ORIGINAL ARTICLE

Satisfaction of Clinical Learning Environment Among Nursing Students At Universiti Sains Malaysia

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ABSTRACT

Introduction: Clinical learning typically reflects the quality of the curriculum structure. Clinical practice is an important component of better teaching and an essential skill in nursing education. This study aimed to determine the satisfaction level of the clinical learning environment among nursing students at USM and the factors associated with the satisfaction level. **Methods:** This descriptive and cross-sectional study involved 110 undergraduate nursing students at the Health Campus, Universiti Sains Malaysia. Data were collected using the Clinical Learning Environment, Supervision, and Nurse Teacher (CLES+T). **Result:** The mean age of the respondents was 21.15 (1.082) years, ranging from 19 years to 23 years old. The findings revealed that the majority, 87 (79.1%) of students, have a high satisfaction level in the clinical learning environment. Years of study ($p < 0.001$) were significantly associated with the total clinical learning environment satisfaction. **Conclusion:** The findings in the study indicated that the clinical learning environment has a high level of satisfaction, but there is still dissatisfaction. Therefore, the study indicates the need for further improvement to maximise clinical learning environment satisfaction among nursing students and for better nursing practice in the future.

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INTRODUCTION

Clinical practice substantially contributes to better teaching and essential nursing education skills (1). In a clinical learning environment, students can learn and practice nursing skills and care for the patients under supervision (2). It is a time for students to enhance their cognitive, psychomotor, and affective skills learned throughout practical lab or theory classes. It also assists students in adapting to clinical or working environments in the future when they will be confronted with actual patients in real situations. The quality of nursing care is parallel to the roles of students in taking care of patients. Students need to engage in a clinical learning environment because it is vital in pre-licensure nursing curricula (3).

Previous study reported that most students perceive the clinical environment as fearful, anxious, stressful, and vulnerable, especially for novices or students with limited clinical experiences (4). Thus, their relationship with staff nurses, patients, clinical instructors, and senior students is essential in building their confidence and giving them a better clinical experience (5). Therefore, the clinical posting is essential to increase self-confidence, sharpen skills, imply critical thinking in real situations, problem-solving, and safety practices throughout the ward. Ibrahim et al., (2019) (6) showed that the quality of the clinical learning environment significantly affects student satisfaction and performance.

Many factors influence students' satisfaction in the clinical learning environment. In previous studies, there was a positive link between student satisfaction and pedagogical atmosphere (7), peer support (8), duration of clinical placement (9), supervisory relationship (5), and premises of the ward and nurse role teacher (2). Besides, a study regarding students' perception in a clinical learning environment reveals that high academic

achiever's performance is significantly better than low academic achiever's performance (10).

Furthermore, the ward manager's leadership style might be a factor contributing to nursing students' satisfaction with the clinical learning environment because the ward manager is the one who ensures the environment is conducive to the ward (11.) A study by Kwashie & Aziato (2019) (12) reported that the condition of the physical setting in terms of the clinical learning environment is essential to engage student nurses' knowledge acquisition. Student-related factors such as students playing tantrums during clinical placements or not having enough knowledge of nursing care also can be factors that affect the satisfaction of the clinical learning environment in nursing students (12).

However, there are significant gaps in the existing research, particularly concerning the clinical learning environments of undergraduate nursing students in Malaysia. While international studies have highlighted various factors influencing student satisfaction, the specific context of Malaysian nursing education has not been thoroughly investigated. Moreover, the unique challenges faced by students in Malaysian teaching hospitals, such as Hospital Universiti Sains Malaysia, remain underexplored. These gaps in current research limit the understanding of how to effectively enhance the clinical learning environment in Malaysia.

Therefore, this study aims to address these gaps by evaluating student satisfaction with all components of the clinical learning environment in Malaysian nursing education. By focusing on Hospital Universiti Sains Malaysia, the study seeks to provide insights that can improve nursing education for future students and enhance the management of issues during clinical placements. This research is essential for developing strategies to optimize clinical learning environments, ultimately leading to better-prepared nursing graduates and improved patient care.

MATERIALS AND METHOD

A cross-sectional study was conducted on nursing students at the School of Health Sciences USM from January to June 2021. The nursing students involved in this study were in their 2nd, 3rd, and 4th year of the study program and had experience in the clinical environment. The sample size was calculated using the single proportion formula, based on a previous study conducted by Musabyimana (2017) (11) and with consideration of a 10% dropout, 110 nursing students were required for this study. A stratified sampling method was employed, which divided the sample into subpopulations based on program and years of study, and then proceeded with simple random sampling from the list of participants.

A set of questionnaires named Clinical Learning Environment, Supervision and Nurse Teacher (CLES + T) adopted from Saarikoski et al. (2008) (13) was used in this study. Permission was obtained from the original author. It consists of two parts: Part A focused on socio-demographic data, and Part B focused on the clinical learning environment, supervision, and nurse teacher (CLES+T) questions. The instrument used is a self-reported questionnaire with 42 items which covering 7 domains which are ward atmosphere, supervisory relationship, the leadership style of ward manager, premises of the ward and Nurse Teacher (NT) role, the physical setting in the ward, and student-related factors. Responses were measured using a 5-point Likert scale ranging from 1 to 5 scale, 1= fully disagree, 2= disagree to some extent, 3= neither disagree nor agree, 4= agree to some extent and 5= fully agree. For questions regarding physical settings in the ward, respondents were provided yes or no answers with one mark for a "yes" response and 0 marks for a "no" response. Questions related to student-related factors had five questions that required students to rate themselves from 1 to 10. "1-3" is for low (1 mark), "4-7" is for moderate (2 marks) and "8-10" is for high (3 marks). The satisfaction level scale used was based on the Musabyimana (2017 (11) scale shown in Table I. The original CLEST questionnaire was validated with Cronbach's alpha range from 0.82-0.96. To ensure clarity, the questionnaires were translated into Bahasa Malaysia version using the Forward-Backward translation method by Language Center, USM, and have been validated by experts in this field. The translated questionnaire effectively conveys the intended meaning of the original version, with no changes made. The bilingual version of the questionnaire was then distributed to the students. A pilot study was done among 10% of the sample population, resulting in Cronbach's alpha coefficients of 0.94, indicating the instrument was reliable.

Ethical approval for this study was obtained from the Human Research Ethics Committee (HREC), Universiti Sains Malaysia (USM/JEPeM/ 20120661). The questionnaire was formatted into a Google form, and the link was distributed to the selected students. In the Google form, the participants were briefed on the purpose of the study, and consent was taken before participants responded to the online questionnaire. All participants and their backgrounds were kept anonymous and confidential

Data were analysed using Statistical Package for Social Science (SPSS) version 26.0. Descriptive analysis was used to analyse the socio-demographics and satisfaction of CLEST. One-way ANOVA, Independent t-test, and Spearman Correlation test were used to examine factors associated with CLEST. A p-value of < 0.05 was considered statistically significant.

Table I: Summary of variable scoring

Domains	Score	Percentage Score	Level of satisfaction
Ward atmosphere	34-45	75% - 100%	High
	23-33	50% - 74%	Moderate
	1-22	< 50%	Low
Supervisory relationship	30-40	75% - 100%	High
	20-29	50% - 74%	Moderate
	1-19	< 50%	Low
Leadership style of ward manager	15-20	75% - 100%	High
	10-14	50% - 74%	Moderate
	1-9	< 50%	Low
Roles of Nurse Teacher	30-40	75% - 100%	High
	20-29	50% - 74%	Moderate
	1-19	< 50%	Low
Premises of nursing in ward	15-20	75% - 100%	High
	10-14	50% - 74%	Moderate
	1-9	< 50%	Low
Physical setting	0-2	>50%	High
	3-4	<50%	Low
Student-related factors	12-15	75% - 100%	High
	8-11	50% - 74%	Moderate
	1-7	< 50%	Low
Total satisfaction level of CLEST	138-184	75% - 100%	High
	92-137	50% - 74%	Moderate
	0-91	< 50%	Low

RESULT

A total of 110 students were invited to participate in this study and were included in the final analysis, resulting in a response rate of 100%. The mean (SD) of the age of respondents was 21.2 (1.1) years ranging from 19 years to 23 years old. Females accounted for 88.2% of the respondents, while males made up the remaining 11.8%. Approximately 54.5% of the respondents were in the diploma programme and 45.5% were in the degree programme. Second-year students were the majority of respondents, comprising 51 (46.4%), followed by third-year students at were 42 (38.2%). The last placement was from surgical ward 56 (50.9%) followed by medical ward 54 (49.1%). The majority of the respondents had CGPA ranges from 3.50 – 4.00 which constituted 83 (75.5%) (Table II).

Table II: Socio-demographic data of respondents (n = 110)

Variables	Mean (SD)	n (%)
Age	21.15 (1.082)	
Gender		
Male		13 (11.8)
Female		97 (88.2)
Year of study		
Second year		51 (46.4)
Third year		42 (38.2)
Fourth year		17 (15.5)
Programme of study		
Diploma		60 (54.5)
Degree		50 (45.5)
Type of ward in last clinical placement		
Medical ward		54 (49.1)
Surgical ward		56 (50.9)
CGPA on last semester		
3.00 – 3.49		27 (24.5)
3.50 – 4.00		83 (75.5)

The mean score of total satisfaction towards CLEST among nursing students in USM was 167 ± 20.8. More than three quarters (79.1%) of students have a high satisfaction level towards the CLEST, while 20.9% of them reported a moderate satisfaction level, and none of them had a poor level satisfaction. Regarding the seven domains, ward atmosphere, and student-related factors showed lower satisfaction compared to another domain (Table III). Bivariate analysis revealed a significant difference in mean total CLEST score with the year of study ($p<0.05$), while other variables show no significant difference (Table IV).

Table III: Distribution of satisfaction on CLEST among respondents

Domain	Poor	Moderate	High	Mean score ± SD
	n (%)	n (%)	n (%)	
Ward atmosphere	7 (6.4)	32 (29.1)	71 (64.5)	34.6 ± 6.5
Supervisory relationship	1 (0.9)	18 (16.4)	91 (82.7)	33.6 ±4.9
Leadership style of ward manager	0	16 (14.5)	94 (85.5)	17.0 ± 2.5
Nurse teacher	1 (0.9)	18 (16.4)	91 (82.7)	33.7 ± 4.6
Nursing premises in ward	0	19 (17.3)	91 (82.7)	16.4 ± 2.6
Physical setting	29 (26.4)	-	81 (73.6)	3.2 ± 1.0
Student related factors	0	37 (33.6)	73 (66.4)	12.3 ± 1.6
Total satisfaction	0	23 (20.9)	87 (79.1)	167.4 ± 20.8

Table IV:Mean differences total satisfaction level of CLEST with socio-demographic data among respondents

Demographic data	Mean ± SD	F/t statistics	P value
Gender			
Male	167.0 ± 27.4	0.65	0.948[a]
Female	167.4 ± 20.0		
Programme of study			
Diploma	165.2 ± 20.9	0.22	0.226[a]
Degree	170.0 ± 20.7		
Year of study			
Second year	176.2 ± 14.8	14.86	<0.001*[b]
Third year	155.1 ± 22.1		
Fourth year	170.4 ± 19.7		
Type of ward in last clinical placement			
Medical	168.5 ± 21.1	0.62	0.537[a]
Surgical	166.1 ± 20.7		
CGPA on last semester			
3.00-3.49	167.2 ± 19.2	0.03	0.975[a]
3.50-4.00	167.4 ± 21.4		

[a]Independent t-test, [b]One way Anova. Post hoc analysis with Bonferroni's correction second year vs third year p value <0.001, third year vs fourth year p value =0.017 other pairs of comparison is p value >0.05

DISCUSSION

Based on the findings, students have higher satisfaction rate (85.5%) with the leadership style of the ward manager who is referred to as the sister or team leader in the ward. These findings are consistent with previous studies where the leadership style of the ward manager was statistically significant in relation to satisfaction with the clinical learning environment (14). This can be explained by the fact that the ward manager creates circumstances that provide positive ward pressure,

thereby contributing to a positive attitude towards students and their learning needs (15). This satisfaction toward ward manager may also be influenced by the effective collaboration between the program and ward manager in promoting a good clinical experience for students, which include the agreement of collaborative practices between student and other health practitioners (16).

However, the lowest satisfaction scores, at 64.5%, were reported for the ward atmosphere dimension. This dissatisfaction is related to whether staff members were approachable and interested in supervising students. A previous study stated that student experiences regarding the type, quality, and extent of interaction depended on the staff nurse and whether students felt welcome, anxious, or stressed during the learning process (17). Therefore, enhancements are needed to increase the satisfaction of nursing students with ward atmosphere in the ward.

A previous study reported that 49.4% of participants had high satisfaction levels with the ward atmosphere, which was much lower than the current study (5). The results align with a study by Musabyimana (2017) (11), which showed little change in the 54% agreement on satisfaction with the ward atmosphere. Consequently, this study composed the highest satisfaction level of the clinical learning environment in terms of ward atmosphere among nursing students but there is still a need for improvement to increase the satisfaction level. The setting of the teaching hospital with a limited number of patients in the ward may influence satisfaction with the ward atmosphere in this study.

Furthermore, nursing students have a similar satisfaction level in terms of the supervisory relationships, roles of nurse teachers, and nursing premises of the ward. These three domains scored 82.7%, with 91 out of 110 students satisfied. The results contrast with a previous study by Warne et al. (9) where their students were mostly satisfied with the supervisory relationship domain followed by ward atmosphere. The lowest satisfaction level of students was from roles of nurse teacher domains (9).

This study found that the students were less satisfied with physical setting, and student-related factors. In terms of physical settings, it is related to whether the equipment in the ward is enough and well-functioning for the procedure. Student-related factors, such as anxiety upon entering the clinical setting and moderate confidence in applying ward procedures, were significant. In line with a qualitative study by Tiwaken et al (2015) found that nursing students feel fear and anxiety in every rotation of the ward during clinical placements, hence affecting their clinical performance (18). An evaluation study also reported that their students have deficiencies in equipment that affect their learning environment (8). Therefore, ward managers or nursing administrators should improve these domains to increase the satisfaction level of their nursing students.

Concerning the overall satisfaction with the clinical learning environment, it is consistent with previous studies by Mudiar & Kelkar-Mane (2020) (19) and Papastavrou et al. (2016) (7). High satisfaction levels among students are very significant as the adequacy of students' clinical experiences unequivocally impacts the success of nursing programs. The current study reveals that the mean score of CLE shows a statistically significant difference between years of study. The findings were in line with a previous study where the duration of placements also showed a statistically significant mean difference in satisfaction levels. Therefore, students with longer clinical experiences tend to be more satisfied due to increased opportunities to integrate skills and develop interpersonal skills, such as building effective therapeutic relationships with patients. The same previous study also agreed that learning to become a staff nurse is a multidimensional process that requires students to spend to appropriate amounts of time being spent with patients (9)

The study's strength is that it provides insights into nursing students' satisfaction with the clinical learning environment in a local context. In a previous study, the researcher examined nursing students' perceptions of the clinical learning environment, whereas this study focused on the satisfaction level part (20). Another strength was that the questionnaire included making it easier for respondents to select their responses. Additionally, the Cronbach alpha for this study is 0.94, indicating high reliability of the instrument.

However, there are some limitations to this study. One major limitation is related to the unexpected COVID-19 pandemic during data collection, which prevented students from participating in clinical placements. This disruption likely affected the clinical experiences of students, potentially impacting the quality and accuracy of the findings. Additionally, the study's findings may have limited generalizability to other settings or populations. Since the research is focused on a specific teaching hospital in Malaysia, the results may not be applicable to different geographic locations or educational institutions with varying clinical learning environments and resources. These limitations highlight the need for further research to validate the findings across diverse settings and broader populations.

The practical implications of this study are significant for educational administrators and curriculum designers. Based on the study's findings, the institution can take several actionable steps to create a more effective and satisfying clinical learning environment, ultimately leading to better-prepared nursing graduates and improved patient care. It includes enhancing supervisory

relationships. improve the pedagogical atmosphere, extend clinical placement duration, facilitate peer support, optimize ward conditions, and leadership training, and incorporate feedback mechanisms.

CONCLUSION

We conclude that nursing students expressed high levels of satisfaction with the clinical learning environment across most of the evaluated domains. Specifically, students reported high satisfaction with the supervisory relationship, the leadership style of the ward manager, roles of nurse teacher, nursing premises in the ward, and student-related factors. However, they were less satisfied with ward atmosphere and physical setting domains. Additionally, the study found that years of study did contribute to the difference in total satisfaction of the clinical learning environment. While overall was high, there were areas of dissatisfaction in specific domains. Therefore, this study suggests the need for further enhancement to increase the satisfaction levels in the clinical learning environment among nursing students and for better nursing practices in the future.

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