

## Nursing student competency achievement factors in clinical learning



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### ABSTRACT

**Introduction:** Clinical learning is an experiential learning process in which students apply the theory obtained from academics to be applied to real cases in the clinic. Clinical facilitator support of learning, satisfaction, and stress with clinical placement aspects of support are crucial because they impact the knowledge acquired during classes and the development of practical skills to become fully competent health care professionals. This study aimed to determine the factors of clinical facilitators, satisfaction, and stress levels of nursing students in clinical learning.

**Method:** The design of study was cross-sectional design. The study was conducted on 141 nursing students for the 2021/2022 period who were taking clinical learning in hospitals, social institutions, and communities from the Diploma Nursing, Bachelor Nursing and Ners study programs at Universitas Nahdlatul Ulama Surabaya.

**Result:** The results of the partial T-test showed that the clinical facilitator variable has no significant effect on clinical learning ( $p=0,938$ ); the student satisfaction variable has no significant effect on clinical learning ( $p=0,199$ ); the stress variable has a significant effect on clinical learning ( $p=0,000$ ).

**Conclusion:** The stress level of students is the most significant factor for students during their clinical practice.

**Keywords:** Clinical Learning, Nursing Student, Satisfaction.

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### INTRODUCTION

Clinical learning is an experiential learning process in which students apply the theory gained from academics to be used to cases real cases in the clinic. Clinical learning as a means for students to achieve the expected competencies. Nursing student competencies (general nursing skills, critical thinking and collaboration) are indispensable in making clinical judgments and solving problems.<sup>1</sup> The clinical learning experience is strongly influenced by various factors that can strengthen or hinder students during the learning process. Nursing students have higher stress levels than other health students.<sup>2</sup> High levels of student satisfaction are demonstrated when there is a clinical facilitator role ensuring that their learning needs are met, the skill level of mentors is effective, clinical staff are well directed and students are treated with respect as part of the health care team.<sup>3</sup>

Previous studies have shown several factors that cause stress in students,

including experiencing uncertainty, fear of making mistakes, maintaining healthy relationships with clinical supervisors, which is no less important, unfamiliar with the clinical setting.<sup>4</sup> Other studies show that overloading of theoretical/practical activities in nursing teaching, expectations and concerns with the job market, family life, student-teacher relationships can be a source of stress experienced by students.<sup>5</sup> Research conducted by Linda and Chandra in 2012 stated that students were not satisfied with the guidance accepted clinic because the clinical supervisor did not provide opportunities for students to discuss, and common causes What is often encountered is the number of students who practice too much in one room and the lack of facilitators in guiding students in the room.<sup>6</sup>

Discussion with nursing students, that the unprofessional behavior they experience affects their professional attitude as students. Professional nurses and clinical supervisors act as role models in forming professional students in

academic and clinical environments.<sup>7</sup> The clinical learning environment is a complex network in which nursing students, and clinical educators interact in organizational and interprofessional settings.<sup>8</sup> The clinical experience environment is influenced by the characteristics of students, their proactive attitude and commitment to participating in clinical learning.<sup>9</sup> In addition, several other factors that affect the competence of nurses in the clinical phase include professional standards, personal competencies, role models, finances, to the quality of educators.<sup>10</sup> Clinical educators have emphasized that the roles, attitudes of students, and sociodemographic variables influence the nature of their learning in building professional relationships.<sup>11</sup>

Based on the description above, several factors can affect success in clinical learning. This study aims to determine the factors that clinical facilitators, satisfaction and stress levels of nursing students are most influential in clinical learning.

## MATERIALS AND METHODS

### Materials

The research design was a cross-sectional study used to analyze the clinical supervisor factors, satisfaction and stress levels of nursing students which were the most influential in clinical learning. This study includes all nursing students for the 2021/2022 period who come from the D3 Nursing, S1 Nursing and Nurses study programs at Nahdlatul Ulama University Surabaya. Students who were included in this study were students who were taking clinical learning either in hospitals, social institutions and communities and had given verbal consent to participate. Students were excluded if they did not complete clinical studies by the end or were transferred from the nursing and midwifery faculties at the time of data collection. The sampling technique was purposive sampling. Students were informed of the confidentiality and anonymity of the survey, that contributions were voluntary. The result was 141 students who completed filling out the questionnaire correctly and were finally included in the analysis.

### Data collection procedures

Quantitative data collection was done by filling out a questionnaire form distributed online through the google form. Data collection was carried out during April – July 2022. Respondents who were willing to fill out 2 types of questionnaires. The first contains the demographic data needed in this study, and the second is a questionnaire consisting of the variables studied. The instrument used in this study was the CLEI-19 survey (Abbreviated Clinical Learning Environment Inventory) by Salamonson et al which evaluated the clinical supervisor's support and student satisfaction with clinical learning. The inventory contains 19 statements with 12 related to the support of clinical learning facilitators and 7 statements relating to

student satisfaction. Respondents decide how consistent their feelings are in each statement by choosing an answer from 1 (strongly disagree) to 5 (strongly agree) on a Likert scale. Of the 19 statements in CLEI-19, ten were positive and nine were negative, therefore about half of the items were scored inversely. The CLEI-19 score is between 19 and 95 with higher scores indicating greater satisfaction with the clinical learning environment. The facilitator support scale consists of 12 questions printed from 1 to 5, so the score ranges between 12 and 60 points. The satisfaction scale consists of 7 questions scored from 1 to 5, ranging between 7 and 35 points. Higher scores represent more significant perceived support and greater satisfaction. Chan and Salamonson et al. Demonstrating the reliability of their tool with Cronbach's alpha coefficients from 0.73 to 0.84, and 0.93 for CLEI Chan and Salamonson et al.<sup>12</sup>

The PSS (Perceived Stress Scale) instrument was used to measure stress levels in students. The internal consistency of the total reliability of the PSS and the subscales identified from the EFA was determined by Cronbach's alpha coefficient. Content validity values

are between .00 and 1.00 and higher values. The CVI-calculated item is 1.00 (maximum) for 20 out of 29 items. The remaining nine items have a cvi-item of 0.80 with an overall scale-level CVI for PSS of 0.94, indicating content validity can be considered very good. The scoring of 1 to 4 is obtained based on the responses. The scores are then added up. PSS score ranges between 25 – 100. The higher the score, the higher the stress level.<sup>13</sup>

### Data analysis

Quantitative data were analyzed using SPSS Statistics version 25. According to the measurement level, descriptive statistics were used to describe the study variables. In addition, inferential statistics; Bivariate statistical test (T-test; ANOVA) and Multivariate statistical analysis (multiple linear regression test) were used to answer the research questions.

## RESULTS

From a total of 141 student respondents who filled in correctly, most of the respondents were female by 121 respondents (86%), with an age range of 17-25 years 81 respondents (57%).

**Table 1. Characteristic Demography Respondent**

Variabel	n	Frequency (%)
<b>Gender</b>		
Female	121	86
Male	20	14
<b>Age</b>		
17-25 year	81	57
26-35 year	60	43
<b>Program</b>		
Diploma Nursing	32	23
Bachelor Nursing	49	35
Ners	60	43
<b>Ward</b>		
Hospital	118	84
Social Homes	15	11
Community	8	6
<b>Living</b>		
Home	99	70
Cost	42	30

**Table 2. Clinical Facilitator, Satisfaction and Stress with Clinical Learning**

	Coefficients Std. Error	Standardized Coeff Beta	t	Sig <sup>1</sup>	F	Sig <sup>2</sup>	SE <sup>3</sup>	SR <sup>4</sup>
Clinical Facilitator	.070	-.006	-.078	.938 <sup>1</sup>	45.778	.000 <sup>2</sup>	-0,0504	-0,1006
Satisfaction	.137	.093	1.290	.199 <sup>1</sup>			0,5115	1,020958
Stress	.023	.707	11.635	.000 <sup>1</sup>			49,6314	99,06467
R-Square							50,0925	99,98503

The study programs that filled out the questionnaires were mostly nurses with 60 respondents (43%) and the practice areas followed were mostly in hospitals, 118 respondents (84%) and the residences occupied by most of them were homes by 99 respondents (70%). shown in table 1 the demographic characteristics of the respondents

The results of the partial T-test showed that the clinical facilitator variable had no significant effect on clinical learning ( $p = 0.938$ ); Student satisfaction variable has no significant effect on clinical learning ( $p = 0.199$ ) while stress variable has a very significant effect on clinical learning ( $p = 0.000$ ). Based on the results of the F test, it was found that the clinical facilitator variables, satisfaction and stress had a simultaneous effect on the clinical learning variables ( $p = 0.000$ ). Simultaneously, 50.1% of clinical facilitator variables, satisfaction and stress affect clinical learning. If partially, the clinical facilitator variable is  $-0.1006$  (0.1%); satisfaction of  $1.020958$  (1%); stress is  $99.06467$  (99%).

## DISCUSSION

Simultaneous F test results show a calculated F value of 45,778 with an F significance level of 0.000. The calculated F value is greater than the F table of 2.6687933 and the F significance value is smaller than the value of  $= 0.005$ , meaning that the clinical facilitator variables, satisfaction and stress simultaneously affect clinical learning. The results of the partial T-test showed that the clinical facilitator variable did not significantly affect clinical learning ( $p = 0.938$ ). The roles of clinical facilitators include providing facilities for students to transfer nursing theory in nursing actions, monitoring student progress, and supporting students in implementing clinical learning.<sup>14</sup> Each clinical facilitator has a different way of teaching to students. The ability of the clinical supervisor can be assessed from the knowledge, attitude and behavior of the clinical supervisor.<sup>15</sup> A supervisor is always a place to ask questions and determine answers for students when experiencing difficulties in the clinical learning process. Availability of clinical facilitators regarding employment contracts, affordability of clinical premises from access and motivation of individual

involvement with roles. This means clinical facilitators must manage their time to meet student needs and expectations.<sup>14</sup> The fact that this study found, some respondents (students) said that they did not meet their facilitators due to different schedules (shifts) when serving in the hospital. Given the shift in the role of the facilitator from a practicing clinical expert to a liaison working in nursing education and organizations. The responses to the results of filling out questionnaires from students that they did while practicing in the nursing room were doing routine and sometimes non-routine nursing tasks. According to Kapghawani's students report variations in learning opportunities depending on the availability of opportunities that encourage students to ask questions and reflect on their experiences to encourage them to think critically and provide clinical judgments.<sup>16</sup> When students are doing clinical learning, they are allowed to perform action skills so that if the guidance from the clinical facilitator cannot be done routinely, students have many opportunities for treatment. This makes the role of clinical facilitator not significantly affect clinical learning

The results of this study, the student satisfaction variable did not have a significant effect on clinical learning ( $p = 0.199$ ). Students' expectations of clinical guidance are considered a determining indicator of the quality of clinical guidance. Clinical guidance quality affects students' motivation and performance in practice. The level of satisfaction indicates that expectations have been met.<sup>6</sup> Several previous studies have shown that the time students undergo practice can affect satisfaction. The longer students practice clinically, the more knowledge they gain, this leads to increased awareness regarding the many challenges in the clinical field.<sup>17</sup> According to this study, the highest number of students were nurses with longer practice time than other study programs. Based on the results of filling out the questionnaire, it was found that students got good guidance methods such as clinical facilitators in direct discussions focusing on problems and providing solutions if students encountered problems. This is in accordance with

previous research, implementing supervision in clinical learning can increase student satisfaction.<sup>3</sup> The clinical environment is very supportive, students are allowed to rest. Student dissatisfaction is caused by too short practice time, so that when students begin to adapt to the room, they have to move again to a new practice room.<sup>18</sup>

Based on the value of the regression coefficient ( $\beta$ ), the variable that has a dominant influence on clinical learning is the stress level variable where the regression coefficient ( $\beta$ ) is 0.707. The results of the research findings show that the stress variable has a very significant effect on clinical learning ( $p = 0.000$ ). This is in accordance with the demographic characteristics showing the age of 17-25 years by 57%. Based on previous research, the age range of 17-25 years is very vulnerable to stress. Maturity factors and hormonally, in adolescence greatly affect the psychological state. The study results found that female students were identified as experiencing the most stress during clinical learning. Factors that trigger stress, such as overwork, can influence an individual's professional behavior. This is in accordance with research stating that students' stress was related to stressors due to lack of knowledge.<sup>5</sup> This research was mostly on nurse students, where the responsibility they felt would be greater because they were final year students. The demands experienced by nursing students are greater than other study programs. In the clinical phase, achieving competent nurses requires the implementation of appropriate frameworks and development strategies that can add to the burden.<sup>19</sup> According to researchers, stress causes vary, including limited understanding of the task, the new environment and the experience of interacting with patients. For this reason, the success of students in conducting clinical practice is strongly influenced by the readiness of knowledge, mental, emotional and the availability of a conducive learning environment. The stress experienced by students during clinical learning is the result of psychological distress, behavioral problems, poor academic performance. In this study, the stress students feel lies in the burden of writing assignments they

get during clinical learning. Writing a nursing plan is very good, but according to students it is a waste of time. This finding is similar to Latif & Nor that the source of stress felt by students is the work overload. It is suggested that an evaluation system needs to be considered to get feedback from the implementation of the nurse's clinical phase to be better.<sup>20</sup> The limitation of this study is that it does not describe the level of clinical facilitator, satisfaction and stress variables descriptively. This study also does not describe the differences between each demographic data on factors that influence the clinical learning process. Therefore, future research is expected to examine these points

## CONCLUSION

From the research that has been done, it can be concluded that the most influential factor on clinical learning is the level of stress, while clinical facilitators and satisfaction have a small significance value on clinical learning

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## CONFLICT OF INTEREST

There is no conflict of interest in this manuscript

## ETHICAL APPROVAL

This study was approved by the research ethical committee of Chakra Brahmanda Lentera Institution (committee's reference number No.011/010/V/EC/KEP/Lemb. Candle/2022)

## AUTHOR CONTRIBUTION

AF conceptualized this study and generated the population. KH conducted

the field with assistance from NH, NA. YS, RYS, SB performed the data analysis. AF, KH, NH wrote the manuscript. All authors revised the manuscript. All authors contributed equally of this work.

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