Online Education: Learning Process, Assessment, and Satisfaction among Nursing Students

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Abstract

Background: Learning satisfaction represents learners' feelings and attitudes toward the learning process, assessment or the perceived level of fulfilment attached to one's want to learn, introduced through the education involvements. **Aim:** to assess online education: learning process, assessment, and satisfaction among nursing students. **Setting:** The study was carried out in the nursing administration department of Faculty of nursing in both Menoufia and Benha universities. **Research design:** A quantitative, descriptive, design was used. **Sample:**   A purposive sample of (600) Fourth year students enrolled to nursing administration during academic year 2021/2022 in two universities in the delta of Egypt. **Results:** the highest percentage of fourth year nursing students (95.3%. 94.3% and 93.3 %) had an email address, had Android mobile and used web for instructional purposes. More than (90%) of students never had previous training on TOEFL. Approximately two thirds of students had grade B in ICDL. Most of students had competency to Web browser and most of them (87.5%) had satisfactory level of online education. **Conclusion:** There was a highly statistically correlation between learning process and online assessment regard e learning and student satisfaction. **Recommendations:** online education should be assessed in different settings through other core courses of nursing such as medical surgical, critical care, obstetric and pediatric which requires direct patients' live practice. Further studies are essential to investigate the faculty members' responses, adaptation, greeting, and availability to connect with web based learning. The potential threats accompanied with online education management systems from instructors and learners viewpoints should be explored as well.

Keywords: Assessment, **Learning process**, **Nursing Students, Online education**

Introduction

The World Health Organization proclaimed COVID-19 a pandemic in 2020, completely disrupting educational activity and causing the closure of the majority of colleges. This had an impact on hundreds of millions of learners and instructors all over the planet. With its flexibility, accessibility, and convenience, online learning (synchronous or asynchronous) serves as a replacement for traditional education when they are no longer an option to assist the continuation of learning in the midst of a pandemic. The majority of higher education institutions switched from face-to-face instruction to emergency remote instruction with the goal of reducing the spread of the coronavirus and maintaining the continuation of education during the difficult moments of lockdown among students and faculty **(She, et al., 2021).** Distance learning is described as a teaching and learning situation where the instructor and student are physically separated and must rely on electronic equipment and/or printed materials to deliver instruction The main benefits of distance learning are that students can learn at their own pace, balancing their studies with their personal and professional lives, and that they are accessible to individuals who do not live nearby or who are unable to attend traditional training facilities and universities (**Elisa Knebel, 2020))**. An instructional instrument that uses computers and can be supplied anytime, anyplace is called e-learning. It is quickly expanding in nursing education, allowing students to involvement in learning through collaboration, and helps to design and implement technology that enhances every area of education. **(Elbasuony, Gangadharan, & Gaber, 2018)**.

Although web-based distance learning has been utilized in some universities, it is still not a commonly acknowledged type of learning in most nations. Accordingly, institutions required a unique organizational structure known as "urgent distance learning." When a crisis or emergency arises, structured remote teaching using full distance learning solutions is used for teaching or learning. When the situation is

resolved, face-to-face instruction will continue. Universities quickly moved to urgent distance learning as a quick fix to the COVID-19 situation, continuing courses and programs with web-based distance education rather than face-to-face instruction. Despite the introduction of two semesters in online learning today, students' worries persist **(Ozkan, Taylan, and Ilaslan, 2021).**

The significance of distance education was simplicity, adaptability, and enhanced environmental control. Despite its benefits, e-learning has a number of drawbacks, including social isolation, a lack of student-teacher connection, and technical and connectivity issues. Lack of technological support was noted as one of the obstacles to online learning **(Thapa, Bhandari, & Pathak, 2021).** Also, distance education faced a number of challenges in several Arab nations. For instance, many students struggle with inadequate training prior to adopting online learning systems, and in certain situations, they are forced to use rigid online learning systems. These challenges dramatically lower the quality of online learning and have an impact on students' engagement and motivation **(Diab & Elgahsh, 2020)**. Moreover, in a digital learning process where students are separated from their educators and colleagues and spend more time interacting with distance teaching system **(Bolliger & Halupa, 2018)** .

Since 1985, Egypt has been building its information and communication technology (ICT) infrastructure. To encourage teacher and student enthusiasm, and to push ICT in education, particularly higher education **(El-Sayad, Saad, & Thurasamy, 2021).**

The Egyptian higher education system consisted of 24 governmental universities, 26 non-governmental universities, and 158 special higher education institutes. Every year, a greater number of tertiary students are served by this broad higher education system (**MOHESR, 2017**). The ministry of higher education has concentrated on a digital transformation plan that has seen them put their funds towards online learning system initiatives since 2004 in order to achieve the demands of students and increase and progress the quality of higher education. In higher education, the involvement of online learner is connected with main outcomes such as student satisfaction, learning perception, and learning persistence. Several empirical evidences have revealed that online students' involvement significantly impacts their satisfaction **(Bolliger & Halupa, 2018)**.

It is important to evaluate the affective outcomes of student engagement, such as student satisfaction, which reflects student attitudes, is crucial for assessing the success of online learning since it shows how students feel about their learning experience and is seen as a key indicator of student outcomes. (**Alqurashi, 2019**).

Furthermore, Student satisfaction levels enable organizations to investigate ways to enhance and improve their online courses. Also the organization can rated the student retention and willingness to continue and complete the online course **(El-Sayad, Saad, & Thurasamy, 2021)**

Learning satisfaction refer to learners' feelings and attitudes toward the learning process, assessment or the perceived level of involvement to one's want to learn, initiated through the education experiences. In the online context, satisfaction has been found to be one of the most significant considerations influencing the continuity of online learning **(Parahoo et al., 2016**). The students' satisfaction is a vital sign of learning accomplishments and the success of web based teaching system implementation. To address real learning requirements and afford a useful learning atmosphere, a rising frame of literature has been directed to inspect some factors that affect students' satisfaction with educate on the internet **(Hew et al., 2020 and Jiang et al, 2021).**

To prepare for the upcoming academic years in schools and colleges, the Egyptian government was instructed to develop and broaden the nation's online learning system to cope with the final stage of COVID-19 pandemic that actually influence networks, organizations and economies throughout the world. In addition the future direction of universities is focused on enacting the usage of learning technology, researches and increases the effectiveness of the educational process, which in turn contributes to achieving the mission of the university and the college. Therefore it is very essential to evaluate the opinion of students regard to online education through their evaluation to learning process, `assessment and satisfaction that all shape the aim of our study.

Aim of the study:

The study aimed to evaluate online education: Learning process, assessment, and satisfaction among nursing students through the study of one academic nursing course nursing management course.

Research questions

1. What are the students' prior experiences of online system use?
2. What are the students' competence with computers applications?
3. What are the students' evaluation on web based assessment?
4. What are the students' evaluation on web based learning process?
5. What is the level of students' satisfaction with online education?
6. What is the relationship between nursing students' evaluation regarding learning process,

online assessment and satisfaction with online education?

Methods

Design: A quantitative, descriptive research design was used to study research questions of the present research.

Setting

The study was carried out in the nursing administration department of Faculty of nursing in both Menoufia and Benha universities. They are governmental Universities, affiliated to Ministry of Higher Education, Egypt. The first one contains eighteen colleges and the second encompasses fourteen colleges. Every course of the two universities has been teached with distance education for two semesters.

Participants

A purposive sample of (600) senior nursing students (Fourth year students) enrolled to nursing management course at eight semesters in both Menoufia and Banha universities, with response rate 72.0% from the total population (1200) enrolled to nursing administration department during academic year 2021/2022 in two universities in the delta of Egypt during first and second semesters.

Instruments: two instruments were used in this research.

Instrument 1: **Online education assessment survey**

Which developed by **(Kawther Abdel Ghafar Ali, et al. 2020)**. The tool composed of (39) items distributed under four sections; First one, students' prior experience on online system use, contained (9) items including one-open end questions; about grades of ICDL if has passed, the scoring system of this section was (Yes = 2 and No = 1) . Second section evaluate students' competence of mobile/computer applications includes (4) items, the responses was 5-points likert scale 1 (poor), 2 (introductory), 3 (none), 4 (good), 5 (advanced). Third section, student evaluation on online course assessment experience (13) items and fourth section, student evaluation on online learning process, contained (13) items, the responses of these two sections were based on 5-points likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree).

Instrument 2: Students satisfaction scale

Students satisfaction scale comprised seven items (e.g. 'I am satisfied to take this course via the Internet') that were developed and validated by **Kuo et al. (2014)** to evaluate students satisfaction with their online learning experience. Items were rated from 1 (strongly disagree) to 5 (strongly agree) on a five-point Likert scale.

Procedure of action

Participants were fourth-year students in the department of nursing administration in Menoufia and Benha Universities, enrolled in the course of nursing management. All the students taking the course were informed about the research, and all were free to choose whether to complete the questionnaires and attend interviews. In the study all students showed a strong willingness to participate in the research. Data collection beginning at first semester in October 2020 until second semester in June 2021. The questionnaires distributed at the end of every clinical session where the students divided into 14 sessions during the clinical training of nursing administration course in both Menoufia and Benha universities. Each student spent 15-20 minutes to complete the questionnaire and collected by clinical instructors and faculty members who supervise the students during clinical training.

Reliability

Reliability refers to the consistency of responses over time. Cronbach's alpha coefficient was calculated and the resulting scores were 0.75. to online education survey and (0.80) to students' satisfaction questionnaires.

Pilot   Study

A pilot study was done on small scale of students (60 students enrolled in nursing management course) that they were not included in research sample to assess the feasibility of the components, the practicability and applicability of the study tools, identify any difficulties, and estimate the time required to fill in the questionnaire. Based on the results of the pilot study, the necessary modification and clarification of some questions were done.

Ethical Consideration

After the beginning the online education system at Menoufia and Benha Universities, the researchers offered the idea of the current research to the Faculties Deans, who expressed their endorsement and support to the researchers. Written approval were getting from the ethical committee, for conduction of the study. All the enrolled students in one course throughout the two semesters were encouraged to involve in the course feedback surveys at the beginning of the course. They informed about the research purpose and they were assured for no blame for any negative responses.

Statistical Analysis

Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied in the form of frequency& percentages for qualitative variables. Pearson correlation coefficient was calculated between variables. Statistical significance was considered at p-value $p<0.05$, and considered highly statistically significance at p-value $p <0.001$.

Results

The results of the study were portrayed over six parts: first one about students' prior experiences of online system use, part two revealed students' competence of computer/mobile application, part three focus on the students' evaluation of the online learning process, part four verified students' agreement about online experiences assessment, part five revealed the students' satisfaction to the online learning, and part six illustrated the correlation between nursing students' evaluation regarding learning process, online assessment and satisfaction with online education.

Table 1: showed the distribution of fourth year nursing students regarding prior experiences of online system use. The table indicated that the highest percentage (95.3%. 94.3% and 93.3 %) of fourth year nursing students have an email address, have Android mobile and used web for instructional purposes respectively. While (93.3%) of students never take previous training on TOEFL and 46.7% of students don't take previous training on computer skills except ICDL. (65.8%) of students had grade B in ICDL while (5.8%) failed in ICDL.

Table 2: illustrated the distribution of fourth year nursing students regard to competence in computer/mobile application. The table revealed that (87.7%) of fourth year nursing students had competency regard Web browser.

Table 3: illustrated distribution of fourth year nursing students experience regard online learning process. The table declared that the highest percentage (83.3 % and 83.2%) of fourth year nursing students strongly agree about student's attendances for each lecture and group participations in tasks accomplishment is better than individualized tasks respectively, While (62.7 % and 53.7%) disagree about videos used for demonstration of content and use of student self-test respectively.

Table 4: Showed the distribution of fourth year nursing students' evaluation on online assessment. The highest percentage (87.3 %. 85.5%, 75.2% and 74.8) of fourth year nursing student strongly agree about consistent with the teaching style, exam date was announced in sufficient time, Exam covers all parts that was explained and assessment was fair respectively While (69.3 and 56.8 %) of fourth year nursing student disagree about cheating was difficult system and online assessment less anxious

Figure 1: showed fourth year nursing students' satisfaction level with online education. The figure illustrated that the (87.5%) of fourth year nursing students had satisfactory level regard to online education.

Table 5: demonstrated the correlation between nursing students' evaluation regarding learning process, online assessment and satisfaction with online education. Table shows that there was a highly statistically correlation between learning process and online assessment regard e learning and student satisfaction.

Table 1: Distribution of fourth year nursing students regarding prior experiences of online system use.

Prior experiences of use online system	No.	%
Take previous training on TOEFL.		
• Yes	40	6.7
• No	560	93.3
Take previous training on computer skills except ICDL.		
• Yes	320	53.3
• No	280	46.7
Take previous training on smart learning.		
• Yes	530	88.3
• No	70	11.7
Have an Android mobile.		
• Yes	566	94.3
• No	34	5.7
Have an email address.		
• Yes	572	95.3
• No	28	4.7
Take any web assessment.		
• Yes	530	88.3
• No	70	11.7
Used web for instructional purposes		
• Yes	560	93.3
• No	40	6.7
What was your grade in ICDL		
• In progress	0	0
• Incomplete	79	13.2
• Failed	35	5.8
• Grade B	395	65.8
• Grade C	91	15.2

Table 2: Distribution of fourth year nursing students regard to competences in computer/mobile application and ICDL (no=600)

competence with computer/mobile application	Poor		Introductory		None		Good		Advanced	
	No.	%	No.	%	No.	%	No.	%	No.	%
Web browser	0	0	62	10.3	0	0	526	87.7	12	2
Chat	0	0	99	16.5	0	0	446	74.3	55	9.2
Telnet	0	0	99	16.5	0	0	449	74.9	52	8.6
E-mail	0	0	38	6.2	0	0	257	42.8	305	50.8

Table 3: Distribution of fourth year nursing students experience regard online learning process.

Students evaluation on online learning process	Strongly agree		Agree		Neutral,		Disagree		Strongly disagree	
	No	%	No	%	No	%	No	%	No	%
Volume and number of educational units	416	69.3	71	11.8	8	103	105	17.5	0	0
Quality of audio-recording of learning lectures	109	18.2	368	61.3	49	8.2	74	12.3	0	0
Videos used for demonstration of content	0	0	206	34.3	16	2.7	376	62.7	2	.3
Clarity of content objectives	192	32	287	47.8	118	19.7	3	.5	0	0
Use of student self-test	63	10.5	178	29.7	37	6.2	322	53.7	0	0
The level of online learning interaction makes me motivated	378	63	72	12	90	15	36	10	0	0
Importance of learning activities	469	7.2	122	20.3	6	1	3	.5	0	0
Group participations in tasks accomplishment is better than individualized tasks	499	83.2	51	8.5	12	2	38	6.3	0	0
Student's attendances for each lecture	500	83.3	51	8.5	5	.8	44	7.3	0	0
Effectiveness of rapport between teacher and student through site chat	434	47.8	80	13.3	6	1	80	13.3	0	0
Contemporary system	287	47.8	51	8.5	0	0	262	43.7	0	0
The online system can replace traditional face to face learning	322	53.7	61	10.2	11	1.8	206	34.3	0	0

Table 4: Distribution of fourth year nursing students' evaluation on online assessment

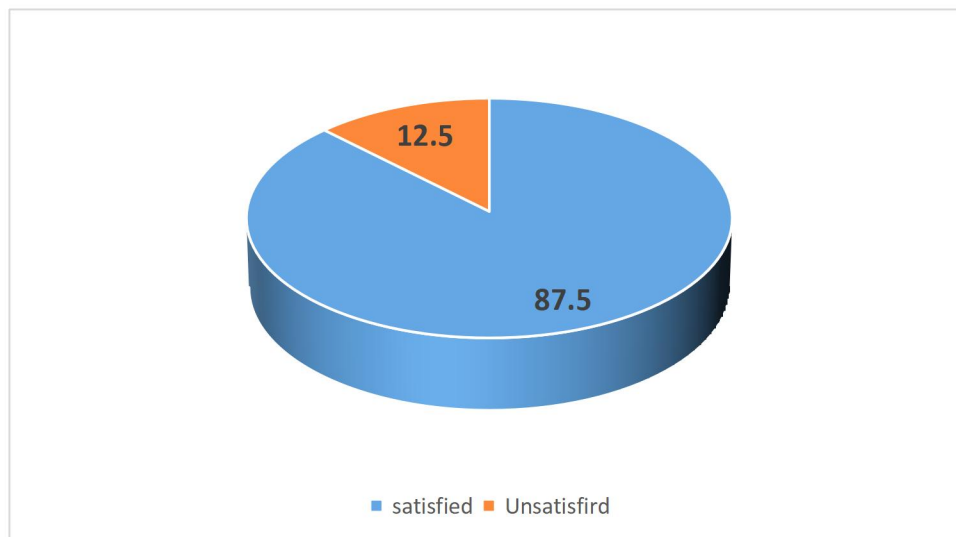| Evaluation on online assessment	Strongly agree		agree		neutral		disagree		strongly disagree	
	No	%	No	%	No	%	No	%	No	%
Assessment was fair	449	74.8	136	22.7	7	1.2	4	7	4	7
Cheating was difficult System	0	0	109	18.2	75	12.5	416	69.3	0	0
Feedback helps me to reflect on my competence in learning	12	2	474	79	98	16.4	11	1.8	5	.8
Tracking past exam results makes me understand my progress	480	80	93	15.5	12	2	8	1.3	7	1.2
Statistical evaluation page gives a detailed information on units where I am good or unsuccessful	347	57.8	100	16.7	152	25.3	0	0	1	.2
Page-by-page questions makes me feel better in the exam	462	77	124	20.7	2	.3	7	1.2	5	.8
Faster than paper-and-pencil	256	42.7	165	12.5	107	17.8	72	12	0	0
Better than paper-and-pencil form	85	14.1	270	45	76	12.7	169	28.2	0	0
Consistent with the teaching style	524	87.3	64	10.7	6	1	3	.5	3	.5
Exam date was announced in sufficient time	513	85.5	82	13.7	2	.3	3	.5	0	0
Exam covers all parts that was explained	451	75.2	134	22.3	11	1.8	4	.7	0	0
Exam time was sufficient to answer all questions	256	42.7	216	38	128	21.3	0	0	0	0
Less anxious	58	9.7	171	28.5	30	5	341	56.8	0	0

Figure 1: Fourth year nursing students' satisfaction on online education.

Table 5: **Correlation between nursing students' evaluation regarding learning process, online assessment and satisfaction with online education**

Study variable	Satisfaction regard online education	
	r	p-value
learning process	0.340	0.000
Online assessment	0.232	0.000

Discussion

Faculty members of universities have begun to learn and deliver online teaching to their students and are eager to understand how to produce better learning outcomes with online instructions that students' satisfaction plays pivotal role in determining the success or failure of online education. Learners' satisfaction reflects how they perceive their learning experiences (learning process, assessment) and interprets the quality of the course instruction. **(She, et.al. 2021)**. Our study results portrayed over six parts: first one about students' prior experiences of online system use, part two revealed students' competence of computer/mobile application, part three clarify the students' evaluation of the online learning process , part four presented students agreement about online assessment experience, part five illustrated students 'satisfaction to the online learning, and part six related to the relationship between nursing students' evaluation regarding learning process, online assessment and satisfaction with online education.

Part one: distribution of fourth year nursing students regarding prior experiences of online system use. The present study revealed that, the highest percentage of fourth year nursing students had an email address, this may be due to the information technology team prepare university email for each student to use it when enter e learning platform. While most of student don't take previous training on TOEFL and less than half of student don't take previous training on computer skills except ICDL. Most of students had grade B in ICDL while the few failed in. The result of present study was disagreed with **Ali, Khalil, and El-Sharkawy, (2020)** showed that more than half have passed ICDL. Meanwhile, less than three quarters never take previous training on computer skills except ICDL.

Also, the present study revealed that the highest percentage of fourth year nursing students had an Android mobile and used web for instructional purposes. This may be Android mobile consisted of different application such as WhatsApp and YouTube use it for social and instructional purposes. The result of this study was in agreement with **Ali, Khalil, and El-Sharkawy, (2020)**, they stated that all students had smart mobile phones and majority had email access and **Kumar (2021)**, revealed that the maximum participant were using smart phone for online learning .

Regarding student's grade in ICDL. The result of present study showed that more than half of fourth year nursing

student had grade B in ICDL while minority of them failed in ICDL. This may be due to ICDL certification is important to complete their requirement of faculty. The result of present study was agreed with **Ali, Khalil, and El-Sharkawy, (2020)** showed more than half have passed ICDL

Part two: distribution fourth year nursing student competence regard computer/mobile application the result of present study revealed that the majority of fourth year nursing student had competency regard web browser this may be due to in this era, the technology advancement make students use of web browser most of the their times for many purposes such as social media and educational purpose. The result of present study was in agreement with **Ali, Khalil, and El-Sharkawy, (2020)** who revealed that, the most of participated students evaluated themselves as competent to use the web browser, chatting, and emailing.

Part three: distribution of fourth year nursing students experience regarding online learning process, the result of present study showed that the two thirds of fourth year nursing students had good experience regard online learning process. From researchers' point of view, online education provide numerous advantages that encourages students for self-learning and promote finding knowledge through presentations, text, and videos. The greater individualization of learning materials inside an innovative and interactive environment, cost effectiveness in terms of labor and materials and flexibility and transferability.

Similar with **Suantika and Yusniawati, (2022)** who displayed that, the students determined that the online learning process was fairly good in its accessibility, convenience in understanding the materials, interactivity, accuracy of the methods used, and independence aspects. In the same line **Hu et al. (2022)** indicated that, the participants could also repeatedly access the lectures to enhance their understanding. On the other hand, the result of present study was disagreed with **Thapa, Bhandari, Pathak (2021) who** revealed that, less than half expressed that e-learning improves their access to other learning material.

Also, the result of present study revealed that, the highest percentage of fourth year nursing student strongly agreed about student's attendances for each lecture and group participations in tasks accomplishment is better than individualized tasks this may due to the faculty announce the educational table and the nursing educator announce the link of lecture before the lecture with enough time so the student attend the lecture. This approach allowed opportunity for students to participate in collaborative activities using discussion board and break out rooms. The students can make use of recorded lectures for revision if necessary.

While more than half of fourth year nursing students disagree about videos used for demonstration of content and use of student self-test. This may be due to some of the teacher don't download educational video and don't provide the students with self-test which aimed to help students and to avoid ambiguity of content objectives and examine their perception of difficult questions. The present study result was contrast with Ali, Khalil, and El-**Sharkawy, (2020)** who assertive that, most of the students were satisfied on the placement of frequent self-tests post weekly and **Roediger & Butler (2013)** who stated, that the work of self-tests assist students to activate memory, as retrieval of knowledge is one of the most powerful ways of making learning more strong although its use still underutilized.

Part four: distribution of fourth year nursing students' evaluation regarding online course assessment, the result of present study illustrated that the most of fourth year nursing student had good evaluation regard online learning assessment. This may be due to the all exams were taken in the labs at the university exam center under the supervision from the faculty members with camera observation. Also register interface is clear, log-in interface design is easy to operate, exam interface easy in use in addition to the availability of educational video about electronic exams designed by coordinator of e exam. In the same line **Özden, Y, I, Ertürk, Sanli, R. (2004)** illustrated that the participants reported the effectiveness of the online assessment system.

Also, the result of present study, clarified that the highest percentage of fourth year nursing students strongly agreed about consistent with the teaching style. exam date was announced in sufficient time, exam covers all parts that was explained and assessment was fair system while more than half of fourth year nursing student disagreed about cheating was difficult and online assessment less anxious. This may be due to the trend of telecourse and e exam was popular, addition to the questions cover intended learning outcome and the exam put according to exam specification map, the question appear in the form of ordered categories, and there was model answer. This result was consistent with the study of **Ozden, Erturk, and Sanli (2004)** indicated that, as fairness of the assessment process was assessed positively by most of the students, and for preventing online cheating, but less one third of student disagreed that they were less anxious.

Part five: distribution of fourth year nursing student's satisfaction on online education. The result of present study illustrated that the majority of fourth year nursing students had satisfactory level regarding online education. This may be due to during the online learning process, the internet access was sufficient to obtain learning materials. It was easy to understand the learning

materials, students and lecturers could interact actively. This online system has encouraged students to be independent in learning.

The results of this study align with **Kumar (2021),** revealed that the majority of student's participants were extremely satisfied with online learning and none of the students was found dissatisfied. Also **Kanniammal, et al. (2021)** revealed high level of satisfaction. Also Suantika, and **Yusniawati, (2022)** stated that students considered the online learning process in the Medical-Surgical Nursing program subject was satisfactory. Moreover **Warshawski, (2022)** stated that E-learning can enable students to satisfy their educational needs through various digital technologies. Findings of study by **Ayub and Iqbal (2011)** indicated on positive response and most of students expressed satisfaction with e-learning programs. The result of study was incongruent with **Ayed, et al. (2022)** about two-thirds of students were unsatisfied with their online learning experience. And **Thapa, Bhandari, Pathak (2021)** reveled that more than half of students had a favorable attitude regarding e-learning.

Moreover, the result of present study illustrated that the highest percentage of fourth year nursing students strongly agree about logon into my course any time, student can access online materials, the quality of the course compared favorably to my other nursing courses. This may be due to E-learning had become a significant method in education for its proficiency in providing education with lower costs, for ease of accessibility at anytime and anywhere, easy to obtain course materials. The result of the study was disagreed with **Mukasa, et al. (2021)** who revealed that approximately half of participants indicated that the quality of E-learning was equal to that of traditional learning.

Part six: In relation to correlation between nursing students evaluation regarding learning process, online assessment and satisfaction with online learning. The result of present study clarified that there was a highly statistically correlation between learning process and online assessment regard e- learning and students satisfaction. This may be due to the use of various technologies was quick solution to the crisis caused by COVID-19, universities rapidly switched to emergency remote teaching to continue courses and programs with web-based distance education instead of face-to-face education. Similar of the present study, **Linjawi and Alfadda (2018)** showed that the impact of online learning methods on students' satisfaction, motivation and self-assessment is greater when it is integrated with conventional methods.

Conclusion

Our present research concluded that many aspects have obtained from the current study by the majorities of the nursing students in nursing management course such as students' had an email address, had Android mobile, used web for instructional purposes, never had previous training on TOEFL, had grade B in ICDL while the fewer failed in ICDL, also, they had competency in Web browser which induced their agreement to attendances for each lecture and group participations in tasks accomplishment is better than individualized tasks. Moreover, they strongly agreed to consistent with the teaching style, exam date announced in sufficient time, exam covers all parts that was explained and assessment was fair. Likewise, they had satisfactory level regard to online education. Correspondingly, there was a highly statistically correlation between learning process and online assessment regard e learning and student satisfaction.

Recommendations

This study can help academic educators, researchers to make assessment of online education in different settings through other core courses of nursing such as medical surgical, critical care, obstetrics, and pediatrics nursing which requires direct patients' live practice. Future researches are needed to examine instructional strategies used by faculty members in online nursing courses that might affect these students' perceptions of satisfaction. Also further studies are essential to investigate the faculty members' responses, adaptation, greeting, and availability to connect with web based learning. The potential threats accompanied with online learning management systems from instructors and learners' viewpoints should be explored as well.

Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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