

The Effect of Clinical Learning Environment on Nursing Student Satisfaction in East Java Province

Indonesian Nursing Journal of Education and Clinic (INJEC)
64-71

Volume 6, Issue 1, June 2021

DOI: 10.24990/injecv6i1.393

injec.aipni-ainec.org/index.php/INJEC/index

Received : 2020-11-02

Accepted : 2021-01-30

The Association of Indonesian Nurse Education Center (AINEC)



Kuswanto Rusca Putra¹, Alfrina Hany¹, Rustiana Tasya Ariningpraja¹

Abstract

Introduction: The clinical learning environment is a situation for the implementation of student practical learning. Satisfaction with the clinical learning environment is very important to foster a positive learning experience. This study aims to analyze the influence of the clinical learning environment on nursing student satisfaction.

Methods: The study design used was an observational analysis with a cross-sectional approach to clinical nursing students in East Java Province with 451 student respondents. A consecutive sampling method was conducted. The Clinical Learning Environment Supervision Teacher (CLES T) instrument was used to assess learning environment variables and Clinical Learning Environment Inventory (CLEI), in particular, the satisfaction dimension was used to assess the satisfaction variable. Data analysis used the Spearman rank test and multiple linear regression.

Results: There is a relationship between the clinical learning environment (pedagogic learning, leadership style, nursing care in the ward, the relationship of supervision, the role of nurse teacher) and the satisfaction of nursing clinic students ($p = 0.000$). Multiple linear regression analysis showed that the dimensions of pedagogic learning ($t = 3.261$; $p = 0.001$) and the role of the nurse teacher ($t = 2.693$; $p = 0.007$) had an effect on nursing student satisfaction.

Conclusion: Student satisfaction is an important factor in the implementation of student clinical learning, so it is necessary to carry out good management by educational institutions and practice fields regarding the learning environment and improving the pedagogic atmosphere and the role of nurse teachers in clinical learning.

Keywords

clinical learning environment; nursing students; pedagogy; satisfaction

INTRODUCTION

Clinical education is an important part of nursing education (Heidari and Norouzadeh, 2015), and the process of students applying theory in health services (Sari Lombu and Setiawan, 2018). Activities in clinical education

include facilitative learning in clinical management that aims to make measurable changes in students in providing clinical care with the involvement of clinical instructors and students (Baraz, Memarian and Vanaki, 2014). Clinical practice is very important in nursing education for student learning to become

¹ Faculty of Medicine, Universitas Brawijaya

Corresponding Author:

Kuswanto Rusca Putra, School of Nursing, Faculty of Medicine, Universitas Brawijaya, Malang, East Java, Indonesia
Jl. Veteran Malang 65145, East Java-- Indonesia
Email: torro.fk@ub.ac.id

professional nurses through the application of skills in practice, managing gaps between theory and practice, and increasing expectations about future careers (Jabien Labrague, 2013). Understanding the factors that affect the quality and quantity of clinical education is very helpful in solving problems related to the implementation process of clinical education (Heidari and Norouzadeh, 2015).

The clinical learning environment is very important for nursing education with students spending more time in the clinical environment, which allows for simulated patient care or mannequins as an alternative to performing patient care (Flott and Linden, 2016). Nursing students need to practice in an environment that will provide a wealth of experience as individuals and professionals for the development of skills in providing patient care (Arkan, Ordin and Yilmaz, 2018). Nursing students also need to be evaluated in a clinical learning environment where skills and knowledge are applied to patient care and influence learning outcomes, and have an impact on practical preparation and student satisfaction with the nursing profession (Flott and Linden, 2016).

The clinical learning environment is described as a physical space, organizational culture, influenced by psychosocial factors, and requires good communication (Flott and

Linden, 2016). The development of studies leads to the use of various means of achieving an optimal clinical learning environment. Such environment has a positive impact on the professional development of students, conversely, a poor learning environment can have an adverse effect on the professional development process (Chesser-Smyth, 2005).

The optimal learning environment can provide satisfaction to students which, in a clinical learning environment, is very important to foster a positive learning experience (Phillips *et al.*, 2017). Satisfaction with the experience gained in clinical learning is very important for nursing students and novice first year students in particular and makes a significant contribution to developing clinical skills and competencies (Nejad *et al.*, 2019). Student satisfaction increases self-confidence, results in skill development and increases knowledge (Levett-Jones *et al.*, 2011).

Learning environment plays an important role in students' clinical experience and satisfaction. Satisfaction increases self-assurance in students' skill and understanding in clinical situations. This study aims to determine the effect of the learning environment on student satisfaction in nursing clinics.

MATERIALS AND METHODS

Table 1. Characteristics of Respondents based on Gender, Age, Status of Nurse Education Institution and Accreditation

Characteristics of Respondents	Frequency	Percentage
Gender		
Female	372	82.5%
Male	79	17.5%
Age		
21 years old	1	0.2%
22 years old	47	10.4%
23 years old	253	56.1%
24 years old	113	25.1%
25 years old	37	8.2%
College Status		
Government	2	9%
Private	21	91%
Accreditation Status		
A	2	9%
B	21	91%

Table 2. Distribution of variables: clinical learning environment dimension and student satisfaction (n = 451)

Variable	Mean	Median	Min - Max	SD	95% CI
Pedagogic	3.85	3.89	1.89 - 5	0.56	3.80 - 3.90
Supervision relationship	3.99	4	2.25 - 5	0.57	3.94 - 4.05
Leadership style	3.96	4	1.75 - 5	0.58	3.90 - 4.01
Nursing care in ward	4.12	4	1.13 - 5	0.58	4.06 - 4.17
Nurse teacher	4.05	4	1 - 5	0.59	3.99 - 4.10
Student satisfaction	4.39	4.67	1 - 5	0.61	4.34 - 4.45

*SD = Standard Deviation, Min=Minimal, Max=Maximal, CI=Confidence Interval

Table 3. Analysis of the relationship between the clinical learning environment dimension and the student satisfaction variable (n = 451)

Variable	Correlation coefficient	p value
Pedagogic	0.42	0.000
Supervision relationship	0.36	0.000
Style leadership	0.39	0.000
Nursing care in ward	0.38	0.000
Nurse teacher	0.44	0.000

Table 4. Multiple linear regression analysis

Independent Variable	B	t-value	p-value	Adjusted R Square
Constant	2.179			0.206
Pedagogic	.236	3.261	0.001	
Supervision relationship	.022	0.304	0.761	
Style leadership	.097	1.312	0.190	
Nursing care in ward	.011	0.143	0.886	
Nurse teacher	.196	2.693	0.007	

The research design used was a descriptive analysis with a cross-sectional approach. Data were collected in six months from April to October 2020. Lemeshow formula was used to determine the number of samples with alpha 0.05. As a result, the minimum sample size was 385 respondents. The number of respondents in the study was 451 students with the criteria of students coming from regular programs from which they have graduated and have not conducted a national nurse competency test. The 451 respondents were from two government and 21 private nursing colleges in East Java provinces who returned the questionnaires through online. Every institution sent 15 students or more to participate in this study. The sampling technique used was consecutive sampling. The instrument used to measure the clinical learning environment in this study was the CLES + T questionnaire (Saarikoski and Strandell-Laine, 2017). This instrument

consists of 35 statements which are divided into five sub-dimensions, namely: the learning atmosphere (pedagogy) in the ward (nine statements), the supervisory relationship eight statements), the leadership style of the room head / ward manager (four statements), the place of nursing services (four statements), and the role of the nurse teacher (10 statements). This instrument uses a 5-point Likert scale (1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree). The instrument used to measure student satisfaction is the Clinical Learning Environment Inventory (CLEI) specifically for satisfaction parameters (Perli and Brugnoni, 2009) consisting of three questions that assess students' perceptions of satisfaction during clinical practice Using a 5-point Likert scale (strongly disagree 1, strongly agree 5) to rate each statement item. The instrument has been tested for validity and reliability with the results of all valid question items ($r > 0.54$) and Cronbach's alpha value

(0.879) for the clinical learning environment and (0.865) for student satisfaction. Data collection was carried out by using a Google Form which was distributed to students through the head of the nursing clinical program or leader of the Nurse Education Institutions in East Java Province. Before filling out the questionnaire, the respondent first reads the research objectives and chooses willingness to become a voluntary respondent. There are 499 filled questionnaires and 451 respondents that can be analyzed because there is a discrepancy with the predefined respondent criteria. The statistical test used the Spearman rank test and multiple linear regression. This study has obtained ethical clearance from the Health Research Ethics Commission of the Faculty of Medicine, Universitas Brawijaya Number 45/EC/KEPK/02/2020.

RESULTS

Respondent's characteristic data include gender, age, university status and accreditation of study programs and clinical learning environment (pedagogic atmosphere; supervisory relationship, leadership style of ward head, nursing care in the ward, role of nurse teacher) and student satisfaction as described in Table 1 and 2. Based on Table 1, it is known that the majority of respondents have female gender (82.5%), age 23 years (56.1%), the status of college and accreditation is private and B (very good) is 91%.

Based on Table 2, it can be predicted using 95% confidence score of the clinical learning environment assessed by students including the pedagogic atmosphere, the score ranges from 3.80 - 3.90; the supervisory relationship score was between 3.94 - 4.05; the leadership style of the head of the ward scores between 3.90 - 4.01; nursing care in the ward scored between 4.06 - 4.17; and for the role of nurse teacher, the scores were between 3.99 - 4.10, while the student satisfaction scores ranged from 4.34 - 4.45.

The relationship between the variables learning atmosphere (pedagogic), relationship of supervision, leadership style, nursing care in ward, nurse teacher and student satisfaction variables can be seen in Table 3.

Based on Table 3 above, it is known that the clinical learning environment (pedagogic,

supervisory relationship, leadership style, nursing care in ward and nurse teacher) has a relationship with student satisfaction ($p < 0.05$). The direction of the relationship is positive, meaning that the higher the clinical learning environment score, the higher the student satisfaction score with a moderate level of closeness.

The results of multiple linear regression analysis between the clinical learning environment (pedagogic, supervisory relationship, leadership style, nursing care and nurse teacher) show a relationship with student satisfaction as can be seen in Table 4. The results of the multicollinearity assumption test (tolerance value > 0.3 and VIF < 3.1), normality (probability plot, residual observations spread around the diagonal line), heteroscedasticity (scatter plot, randomly spread residual observations) indicate that multiple linear regression analysis can be performed.

The results of multiple linear regression analysis show that only the pedagogic atmosphere and the role of the nurse teacher affect student satisfaction. Clinical nursing student satisfaction can be represented by a pedagogic atmosphere and the role of the nurse teacher by 20.6%, or, in other words, the contribution of the pedagogic atmosphere and the role of the nurse lecturer to student satisfaction is 20.6%, while the remaining 79.4% is a contribution from other factors that are not in the model linear regression.

DISCUSSIONS

Clinical practice experience is an important aspect of nursing practical learning that allows students to link theoretical and practical knowledge (Murphy *et al.*, 2012). The results of this study indicate that there is a relationship between the clinical learning environment (clinical learning environment carried out in this study includes a pedagogic atmosphere, leadership style, nursing care in the ward, the relationship of supervision and the role of the nurse teacher) with student satisfaction. The results of this study indicate that the better the clinical learning environment will increase student satisfaction. These results are in accordance with several studies which state that nursing students are very satisfied with the clinical learning

environment and this satisfaction is related to all dimensions that exist in the clinical learning environment ((D'Souza *et al.*, 2015; Papastavrou *et al.*, 2016; Woo and Li, 2020).

The pedagogic atmosphere in clinical learning has a positive relationship with student satisfaction, meaning that the better the pedagogic atmosphere, the more student satisfaction will be. A positive learning atmosphere is very important in ensuring a quality learning process (Phillips *et al.*, 2017). The results of this study are consistent with several studies which state that students report satisfaction with a pedagogic atmosphere (Fröberg *et al.*, 2018; Ibrahim, Abdelaziz and Akel, 2019; Musabyimana *et al.*, 2019). Emotional atmosphere and clinical learning arrangements as well as efforts to create suitable opportunities for students to study are needed to increase student satisfaction (Nejad *et al.*, 2019). This condition can be used by supervisors to develop and maintain a quality learning atmosphere and improve a positive and student-centered clinical learning atmosphere so that the goals of clinical learning can be achieved and student satisfaction will increase.

The leadership style of the head of the ward in the hospital has a positive relationship with student satisfaction, meaning that the better the leadership style of the head of the room, the more student satisfaction will be. The results of this study are consistent with several studies which state that clinical student satisfaction is influenced by the leadership style of the head of the ward (D'Souza *et al.*, 2015; Papastavrou *et al.*, 2016). The success of clinical learning depends on how the team is managed, so the role of the head of the ward in the health care unit is very important to create a good climate in the work unit. (Pinto *et al.*, 2010). The involvement of the head of the room in compiling a lesson plan is very important for effective clinical learning (Jokisaari, 2013).

Nursing care in the ward has a positive relationship with clinical student satisfaction, meaning that the better the care is carried out in the room, the more student satisfaction will be. The results of this study are in accordance with the research conducted by Papastavrou *et al.* (2016) which states that student satisfaction is influenced by the nursing care performed in the ward. Patients are the core of clinical

nursing education, which provides real conditions for student practical learning, and caring behavior needs to be developed in the learning process so that the learning environment can inspire students by always focusing on the patient (Manninen *et al.*, 2014; Eskilsson *et al.*, 2015; Suikkala, Kivelä and Käyhkö, 2016). Clinical education is a key period, because, during the learning process, the knowledge and skills needed to become a professional nurse are obtained, affording the opportunity to learn about health services and understand the core values and philosophies of the nursing profession required in professional nursing practice (Johnson *et al.*, 2012).

The supervision relationship has a positive relationship with clinical student satisfaction, meaning that the better the supervision relationship, the more clinical student satisfaction will be. The results of this study are consistent with several studies which state that clinical student satisfaction is influenced by the supervision relationship (Antohe *et al.*, 2016; Papastavrou *et al.*, 2016; Fröberg *et al.*, 2018; Musabyimana *et al.*, 2019). Individual supervision relationships and feedback from supervisors are reported to be highly favored by clinical nursing students (Antohe *et al.*, 2016). The frequency of meetings between students and supervisors increases the satisfaction of students who are taking clinical learning (Papastavrou *et al.*, 2016). Research on supervision relationships shows that it is very important to know the communication and psychological elements by supervisors so that it will facilitate the achievement of relationship goals with clinical students. (Andersson *et al.*, 2015).

The role of the nurse teacher has a positive relationship with clinical student satisfaction, meaning that the better the role of the supervisor, the higher student satisfaction will be. The results of this study are consistent with several studies which state that student satisfaction is influenced by the role of the nurse teacher (Antohe *et al.*, 2016; Papastavrou *et al.*, 2016; Phillips *et al.*, 2017; Nejad *et al.*, 2019). The friendly behavior of the nurse teacher who is happy to help students has the strongest influence on student satisfaction (Doyle *et al.*, 2017). The nurse teacher is someone who is an expert in education and is a role model for students (Saarikoski *et al.*, 2013). Competent nurse teachers must have

the knowledge, skills and attitude to adopt new approaches when planning, organizing, implementing and evaluating nursing education programs (WHO,2016). Nurse teachers need to maintain current knowledge and skills in theory and practice by always updating with the latest evidence-based research, fostering creativity and innovation in the nursing and healthcare environment (WHO, 2016).

CONCLUSION

The management of a pedagogic learning atmosphere in the practical field, the role and function of the head of the ward in the clinical learning process, the implementation of patient care that involves students, the supervisory relationship between clinical supervisors and students, and the role of the nurse teacher need to be carried out properly and thoroughly by the leaders of educational institutions and practice fields so that it can increase student satisfaction during clinical practice so that nursing is the choice of profession chosen and developed after taking education.

Acknowledgement

This research was funded by the Indonesian Nurse Education Association through the 2020 AINEC Research Awards Program. Thanks are conveyed to all leaders of nursing education institutions and students who were willing to become respondents in this research.

Conflict of Interest

There are no conflicts occurred in the research.

REFERENCES

- Andersson, E. K. et al. (2015) 'Registered nurses' descriptions of caring: A phenomenographic interview study', *BMC Nursing*, 14(1), pp. 1–10. doi: 10.1186/s12912-015-0067-9.
- Antohe, I. et al. (2016) 'Clinical education and training of student nurses in four moderately new European Union countries: Assessment of students' satisfaction with the learning environment', *Nurse Education in Practice*, 17, pp. 139–144. doi: 10.1016/j.nepr.2015.12.005.
- Arkan, B., Ordin, Y. and Yilmaz, D. (2018) 'Undergraduate nursing students' experience related to their clinical learning environment and factors affecting to their clinical learning process', *Nurse Education in Practice*, 29, pp. 127–132. doi: 10.1016/j.nepr.2017.12.005.
- Baraz, S., Memarian, R. and Vanaki, Z. (2014) 'The diversity of Iranian nursing students' clinical learning styles: A qualitative study', *Nurse Education in Practice*, 14(5), pp. 525–531. doi: 10.1016/j.nepr.2014.03.004.
- Chesser-Smyth, P. A. (2005) 'The lived experiences of general student nurses on their first clinical placement: A phenomenological study', *Nurse Education in Practice*, 5(6), pp. 320–327. doi: 10.1016/j.nepr.2005.04.001.
- D'Souza, M. S. et al. (2015) 'Perception of and satisfaction with the clinical learning environment among nursing students', *Nurse Education Today*, 35(6), pp. 833–840. doi: 10.1016/j.nedt.2015.02.005.
- Doyle, K. et al. (2017) 'Happy to help/happy to be here: Identifying components of successful clinical placements for undergraduate nursing students', *Nurse Education Today*, 49, pp. 27–32. doi: 10.1016/j.nedt.2016.11.001.
- Eskilsson, C. et al. (2015) 'The experiences of patients receiving care from nursing students at a Dedicated Education Unit: A phenomenological study', *Nurse Education in Practice*, 15(5), pp. 353–358. doi: 10.1016/j.nepr.2015.04.001.
- Flott, E. A. and Linden, L. (2016) 'The clinical learning environment in nursing education: A concept analysis', *Journal of Advanced Nursing*, 72(3), pp. 501–513. doi: 10.1111/jan.12861.
- Fröberg, M. et al. (2018) 'Experiences of a student-run clinic in primary care: a mixed-method study with students, patients and supervisors', *Scandinavian Journal of Primary Health Care*, 36(1), pp. 36–46. doi: 10.1080/02813432.2018.1426143.
- Heidari, M. R. and Norouzadeh, R. (2015) 'Nursing students' perspectives on peer coaching', *Journal of Advances in Medical Education & Professionalism*, 3(1), pp. 39–

43. Available at: www.ncbi.nlm.nih.gov/pubmed/25587554.
- Ibrahim, A. F., Abdelaziz, T. M. and Akel, D. T. (2019) 'The relationship between undergraduate nursing students' satisfaction about clinical learning environment and their competency self-efficacy', *Journal of Nursing Education and Practice*, 9(11), p. 92. doi: 10.5430/jnep.v9n11p92.
- Jabien Labrague, L. (2013) 'Stress, Stressors, and Stress Responses of Student Nurses in a Government Nursing School', *Health Science Journal*, 7(4), pp. 424–435. Available at: <http://www.hsj.gr/medicine/stress-stressors-and-stress-responses-of-student-nurses-in-a-government-nursing-school.pdf>.
- Johnson, M. et al. (2012) 'Professional identity and nursing: Contemporary theoretical developments and future research challenges', *International Nursing Review*, 59(4), pp. 562–569. doi: 10.1111/j.1466-7657.2012.01013.x.
- Jokisaari, M. (2013) 'The role of leader-member and social network relations in newcomers' role performance', *Journal of Vocational Behavior*, 82(2), pp. 96–104. doi: 10.1016/j.jvb.2013.01.002.
- Levett-Jones, T. et al. (2011) 'The development and psychometric testing of the Satisfaction with Simulation Experience Scale', *Nurse Education Today*, 31(7), pp. 705–710. doi: 10.1016/j.nedt.2011.01.004.
- Manninen, K. et al. (2014) 'Patients' approaches to students' learning at a clinical education ward-an ethnographic study', *BMC Medical Education*, 14(1), pp. 1–8. doi: 10.1186/1472-6920-14-131.
- Murphy, F. et al. (2012) 'Nursing students' experiences and preferences regarding hospital and community placements', *Nurse Education in Practice*. doi: 10.1016/j.nepr.2011.12.007.
- Musabyimana, C. et al. (2019) 'Clinical learning environment and supervision: satisfaction levels of University of Rwanda Students', *Rwanda Journal of Medicine and Health Sciences*, 2(2), p. 194. doi: 10.4314/rjmhs.v2i2.16.
- Nejad, F. M. et al. (2019) 'Investigation of Nursing Student Satisfaction with the First Clinical Education Experience in Universities of Medical Sciences in Iran', *Journal of Medicine and Life*, 12(1), pp. 75–82. doi: 10.25122/jml-2018-0008.
- Papastavrou, E. et al. (2016) 'Nursing students' satisfaction of the clinical learning environment: A research study', *BMC Nursing*, 15(1), pp. 1–10. doi: 10.1186/s12912-016-0164-4.
- Perli, S. and Brugnolli, A. (2009) 'Nurse Education Today Italian nursing students' perception of their clinical learning environment as measured with the CLEI tool', *Nurse Education Today*, 29(8), pp. 886–890. doi: 10.1016/j.nedt.2009.05.016.
- Phillips, K. F. et al. (2017) 'Clinical education and student satisfaction: An integrative literature review', *International Journal of Nursing Sciences*. 4(2), pp. 205–213. doi: 10.1016/j.ijnss.2017.03.004.
- Pinto, I. R. et al. (2010) 'Membership Status and Subjective Group Dynamics: Who Triggers the Black Sheep Effect?' *Journal of Personality and Social Psychology*, 99(1), pp. 107–119. doi: 10.1037/a0018187.
- Saarikoski, M. et al. (2013) 'Students' experiences of cooperation with nurse teacher during their clinical placements: An empirical study in a Western European context', *Nurse Education in Practice*, 13(2), pp. 78–82. doi: 10.1016/j.nepr.2012.07.013.
- Saarikoski, M. and Strandell-Laine, C. (2017) *The CLES-scale: An evaluation tool for healthcare education, The CLES-Scale: An Evaluation Tool for Healthcare Education*. doi: 10.1007/978-3-319-63649-8.
- Sari Lombu, I. P. and Setiawan, S. (2018) 'Hubungan Tingkat Stres Dengan Strategi Koping Mahasiswa Reguler Profesi Ners Di Fakultas Keperawatan Universitas Sumatera Utara', *Talenta Conference Series: Tropical Medicine (TM)*, 1(1), pp. 36–40. doi: 10.32734/tm.v1i1.55.
- Suikkala, A., Kivelä, E. and Käyhkö, P. (2016) 'Collaborative learning in gerontological clinical settings: The students' perspective', *Nurse Education in Practice*, 17, pp. 229–234. doi: 10.1016/j.nepr.2016.02.006.
- WHO (2016) 'Nurse educator core competencies', Available at: https://www.who.int/hrh/nursing_midwife_ry/nurse_educator050416.pdf.

Woo, M. W. J. and Li, W. (2020) 'Nursing students' views and satisfaction of their clinical learning environment in

Singapore', *Nursing Open*, 7(6), pp. 1909–1919. doi: 10.1002/nop2.581.