

Egyptian Students' Experience of E-Maternity Course

Amina El-Nemer and Tyseer Marzouk*

Department of Maternity and Gynecology Nursing, Faculty of Nursing, Mansoura University, Mansoura 35516, Egypt,

*Email of the corresponding author: tm_fathy@yahoo.com

Abstract

Background: Egypt is facing a massive shortage in health care providers including nurses. One of the Egyptian government strategies to overcome this problem is to increase students' intake at the existing nursing faculties as well as building additional nursing faculties in different governorates. In such situation, there is an urgent need for e-learning, which is a means of alleviating the educational and health problems in Egypt. Responding to the rapid changes in the field of Information Technologies, an increasing interest in E-learning has emerged. In Egypt, little is known about the experience of introducing e learning in nursing education. **Aim:** This study aims to explore the Egyptian students' experience of E-maternity course. **Methods:** A Qualitative exploratory descriptive design was utilized using a phenomenological approach during the academic year 2012-2013. Forty nine male and female students were selected through purposive sampling technique based on the following criteria: was having had a personal computer or laptop with an internet access and was agreed to share their views and experiences of the electronic course. Student feedback and focus group interviews were coded to develop an in-depth narrative data about students' experiences. **Findings:** E-learning was supported by positive students' feedback and reflections but still some students experienced some difficulties and challenges during their experiences of E-learning. Indeed, as this study has shown, the main positive emerged themes were: convenience and sense of control, new teaching and learning method and self learning and interaction. The second emerged theme was challenges and obstacles faced students who taught the online course. Students' reflections were related to lack of electronic environment such as limited number of computers available, network problems, electronic management system, lack of technical support, and lack of computer skills. **Conclusion:** Moving from teaching to learning is one of the policy makers' strategic objectives. The use of e-learning would help students to acquire the learning outcomes. E learning experience in nursing education can be improved; if the factors affecting the use of it were addressed in a correct manner. **Recommendation:** Corporation of e learning in nursing education should be guided both by governmental and institutional support. **Key words:** E-learning, education, student's feedback.

1. Introduction

Egypt is facing a massive shortage in health care providers including nurses. One of the Egyptian government strategies to overcome this problem is to increase students' intake at the existing nursing faculties as well as building additional nursing faculties in different governorates (El-Nemer 2013). Increasing students' enrollment in Egyptian universities that was started in the 1970s and 1980s led to declining quality of higher education in Egypt and declining quality of nursing education in particular (Beckstrom et al. 2004 and Abdelaziz 2009).

Another major challenge to teach the large numbers of nursing students, while preserving the quality of their education, is the shortages of academic nursing staff in most nursing faculties. In many instances, large well-established nursing faculties are providing or sharing academic staff with newly opened faculties of nursing (Khaled 2008). In such situation, there is an urgent need for e-learning, which is a means of alleviating the educational and health problems in Egypt. It can provide an opportunity to extend staff availability to new nursing faculties and reach distant faculties and students. As well, it may overcome the problem of increasing number of the enrolled students and the shortage of the academic staff (Fayek 2004 and Abdel-Wahab 2008).

E- Learning means using the internet to access online modules or courses (Govindasamy 2002 and Garrison & Anderson 2003). Worldwide nurses participate in e-learning to earn continuing education, receive a certificate in a particular specialty, or even obtain an academic degree. E-learning courses are offered online using course-management software, such as Web CT or Blackboard according to the faculties' infrastructures and ICT management system. The chosen software programs use e-mail, discussion boards, chat rooms, and testing tools to organize information and supporting the electronic management system (Parikh and Verma 2002).

In 1999 the Egyptian government priorities Information Technology as a national development goal and established the Egyptian Ministry of Communication and Information Technology (EMCIT) as a first step for achieving the Egyptian information society (Beckstrom et al. 2004). MCIT issued a strategic plan called the National Communication and Information Technology Plan to improve the telecommunication infrastructure and set the National ICT policies (Beckstrom et al. 2004). In 2005 the National Plan has been updated to include: e-government services, e-business services, e-learning, e-health services, e-documentation and developing technology related industries (Khaled 2008).

In 2006 the Egyptian Education Initiative was launched to enhance the use of ICT aiming to improve the quality of education. Egyptian higher education is experiencing many challenges; including increasing the number of enrolled students each year, high turnover and high loading staff, lack of financial support, outdated governance and legislation and absence of quality assurance system (Said 2001). In order to overcome these challenges with quality accessible and acceptable educational opportunities, E-learning models have been recognized as one of the essential and helpful educational method (Beckstrom et al. 2004).

The National E-learning Center was established within the Supreme Council of Universities to support the development of e-learning in Egypt through adopting standards for courseware development, provides support to universities in the form of infrastructures, information, tools and training programs (NELC 2006). In 2005 Mansoura University E-learning Center was established to promote and encourage excellence in learning by providing the expertise and supporting the faculties at the university level. Mansoura University is the leader among the Egyptian universities through its powerful network infrastructure and using ICT in education. The university awarded the National E content Award in 2006 from the MCIT (DOH 2010).

E-learning has been positioned as a 'revolution in education'. It is a vital tool for developing the skills needed for future practitioners and an excellent method for enhancing lifelong learning (Ruiz et al. 2006 and DOH 2010). As Nursing, is a high-demand field with highly specific needs for the students, thus the researchers designed the first nursing electronic course at Faculty of Nursing-Mansoura University, Egypt. As the students are the core of the learning process and supporting the argument that learners are experts in their own experiences so the first E-curriculum experience cannot be ignored. Thus the current study aimed to explore the Egyptian students' experience of E-maternity course.

2. Subjects and methods

2.1. Aim of the study

The present study was aimed to explore the Egyptian students' experience of E-maternity course.

2.2. Study design and setting

Qualitative exploratory descriptive design was utilized to better understand students' views and experiences of E-maternity course. Given the objective of the study, qualitative research method is appropriate to capture and elucidate students' perspectives and to gain an insider's view of the experiences and views of study participants (Lester 2014). This study was carried out at the Faculty of Nursing - Mansoura University, Egypt.

2.3. Subjects

At the first lecture, the study aim and requirements to join in the study were explained to 3rd year nursing students who enrolled in Maternity Nursing course for the academic year 2012-2013. Non-probability purposive sample was employed to recruit participants based on the following inclusion criteria: 1) having a personal computer or laptop with internet access and 2) agreed to share their views and experiences of the electronic course. Forty nine out of total 130 male and female students were eligible to participate in the study and all served as one group.

2.4. Designing the Maternity Electronic Course

As a preparatory step, the theoretical course was redesigned for the electronic format. The Maternity Nursing Electronic Course encompassed nine modules including: anatomy and physiology of female reproductive system, conception and physiological changes during pregnancy, antenatal care, high risk pregnancy, normal labor, assisted delivery, normal post partum, abnormal post partum, and family planning). Each module subdivided into two lessons or more. All lessons had the same design with a set of learning objectives, lesson materials in the form of text, power point slides, animations, videos and recorded lectures by researchers' voices, and ended by self assessment interactive quizzes. The interactive exams at the end of each lesson and at the end of the course were designed for self and tutorial assessment. Electronic Learning Center created an account for each student. Orientation session was done by the researchers at the faculty's computer lab for all participants before joining the E-course to guide them how to register and log in the system using the assigned username and password, and how to navigate the electronic course and module system contents.

2.5. Procedure of Data Collection

At the end of the 1st semester of the academic year 2012-2013, data were collected from focused small groups interview (n=6 students per each group). This method is enabling to reach subjective data from the students. Few open-ended questions were designed to motivate the students to reflect upon their real experiences of online maternity course. Eight groups were interviewed based on a designed schedule. The researchers started the interviews with a main question that was "what about your experience of E-learning?" Then from the discussion, probing questions as a follow up questions were asked to address issues that the students emphasized during the interviews. The interview discussions were related to advantages, challenges, opportunities and learning environment. Each interview averaged approximately 60 minutes. All interviews were taped, transcribed and analyzed by the two researchers. The qualitative nature of the study allowed for the discussion of

E-course experiences to be analyzed according to the themes and patterns that emerged from the interviews (Burnard 1994). Frequency was counted by number of the participants in which a code appeared once or more.

2.6. Ethical considerations

Approval for the study was granted by the Faculty of Nursing Research Ethics Committee in July 2012. Informed consent was obtained from all students after clarifying the aim of the study. Students had the right to withdraw from the study at any time if they feel so without penalty.

2.7. Research method

A qualitative approach was adopted in order to get insight into student's experiences of Electronic Maternity course. Phenomenological perspective was adopted. Phenomenology is exploring how humans make sense of experiences and the meaning they give to these experiences. Phenomenology is being used in the social and human sciences including education, nursing and health research (Lester 2014). It explores the real experiences of the participants, in which interviewers encourage participants to communicate their own experiences. It can capture the meanings participants develop from their experiences of E-learning Maternity course.

3. Results

Around three quarters (70 %), of the students were females and 20% had a part time job. All were single and aged from 18 to 20 years. Data analysis explored that however, E-learning is promising for higher education in Egypt; it is not appropriate for every student. Some can learn independently and manage e-learning, while others prefer the traditional teaching strategy where the staff guides the learning process. Considering the technology issues of the proper access to good computers with an internet connection and information technology (IT) skills to navigate the course and managing the learning process, there were two broad themes emerged from students' reflections: "favorable comments about E- learning experiences" and "challenges and obstacles".

3.1. Favorable comments about E-learning experiences

This emergent theme involves student's comments that appreciate online learning. Specifically, each student mentioned in some way one or more favorable item associated with E-learning. All their comments were focused on: "convenience and sense of control", "new teaching and learning method ", and "self learning and interaction". The presentation of all themes emerged are in the following tables.

Table 3.1.1 "convenient and sense of control"

Quotations	Responses
<i>"I had to work while I'm studying, it was convenient for me."</i>	9
<i>"E-course was more convenient as it is available for 24hours a day. Conversely, the scheduled lecture assigned to be immediately after clinical hours, we always feel exhausted, sleepy after clinical training, and are not able to attend the lectures or if attended we fall sleep most of the lecture time."</i>	15
<i>"I have the control over my course and free to learn, to communicate, to post comments and to send my assignments."</i>	15
<i>"I am studying according my own time table."</i>	10

3.1.1 Convenient and sense of control

Under this theme, the results reveal that students had experienced greater sense of control over their time and learning process. Sense of control is a great benefit as it puts students in the heart of the learning process as the majority of students mentioned in table 3.1.1.

Table 3.1.2 "Novel teaching and learning method"

Quotations	Responses
<i>"It is good to try a new learning method"</i>	5
<i>"I love to learn with the most recent technology of education"</i>	5
<i>"It is good to follow the new technology in learning"</i>	15
<i>"Images, videos and audios were interesting than text"</i>	19
<i>"I feel proud having the chance of learning with E-course"</i>	5

3.1.2 Novel teaching and learning methods

In order to attain the same learning objectives between what is taught traditionally and what should E-course; researchers focused on using different multimedia technology (e.g., text, images, audios, videos, and animations). The enthusiasm for learning with the most recent teaching and learning methods was influenced students learning experiences as they reflected upon on table 3.1.2.

Table 3.1.3 "self learning and interaction"

Quotations	Responses
<i>"I can learn by myself using power point presentations, texts, images, animations, and videos"</i>	15
<i>"I can repeat any part of the lesson without limits"</i>	4
<i>" It also makes the learning process interested "</i>	5
<i>"I'm able to interact with the staff and get quicker feedback regarding any comment and question"</i>	6
<i>"I got prompt and quick feedback from staff and colleagues"</i>	4
<i>"Chat section of the course motivated me to improve interaction with my colleagues as well with staff; who was interacting with us as a part of checking our assignments and giving feedback needed"</i>	12
<i>"Easy access to different resources"</i>	3

3.1.3 Self learning and interaction

Self learning and interaction with the colleagues and staff were emerged as positive themes, these are highlighting that some students prefer to learn independent and manage their learning process than others as they reflected upon on table 3.1.3

3. 2. Challenges and obstacles

Second broad emergent theme entails students' reflections that communicated challenges and obstacles faced students through the E-learning process. Most of students' reflections were focused on one or more of these two obstacles; "lack of environmental technology and technical support" and "feeling unsafe and lack of face to face interaction."

Table 3.2.1 "Lack of environmental technology and technical support"

Quotations	Responses
"My computer broken down, I lost the connection to the course for a while".	1
"I live in student's dorm five days a week and I don't have access to computer during such period, I had to use the computer lab but for limited time"	1
"Many times I faced network problems at the faculty or in students' dorm even at home"	7
"I was studying only at home, because my laptop does not have wireless feature"	6
"Sometimes the electronic system of the E-course did not work smoothly"	5
"Many times the links, videos and flashes didn't open, the only help was from the web administrator only"	7
"I entered my username and password, but I didn't access the course. Although, I asked for help from one of my colleagues, unfortunately he didn't have enough experience and I have to wait to get to the faculty to sort the issue"	7
"Sometime I got frustrated from the computer or not know what to do next when the computer froze in the middle of something, sometimes it was hard clicking on items, sometimes I got stuck on things"	6
"Many times there were a cut in power, poor internet connection, and bad navigation"	9

3.2.1 "Lack of environmental technology and technical support"

Lack of environmental technology and technical support was the first emergent theme of the challenges and obstacles from student voices. It reflects the problems related to environmental technology and technical support.

Table 3.2.2 "Feeling of unsafe and lack of face to face interaction"

Quotations	Responses
"I felt unsafe and worried of being behind as it is up to me to study on my own time, while my colleagues were pressured to follow the time table course."	10
"Lack of staff face to face interaction."	11
"Feeling fear of change from traditional teaching to E-course"	19
"Feel of confusing and unsafe"	9

3.2.2 Feeling unsafe and lack of face to face interaction

Feeling unsafe and lack of face to face interaction was the second emergent theme of the challenges and obstacles from student voices. The feeling of unsafe was due to lack of direct interaction with the academic staff. This is not a strange feeling as those students are used to the conventional teaching and that the teacher is the core of the teaching process. Table 3.2.2 presents students' reflections of being unsafe and as the main issue brought up by students' voices.

4. Discussion

There is an urgent need for increasing the number of nurses in Egypt. Consequently, the enrolled number of students in undergraduate nursing programs has been increased despite faculty shortages, lack of infrastructures, lack of sufficient clinical settings and budget cuts due to low socio economic status for the country.

To accomplish this with limited faculty and educational resources, E-learning models have gained popularity in recent years as a possible way to meet the shortages. Because E-learning is a new strategy at the Faculty of Nursing-Mansoura University, it was important to investigate students' attitudes to E-learning from their point of views to ensure that the E-learning is accepted and feasible for Egyptian students who used to traditional teaching. In this study the researchers explored the advantages and challenges in implementing an online maternity E-course.

The study finding indicates students' reflections upon the experience of E-learning from their point of views. It presents positive feedback and challenges that the students meet through. It weighted toward future enhancement.

The main positive themes emerged upon data analysis as perceived by students were convenience and sense of control, new teaching and learning method and self learning and interaction. These results are consistent with other researches, for example Saudi Arabian study by Hamdan (2014) who found that online education gives students greater control over the learning process, including the ability to post their feedback and assignments online and to discuss points that interested them in the readings (Hamdan 2014). The same study results also suggests that e-learning helps learners to engage in learning process and improve the skills of understanding, acquisition and enhancing learning. Another study in a Russian university revealed that E-learning is convenience; usefulness and making the learning process easier (Bradwell 2009).

Moreover, the current study revealed that the students believe that technology in learning is useful and promising in higher education; the majority of them reported that using images, videos and audios, prompt feedback from staff and colleagues, access to different learning resources were interesting and useful than traditional way of teaching. Some of them felt proud of using e- course, these results indicate why students were willing to use E-course as a new learning method. The Egyptian students' reflections are supported by others, they concluded that the students were desired to use interactivity in E-learning and that interaction is crucial in online learning process (Comrie 2007 and Hester & Lorraine 2006).

The second emerged theme was challenges and obstacles faced students who taught the online course. Students' reflections were related to lack of electronic environment such as limited number of computers available, network problems, electronic management system, lack of technical support, and lack of computer skills. Students' reflections in the current study are supported by other Egyptian students who believed that E-learning will face many difficulties during its implementation in Egypt such as technology adaptors (Abdel-Wahab 2008). As well inadequate infrastructure such as limitation in bandwidth, in adequate computer facilities, limited access to computer; electrical cut is identified as a challenge for implementing e-learning in low socio economic countries (Song et al. 2004, Chen Sun et al. 2008 & Frehywot et al 2013).

Another challenge in implementing E-learning in nursing education from students' point of views was feeling unsafe and lack of face to face interaction. Actually it was not surprising for such students as they were experiencing the E-learning model for the first time. They used to the traditional teaching system all over their educational life and it was no time before implementing the course to prepare them for such shift. Congruent with the present study finding, other studies that were highlighted lack of face to face interaction as one of the E-learning challenges (O'Neil and Fisher 2008, Smith et al. 2009 & Mitchell and Delgado 2014).

5. Conclusion

E-learning is a new trend in Egyptian educational system. It has been spreading worldwide. E-learning offers many opportunities and benefits for learning and education. E-learning can offer rich educational opportunities beyond the traditional classroom. However, the adoption of E-learning in Egypt can provide suitable solution for the growing demand for more nursing profession and for higher education. It is not yet widely used in nursing programs. In order to put some light and support the E-learning modules, it was important to investigate student experiences aiming for better understanding of E-learning adoption experiences from students themselves. However, E-learning was supported by positive students' feedback and reflections but still some students experienced some difficulties and challenges during their experiences of E-learning. Indeed, as this study has shown, the main positive themes emerged upon data analysis as perceived by students were convenient and sense of control, new teaching and learning method and self learning and interaction. The second theme emerged was challenges and obstacles faced students who taught the online course. Students' reflections were related to lack of electronic environment such as limited number of computers available, network problems, electronic management system, lack of technical support, lack of computer skills and lack of face to face interaction between learners and instructors. In conclusion, we trust technology, and its power in solving educational problems and in improving the higher education in Egypt. Better understanding of the context of E-learning readiness and perception should enable decision makers in Egypt to address their students' voices as they are the main stakeholders and the heart of the educational process. Finally, we would say that although E-learning has lots of potential advantages and challenges, there are E-learning readiness and a need for changing the educational culture This study stand to contribute to E-learning in nursing education by giving greater

depth in understanding students experiences of E-learning in nursing education. Corporation of e learning in nursing education should be guided both by governmental and institutional support.

6. Recommendations

1. Students should be trained to gain skills in IT and computer and the web based management systems. It might help students to be more effective in using E-learning and it ease the use of technology.
2. Computer labs should be more available to help students who haven't got personal computers or internet access to participate in E-learning process.
3. Computer technical support should be more available to solve students' problems that they may encounter when using computers during E-learning.
4. Future research is recommended for studying facilitator interventions and the learning management system to encourage and support e learning.
5. Studying Egyptian culture and its implications on e learning should be highlighted.
6. The experience of facilitators should be examined for its implication on the future application of e learning on nursing education.

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