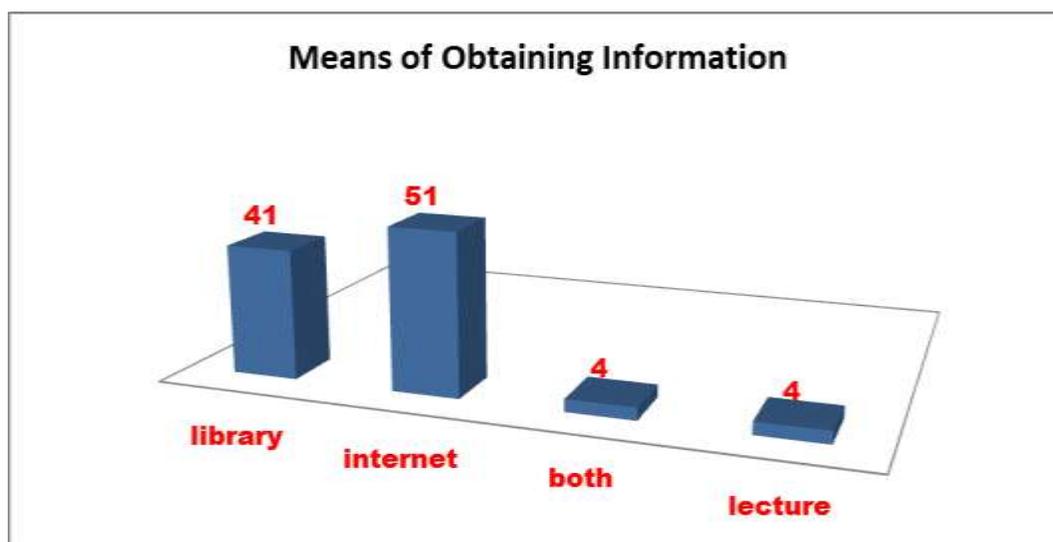

Figure 1. **Distribution of Study Sample According to the Means of Obtaining Information**

Table 3. Distribution of Study Sample According to the internet preference

Variables related to internet preference n=100	F	%
Reasons for internet preference from students point of view:		
No	27	27
*Yes:-	**63**	**63**
Ease of access to information	58	
Shorten the time	59	
Internet Information up to date	58	
Working on the Internet opens new horizons for student	34	
Helps to work collectively with students	21	
Develop information	27	
Internet information accessing site:		
Own computer	20	20
Offices	15	15
College 's internet	50	50
Colleague	5	5
No answer	10	10
Preparing topics from internet:		
Read the whole issue	30	30
Read the title and withdraw them as they are	5	5
Choose what's appropriate and leave the rest	58	58
No answer	7	7

F=Frequency, %=Percent, n = sample size
*more than one answer

Table (3) shows that the highest percentage (63%) of study sample preferred internet mostly due to easy, shorten the time and up to date from students point of view, while the lowest percentage (27%) of them they didn't preferred internet. Half of study sample (50%) obtain their information from college's internet, while (5%) of them preferred information from their colleague. More than half of the study sample (58%) choose what's appropriate and leave the rest, while (5%) of them read the title and withdraw them as they are.

Table 4. Distribution of Study Sample According to Difficulties in Obtaining Information from Students
        Point of View

Difficulties in Obtaining Information from Students Point of View n=100	F	%
Internet:		
No	33	33
*Yes:	**67**	**67**
Poor Internet knowledge	35	
Unavailable computer	21	
Expensive	19	

Table 4. Continued

Poor computer knowledge	34	
Time consume	12	
Book :		
No	5	5
*Yes :-	**95**	**95**
Poor English language	29	
View topic	36	
Lack of many copies of the book	49	
Do not allow to borrow	13	
Few books on the required subject	49	
Old books	6	
Depend on colleague to obtain Information from the website:		
Yes	**75**	**75**
No	18	18
No answer	7	7

F=Frequency, %=Percent, n = sample size
*more than one answer

      Table (4) shows that the highest percentage (67%) of study sample had internet difficulties most of them due to poor Internet and computer knowledge from their point of view, while the lowest percentage (33%) of them had skill in both computer and internet. Concerning difficulties related to books most (95%) of the study sample had difficulties in using books mostly due to the lack of many copies of the book and few books on the required subject. The majority of study sample obtain their information depended on colleague in obtaining information from internet to the group, while (18%) of them they obtaining information by their own skill.

Discussion:

This study reports on the means and the difficulties that students facing during obtaining information were used for patient care by nursing students, because nursing students were assigned papers and projects for class or practical training. Learners have access to a variety of tools and resources with which to work. Teachers can design such classrooms, and computers can help [6].

1. Demographic Characteristics

The present study reveals that the highest percentage (55%) of study sample were at age group (20-21) and the mean of age and SD of the study sample was 22.78 ± 4.009, while the lowest percentage (14%), (14%) respectively of them was (24-25, and more than 26) were at evening at evening section as shown in table (1).

Regarding sex more than half were female while (43%) of them were male.

Regarding location two third of study sample were from Baghdad, as shown in table (1).

2. Means of obtaining information

Place of Information:

The result of the study revealed that the more than half of study sample was obtaining their information from both library and internet, as shows in table (2) Figure (1). Print materials are another group of preferred resources of information, including nursing textbooks and journals [13, 15, 16, 17]. Several studies have reported that libraries were widely used resources for health information by students and health professionals [9, 10, 11]. However, other studies have shown that many health professionals were reluctant to use libraries, or they did not have access [7, 8, 12].

The study coincided with Verhey [9] who reported that more than 33% of the respondents felt unfamiliar with libraries.

Dee and Stanley [3] who studied that participants identified health information resources that they used from nine types of health care resources including human resources, books, journals, databases, handheld computers, Internet sites, electronic books and journals, teleconferences or meetings, and drug representatives, surprisingly, nursing students made minimal use of the health sciences library and only limited use of the library in the hospital where they worked. Various other studies confirmed this lack of library use by nurses [7, 8].

Information Preference:

More than half (51%) of study sample preferred internet, as shows in table (2), this result agree with Dee and Stanley [3] who studied the results of the small-scale study revealed that human and print resources continued to be preferred over electronic resources for health information for patient care by both nursing students and clinical nurses. Reference materials on CD-ROMs and curriculum assistance from high quality software offer many more resource opportunities than most classrooms or school libraries could provide [6].

Accurate Information from Their Point of View

The results of the present study showed that more than two third of study sample considered books more accurate information this result coincided with Dee and Stanley [3] who stated that books continued to be popular resources for patient care for all participants, because books provided immediate access to concise information. However, books rapidly become out of date. Nursing students and clinical nurses explained that they preferred the human and print resources, because they were easy to use and provided immediate access to trusted sources of health information.

Internet content is less structured and manageable than material outlined by a textbook [6].

Barta [14] studied that 73% of nursing students found nursing journals to be most useful and 33% selected nursing texts as most useful.

Interviewees in this study explained their preference for printed books by stating that textbooks, like human resources, provided easy and convenient access to concise, reliable information. Interviews also revealed that journal subscriptions were used to stay current in the field but were not useful for specific patient care questions. Participants explained that locating a specific article for a specific patient care question from a journal without a comprehensive index was not a reasonable task.

It must be noted that the result of this study agree with study conducted by Barta [14] who conclude that although this study indicated that human and print resources were preferred resources, this was not always through choice but often from necessity, because human and print resources were readily available and other resources were not available.

From the researcher practical experiences, many students suffered from lacked searching information skills in preparing an assignment or report that required for clinical information which wasted their time and energy. Performance of nursing requires a cognitive ability that includes problem solving, decision-making, and clinical judgment. Quality in nursing practice is dependent upon educational preparation of nurses to solve problem, think critically and make decisions in today's health care system [4].

3. Variables Related to Internet Preference

Reasons for Internet Preference from Students Point of View:

The results of the present study showed that the highest percentage (63%) of study sample preferred internet mostly due to easy, shorten the time and up to date from students point of view as shown in table (3), this result agree with study carried by Dee, and Stanley [3] who concluded that the interviews and observation of all nursing participants indicated that electronic databases were much more popular sources of information for those who were skilled in and comfortable using computers. It is interesting to note, however, that many nursing students reported that they chose not to use electronic

resources sometimes and selected other resources for information retrieval.

One of the reasons of internet preference from students' point of view was ease of access to information. Nursing students had access to many high-quality health information resources but tended to use resources based on accessibility and awareness of the resource and its content [6].

Other reason was shorten the time this finding agree with Verhey [9] who found in his study that lack of time to be a significant factor in searching for information for half of his nursing students.

Internet Information up to date is other reason for internet preference from student point of view this agree with Dee and Stanley[3] who stated that electronic resources provides up-to-date, quality nursing information.

The result of the study shows that working on the Internet opens new horizons for student. Computers can support the variety of ways learners construct their own understanding. Students who gather information from the Internet can be self-directed and independent. They can choose what sources to examine and what connections to pursue. Depending on the parameters set by teachers, the students may be in complete control of their topics and their explorations [3].

The results of the study find that helping to work collectively with students was other reasons that student preferred internet in gathering information. Students can work through a computer-based activity at their own space. Rather than 25 individuals working together on one activity, technology allows independent completion of work [6].

Nursing students stated that internet developed information this point of view agree with Dee and Stanley [3] who conclude that books provided immediate access to concise information. However, books rapidly become out of date. Electronic books might meet this need, if they were very accessible and affordable for budgets with limited funds for health sciences library resources.

Internet Information Accessing Site:

Half of study sample obtain their information from college's internet, while (5%) of them preferred information from their colleague as shown in table (3), this result fit with study conducted by Dee and Stanley [3] who found that all of the students had on-campus and remote access to print and electronic health sciences information resources in addition to the access provided in their workplaces. All of the nursing students in the study had computers at home, and 76% had use of computers at their place of work.

Preparing Topics from Internet:

More than half of the study sample who used internet choose what's appropriate from issue and leave the rest, while (5%) of them read the title and withdraw them as they are.

Students will need to question and evaluate the information they find. There are many Internet sites that offer raw data-pictures from space, numbers from the census, and text from court documents. These kinds of resources need context to provide meaning, and lessons should include components that help students use the information wisely and productively [6].

Nursing students reported that they used medical research articles from quality databases for school assignments, but that they needed more concise, factual information resources that were immediately available to them for clinical patient care questions [3].

4. Difficulties in Accessing Information from Students Point of View

Internet Difficulties:

The results of the present study showed that the highest percentage (67%) of study sample had internet difficulties most of them due to poor internet and computer knowledge and skill from their point of view as shown in table (4). This result of the present study were agreed with Atack [2] who stated that lack of computer skills has been linked to delayed learning and an increase in frustration for students in college classes. Some nurses were reluctant to utilize digital information resources and exhibited a lack of knowledge about computers [7, 18, 19].

One of the internet difficulties from students point of view was time consume because many

nursing students worked as part time especially night shift or afternoon this result coincide with Wakeham [12] who found that nurses in the United Kingdom were also reluctant to use libraries due to lack of time.

Book difficulties:

The bulk percentage (95%) of the study sample had difficulties in using books mostly due to the lack of many copies of the book, few books on the required subject and lack of many copies this agree with Verhey [9] Pyne [20] who reported that underutilization of the available nursing literature with a reduction in textbook use and minimal reliance on print journals

Dee and Stanley [3] stated that many nursing students and clinical nurses explained that they did not feel confident in their abilities to use the academic health sciences library, the hospital library, or even the public library, and many admitted that they did not even know what health information resources were available to them. Similarly, Verhey[9] reported that more than 33% of the respondents felt unfamiliar with libraries.

Depend on colleague to obtain Information from the website:

The majority of study sample obtain their information depended on colleague in obtaining information from internet, while (18%) of them they obtaining information by own skill, this coincided with Dee and Stanley [3] who stated that Participants stressed that the lack of time in a hectic clinical atmosphere on the patient floors did not permit discussion of patient care questions with their supervisors and that they often turned to their colleagues for additional patient care information if they felt it was needed.

University librarians' offer mediated computer search services and some medical school librarians also offer live digital reference service [21-26].

Well-informed decisions require accurate, complete, and timely information obtained from well-managed data processes [27].

Recommendations:

1. Provision of educational programs for nursing to develop learning-oriented and self-problem-solving skills especially on database.

2. Integration of computer courses in the curriculum.

3. Training of librarians to provide information about libraries and library services with the progress of lessons in a reliable and effective assessment of students in the efficiency of the computer with the provision of feedback for students.

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