Research Article

The Satisfaction of Nursing Students With Medical-Surgical E-Learning in Bali

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Abstract. The COVID-19 pandemic has not ended yet, and so educational systems need to continue to be active and creative in establishing online learning materials. Nursing education faces challenges for many learning materials with high credits, such as Medical-Surgical Nursing. Even when altered to online methods, education still must prioritise the quality of the teaching-learning process to generate satisfactory learning. This study aimed to overview the satisfaction of nursing students towards the e-learning activities of the Medical-Surgical Nursing program during the pandemic. This was a descriptive cross-sectional study with a total of 300 participants. There were five aspects assessed, including accessibility, convenience in understanding the materials, interactivity, the accuracy of the methods used, and independence. The results showed that 110 respondents (36.7%) marked low on accessibility; 164 (54.7%) determined it was convenient to understand the materials; 126 (42%) felt that they interacted well among students and with lecturers; 185 (61.7%) thought the methods were sufficiently appropriate during the online learning process; and 141 (47%) felt independent enough to be able to do online learning. In conclusion, 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.

Keywords: online learning, Medical-Surgical Nursing, satisfaction

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1. Introduction

The COVID-19 pandemic is a global issue that has a considerable impact on human life. All aspects of human life have become paralysed without exception in education. Almost all governments in the world take decisive action to cut down the spread of the COVID-19 virus whilst implementing educational activities [1]. The Indonesian government is taking action to divert face-to-face learning into remote education [5]. Online learning might be the best solution the government could appoint to maintain the teaching-learning process so that nowadays situations would not hinder the learning activities. The Indonesian government has assigned a policy to implement online teaching at all levels of education, especially at the tertiary level [20]. Align with it, the educators at the higher education settings have enforced online learning widely. It gives benefits for providing access to learning for everyone without limiting the scope of class [4].

How to cite this article: Putu Inge Ruth Suantika* and Yustina Ni Putu Yusniawati, (2022), "The Satisfaction of Nursing Students With Medical-Surgical E-Learning in Bali " in *The International Virtual Conference on Nursing*, KnE Life Sciences, pages 122–133. DOI 10.18502/kls.v7i2.10295

Page 122

Universities in Indonesia, especially nursing majors, carry out the online learning policy for the undergraduate programs. The learning process frequently utilises online platforms such as WhatsApp groups, Google Classroom, LMS, Zoom, Webex, and many more [20]. The undergraduate program of nursing in Denpasar Bali also performs this remote learning. The students attend the entire nursing learning process, including in-class discussions, laboratory practices, and exams online. Therefore, it requires all students to be more active and independent in mastering the materials for each subject during the teaching-learning process. One of the subjects the students need to take is Medical-Surgical Nursing.

The AIPNI curriculum established the medical-surgical nursing courses with the most considerable number of credits among subjects during the undergraduate nursing study program [10]. The weighty credits and the complex range of learning topics encourage students to put more effort into understanding each lesson in this course. During this pandemic, studying this subject online might be a tough challenge for nursing students. To support that challenge, the lecturers need to think more creative in developing learning methods that would ease the students in perceiving the lessons [15]. As a result, the students would feel happy and satisfied improving their cognitive, specifically in the medical-surgical nursing course.

Through the interview, several nursing students revealed they had difficulties in adapting to the online teaching and learning process. They experienced many challenges, such as inappropriate methods, disinterested students due to minimal interaction among students and between students and lecturers, and increased costs.

Several nursing students revealed in the interview that they had difficulties in adapting to the online learning process. They experienced many challenges, such as inappropriate methods, disinterested students due to minimal interaction among students and between students and lecturers, and increased costs. These various obstacles make students detached and dissatisfied and further decline the learning outcomes [18]. The influencing factors of the students' satisfaction during online learning include the activeness of students, the easy accessibility to the learning process, the use of internet networks, the teaching methods, motivation to take part in learning, understanding of the materials, and the interaction between students and lecturers [2,12, 14]. According to this background, the researcher aimed to overview the satisfaction of nursing students towards e-learning activities of the Medical-Surgical Nursing subject during the pandemic.

2. Methods and Equipment

This was a descriptive analysis study conducted on nursing students in Denpasar From January to July. A total of 300 respondents were nursing students in Denpasar who have attended the medical-surgical nursing lessons during the pandemic. Inclusion criteria were the nursing students at 4 and 6 semesters and have taken the medical-surgical nursing subject since pandemic. The exclusion criteria were respondents who refused to be research subjects.

The main self administered questionnaire from the research consisted of 38 statements consisting of seven accessibility statements, four statements of the convenience in obtaining materials, nine statements of interactivity, five statements of the method appropriateness, 12 statements of independence in the learning process.

This study was approved by the Ethics Committee of Institut Technology and Health Bali on June 28, 2021 with approval number: 04.0466/KEPITEKES-BALI/VI/2021

3. Result

In this study, we collected two types of data, the demographic and e-learning satisfaction on the Medical-Surgical Nursing subject. Demographic data include age, gender, university origin, network condition, study location, the most used learning media and electronic devices. Table 1 shows that out of 300 respondents, 125 (41.7%) respondents are 21 years old, then 112 respondents (37.3%) are in 20 years of age. Most of the respondents, 264 people (88%), are female, while 36 respondents are male (12%). Most of the students, 175 respondents (58.3%), come from the private university ITEKES Bali. The most used online learning media are WhatsApp, which collected 252 responses (84%) and Zoom 240 responses (80%) with sufficient network condition from 225 respondents (75%) at home 284 people (94.7%) and using mobile phones from 161 respondents (52.7%).

Table 2 shows that out of 300 respondents, 110 students (36.7%) responded to the accessibility variable in the less category. Most of the respondents, 164 people (54.7%), answered they could easily understand the materials. In the interactivity variable, 126 respondents (42%); stated they interacted pretty well with other students and lecturers. Most of the respondents, 185 students (61.7%), felt that the method used was appropriate enough during the learning process. In the independence variable, 141 respondents (47%); revealed they felt independent to follow the online learning process.

TABLE 1

Table 1. Demographic Characteristics (n=300)		
Variable	f	%
Age		
19 years old	28	9.3%
20 years old	112	37.3%
21 years old	125	41.7%
22 years old	31	10.3%
23 years old	2	0.7%
24 years old	2	0.7%
Gender		
Male	36	12.0%
Female	264	88.0%
University Origin		
ITEKES Bali	175	58.3%
STIKES Wira Medika	34	11.3%
PSSKPN Udayana	75	25.0%
Poltekkes Denpasar	16	5.3%
Online Learning Media		
WhatsApp Group	252	84%
Zoom	240	80%
Google Classroom	197	65.7%
LMS	60	20%
Webex	70	23.3%
Other	37	12.3%
Network Condition		
Poor	9	3.0%
Sufficient	225	75.0%
Good	66	22.0%
Study Location		
Home	284	94.7%
Studio	16	5.3%
Electronic Device		
Handphone	161	53.7%
Laptop	139	46.3%

TABLE 2

Tabel 2. Independent Variable Characteristic (n=300)		
Variable	**f**	**%**
accessibility		
Less	110	36.7%
enough	98	32.7%
Good	92	30.7%
convenience in understanding the materials		
Difficult	46	15.3%
Enough	164	54.7%
Easy	90	30.0%
interactivity		
Passive	84	28.0%
Enough	126	42.0%
Active	90	30.0%
the accuracy of the method used		
Less	80	26.7%
enough	185	61.7%
Good	35	11.7%
independence		
Less	79	26.3%
enough	141	47.0%
Good	80	26.7%

4. Discussion

Online learning is an innovation involving the use of information technology in education. Its use requires a network or internet connection is a distance learning method that everyone can take without limiting the scope of class [17]. The external factors such as internet access, online media used, learning environment and device condition during online learning supported the success in the remote learning program. In this study, the nursing students in Denpasar had utilised several online platforms such as WhatsApp Groups, Zoom, Webex, LMS, Google Classroom, and others to interact with lecturers and other students during the learning process. Dhull & Sakshi (2017) stated that the use of this media allows students to have the flexibility to study anywhere and anytime and to use diverse and varied learning resources [6]. Dhull & Sakshi (2017) stated that these media allow students to have the flexibility to study anywhere and anytime and to use diverse and varied learning resources. In this study, the most used media were WhatsApp group and Zoom meeting. The results of this study align with the research

<p align="center">TABLE 3: Descriptive Factors of Nursing Student Satisfaction in Denpasar Bali</p>

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
		accessibility				
1	I understand words or terms related to internet hardware	0	2 (2.3%)	148 (49.3%)	133 (44.3%)	12 (4%)
2	I understand words or terms related to internet programs	0	9 (3%)	147 (49%)	138 (46%)	6 (2%)
3	I understand the function of the internet usage	0	1 (3%)	85 (28.3%)	187 (62.3%)	27 (9%)
4	I understand the problems that frequently occur in internet access	1 (0.3%)	8 (2.7%)	134 (44.7%)	135 (44.5%)	22 (7.3%)
5	I am able to use the internet as a learning tool	1 (0.3%)	1 (0.3%)	48 (16%)	205 (68.3%)	45 (15%)
6	I feel confident to use internet programs as a learning media	0	6 (2%)	107 (35.7%)	163 (54.3%)	24 (8%)
7	I am able to conduct online discussions using internet programs	1 (0.3%)	7 (2.3%0	86 (28.7%)	185 (61.7%)	21 (7%)
		convenience in understanding the materials				
8	Through online learning, I easily understand the MSN materials	6 (2%)	51 (17%)	181 (60.3%)	57 (19%)	5 (1.7%)
9	Online learning makes me interested in learning MSN	5 (1.7%)	59 (19.7%)	187 (62.3%)	44 (14.7%)	5 (1.7%)
10	Online learning helps me to develop new concepts of understanding in MSN	6 (2%)	35 (11.7%)	183 (61%)	73 (24.3%)	3(1%)
11	Online learning makes me easier to access MSN materials	2 (0.7%)	14 (4.7%)	138 (46%)	125 (41.7%)	21 (7%)
		interactivity				
12	During online learning I have sufficient interaction with other students	5 (1.7%)	39 (13%)	125 (41.7%)	123 (41%)	8 (2.7%)
13	I get responses from my classmates during the discussion process	0	16 (5.3%)	129 (43%)	147 (49%)	8 (2.7%)
14	I discuss easily with my friends about the topic of MSN using several online applications	3 (1%)	24 (8%)	137 (45.7%0	120 (40%)	16 (5.3%)
15	I answer friends' questions regarding the topic using electronic means	0	4 (1.3%)	120 (40%)	163 (54.3%)	13 (4.3%)
16	I exchange ideas with friends during learning	2 (0.7%)	5 (1.7%)	101 (33.7%)	174 (58%)	18 (6%)
17	I discuss with the lecturer through electronic media	2 (0.7%0	3 (1%)	86 (28.7%)	186 (62%)	23 (7.7%)
18	The lecturer gives feedback on my questions about the topic of MSN	1 (0.3%)	0	73 (24.3%)	196 (65.3%)	30 (10%)
19	The lecturer asks questions to discuss the topic of MSN	0	1 (0.3%)	75 (25%)	200 (66.7%)	24 (8%)

TABLE 3: Descriptive Factors of Nursing Student Satisfaction in Denpasar Bali

20	The teacher answered my questions about the MSN topic in a timely manner	1 (0.3%)	1 (0.3%0	106 (35.3%)	168 (56%)	24 98%)
	the accuracy of the method used					
21	I realise the e-learning system is a useful learning tool	0	7 (2.3%)	104 (34.7%)	159 (53%)	30 (105)
22	The use of e-learning is very effective for the learning process	1 (0.3%)	30 (10%)	141 (47%)	113 (37.7%)	15 (5%)
23	E-learning content is informative	0	9 (3%)	121 (40.3%)	4 (50.3%)	19 (6.3%)
24	E-learning helps me in my future studies	4 (1.3%)	15 (5%)	112 (37.3%)	146 (48.7%)	23 (7.7%)
25	I use e-learning to help me study	0	7 (2.3%)	103 (34.3%)	170 (56.7%)	20 (6.7)
26	I will use e-learning to improve my learning motivation	2 (0.7%)	19 (6.3%)	146 (48.7%)	120 (40%)	13 (4.3%)
	Independence					
27	During the lesson I frequently do not focus on the MSN materials	1 (0.3%)	35 (11.7%)	169 (56.3%)	90 (30%)	5 (1.7%)
28	I make questions about the topic of MSN to help me focus on online learning	1 (0.3%)	13 (4.3%)	161 (53.7%)	124 (41.3%)	1 (0.3%)
29	When I am confused about the topic of MSN, I try to find other support sources	0	1 (0.3%)	78 (26%)	192 (64%)	29 (9.7%)
30	I change the way I read the MSN material if I find it difficult to understand	0	3 (1.%)	107 (35.7%)	178 (59.3%)	12 (4%)
31	Before the lesson started, I research about the topic	2 (0.7%)	18 (6%)	153 (51%)	120 (40%)	7 (2.3%)
32	I ask myself to see my understanding of the current studied topic of MSN	1 (0.3%)	17 (5.7%)	148 (49.3%)	126 (42%)	8 (2.7%)
33	I change the way of learning to suit the online method and the lecturer's teaching method	0	5 (1.7%)	138 (46%)	149 (49.7%)	8 (2.7%)
34	I realise that I cannot understand all MSN topics	0	1 (0.3%)	71 (23.7%)	149 (49.7%)	79 (26.3%)
35	On the topic of MSN, I decide to look for an outline of the topic rather than just reading	1 (0.3%)	3 (1%)	118 (393.3%)	164 (54.7%)	14 (4.7%)
36	I try to determine the concept of MSN materials that I do not understand	0	2 (0.7%)	111 (37%)	177 (59%)	10 (3.3%)
37	I set the goals I want to achieve for each material in order to guide the current learning system	0	4 (1.3%)	130 (43.3%)	154 (51.3%)	12 (4%)
38	If I get confused, I will try to make a small note	0	3 (1%)	105 (35%)	160 (53.3%)	32 (10.7%)

of Andiarna & Kusumawati (2020), where the use of WhatsApp groups was 65.26% (186 respondents) [3]. All students and lecturers are accustomed to communicating with WhatsApp groups, then operating this system is easy and saves the internet quota.

In this study, respondents mentioned that they used sufficient internet network access during the online learning process. Because the learning process is online, the support from the internet network must be adequate, so there will be no obstacles such as loss of signal or running out of internet quota while accessing or giving lectures. During this pandemic period, the Indonesian government has supported the students through study quota assistance thereby, reducing the student costs. Most students chose home as a learning environment. Because of this pandemic condition, all respondents spend a lot of time at home doing activities, including studying. The learning environment is one of the supporters of the success of the online learning process [11].

We expect the online learning process will run well by fulfilling the external support for online learning. However, we should identify the other factors such as accessibility in the use of methods, the convenience in obtaining materials, independence in learning, interactivity during the teaching-learning process, and the appropriateness of learning methods. In this study, the first indicator is accessibility. A total of 110 respondents (36.7%) revealed they got lack of access to networks and online media. Not all respondents understood the problems related to interference when accessing networks and online media (3%). Respondents answered neutral (28.7%) when using technology during discussions. Husamah (2013), in a study, stated that if the network is inadequate, it will affect the ineffective learning process [9].

In the responses on the convenience in obtaining materials indicator, 164 respondents (54.7%) said it was sufficiently easy to understand the materials. Some students responded neutrally in understanding the MSN materials, interested in learning MSN, helped create the MSN concept, and convenience to access the MSN materials. In the responses on the convenience in obtaining materials indicator, 164 respondents (54.7%) said it was sufficiently easy to understand the materials. Some students responded neutrally in understanding the MSN materials, interested in learning MSN, helped create the MSN concept, and convenience to access the MSN materials. Online learning requires a relatively complicated adaptation. Therefore, to understand the learning materials, students need to prepare themselves better, such as taking notes, reading materials or looking for learning materials beforehand. The research by Rachmawati & Putri (2020) stated that students had difficulty understanding the materials (54.4%) because they were accustomed to face-to-face learning [16]. Students mentioned that there was more interaction between lecturers and students, so they could directly ask

the lecturers about any questions. During a pandemic, the learning process will certainly often lead to different perceptions of students, so we need the students to be more active and independent.

The third indicator is interactivity. A total of 126 respondents (42%) stated the online learning was sufficiently interactive. Students get feedback and exchange ideas with other students during discussions. Moreover, they may discuss and get feedback from the lecturers and get correct answers for any questions. Lecturers and students have a reciprocal relationship during the learning process to get the students to focus during learning. The lecturers should be able to use media and develop learning content to improve the students' motivation in studying [8]. Fauzi, et al (2017) stated that good interaction between students during the learning process is an indicator of learning success because it shows students' interest in the material [7]. When students dare to submit their opinions online, it is an act of enthusiasm for learning, though in an online system [19].

The fourth indicator is usability. A total of 185 respondents (61.7%) revealed the usage of the e-learning system was appropriate in the learning process. The students realised that the e-learning system was helpful to support the learning process during the pandemic. Most of the students responded neutrally regarding the effective use of media with informative content. The results of this study align with the research by Rahmawati & Putri (2020), which stated that 51.5% of respondents revealed that the learning methods and strategies complied with the learning objectives [16]. The materials delivery by discussion method is relatively uncomplicated for students to accept, but practicum materials are not suitable for online learning. In this research, we found the practicum materials were not appropriate for the online method. The limited practical tools that are appropriate to the learning topic could be the reason.

The fifth indicator, independence, is necessary for nursing students to have in exploring each learning topic. In this study, there were 141 respondents (47%) who said they were sufficiently independent. Students realise that there are weaknesses in this e-learning system. In addition, it is challenging to understand the topic of MSN with the new learning system. Hence, the students decided to look for other supporting materials without relying on lecturers. Students are trying to change their way of learning to adapt to the e-learning system during the pandemic. The new system encourages them to be more independent and active in developing new learning methods by conceptualising learning before the lesson begins, reading the materials and making their understanding according to the concept of the learning topic. Nurhayati (2019) revealed a significant

relationship between learning independence and learning outcomes, either face-to-face or online [13]. In Fitriani's research, Fauzi & Sari (2020) answering or completing the assignments well is a sign of the excellent independence category [7]. Meanwhile, in this study, students tried to change the way of learning to adapt to the online learning process. In this case, they could attend the lectures and understand the medical-surgical nursing materials.

5. Conclusion

Students considered the online learning process in the MSN subject was satisfactory. During the online learning process, internet access was sufficient to obtain learning materials. It was uncomplicated to understand the learning materials when using appropriate learning methods, especially during discussions but not during practicum. During the remote study, students and lecturers could interact actively. This online system has encouraged students to be more independent in learning. The lecturers and students need to adjust several things to improve the quality of the online learning program. Based on the results of this study, we recommend the lecturers use more interactive methods whilst students enhance their independence and agility in preparing learning materials.

6. Conflict of Interest

The authors have no conflict of interest to declare.

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