

ISSN 2354-8428
e-ISSN 2598-8727

JURNAL KEPERAWATAN

KOMPREHENSIF

COMPREHENSIVE NURSING JOURNAL

Published by :

**Sekolah Tinggi Ilmu Keperawatan
PPNI Jawa Barat**

Vol. 9 No. 3, July 2023



JURNAL KEPERAWATAN KOMPREHENSIF	VOL. 9	NO. 3	Bandung July 2023	ISSN 2354-8428	e-ISSN 2598-8727
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Research Article

Student Engagement in Online Learning Among Undergraduate Nursing Students

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Received : 05/04/2023

Revised : 01/07/2023

Accepted : 13/07/2023

Online : 31/07/2023

Published : 31/07/2023

Abstract

Aims: Student engagement (SE) is a significant factor for success in online learning. The low of SE will impact students' academic achievement.

Purpose: This study aimed to describe SE in online learning at the Faculty of Nursing, Universitas Padjadjaran.

Methods: This study was quantitative descriptive research. The population was undergraduate nursing students (N=862). The sample criteria were that respondents were active students of the Faculty of Nursing, Universitas Padjadjaran for the 2020/2021 period from the Jatinangor and Pangandaran campuses. The sampling technique was total sampling with a response rate of 64,3% (n=554). Data were collected using the Online Community and Student Engagement Scale. Data were analyzed using descriptive statistics and presented in frequency distribution tables.

Results: The results showed that more than half of students (52.7%) had a low category of SE, and nearly half (47.3%) have shown a high category of SE in online learning. Students had low levels of Community Building with the Instructor, Community Building with Classmates, and Engagement with Learning (57.4%; 58.3%; and 51.8%, respectively). The SE level that the respondent currently has has the potential to be increased along with the ongoing process during the lecture period.

Conclusion: More than half of students had a low category of SE in online learning this could have a negative impact on student achievement and educational completion rates. Therefore, intense interactions through discussions between students and lecturers, constructive feedback, and motivational support are highly recommended to be provided by the faculty and peers for improving the SE.

Keywords:

Nursing Students; Online Learning; Student Engagement

INTRODUCTION

Nursing education is one of the aspects that has undergone very significant changes due to the Covid-19 pandemic, especially in the implementation of the online learning system. The rapid switch from face-to-face to fully online learning has been a massive

challenge for nursing education in Indonesia (1). One of the problems is that the students need more time to adjust to the online learning method (2).

Students who have not adapted to online learning will encounter some difficulties, such as burnout that cause a loss of interest and enthusiasm for learning, feeling quitter,

and stress due to excessive tasks (3). In addition, some students might feel they need help to understand the learning material and quickly get distracted and lose focus in fully online learning compared to the normal condition when they have face-to-face experience, causing the learning process to become less effective (4).

Covid-19 has affected nursing students in an academic aspect. One of the main concerns voiced by nursing students is the need for more opportunities to gain clinical experience (5). Clinical experience is difficult to replicate online, especially when trying to achieve the same learning outcomes (6). In addition, it is challenging to master and feel confident performing finer skills, such as inserting a nasogastric tube and an IV, when students only learn online. Meanwhile, clinical practice is an essential part of nursing education. It builds confidence and helps nursing students understand real-life scenarios (6). Therefore, this should be the main focus of attention for teachers in nursing education to modify the learning process so that they can achieve the desired competencies and meet university graduate standards.

Students must have high engagement in the learning process. Student engagement (SE) is a commitment and motivation of students to learn, show positive behaviour and attitudes, and has good relationships with teachers, friends, and the support system from parents in online learning (7). SE can be created through collaboration between teachers and students, students with students, and students with learning content (8). West and Turner (2016) emphasized that it is essential for online teachers to appreciate and focus on SE because it can reduce feelings of isolation and increase satisfaction, learning motivation, and student performance in online learning (10). The SE level in online learning can affect student learning achievement. Students who have high SE have more responsibility for their learning, get satisfactory scores on final exams, are capable of making effective decisions, have

good learning achievement, have high course completion rates, and have low college failures. (11–14)

In contrast, students with low SE tend to have poor exam scores (15). Besides, low levels of SE in the learning process will lead to dissatisfaction, negative experiences, and increased dropout rates, impacting learning outcomes (16). In addition, the students' SE can impact both students and educational institutions. Therefore, the faculty must monitor the students' SE level as early as possible (17). Therefore, this study aims to describe SE in online learning at the Faculty of Nursing, Universitas Padjadjaran.

METHODS

This research used a quantitative descriptive study. The population in this quantitative descriptive study was 862 bachelor's degree students of the Faculty of Nursing, Universitas Padjadjaran, Indonesia. The sample criteria in this study were that respondents were active students of the Faculty of Nursing, Universitas Padjadjaran for the 2020/2021 period from the Jatinangor and Pangandaran campuses. The sampling technique used was total sampling. The data was collected using an online questionnaire with a response rate of 64.3% (n = 554).

This study uses an instrument adapted from Young dan Bruce (2011), "Online Community and Student Engagement Scale". This instrument has 23 questions presented by a Likert scale from Not at all descriptive (1) to Very descriptive (5). The modifications made are grammar adjustments to the characteristics of the respondents in the research. In this study, the student engagement questionnaire was carried out by translation and back translation procedures at the LIA Language and Professional Education Institute. First, the translation procedure was done by translating the questionnaire from English into Indonesian. Then, the back translation procedure was carried out by translating the translated questionnaire from

Indonesian into English. The Instrument's validity and reliability have been done with a validity test value range was 0.313 to 0.615 with the value of r table ($p = 0.05$) was 0.088, and the value of Cronbach alpha reliability of the instrument was 0.865.

The data were collected using online questionnaires, i.e., Google form, and direct interviews assisted by community leaders for residents with difficulty filling out questionnaires online. First, the respondents were given a consent form. Additionally, they were briefed about the research purpose and benefits, their rights (autonomy) as the research subject, and the data collection procedures. After the briefing, they were allowed to decide whether to participate. The respondents were also informed that their confidentiality would be protected. The data were collected from March 2021.

This research carried out demographic characteristic data analysis and principal variable analysis. The data will be presented using a frequency distribution table in the primary variable analysis. The data collected is then calculated as the value of the score. After getting the total score, the researcher conducted a data normality test using Kolmogorov-Smirnov. The results of the Kolmogorov-Smirnov test on the

primary variable, namely student engagement, stated that the data were normally distributed (significance correction value $0.164 > 0.05$) so that in this variable, the determination of the high or low category of student engagement used the mean. After testing the normality of the data for all variables from each respondent, the total score will be calculated (minimum score = 23 and maximum score = 115). Respondents with a mean >88 were included in the high SE category, while respondents with a mean ≤ 88 were classified as low SE categories.

This research has ethical approval from the Ethical Research Committee of Universitas Padjadjaran No.156/UN6.KEP/EC/2021. The data in this study have obtained written consent from the respondents who were asked to collect data via Google Forms.

RESULTS

The population used is active students of the Faculty of Nursing, University of Padjadjaran in 2017-2020 with a total of 862 students with a sample of 554 respondents. Research respondents are described based on gender, lifting, and origin campus.

Table 1.
Demographic Characteristics of Respondents (n=554)

Variable	Measurement results	Frequency	Percentage
Gender	Male	63	11,4
	Female	491	88,6
Lifting	2017	168	30,3
	2018	130	23,5
	2019	96	17,3
	2020	160	28,9
Origin Campus	Jatinangor	490	88,4
	Pangandaran	64	11,6

Table 1 shows that the respondents who participated in this study were primarily female (88.6%), the majority were from 2017 lifting (30.3%), and the origin campus was mostly from Jatinangor (88.4 %).

Table 2.
The Level of Student Engagement in Online Learning (n=554)

Student Engagement	Frequency	Percentage
High	262	47,3
Low	292	52,7
Total	554	100

Table 2 showed that 292 nursing students (52.7%) had a low category of student engagement in online learning. However, almost half of the other respondents already showed a high level of SE.

Table 3.
The Level of Student Engagement in Online Learning Based on Dimensions (n=554)

SE Dimensions	Measurement Results	Frequency	Percentage
Community Building with Instructor	High	236	42,6
	Low	318	57,4
Community Building with Classmates	High	231	41,7
	Low	323	58,3
Engagement with Learning	High	267	48,2
	Low	287	51,8

Table 3 shows the SE level based on its dimension. The highest percentage of respondents with a high category was in Engagement with Learning dimension (48.2%). In addition, the highest percentage of respondents with a low category was in Community Building with Classmates dimension (58.3%).

Table 4.
Student Engagement in Online Learning Based on Questionnaire Items (n=554)

Statement Items	Mean	SD
Community Building with Instructor	3,93	0,51
Q2. The course rules are clear	3,75	0,85
Q3. My instructor is present and active in class discussions	4,34	0,69
Q5. My instructor is responsive to me when I have questions	4,19	0,83
Q8. My instructor is consistent about enforcing course rules	3,88	0,88
Q9. I know that I can contact my instructor when I need to	4,01	0,87
Q10. I trust my instructor to handle inappropriateness in-class interactions	3,78	0,91
Q14. My instructor provides a well-organized course	3,87	0,86
Q23. I feel isolated in the class	3,63	1,18
Community Building with Classmates	3,69	0,56
Q1. I participate actively in online discussions	3,58	0,85
Q4. I ask questions in discussions when I do not understand	3,01	1,02
Q17. I interact with classmates on course material	4,08	0,83
Q18. I connect personally with classmates	4,09	0,85
Q19. I enjoy interacting in my class	3,62	0,91
Q20. I help my fellow classmates	4,00	0,73
Q21. I share personal concerns with others	3,03	1,20
Q22. I am committed to working with my classmates so that we can help each other learn	4,14	0,78

Statement Items	Mean	SD
Engagement with Learning	3,95	0,56
Q6. I complete all of the assigned class work	4,08	0,75
Q7. I visit the course website regularly	4,03	0,91
Q11. I truly desire to learn the course material	4,21	0,80
Q12. I give a great deal of effort to the class	3,75	0,92
Q13. I am well-organized in my learning	3,58	0,86
Q15. I will earn a good grade in the course	3,85	0,84
Q16. I stay caught up on readings	3,57	0,89

Based on Table 4 shows that the lowest mean values in the dimensions of Community Building with Instructors, Community Building with Classmates and Engagement with Learning were items 23, 4, and 16, respectively, and the highest mean values were items 3, 22, and 11, respectively.

DISCUSSION

The student engagement (SE) in online learning of undergraduate nursing students of the Faculty of Nursing, Universitas Padjadjaran, generally showed a low level (52.7%). However, nearly half of the students had a high level of SE. The low level of SE might be due to the need for more interaction built during the online learning process among students with teachers, peers, and with learning content. It can be seen in Table 3 that based on the three dimensions of SE in online learning, all of them were in a low category. The results of this study indicate that nursing students still need strong commitment and motivation to participate in the online learning process and need better relationships between the students, the teachers, and the learning content.

Previous studies about SE on students of the Faculty of Nursing, Universitas Padjadjaran, supported this finding (18). It found that more than half of nursing students (51,1%) had a low engagement in online learning. In addition, The National Survey of Student Engagement (NSSE) (2013) in America and Canada reported that students enrolled in online learning

programs were less involved (19). The level of completion of learning programs in distance education from 10% to 20% lower than the face-to-face classes (20).

The Coronavirus pandemic has caused changes in the learning process in higher education and is likely to affect the quality of interaction between students, lecturers, and learning content. During the pandemic, college students must conduct their learning activities fully online (21). This caused main obstacles in the student learning process, such as decreased student motivation, delayed feedback or help from the lecturers, and isolation (4).

The data shows that the lowest mean value in Community Building with Instructors dimension is item number 23 (3.63): "I feel isolated in the class". It indicates that students feel isolated during online learning activities. According to Lundberg dan Sheridan, building learning community relationships can reduce the possibility of feeling isolated and disconnected from students in the learning process (22). This finding is in line with research by Alhih et al., (2017) which said that students tend to initiate less interaction with teachers when online learning takes place (23). This can be seen in the answer to the statement "I initiated the interaction with the instructor during the course" which always answered only one student (2.8%) or as many as (63.9%) students tended to initiate less interaction with the instructor during online learning. The low interaction between students and teachers can have an impact on the lack of information that students get when participating in online

learning, so that with this a variety of strategies are needed that can increase interaction between students and teachers during the learning process (23).

The lowest mean value in Community Building with Classmates dimension is item 4 (3.01): "I ask questions in online discussions when I do not understand". This was probably because students feel less confident or pressured when they want to ask questions during online classes or group work. This was not in line with Firman and Rahayu, who said that the interactions that take place during online learning showed high results (24). The students feel more comfortable asking questions and expressing their opinions in online forums because they do not feel pressure from other students.

This findings supported by Martin and Bolliger's research that said that of the three sub dimensions of interaction that exist in online learning, the learner to learner dimension has the lowest average value (3.63) compared to the other 2 dimensions, namely learner to instructor (4.15) and learner to content (3.99) (25). This is reinforced by the previous study which states that the average (mean) score of undergraduate students (3.35) on the student-student dimension is lower than this research (3.69) (26). This is in line with Dixon's research (2010) which said that 76 out of a total sample of 176 students had low SE in the student-student dimension. Furthermore, Dixon revealed that the students with a low SE were less active in online discussion forums and project groups (27).

The lowest mean value in the Engagement with Learning dimension is item 16 (3.57): "I keep reading". It indicates that, generally, nursing students need more reading habits of the course materials. This finding aligns with Asfari, who stated that nursing students had low engagement skills in online learning activities such as regularly reading and taking notes while reading or watching video lectures (18). In addition,

student-content interaction in online learning was considered low and ineffective (23). This can be due to the fact that the lecture material provided online, most of which are in the form of reading materials, cannot be fully understood by students (24). Therefore, to improve and maintain SE, especially on the engagement with learning dimension, learning activities must be varied by combining synchronous (discussion) and asynchronous (completing tasks independently) activities because synchronous and asynchronous activities in online learning are considered an effective choice to help students access online content critically (28).

Overall, the nursing students at Universitas Padjadjaran had a low SE when participating in online learning during the pandemic, so they would also show less desire to learn. This could lead to a negative impact on student's achievement and course completion rates. In addition, the lack of interaction in online learning could affect the adaptation process, causing dissatisfaction, negative experiences, and an increase in the dropout rate, which will affect the learning outcomes (29-31). Therefore, it would lead to various problems with the student learning process.

However, almost half of the respondents showed a high SE rate. This was probably because of the instructors' presence during the learning activities and the student's active participation in the class discussions. Dixon stated that interaction among peers and students with instructors or with learning objects could result in meaningful relationships leading to higher SE levels. In addition, most respondents committed to collaborating and helping each other when working in groups and gave much effort to the class (27). Raymond et al. (2016) said that peer learning in online learning minimized isolation (33). Therefore, blending online peer learning and face-to-face mode could enhance students' learning experience. However, blended learning during the pandemic was implemented in

an unideal condition where all activities were fully online (33).

Students with a high SE level in online learning tend to learn more than those with low SE levels, so they are likely to succeed in an educational program and complete their degree (33). In addition, it also adds to the essential skills that will further facilitate living a productive life after graduating from college (34). Thus, students who feel they interact well with the teachers tend to have a better attitude toward academic activities. The more connecting students with teachers, the more they are willing to try the task and seek help when needed (35). Then, suppose students have good interactions with classmates. In that case, it will support the students to be more productive and satisfied in their learning and help students develop problem-solving and critical thinking skills (36). The SE level that the respondent currently has the potential to be improved along with the process during the lecture period at the Faculty of Nursing, Padjadjaran University.

CONCLUSION

Based on the results of research conducted on 554 respondents, it was founded that the value of student engagement included in the low category (52.7%) and high category (47.3%) was almost the same. This showed that, in general, students could show engagement in online learning even though they face various problems and have the potential to achieve learning objectives. In the three SE components, almost 60% of students showed low Community Building with Instructors and Community Building with Classmates. In Engagement with Learning (51.8%), the proportion of students in the low and high categories was almost the same.

Lecturers, faculty, and peers in this case also play a role in ensuring smooth learning and support in increasing student engagement. Support for students can be in the form of a stable connection, sufficient internet quota, intensity of interaction from

lecturers and peers, as well as guidance during study. It is hoped that this kind of support will be able to reduce barriers and increase student engagement in online learning. In addition, the existence of this research can be a reference and initial data for further research, especially related to SE in online learning in nursing students. So it is hoped that there will be further research regarding the description of SE in professional programs or in practicum courses that are conducted online.

Acknowledgements

The researcher would like to thank the research samples willing to become respondents in this study and the Universitas Padjadjaran, which has facilitated accounts in various databases so that researchers can easily find references.

Author Contribution

All authors contributed to this manuscript, including conceptualization, literature search and theory, direction and guidance, and input on this manuscript.

Conflict of Interest

The authors declare no conflict of interest.

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