

Original Research Article

The Clinical Learning Environment and Empathy Among Student Nurses in a Private College

ABSTRACT

This study aimed to determine the relationship between the clinical learning environment and empathy among student nurses in a private college. A descriptive-correlational research design was employed, with data collected from January to February 2026. A total of 314 second-, third-, and fourth-year student nurses were selected using a stratified random sampling technique to ensure proportional representation across year levels. Data were collected using two standardized instruments: the Clinical Learning Environment Comparison Survey 3.0 (CLEES 3.0) to assess students' perceptions of their clinical learning environment, and the Jefferson Scale of Empathy – Health Professions Student Version (JSE-HPS) to measure empathy levels. To ensure content validity, both instruments were reviewed by experts in nursing education and research for relevance, clarity, and appropriateness within the local context. Minor modifications were made based on their recommendations. Reliability testing was conducted through a pilot study involving a subset of respondents who were not included in the final sample. The instruments demonstrated high internal consistency, with Cronbach's alpha coefficients of 0.95 for the CLEES 3.0 and 0.90 for the JSE-HPS, indicating excellent reliability. Ethical clearance was obtained to ensure the protection of participants' rights, confidentiality, and welfare.

The findings indicated that student nurses generally perceived their clinical learning environment as supportive and reported high levels of empathy. Statistical analysis using Spearman's rho revealed a significant positive relationship between the clinical learning environment and empathy, with a moderate strength of association. Key factors contributing to the development of empathy included effective supervision, meaningful patient interactions, and opportunities for individualized patient care.

The study concludes that the clinical learning environment plays a significant role in shaping both the technical competence and empathy of student nurses. These findings highlight the importance of enhancing clinical teaching practices and institutional strategies to foster not only professional skills but also compassionate, patient-centered care. The selected keywords were also refined to improve the indexing and discoverability of the article.

Keywords: *Clinical Learning Environment, Empathy, Student Nurses, Nursing Education*

1. INTRODUCTION

One of the most effective ways to improve clinical outcomes is through a compassionate and patient-centered approach (Menezes et al., 2021). The development of empathy and compassion among medical students is considered essential for their overall well-being, emotional stability, and ability to provide patient-oriented care. Empathy is therefore recognized as a fundamental component of effective patient care (McNally et al., 2022). Through empathy, medical students are able to understand patients' situations and emotions, enabling them to respond appropriately, improve diagnostic decisions, and enhance clinical outcomes (Andersen et al., 2020). Participation in empathy education also contributes to the personal and professional growth of trainees and practitioners, thereby improving patient care (Winter et al., 2022).

Despite the recognized importance of empathy in medical education and patient care, research has shown that empathy among medical students declines during medical training. Andersen et al. (2020) reported that 30 primary studies examining changes in empathy during medical school identified a consistent decline in empathy levels. Traditional teaching approaches have often focused on the cognitive aspects of empathy within communication skills training. However, increasing evidence suggests the need to move beyond traditional teaching methods and adopt approaches that also stimulate students' emotional engagement. Costa-Drolon et al. (2020) found that many medical students do not fully understand the concept of empathy or how it can be applied in clinical practice. Furthermore, the strong emphasis on technical knowledge and factual learning in medical education may contribute to the decline of students' empathetic abilities. Studies have also indicated that empathy generally declines throughout medical school and stabilizes during residency. However, residents who plan to pursue specialties with minimal patient interaction may need additional activities to maintain their empathic abilities because their clinical work involves fewer opportunities for direct patient engagement (Lertsakulbunlue et al., 2024). This gap highlights the importance of identifying environments in which empathy can be effectively developed, particularly within the clinical learning environment.

The clinical learning environment refers to any setting, location, or situation in which patients, nurses, or other healthcare professionals participate in the care and learning process. It serves as a key determinant of the success of clinical practicum experiences, which constitute a major component of the nursing curriculum (Ludin & Arsyad, 2021). Nursing students' academic adjustment is also influenced by the quality of the clinical education environment (Mirzanezam et al., 2024). Educational administrators can support students' emotional and professional adjustment by creating a positive and supportive learning environment. With the support of affiliated hospitals and clinical learning settings, students who perceive the clinical learning environment more positively tend to demonstrate higher levels of academic grit, self-esteem, and caring behaviors (Falguera et al., 2025). Coping capacity has also been identified as a mechanism through which clinical learning environment factors influence nursing students' empathetic behavior (Zhu et al., 2025). Additionally, nursing students in Singapore have reported moderately positive perceptions of their clinical learning environments, with many expressing satisfactions with their clinical experiences,

including direct patient care, managing and administering care to patients, and receiving guidance from their preceptors (Al-Daken et al., 2024).

At the international level, the World Health Organization's Global Standards for the Initial Education of Professional Nurses and Midwives emphasize the importance of ethical and supportive learning environments that foster both compassion and professional competence (World Health Organization, 2009). This emphasis aligns with Sustainable Development Goal (SDG) 3: Good Health and Well-being, which aims to strengthen the global health workforce. In an ideal situation, students would perceive their clinical settings as supportive, develop high levels of empathy, and deliver care that is not only technically competent but also compassionate (Goal 3: Good Health and Well-being, 2024). Consequently, this can lead to improved patient outcomes and better preparation of future nurses to meet global healthcare standards. Given the increasing emphasis on patient-centered care, the clinical learning environment is recognized as an important factor in the development of nursing students' empathy. Therefore, the present study examines nursing students' empathy and their satisfaction with the clinical learning environment during their related learning experiences. Clinical placements are often perceived by nursing students as valuable learning opportunities because they provide a platform to apply theoretical knowledge in real-world settings and bridge the gap between theory and practice.

2. METHODOLOGY

This study used a descriptive–correlational research design to examine the relationship between the clinical learning environment and empathy among nursing students in a private academic institution. Specifically, the study aimed to determine whether the clinical learning environment was significantly associated with the level of empathy among student nurses during the second semester of the academic year 2025–2026 and data were collected exclusively within this period. The respondents of the study were second-, third-, and fourth-year nursing students who were actively engaged in clinical practice or related learning experiences. First-year nursing students were excluded because they had not yet participated in clinical exposure. The respondents were selected from a private college of nursing located in Iloilo City, Philippines. Because the study was limited to a single institution, the findings may not be fully generalizable to nursing students in other colleges or universities.

The participants consisted of 314 second-, third-, and fourth-year nursing students who were actively engaged in clinical practice. First-year students were excluded due to their limited exposure to clinical environments. A stratified random sampling technique was employed to ensure proportional representation across year levels. Specifically, the total population of eligible students was divided into three strata based on year level. The number of participants selected from each stratum was proportionate to its population size. Within each group, respondents were selected using a random sampling method (e.g., random number generation), ensuring that every eligible student had an equal chance of inclusion. The final sample size was determined using a 95% confidence level and a 5% margin of error.

Data were collected using two standardized instruments: the Clinical Learning Environment Comparison Survey 3.0 (CLES 3.0) to assess students' perceptions of their

clinical learning environment, and the Jefferson Scale of Empathy – Health Professions Student Version (JSE-HPS) to measure empathy levels. To ensure content validity, both instruments were reviewed by experts in nursing education and research for relevance, clarity, and appropriateness within the local context. Minor modifications were made based on their recommendations. Reliability testing was conducted through a pilot study involving a subset of respondents who were not included in the final sample. The instruments demonstrated high internal consistency, with Cronbach's alpha coefficients of 0.95 for the CLES 3.0 and 0.90 for the JSE-HPS, indicating excellent reliability.

Data collection was carried out from January to February 2026 using an online survey platform. Prior to distribution, ethical clearance was obtained, and participants provided informed consent. Responses were reviewed for completeness and accuracy before analysis. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize the data. To examine the relationship between the clinical learning environment and empathy, Spearman's rho correlation coefficient was employed. This nonparametric test was selected because the data did not fully meet the assumptions of normality and were measured using ordinal scales derived from Likert-type responses. A significance level of 0.05 was set to determine statistical significance.

Demographic Characteristics of Participants

The demographic profile of the respondents is presented in Table 1. It shows the distribution of participants according to sex and year level. The data indicate that the majority of respondents were female and fairly distributed across year levels, with a slightly higher proportion from the third year.

Table 1. Demographic Profile of Respondents (n = 314)

Variable	Category	Frequency (f)	Percentage (%)
Sex	Male	98	31.2
	Female	216	68.8
Year Level	Second Year	102	32.5
	Third Year	110	35.0
	Fourth Year	102	32.5

Note: Percentages may not total 100% due to rounding.

Level of Clinical Learning Environment and Empathy

Student nurses reported a generally positive perception of their clinical learning environment, with a mean score of 3.36 (SD = 0.50) on a 4-point scale. Similarly, empathy levels were high, with a mean score of 5.77 (SD = 1.12) on a 7-point scale. These findings suggest that respondents experienced supportive clinical settings while maintaining strong empathic orientation.

Table 2. Distribution of Mean Responses, Clinical Learning Environment, Specific Indicators

<i>Clinical Learning Environment Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Clinical Learning Development</i>		
<i>Interacting with patient</i>	3.64	0.58
<i>Prioritizing care</i>	3.63	0.57
<i>Preparing for patient</i>	3.61	0.60
<i>Performing appropriate assessment</i>	3.55	0.61
<i>Improving my critical thinking skills with experiences</i>	3.53	0.59
<i>Assessing outcomes of the care provided</i>	3.51	0.60
<i>Having instructor available to me</i>	3.51	0.61
<i>Understanding rationale for patient's treatment plan</i>	3.48	0.62
<i>Identifying short-and long-term goals</i>	3.48	0.63
<i>Feeling supported by instructor and peers when making care related decisions</i>	3.47	0.63
<i>Reacting calmly to changes in my patient's condition</i>	3.46	0.68
<i>Identifying patient's problems</i>	3.43	0.63
<i>Taking appropriate action when patient's condition changes</i>	3.43	0.65
<i>Feeling challenged and stimulated</i>	3.43	0.66
<i>Communicating with interdisciplinary team</i>	3.42	0.64
<i>Providing information and support to patient's family</i>	3.40	0.69
<i>Evaluating the effects of medications administered</i>	3.36	0.71
<i>Discussing patient's psychosocial needs</i>	3.34	0.72
<i>Receiving immediate feedback on performance</i>	3.34	0.65
<i>Knowing what to do if I make an error in my care</i>	3.33	0.72
<i>Feeling confident in abilities</i>	3.33	0.71
<i>Understanding patient's pathophysiology</i>	3.28	0.70
<i>Being confident in my decisions</i>	3.27	0.70
<i>Clinical Learning Development Overall</i>	3.44	0.49
<i>Individualized Patient Care</i>		
<i>Implementing care plan</i>	3.42	0.65
<i>Anticipating and recognizing changes in patient's condition</i>	3.30	0.63
<i>Discussing patient's developmental needs</i>	3.26	0.67
<i>Discussing patient's cultural needs</i>	3.19	0.69
<i>Discussing patient's spiritual needs</i>	3.16	0.74
<i>Individualized Patient Focus Overall</i>	3.27	0.57
<i>Overall</i>	3.36	0.50

Note. n=314

Note: Higher scores indicate more positive perceptions and higher empathy levels.

These results are consistent with previous studies indicating that structured and supportive clinical environments contribute to both skill development and caring behaviors among nursing students (Falguera et al., 2025). A conducive learning environment may enhance students' ability to engage emotionally with patients, thereby strengthening empathy.

Table 3. Distribution of mean responses on Jefferson Scale of Empathy, specific indicators (n=314).

<i>Jefferson Scale of Empathy Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>I believe that empathy is an important therapeutic factor in medical or surgical treatment.</i>	6.00	1.23
<i>I consider understanding my patients' body language as important as verbal communication in caregiver-patient relationships</i>	5.90	1.32
<i>An important component of the relationship with my patients is my understanding of their emotional status, as well as that of their families.</i>	5.90	1.24
<i>I try to understand what is going on in my patients' minds by paying attention to their non-verbal cues and body language.</i>	5.84	1.25
<i>I try to think like my patients in order to render better care.</i>	5.81	1.23
<i>My patients value my understanding of their feelings which is therapeutic in its own right.</i>	5.73	1.25
<i>Empathy is a therapeutic skill without which success in treatment is limited.</i>	5.72	1.29
<i>My patients feel better when I understand their feelings.</i>	5.71	1.42
<i>I try to imagine myself in my patients' shoes when providing care to them.</i>	5.70	1.45
<i>I believe that emotion has no place in the treatment of medical illness. *</i>	5.62	1.55
<i>I try not to pay attention to my patients' emotions in history taking or in asking about their physical health. *</i>	5.53	1.46
<i>I have a good sense of humor that I think contributes to a better clinical outcome.</i>	5.43	1.26
<i>Patient's illnesses can be cured only by medical or surgical treatment; therefore, emotional ties to my patients do not have a significant influence on medical or surgical outcomes. *</i>	5.36	1.63
<i>I do not enjoy reading non-medical literature or the arts. *</i>	5.36	1.44
<i>Attentiveness to my patients' personal experiences does not influence treatment outcomes. *</i>	5.28	1.55

Asking patients about what is happening in their personal lives is unhelpful in understanding their physical complaints. *	5.28	1.57
It is difficult for me to view things from my patients' perspectives. *	4.81	1.54
My understanding of how my patients and their families feel does not influence medical or surgical treatment. *	4.67	1.78
I do not allow myself to be influenced by strong personal bonds between my patients and their family members. *	4.67	1.75
Because people are different, it is difficult for me to see things from my patients' perspectives. *	4.62	1.62
Overall	5.77	1.12

Correlation Between Clinical Learning Environment and Empathy

The relationship between the clinical learning environment and empathy is presented in Table 4. The results show a statistically significant positive correlation, indicating that a more supportive clinical learning environment is associated with higher levels of empathy among student nurses.

Table 4. Correlation Between Clinical Learning Environment and Empathy

Variables	Spearman's rho (ρ)	p-value	Interpretation
Clinical Learning Environment vs Empathy	0.62	0.000	Significant Moderate Positive Correlation

Note: Significant at $p < 0.05$.

3. RESULTS AND DISCUSSION

THE RESULTS OF THIS STUDY THROW LIGHT ON AN ESSENTIAL ASPECT OF THE CONNECTION BETWEEN THE CLINICAL LEARNING ENVIRONMENT AND EMPATHY AMONG STUDENT NURSES. ON THE WHOLE, THE RESPONDENTS THOUGHT THEIR CLINICAL LEARNING ENVIRONMENT WAS VERY SUPPORTIVE AND AT THE SAME TIME THEY WERE HIGHLY EMPATHETIC. THIS VERY FACT POINTS TO THE STRUCTURED CLINICAL TRAINING, SUPERVISION, AND PATIENT ENGAGEMENT OPPORTUNITIES BY THE INSTITUTION, WHICH CAN BE THE ELEMENTS RESULTING IN THE PROFESSIONAL AND EMOTIONAL DEVELOPMENT OF NURSING STUDENTS. A SUPPORTIVE LEARNING ENVIRONMENT FACILITATES THE DEVELOPMENT OF CLINICAL COMPETENCIES AS WELL AS COMPASSIONATE, PATIENT-CENTERED CARE.

THING IS, THERE'S A SOLID POSITIVE LINK BETWEEN HOW STUDENTS SEE THEIR CLINICAL TRAINING AND HOW EMPATHETIC THEY BECOME, ($p = 0.62$, $p < 0.05$). THE BETTER THE SUPERVISION, THE MORE FEEDBACK STUDENTS GET, AND THE MORE REAL PATIENT CONTACT THEY HAVE, THE MORE LIKELY THEY'RE TO ACTUALLY FEEL WHAT PATIENTS ARE GOING THROUGH. INDIVIDUALIZED CARE AND HANDS-ON CLINICAL GROWTH STAND OUT AS KEY FACTORS. THAT DIRECT TIME WITH PATIENTS MATTERS A LOT IN BUILDING EMPATHY. TURNS OUT, JUST BEING PRESENT AND LISTENING MATTERS MORE THAN WE THOUGHT. THESE RESULTS ARE IN LINE WITH SCHOLARS' WORK POINTING OUT THE VITAL PART OF

SUPPORTIVE AND WELL-ORGANIZED CLINICAL SETTING IN BUILDING NURSING STUDENTS' TECHNICAL SKILLS AND CARING BEHAVIORS. THE FINDINGS ARE ALSO IN AGREEMENT WITH THE THEORETICAL FRAMEWORKS SUCH AS THE ONE BY WATSON ON HUMAN CARING, WHICH HIGHLIGHT THE IMPORTANCE OF A CARING AND HUMANISTIC ATMOSPHERE IN THE DEVELOPMENT OF EMPATHY AND PROFESSIONAL VALUES IN HEALTH CARE. BUT EMPATHY ISN'T JUST ABOUT THE CLINICAL SETTING, IT'S SHAPED BY A LOT OF THINGS BEYOND THAT. PERSONALITY, EMOTIONAL INTELLIGENCE, MOTIVATION, AND HOW PEOPLE HANDLE STRESS MIGHT ALL AFFECT HOW STUDENTS FEEL DURING PATIENT INTERACTIONS. SOMEONE WITH BETTER EMOTIONAL AWARENESS MIGHT CONNECT MORE DEEPLY WITH PATIENTS, EVEN IN TOUGH ENVIRONMENTS. MORE EXPERIENCED STUDENTS PROBABLY BUILD STRONGER EMOTIONAL INSIGHT OVER TIME BECAUSE THEY'VE SEEN MORE REAL-LIFE CARE. YEAR AFTER YEAR IN CLINICS, THEY GET USED TO DIFFERENT SITUATIONS AND START BLENDING THEORY WITH PRACTICE. THAT REPETITION HELPS THEM UNDERSTAND PATIENTS ON A DEEPER LEVEL, BOTH MENTALLY AND EMOTIONALLY. THE EFFECT ISN'T GUARANTEED, BUT IT TENDS TO SHOW UP IN STUDENTS WHO STAY INVOLVED LONG ENOUGH. IN ADDITION, ELEMENTS OF THE ACADEMIC ENVIRONMENT SUCH AS TEACHING METHODS, CURRICULUM DESIGN, FACULTY SUPPORT, AND STUDENT INTERACTIONS CAN INFLUENCE THE DEVELOPMENT OF EMPATHY. EDUCATIONAL METHODS INVOLVING REFLECTIVE PRACTICE, SIMULATION-BASED LEARNING, AND MENTORSHIP ARE EXAMPLES OF WAYS TO HELP STUDENTS EXPLORE THEIR EXPERIENCES AND GAIN INSIGHT INTO PATIENTS' VIEWPOINTS. AN ACADEMIC SETTING THAT ENCOURAGES OPEN COMMUNICATION AND PSYCHOLOGICAL SAFETY COULD ALSO INCREASE STUDENTS' DESIRE TO BE EMPATHETIC DURING CLINICAL ENGAGEMENTS. EVEN THOUGH THE CORRELATIONS IN THE STUDY WERE ONLY OF MODERATE STRENGTH, THE RESULTS POINT TO THE CLINICAL LEARNING ENVIRONMENT AS THE MAJOR FACTOR IN EMPATHY DEVELOPMENT. HOWEVER, AT THE SAME TIME, THEY INDICATE THAT AN INCREASE IN EMPATHY AMONG NURSING STUDENTS CANNOT BE ACHIEVED SOLELY BY CHANGING THE ENVIRONMENT BUT ALSO BY TAKING INTO ACCOUNT PERSONAL AND EDUCATIONAL ASPECTS. ENHANCING CLINICAL SUPERVISION, PROVIDING MORE CHANCES FOR DIRECT PATIENT INTERACTIONS, AND EMPLOYING EMPATHY-CENTERED TECHNIQUES IN THE CURRICULUM ARE THE MAIN MEANS OF PRODUCING COMPASSIONATE AND WELL-ROUNDED HEALTHCARE PROFESSIONALS.

THIS RESEARCH, IN GENERAL, ADDS TO A RISING NUMBER OF STUDIES CONFIRMING THE NEED FOR STUDENT NURSES TO BE EDUCATED IN NOT ONLY A CLINICAL ENVIRONMENT THAT IS SUPPORTIVE BUT ALSO THROUGH A CURRICULUM THAT IS COMPREHENSIVE IN ITS EDUCATIONAL STRATEGIES. BY PAYING ATTENTION TO BOTH THE CONTEXT AND THE INDIVIDUAL, EDUCATIONAL INSTITUTIONS WILL BE BETTER EQUIPPED IN TRAINING NURSES WHO CAN PROVIDE EMPATHIC, PATIENT-CENTERED CARE OF HIGH QUALITY.

Descriptive Analysis

Profile of the Respondents

A total of 314 student nurses participated in the study. The demographic profile showed that the majority of respondents were female (80.6%), while males comprised 19.4% of the sample. In terms of year level, 35.4% were fourth-year students, 35.0% were second-year students, and 29.6% were third-year students. This distribution reflects the typical gender composition in nursing education and ensures adequate representation across different levels of clinical exposure.

Table 1. Profile of Respondents According to Sex and Year Level (n = 314)

Variable	Category	Frequency (f)	Percentage (%)
Sex	Male	61	19.4
	Female	253	80.6
Year Level	Second Year	110	35.0

Variable	Category	Frequency (f)	Percentage (%)
	Third Year	93	29.6
	Fourth Year	111	35.4

Note: Percentages may not total 100% due to rounding.

Level of Clinical Learning Environment and Empathy

Student nurses reported a generally positive perception of their clinical learning environment, with a mean score of 3.36 (SD = 0.50) on a 4-point scale. Similarly, empathy levels were high, with a mean score of 5.77 (SD = 1.12) on a 7-point scale. These findings suggest that respondents experienced supportive clinical settings while maintaining strong empathic orientation.

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Clinical Learning Environment Indicators	Mean	Standard Deviation
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<i>Interacting with patient</i>	3.64	0.58
<i>Prioritizing care</i>	3.63	0.57
<i>Preparing for patient</i>	3.61	0.60
<i>Performing appropriate assessment</i>	3.55	0.61
<i>Improving my critical thinking skills with experiences</i>	3.53	0.59
<i>Assessing outcomes of the care provided</i>	3.51	0.60
<i>Having instructor available to me</i>	3.51	0.61
<i>Understanding rationale for patient's treatment plan</i>	3.48	0.62
<i>Identifying short-and long-term goals</i>	3.48	0.63
<i>Feeling supported by instructor and peers when making care related decisions</i>	3.47	0.63
<i>Reacting calmly to changes in my patient's condition</i>	3.46	0.68
<i>Identifying patient's problems</i>	3.43	0.63
<i>Taking appropriate action when patient's condition changes</i>	3.43	0.65
<i>Feeling challenged and stimulated</i>	3.43	0.66
<i>Communicating with interdisciplinary team</i>	3.42	0.64
<i>Providing information and support to patient's family</i>	3.40	0.69
<i>Evaluating the effects of medications administered</i>	3.36	0.71
<i>Discussing patient's psychosocial needs</i>	3.34	0.72
<i>Receiving immediate feedback on performance</i>	3.34	0.65
<i>Knowing what to do if I make an error in my care</i>	3.33	0.72
<i>Feeling confident in abilities</i>	3.33	0.71
<i>Understanding patient's pathophysiology</i>	3.28	0.70
<i>Being confident in my decisions</i>	3.27	0.70
<i>Clinical Learning Development Overall</i>	3.44	0.49
<i>Individualized Patient Care</i>		

<i>Implementing care plan</i>	3.42	0.65
<i>Anticipating and recognizing changes in patient's condition</i>	3.30	0.63
<i>Discussing patient's developmental needs</i>	3.26	0.67
<i>Discussing patient's cultural needs</i>	3.19	0.69
<i>Discussing patient's spiritual needs</i>	3.16	0.74
<i>Individualized Patient Focus Overall</i>	3.27	0.57
<i>Overall</i>	3.36	0.50

Note. n=314

Note: Higher scores indicate more positive perceptions and higher empathy levels.

These results are consistent with previous studies indicating that structured and supportive clinical environments contribute to both skill development and caring behaviors among nursing students (Falguera et al., 2025). A conducive learning environment may enhance students' ability to engage emotionally with patients, thereby strengthening empathy.

Table 3. Distribution of mean responses on Jefferson Scale of Empathy, specific indicators (n=314).

<i>Jefferson Scale of Empathy Indicators</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>I believe that empathy is an important therapeutic factor in medical or surgical treatment.</i>	6.00	1.23
<i>I consider understanding my patients' body language as important as verbal communication in caregiver-patient relationships</i>	5.90	1.32
<i>An important component of the relationship with my patients is my understanding of their emotional status, as well as that of their families.</i>	5.90	1.24
<i>I try to understand what is going on in my patients' minds by paying attention to their non-verbal cues and body language.</i>	5.84	1.25
<i>I try to think like my patients in order to render better care.</i>	5.81	1.23
<i>My patients value my understanding of their feelings which is therapeutic in its own right.</i>	5.73	1.25
<i>Empathy is a therapeutic skill without which success in treatment is limited.</i>	5.72	1.29
<i>My patients feel better when I understand their feelings.</i>	5.71	1.42
<i>I try to imagine myself in my patients' shoes when providing care to them.</i>	5.70	1.45

<i>I believe that emotion has no place in the treatment of medical illness. *</i>	5.62	1.55
<i>I try not to pay attention to my patients' emotions in history taking or in asking about their physical health. *</i>	5.53	1.46
<i>I have a good sense of humor that I think contributes to a better clinical outcome.</i>	5.43	1.26
<i>Patient's illnesses can be cured only by medical or surgical treatment; therefore, emotional ties to my patients do not have a significant influence on medical or surgical outcomes. *</i>	5.36	1.63
<i>I do not enjoy reading non-medical literature or the arts. *</i>	5.36	1.44
<i>Attentiveness to my patients' personal experiences does not influence treatment outcomes. *</i>	5.28	1.55
<i>Asking patients about what is happening in their personal lives is unhelpful in understanding their physical complaints. *</i>	5.28	1.57
<i>It is difficult for me to view things from my patients' perspectives. *</i>	4.81	1.54
<i>My understanding of how my patients and their families feel does not influence medical or surgical treatment. *</i>	4.67	1.78
<i>I do not allow myself to be influenced by strong personal bonds between my patients and their family members. *</i>	4.67	1.75
<i>Because people are different, it is difficult for me to see things from my patients' perspectives. *</i>	4.62	1.62
Overall	5.77	1.12

Inferential Analysis

Inferential analysis was conducted to determine the statistical relationship between the clinical learning environment and empathy among student nurses. This analysis allowed the researcher to examine whether variations in perceptions of the clinical learning environment were significantly associated with differences in empathy levels. Non-parametric statistical tests, including the Kolmogorov-Smirnov test for normality and Spearman's rho correlation, were employed due to the ordinal nature of the data and the sample characteristics. The results of this analysis provided evidence on the strength and direction of the relationship, supporting conclusions about how the clinical learning environment influenced the empathic capacity of student nurses.

Relationship between Clinical Learning Environment (Clinical Learning Development and Individualized Patient Care) and Empathy

Prior to conducting the correlation analysis, a normality test was run first to determine the most suitable statistical test to perform. The clinical learning environment

and empathy levels of the student nurses were checked for normality using the Kolmogorov-Smirnov test. The test revealed that the data for the Clinical Learning Environment ($p = .000$) and Empathy ($p = .000$) were not normally distributed ($p < 0.05$). This means that the data were not normally distributed and therefore were not suitable for parametric tests. As the variables were not normally distributed, a non-parametric statistical test was considered suitable. Hence, this study employed Spearman's rho correlation test. The findings indicated that the connection between the clinical learning environment and empathy among student nurses was positive, statistically significant, and of moderate strength. To be exact, the totality of the clinical learning environment aspects has been positively correlated with empathy, thus the variables have been directly related. The positive correlation between the two variables was evidenced by Spearman's rho values for clinical learning development ($r_s = 0.42$), individualized patient care ($r_s = 0.51$), and the overall clinical learning environment ($r_s = 0.51$). Thus, the findings suggested that the higher the clinical learning environment was rated, the more empathic the student nurses were.

Additionally, the p , values (2-tailed) for all correlations were less than 0.01, which implied the statistical significance of the relationships. The analysis results revealed statistically significant relationships between the clinical learning environment and empathy in all dimensions studied. Since these relationships were not due to chance, the null hypotheses were rejected. To shed more light on the characteristics of these connections, the strength of the correlations was determined by referring to standard correlation coefficient levels. Using Lovakov and Agadullina (2021) effect size criteria, the correlation coefficients obtained were considered moderate. Hence, the associations had not very strong but were quite stable and significant, thus showing that the clinical learning environment correlates moderately with empathy. The complete results are presented in Table 4.

Table 4

Relationship between the Clinical Learning Environment and Empathy among the Student Nurses

Clinical Learning Environment	Empathy	
	r-value (r_s)	Sig. (2-tailed)
Clinical Learning Development	0.42**	0.000
Individualized Patient Care	0.51**	0.000
Overall	0.51**	0.000

Note. **Correlation is significant at the 0.01 level (2-tailed).

4. CONCLUSION

This research revealed the fact that student nurses mostly considered their clinical learning environment as being supportive and showed empathy at very high levels. Regression analysis indicated a significant positive medium-sized association between the clinical learning environment - especially clinical learning development and individualized patient care - skills and empathy. These results imply that a well-planned and supportive clinical environment is very important in encouraging empathy as well as

the technical competence development of nursing students. Moreover, the findings emphasize that empathy cannot be viewed as a single characteristic, but a professional skill that can be cultivated through efficient clinical exposure, guidance, and deep patient engagement. On the other hand, the moderate magnitude of the relationship shows that besides individual traits and emotional intelligence, empathy is influenced by other factors as well. This study underscores the significance of enhancing clinical teaching methods and organizational policies that not only upgrade the technical skills but also encourage the delivery of compassionate and patient-centered care by future nurses.

CONSENT

All authors declare that written informed consent was obtained from the participants for the conduct of this study. A copy of the consent documentation is available for review by the editorial office, chief editor, or members of the editorial board, if requested.

ETHICAL APPROVAL

Ethical Consideration

This study was submitted to the Iloilo Doctors' Research Ethics Committee (IDREC) and was granted ethical clearance (IDREC-2025.OI_229). The researchers ensured that the study complied with the ethical principles of respect for persons, beneficence, and justice, as outlined in international and national research ethics guidelines.

Benefits. *This study aimed to identify how the clinical learning environment (CLE) influences the empathy of student nurses in a private college. The findings of this study may help student nurses develop greater empathy in clinical practice. Furthermore, the results may assist nursing educators in improving clinical instruction and help institutions enhance their clinical training programs. Ultimately, the study may contribute to promoting compassionate patient care and serve as a reference for future research in nursing education.*

Risk Assessment. *This study involved minimal risk to the participants. Some questions in the survey may have triggered mild emotional discomfort when reflecting on clinical experiences. However, participants were informed that they could withdraw from the study at any time without any negative consequences. They were not required to answer questions that made them uncomfortable. All collected data were handled with strict confidentiality in compliance with the Data Privacy Act of 2012 (Philippines).*

Informed Consent. *An informed consent form was provided to student nurses in a private college who had prior exposure to different clinical rotations during the Academic Year 2025–2026. The informed consent consisted of two parts: the Information Sheet, which explained the purpose, procedures, risks, and benefits of the study, and the Certificate of Consent, which required the participant's signature to indicate voluntary participation. Participants were clearly informed about the nature of the study and were assured that they could withdraw or discontinue participation at any time without any penalty.*

Participant selection. Participants were selected from second-, third-, and fourth-year student nurses currently enrolled in a private college who had prior clinical exposure. Stratified random sampling was utilized to ensure representation from each year level. Participation in the study was voluntary, and all eligible individuals were given an equal opportunity to participate. Participants were also given sufficient time to ask questions and fully understand the study before deciding whether to participate.

Privacy and Confidentiality. All personal data and responses were treated with strict confidentiality. Participants' names did not appear in any part of the research report. Instead, codes or pseudonyms were used to ensure anonymity. The collected data were used strictly for research purposes and were not shared with any unauthorized individuals.

Incentives. No monetary or material incentives were provided to the respondents. Participation in the study was entirely voluntary and was conducted solely for educational and research purposes.

Data Storage and Disposal. All completed questionnaires and digital responses were securely stored in a restricted digital drive accessible only to the research leader. This ensured the confidentiality and protection of participants' information. The collected data will be retained only for the duration necessary for the research and will be permanently deleted or properly disposed of after the completion of the study.

Community Contribution. The findings of this study may contribute to the improvement of nursing education by providing insights into the relationship between the clinical learning environment and empathy among student nurses. The results may also help clinical institutions enhance their training, supervision, and mentoring approaches for nursing students.

Conflict of Interest. The researchers declared that there were no conflicts of interest associated with this study. All research procedures were conducted objectively, and the results were reported honestly without bias or external influence.

Dissemination Plan. After the completion of the study, the researchers plan to disseminate the findings through several channels. First, the results will be presented to student nurses in the private college to enhance their understanding of how the clinical learning environment influences empathy. Second, a copy of the findings will be provided to the participating institution and clinical areas as a reference for improving clinical training programs and student support systems. Third, the results may be presented at institutional or regional research conferences related to nursing education and professional development. Finally, the study may be prepared for possible publication in academic journals upon approval.

AI Disclosure. The researchers utilized ChatGPT as an assistive tool to help locate relevant literature and supporting information. However, all gathered information was carefully reviewed, verified, and validated by the researchers to ensure the accuracy, reliability, and originality of the research study.

DEFINITIONS, ACRONYMS, ABBREVIATIONS

CLE (Clinical Learning Environment): *The overall setting, conditions, and resources in clinical placements that influence nursing students' learning experiences.*

CLD (Clinical Learning Development): *The extent to which the clinical learning environment supports students in acquiring knowledge, clinical skills, confidence, and professional competence through supervised clinical experiences.*

IPF (Individualized Patient Focus): *The degree to which the clinical learning environment encourages student nurses to provide patient-centered care by recognizing and responding to the unique needs, values, and preferences of each patient.*

Empathy: *The ability to understand and share another person's thoughts, perspectives, and experiences, enabling compassionate and patient-centered care.*

CLES 3.0 (Clinical Learning Environment Comparison Survey 3.0): *A standardized 28-item instrument developed by Leighton et al. (2021) to assess nursing students' perceptions of their clinical learning environment across supervision, communication, learning opportunities, and patient-centered care.*

JSE (Jefferson Scale of Empathy): *A 20-item validated instrument developed by Hojat (2018) to measure empathy among healthcare students and professionals.*

IRB (Institutional Review Board): *A committee that reviews research proposals to ensure ethical standards are maintained in studies involving human participants.*

SDPA (Data Privacy Act of 2012, Philippines): *National legislation governing the ethical handling, storage, and disposal of personal and research data.*

SDG 3 (Sustainable Development Goal 3): *A global health goal that aims to ensure healthy lives and promote well-being for all at all ages.*

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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