

Factors Affecting of Electronic Learning Platform Using as Perceived by Nursing Educators and Students and its relation to Nursing Students' Satisfaction

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Abstract

Background The use of e-learning platform in the field of education has become popular during COVID-19 outbreak. However, there are many factors and challenges faced by educators and students which affect their intention to use and satisfaction. **Aim:** The study aimed to assess factors affecting of electronic learning platform using as perceived by nursing educators and students and its relation to nursing students' satisfaction. **Research design:** A descriptive correlational design was utilized. **Setting:** This study was conducted at the Faculty of Nursing, Benha University. **Subjects:** Included all available nursing educators 93 and stratified random sample consisted of 1008 of nursing students from four academic years (2021/2022). **Tools of data collection:** Two tools were used to collect data; I) Factors affecting of E-learning platform using questionnaire, II) Nursing students' satisfaction questionnaire. **Results:** The results showed that highest mean percent of factors affecting e-learning platform using among nursing educators and nursing students was related to environmental factors followed by platform system quality, access to technology and followed by awareness about e-learning platform and more than one third (37.1%) of nursing students had moderate satisfaction level toward e-learning platform using **Conclusion:** There was a highly statistically significant relation between factors affecting electronic learning platform using and nursing students' satisfaction. **Recommendations:** Designing training programs for nursing educators & nursing students to increase the effectiveness in using e-learning platform and designing the online course content by using different features of e-learning platform to increase students' satisfaction.

Key words: E- learning platform, Factors affecting, Nursing educator, Nursing students, Satisfaction

Introduction:

COVID -19 has changed the complete phase of the education sectors. At this global pandemic time, administrators, teachers, and students had the dilemma of how to achieve the overall objectives of the educational institutions and individuals. In March 2020, the Centers for Disease Control and Prevention issued guidelines on the alternative teaching methods to communicate the class works and assignments to the students. The popular virtual classroom applications are ZOOM, Google Classroom, Moodle, and Blackboard that play a vital role in the transition from face-

to-face classes to online and e-learning system (Vadakalur & Sankar, 2020).

The electronic learning is defined as the provision of educational content (electronic) through the media based on the computer and its networks to the recipient in such a way that allows the possibility of active interaction with this content and features and with peers only simultaneous or not synchronized and the possibility of completing this learning in time and place and at the speed that suits conditions and abilities of both learner and educator, as well as the possibility of managing this

learning also through these media. **(Gorbunova & Kalimullin, 2017).**

There are two basic types of distance learning are asynchronous and synchronous. Until recently, distance learning initiatives mainly relied on asynchronous means for teaching and learning. However, recent improvements in technology and increasing internet capabilities have led to the growing popularity of synchronous distance learning. Participants involved in distance learning are usually separated by time and place so the utilization of communication tools is necessary to facilitate interaction and learning. Distance learning uses two main forms of media; Synchronous – two-way videoconferencing, and asynchronous learning networks. **(Shandra & Chystiakova, 2021).**

Electronic learning platform is software that supports the conduct of distance learning. This type of software brings together the tools necessary for the three main users -teacher, student, administrator - of a device, which aims at the remote consultation of educational contents, the individualization of learning, and tele-tutoring. These systems aim to put online comprehensive lessons where the student can prepare his contrives, his license, his baccalaureate via these platforms. **(Ouadoud et al., 2021).**

E-learning platform offers the utilization of the internet to deliver the information to the students at different time and place. Also E-learning platform provides free access to the network without considering the time and places restrictions through web technologies in order to promote learning. E-learning systems are web based software for distributing, tracking, and managing courses over the Internet they contain features such as chat rooms, whiteboards, discussion forums, polls, quizzes and surveys which allow instructors and students to share course content

and communicate online synchronously and asynchronously **(AbdulRazak et al., 2021).**

Understanding the factors that affect a new technology to be accepted and implemented is very crucial for the success of the implementation of that technologies. There are many factors that influence e-learning platform using including uses usefulness, ease of use, training, and inadequate infrastructure capacity due to internet signal, software, or other device constraints. Students also experience difficulties due to limited access and weak networks. The use of e-learning platform also requires user satisfaction for successful implementation, many factors affect students' satisfaction as instructor, courses, technology, design and environment are factors affecting satisfaction **(Kustono, 2021).**

Satisfaction is the accumulation of student's perceptions and behaviors derived from the total benefits obtained. Student satisfaction has gained much attention lately due to a rising competition among universities to attract and retain students. Electronic satisfaction is the level of student's satisfaction with purchasing experience through online sites. Student satisfaction is a critical variable in determining the success or failure of online learners, courses, and programs. Designing and implementing an effective and efficient education environment, which satisfies students, is a complex process, which involves many factors, including teaching staff member, e-learning platform utilization, learning content and feedback **(Giray, 2021).**

Nursing students' satisfaction toward using e-learning platform is linked with factors affecting its use such as the learning process, quality tutor, perception of usability, perception of convenience, training, facilitating conditions, personalization of e-learning, e-learning content, e-learning self-efficacy, interaction (communication),

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comfort, structure (clarity and online instruction provided by instructor), learning style, platform, associates, access to technology and management. The six dimensions for implementing e-learning systems in developing countries, including student characteristics, instructor characteristics, institution and service quality, infrastructure and system quality, course quality and information, and extrinsic motivation (**Bismala & Manurung 2021**).

Significance of the study:

The global outbreak of COVID-19 resulted in the suspension of classes for more than 850 million students worldwide, disrupting the original teaching plans of universities in these countries and regions. Soon later, many countries started to offer online teaching to students by using different e-learning platforms. In response to the outbreak of the epidemic, the online classroom has become a necessary way to maintain normal teaching order. However, many new problems arise in the new form of online education. This requires that new factors affecting electronic learning platform and nursing students' satisfaction be taken into account in the study (**Chen et al., 2020**).

Usability of educational technology such as e-learning platforms plays an important role for bridging the gap between educators and students and technology. It is a crucial characteristic for user acceptance and therefore for the technology to be further diffused. The usability of e-learning platform systems greatly affects the learning effectiveness and the overall learning experience. So there is a need to explore these parameters and take them into account while making educational decisions emerged during the pandemic crisis and the transition from traditional teaching to e-learning and its effect on students'

satisfaction regarding online learning (**Mastan et al., 2022**). So that this study was conducted to assess factors affecting of electronic learning platform using as perceived by nursing educators and students and its relation to nursing students' satisfaction.

Aim of the study:

This study aimed to assess factors affecting of electronic learning platform using as perceived by nursing educators and students and its relation to nursing students' satisfaction.

Research questions

1. What are the factors affecting of E-learning platform using as perceived by nursing educators and nursing students?
2. What are the levels of nursing students' satisfaction toward e-learning platform using?
3. Is there a relation between factors affecting of E-learning platform using and nursing students' satisfaction?

Subjects and methods:

Research design:

A descriptive correlational design was used to achieve the aim of the present study.

Study setting:

The current study was conducted at the Faculty of Nursing Benha University. There are six academic departments in the Faculty including: Medical - Surgical Nursing, Obstetrics and Gynecological Nursing, Community Health Nursing, Nursing Administration, Pediatric Nursing and Psychiatric Nursing Mental Health.

Study subjects:

Consisted of two groups as following;
1. Nursing educators' group; all available nursing educators 93 (Lecturers, Assistant professors and Professors) who were working in the above mentioned setting. 2. Nursing students' group; consisted of 1008 nursing students from the four academic years

(2021/2022) who were selected using stratified random sampling. The sample size was taken from each stratum (an academic year).

Tools for Data Collection: Two tools were used for data collection

1. Factors Affecting of E-learning Platform Using Questionnaire

Two structured questionnaires were developed by the investigator based on literature review (Nyagorme et al., 2017; Cacheiro-Gonzalez et al., 2019; Opeyemi et al., 2019; Chen et al., 2020; Victoria et al.,2020) to assess factors affecting of e-learning platform using as perceived by nursing educators and students.

a- Nursing Educators' Questionnaire was consisted of three parts:

Part 1: Personal characteristics: It consisted of personal data about nursing educators; (academic department, age, marital status, residence, academic degree, years of experience in teaching).

Part 2: Technology experience of nursing educator consisted of 8 questions.

Part 3: Factors Affecting E-learning Platform Using as Perceived by Nursing Educators: It consisted of 56 items divided into 4 dimensions distributed as follows; Awareness about electronic learning platform (26 items) divided into 3 sub categories; (training on e- learning platform using (10 items), awareness of usefulness of e- learning platform (9 items) and awareness about the use of e- learning platform (7 items)), access to technology (7 items), platform system quality (10 items) and environmental factors (13 items).

Scoring system:

Subjects' responses were scored based on a three points Likert Scale ranged from (1) disagree to (3) agree. The score of the items was summed-up and the total divided by the number of the items, giving a mean score for the part.

These scores were converted into a percent score.

The total awareness about e-learning platform score was ranged from (26-78) and it was considered high if the percent score was $\geq 75\%$ (59-78) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (47-58), and considered low if it is $< 60\%$ (26-46).

The total access to technology score was ranged from (7-21) and it was considered high if the percent score was $\geq 75\%$ (16-21) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (13-15), and considered low if it is $< 60\%$ (7-12).

The total platform system quality score was ranged from (10-30) and it was considered high if the percent score was $\geq 75\%$ (23-30) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (18-22), and considered low if it is $< 60\%$ (10-17).

The total environmental factors score was ranged from (13-39) and it was considered high if the percent score was $\geq 75\%$ (29-39) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (23-28), and considered low if it is $< 60\%$ (13-22). (Mohamed, 2012).

a- Nursing Students' Questionnaire was consisted of three parts:

Part 1: Personal characteristics of nursing students: It consisted of personal data about nursing students; (Academic year, age, gender, marital status, residence).

Part 2: Technology experience of the nursing student consisted of 8 questions.

Part 3: Factors affecting e-learning platform using as perceived by nursing students: It consisted of 50 items divided into 4 dimensions distributed as follows; Awareness about electronic learning platform (23 items) divided into 3 sub categories; (training on e- learning platform using (5 items), awareness of usefulness of e- learning

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platform (11 items) and awareness about the use of e-learning platform (7 items)), access to technology (7 items), platform system quality (10 items) and environmental factors (10 items).

Scoring system:

Subjects' responses were scored based on a three points Likert Scale ranged from (1) disagree to (3) agree. The score of the items was summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score.

The total awareness about e-learning platform score was ranged from (23-69) and it was considered high if the percent score was $\geq 75\%$ (52-69) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (41-51), and considered low if it is $< 60\%$ (23-40).

The total access to technology score was ranged from (7-21) and it was considered high if the percent score was $\geq 75\%$ (16-21) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (13-15), and considered low if it is $< 60\%$ (7-12).

The total platform system quality score was ranged from (10-30) and it was considered high if the percent score was $\geq 75\%$ (23-30) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (18-22), and considered low if it is $< 60\%$ (10-17).

The total environmental factors score was ranged from (10-30) and it was considered high if the percent score was $\geq 75\%$ (23-30) while considered moderate if the percent score was ranged from 60 to $< 75\%$ (18-22), and considered low if it is $< 60\%$ (10-17). (Mohamed, 2012).

Nursing Students Satisfaction Questionnaire

Structured questionnaire was developed by the investigator based on literature review (Sun et al., 2008; Mohamed, 2012; Virtanen et al., 2017; Al-sammarraie et al., 2019; Puška et

al., 2021) to assess nursing students' satisfaction levels toward e-learning platform using. It was consisted of 42 items divided into 4 dimensions distributed as follows; Electronic learning platform utilization (9 items), teaching staff members (9 items), learning content (12 items) and feedback (12 items).

Scoring system

Subjects' responses were scored based on a three points Likert Scale ranged from (1) dissatisfied to (3) satisfied. The score of the items was summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score.

The total satisfaction score was ranged from (42-126) and it was considered high level of satisfaction if the percent score was $\geq 75\%$ (95-126), moderate level of satisfaction if the percent score was ranged from 60 to $< 75\%$ (76-94), while it considered low level of satisfaction if the percent score $< 60\%$ (42-75) (Mohamed, 2012).

Content validity:

Face and content validity of study tools were done by group of jury consisted of 7 experts four of them from different Faculty of Nursing (one professor from Tanta University, one professor from Menofia University, one assistant professor from Cairo University and one assistant professors from Benha University in nursing administration. In addition to the director of the e-Learning Center and the dean of Faculty of Veterinary Medicine from Benha University, the manager of e-learning platform and information technology unit at Faculty of Nursing Benha University and The director of the Benha University's e-learning platform). The modifications were done based on experts opinions such as adding some items as (what is the program used to provide lecture on E-learning platform and availability of chat

rooms and forums that improve the educational process), omitted the item that gives the same meaning and modifying some words to give the right meaning for the item which did not understood clearly.

Reliability of tools: It was measured by using Cronbach's Alpha test. The cronbach's Alpha test of awareness about e-learning platform among nursing educators was 0.943, for access to technology was 0.800, for platform system quality was 0.883 and for environmental factors was 0.750.

The cronbach's Alpha test of awareness about e-learning platform among nursing students was 0.950, for access to technology was 0.852, for platform system quality was 0.927 and for environmental factors was 0.780.

The cronbach's Alpha test of nursing students' satisfaction questionnaire was 0.974.

Ethical Considerations:

Prior to the conduction of the study, ethical approval was obtained from the scientific research committee at Faculty of Nursing Benha University. All subjects were informed that participation in the study was voluntary and informal consent was obtained from the participants in the study through their acceptance for filling questionnaires. Confidentiality of data obtained was protected by the allocation of a code number to the questionnaire sheets. Subjects were informed that the content of the study tools will be used for the research purpose only. Participants' right to withdraw from the study at any time was ascertained.

Pilot study:

A pilot study was carried out in the mid of October 2021 to ascertain the clarity and applicability of the study tools representing 10 % of total study subjects. 101 nursing students

from four academic years and 10 nursing educator were included in the pilot study. It has also served in estimating the time needed for filling the questionnaires. It ranged between 15-20 minutes for factors affecting of e-learning platform questionnaire by nursing educators and students' and between 10-15 minutes for nursing students' satisfaction questionnaire. No modification was needed. The pilot study included in the study main subjects.

Field work:

Data collection took about two weeks in November 2021. The investigator prepared the questionnaire electronically via google form design and took the permission from heads of academic departments who explained the aim and the nature of the study and the method of filling the electronic questionnaires to the educators and students in their departments and then the links were sent to nursing educators and nursing students through the WhatsApp groups via heads of different academic departments. Educators' questionnaire link (<https://forms.gle/vT7YNmPEhZJNc9sd7>), students' questionnaire link: (<https://forms.gle/iRc6WqXuomsqVFHV7>). Educators and students started to open the links and fill the questionnaires. Data was collected daily and the average number of responses per day was ranged between 60-70 response from nursing students and 5-10 response from nursing educators.

Statistical analysis:

Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 21.0) was used. Descriptive statistics were applied in the form of mean and standard deviation for quantitative variables and frequency and percentages for qualitative variables. Independent t-test and ANOVA test were used

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to test the significance of some variables. Linear regression to assess association between two quantitative variables. Statistical significance was considered at $p < 0.05$, considered highly statistically significance at $p < 0.001$ and considered not significance at $P > 0.05$.

Results

Table (1); Shows that nearly one third (32.3%) of nursing educators their age ranged between 35 to <40 years old with $\bar{X} \pm SD$ (37.94±7.64) years. In relation to their marital status, the majority (82.8%) of them were married. Regarding their residence, less than two thirds (62.4%) of them living in rural areas. In relation to their academic degree, less than half (45.2%) of them were lecturers. Regarding to their years of experience, the highest percent (30.1%) of them had less than 10 years of experience with $\bar{X} \pm SD$ (13.50±6.81) years.

Figure (1); Illustrates that highest percent (19.4%) of nursing educators were worked in obstetrics and gynecology department. While the minority of them (12.9%) were working of psychiatric nursing and mental health department.

Table (2); Shows that more than half (52.6%) of nursing students were aged equal and more than 20 years old with Mean $\pm SD$ (19.69±1.44) years. As far as their gender, more than half

(60.1%) of them were females. In relation to their marital status, the majority (94.0%) of them were unmarried. Regarding to their residence, most of them (78.0%) were living in rural areas and highest percent (28.7%) of them were in the second academic year.

Table (3); Reveals that, the highest mean percent (85.6%) of factors affecting e-learning platform using among nursing educators was related to environmental factors followed by platform system quality (84.8%) and access to technology (84.1%) followed by awareness about e-learning platform (82.3%).

Table (4); Reveals that, the highest mean percent (74.9%) of factors affecting of e-learning platform using among nursing students was related to environmental factors followed by platform system quality (73.0%) and access to technology (71.9%) followed by awareness about e-learning platform (69.7%).

Figure (2); Illustrates that more than one third (37.1%) of nursing students had moderate satisfaction level toward e-learning platform using.

Table (5); Shows that there was a highly statistically significant relation between factors affecting electronic learning platform using and nursing students' satisfaction.

Table (1): Frequency distribution of nursing educators regarding their personal characteristics (n=93)

Personal characteristics	No	%
Age (years)		
<30	6	6.4
30-<35	28	30.1
35-<40	30	32.3
40+	29	31.2
Min –Max	32-59	
$\bar{X}\pm SD$	37.94 \pm 7.64	
Marital Status		
Married	77	82.8
Unmarried	16	17.2
Residence		
Rural	58	62.4
Urban	35	37.6
Academic degree		
Lecturer	42	45.2
Assistant professor	40	43.0
Professor	11	11.8
Years of experience in teaching process		
<10	28	30.1
10-<15	24	25.8
15-<20	20	21.5
20+	21	22.6
Min- Max	10-33	
$\bar{X} \pm SD$	13.50 \pm 6.81	

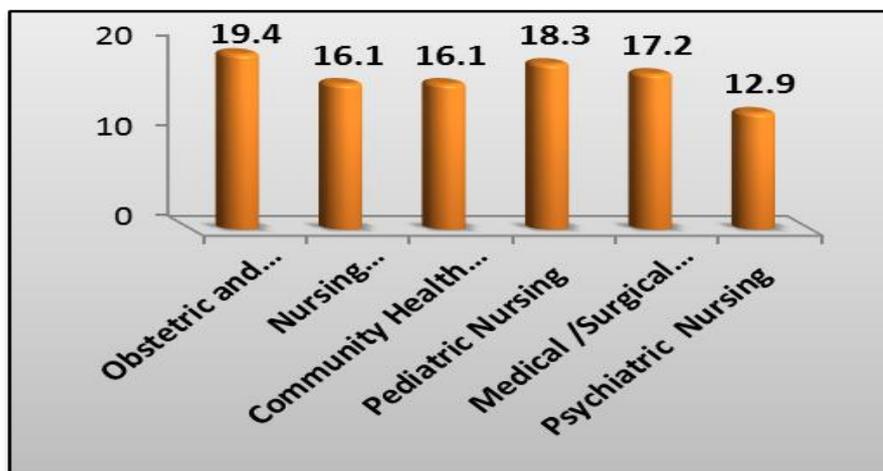


Figure (1): Percentage distribution of nursing educators regarding their academic department

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Table (2): Frequency distribution of nursing students regarding their personal characteristics (n=1008)

Personal characteristics	No	%
Age		
<20	478	47.4
20+	530	52.6
Min –Max	17-24	
$\bar{X} \pm SD$	19.69±1.44	
Gender		
Female	606	60.1
Male	402	39.9
Marital status		
Unmarried	948	94.0
Married	60	6.0
Residence		
Rural	786	78.0
Urban	222	22.0
Academic year		
First year	240	23.8
Second year	288	28.7
Third year	251	24.8
Fourth year	229	22.7

Table (3): Ranking and mean scores and mean percent of total scores of factors affecting of e-learning platform using among nursing educators (n=93)

Factors affecting e-learning platform using	Max score	$\bar{X}\%$	$\bar{X} \pm SD$	Ranking
Awareness about e-learning platform	78	82.3%	64.19 ± 10.63	4
Access to technology	21	84.1%	17.65 ± 2.91	3
Platform system quality	30	84.8%	25.44 ± 4.33	2
Environmental factors	39	85.6%	33.37 ± 3.79	1

Table (4): Ranking and mean scores and mean percent of total scores of factors affecting of e-learning platform using among nursing students (n=1008)

Factors affecting e-learning platform using	Max score	$\bar{X}\%$	$\bar{X} \pm SD$	Ranking
Awareness about e-learning platform	69	69.7%	48.07 ±12.35	4
Access to technology	21	73.0%	15.32 ± 3.88	3
Platform system quality	30	71.9%	21.57 ± 5.96	2
Environmental factors	30	74.9%	22.46 ± 4.51	1

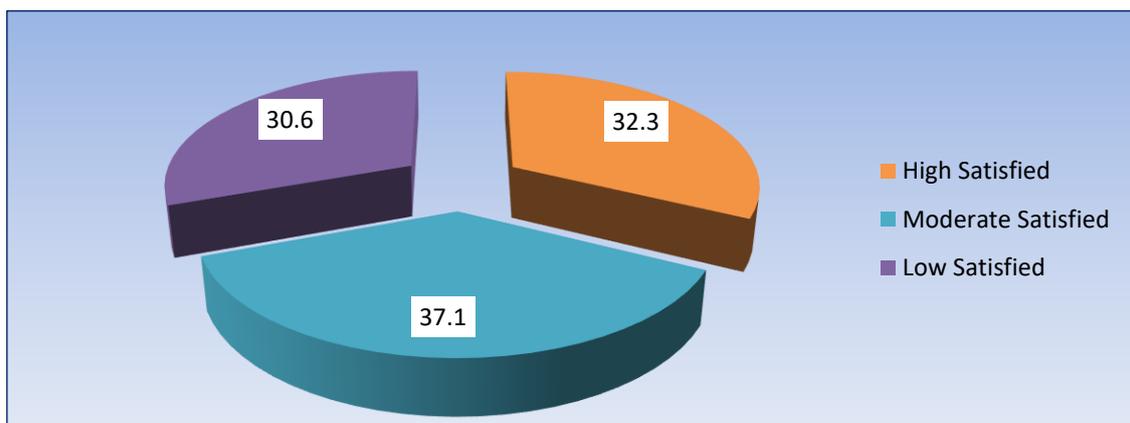


Figure (2): Nursing students' satisfaction levels regarding e-learning platform

Table (5): Liner regression of factors affecting electronic learning platform using among nursing students regarding their satisfaction

Predictor variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.612	2.219		2.979	0.003**
Total awareness about e-learning platform using	0.831	0.064	0.449	12.936	0.000**
Total access to technology	1.035	0.203	0.176	5.090	0.000**
Total platform system quality	1.646	0.135	0.429	12.237	0.000**
Total environmental factors	0.820	0.134	0.162	6.116	0.000**

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Discussion:

In nursing education, the flexibility provided by e-learning platform allows nurse educators and the students to manage competing interests such as professional development and practice while they continue to teach and learn. However, there are many important factors that affect intention of nursing educators and students to use e-learning platform, ie system quality, perceived ease of use, perceived usefulness, training and system interactivity (**Ramadhan et al., 2021**). The students' satisfaction is a prerequisite for the effective application of e-learning platform in online environments. It is important to classify the factors that contribute to and affect students' satisfaction with e-learning technology to assist policymakers at learning institutions to make decisions regarding its implementation and improvement (**Lin et al., 2022**).

The present study aimed to assess factors affecting of electronic learning platform using as perceived by nursing educators and students and its relation to nursing students' satisfaction.

Regarding to personal characteristics of the nursing educators, the findings of the present study clearly showed that nearly one third of nursing educators' age ranged between 35 to <40 years old, the majority of them were married, less than two third of them living in rural areas, less than half of them were lecturers, the highest percent of them had less than 10 years of experience, the highest percent of them were worked in obstetrics and gynecology department while the minority of them were working of psychiatric nursing and mental health department.

Regarding to personal characteristics of the nursing students, the results of this study revealed that more than half of nursing students

were aged equal and more than 20 years old years. As far as their gender, more than half of them were females. In relation to their marital status, the majority of them were unmarried. Regarding to their residence, most of them living in rural areas and highest percent of them were in the second academic year.

Regarding the factors affecting of e-learning platform using, the present study revealed that the highest mean percent of factors affecting e-learning platform using among nursing educators was related to environmental factors followed by platform system quality and access to technology followed by awareness about e-learning platform. This could be due to that to be able to engage in e-learning process, the educator must have an electronic device as advanced phone or computer or laptop connected with regular internet source within affordable cost and specific place away from distractions and getting support from information technology unit.

This result was supported with **Zalat et al., (2021)** who found that environmental factors as sufficient/ stable internet connectivity, adequate computer labs and technical support were the highest factors for adapting to e-learning. Also this result was supported with **Lashayo & Md Johar (2018)** who found that environmental factors have positive and significant affect e-learning actual use.

This result was supported with **Ang et al., (2021)** who found that awareness about e-learning platform and perceived ease of use has a weak effect on educators' intention to use the online course. The present result was incongruent with **Tania et al., (2022)** who stated that teaching staff members' intentions to use the e-learning system were influenced by

both awareness about the e-learning system and satisfaction.

Regarding the factors affecting of e-learning platform using, the finding of current study revealed that the highest mean percent of factors affecting of e-learning platform using among nursing students was related to environmental factors followed by platform system quality and access to technology followed by awareness about e-learning platform.

From investigator point of view this may be due to study results showed that a lot of students agreed about having special separate room at home, having an internet Wi-Fi at home the family atmosphere help student to attend online courses and irregular internet speed affects student ability to use e-learning platform which all are environmental factors that affect students' utilization of e-learning. In the same line **Lee et al., (2021)** who found that the environmental factors affect on e-learning usage.

In relation to nursing students' satisfaction levels regarding e-learning platform, the results of present study illustrated that more than one third had moderate satisfaction level toward e-learning platform using. From the investigator point of view, this result related to the educators' constructive feedback, encouraging students for effective participation during lectures, responding to students' questions during short period of time and the quality of audio material on the platform.

In same line **Bdair, (2021)** who stated that students were moderately satisfied with the new online teaching experience and found it an efficient and effective alternative method. Also this result was supported with **Hamdy et al., (2021)** who found that nearly two thirds of nursing students were dissatisfied with remote learning.

This result was disagreement with **Kee et al., (2021)** who found that students were satisfied with the use of e-learning platform.

Regarding relation between factors affecting of e-learning platform using and nursing students' satisfaction, the results of present study explored that there was a highly statistically significant relation between factors affecting electronic learning platform using and nursing students' satisfaction. From the investigator point of view, e-learning platform easy-to-use, presents material according to learning needs, supports the learning process, facilitate communication between teachers and students, and has easy access teaching materials and system features.

The result was supported with **Achmadi & Siregar (2022)** who stated that usage has a significant effect on user satisfaction and the better the usage of an e-learning system, the higher the user satisfaction of the e-learning system will be. Similarity **Puriwat & Tripopsakul (2021)** who indicated that the users of the e-learning system will feel satisfied with e-learning good system quality. In the same line **Patrick & Dewi, (2022)** who found that factors as usefulness, ease of use, ease of learning, accessibility, and security have a simultaneous effect on user satisfaction.

Conclusion

The highest mean percent of factors affecting e-learning platform using among nursing educators and nursing students was related to environmental factors followed by platform system quality, access to technology followed by awareness about e-learning platform. Also more than one third of nursing students had moderate satisfaction level toward e-learning platform using and there was a highly statistically relation between factors affecting electronic learning platform using and nursing students' satisfaction.

Recommendations

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I- For faculty administration:

- Designing training programs for nursing educators & nursing students about e-learning platform to increase the effectiveness in using e-learning platform.
- University management in collaboration with faculty management can evaluate online learning implementation process and using to assess the different obstacles in its implementation and put different strategies for solving it.

II- For nursing educators:

- Use different teaching methods when providing lectures on e-learning platform to gain students attention and increase interaction during lectures.
- Provide feedback about students' assignments and encourage effective communication between students during lectures.

III-For nursing students:

- Increase student awareness about E-learning platform using educational videos made by management information system team and published at faculty electronic site.

IV-For further research:

- Replication of the study on a larger probability sample is highly recommended to achieve generalizable results.
- Examine the effect of e-learning platform utilization on students critical thinking and creativity.

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العوامل المؤثرة على استخدام منصة التعلم الإلكتروني كما يدركها معلمي وطلاب التمريض وعلاقتها برضا طلاب التمريض

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أصبح استخدام منصة التعلم الإلكتروني في مجال التعليم شائعاً خلال تفشي فيروس كورونا ومع ذلك ، هناك العديد من العوامل والتحديات التي يواجهها المعلمون والطلاب والتي تؤثر على نيتهم في الاستخدام ورضاهم. لذا هدفت الدراسة إلى تقييم العوامل المؤثرة على استخدام منصة التعلم الإلكتروني كما يدركها معلمي وطلاب التمريض وعلاقتها برضا طلاب التمريض. وقد أجريت هذه الدراسة في كلية التمريض جامعة بنها. حيث عينه البحث اشتملت على جميع معلمي التمريض المتوفرين 93 وعينة عشوائية طبقية تتكون من 1008 من طلاب التمريض من السنوات الأكاديمية الأربعة للعام الجامعي (2022/2021). وأظهرت النتائج أعلى عامل يؤثر على استخدام منصة التعلم الإلكتروني بين معلمي وطلاب التمريض هو العوامل البيئية يليها جودة نظام المنصة ، والوصول إلى التكنولوجيا وأخيراً الوعي بمنصة التعلم الإلكتروني. ثالثاً أكثر من ثلث (37.1%) طلاب التمريض لديهم مستوى متوسط من الرضا تجاه استخدام منصة التعلم الإلكتروني. كما اوصت الدراسة بضرورة تصميم برامج تدريبية لمعلمي وطلاب التمريض لزيادة الفعالية في استخدام منصة التعلم الإلكتروني وتصميم محتوى المواد العلمية عبر الإنترنت باستخدام ميزات مختلفة لمنصة التعلم الإلكتروني لزيادة رضا الطلاب.