Clinical Area Complexity, Facilitators' Collaboration Attitude, and Clinical Competence Among Nursing Students in a Private College

Original Research Article

ABSTRACT

Nursing students often demonstrate strong academic performance yet struggle to apply the same level of competence in actual clinical settings. This gap highlights the need to examine factors that influence clinical competence during training. This study aimed to determine the relationship between clinical area complexity and facilitators' collaboration attitude toward the level of clinical competence among nursing students in a private college. Specifically, it examined whether facilitators' collaboration attitude mediated the relationship between clinical area complexity and students' perceived clinical competence. A descriptive–correlational research design with mediating analysis was utilized. Ethical clearance was secured prior to data collection. Data were gathered from second-year nursing students using researcher-made and standardized questionnaires administered through an online platform. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to describe the variables, while Spearman's Rho and linear regression analysis were employed to determine relationships and mediation effects. Results indicated that students perceived the clinical practice area to have a moderate level of complexity, with patient interaction and time pressure identified as the most influential factors. Facilitators' collaboration attitude was rated high, reflecting a supportive and cooperative learning environment. Students also reported a high level of perceived clinical competence. Findings revealed no significant relationship between clinical area complexity and students' perceived clinical competence. However, facilitators' collaboration attitude showed a

significant positive relationship with clinical competence and fully mediated the relationship between clinical area complexity and clinical competence. These findings emphasize the importance of facilitator support in strengthening nursing students' competence in complex clinical environments.

Keywords: clinical area complexity, facilitators' collaboration attitude, clinical competence

1. INTRODUCTION

In the foundation of nursing education, clinical practice served as a developing stage of a student's competence, confidence, and readiness for real-world care. A key method used to assess nursing students' competence is the return demonstration, in which students are required to perform clinical nursing procedures (Huang et al., 2022). While this approach is designed to ensure mastery of skills and abilities, many students face challenges in effectively performing in clinical environments.

This research is aligned with Sustainable Development Goal (SDG) target four, which focused on education to improve the quality of learning, skill development, and mentorship of nursing students. It strengthened the relationship between students and facilitators to ensure competence and professional readiness.

In an international context, nursing students demonstrated insufficient skills in actual clinical areas despite good performance in their laboratories, and struggling to apply the same level of competence has been a genuine concern in actual clinical practice (Daneshfar et al., 2025). In a wide range of health care landscapes, it has been essential to perform clinical practices appropriately, ensuring that nursing students have been clinically competent to deliver quality care and prioritize the safety and well-being of clients (Khider et al., 2024).

The distinguishable gap between students' competence and their readiness to apply skills in the actual clinical setting highlighted a fundamental issue that explicitly impacts the healthcare framework's professionalism view of workforce readiness (Ličen et al., 2023). The theory of gap practice showed that students were having difficulty connecting what they have learned in the classroom and in the simulation laboratory to the complexity of real-world clinical settings (Tambunan, 2024). Healthcare delivery was best

understood through the lens of complexity in science, which frames complex adaptivity (Wright, 2024). The hospital has been operating multiple systems, has exhibited nonlinear interactions, unpredictable, and indeed responsive to changing conditions—all have been interconnected. Various elements, such as patients, healthcare professionals, and policies have continuously interacted and influenced one another. These interactions have produced unpredictable, emergent outcomes, meaning students who interact with this environment may feel stress when engulfed by the situation.

Nationally, clinical judgement has been essential for nurses, as it is for students. In our clinical area, to support appropriate decision-making, critical thinking must occur first (Madayag et al., 2024).

Locally, students have highlighted anxiety and stress as a significant factor to the poor performance of the nursing student during their hospital duties, showing how complex the real clinical area is. Due to self-doubt and nervousness, students constantly fear making mistakes, being judged by the staff, or harming the patients, which affects their performance and decision-making. Occasionally, they acted as if they knew what to do in order to avoid criticism from their clinical instructor, which causes significant problems and consequences (Dusaran et al., 2023).

Furthermore, it emphasized that facilitators' lack of support during clinical duties can limit students' confidence and performance in their clinical practice. Our facilitator, specifically a clinical instructor, guides the students in the clinical area. They serve as a baseline for students to know whether their actions are correct; however, without this knowledge, their performance and decision-making could have a negative impact. Facilitators' collaborative attitude toward students significantly affected students' growth and development (Alkhelaiwi et al., 2024). In contrast, the clinical setting involves unpredictable circumstances that could leave students with an overwhelming impression, such as fundamental patient interactions, time constraints, and emotional stress, which hinder their ability to perform better (Wu et al., 2024). In a high pressure environment, the facilitators obtained kindness, patience and understanding, substantially there was a higher chance that students could actively participate (Fooladi et al., 2022). Realistically speaking, facilitators' roles were the strength of clinical learning and the students key for competence development (Mathisen et al., 2023). Fundamentally, students' satisfaction with clinical

performance correlated with quality supervision and role modelling of clinical facilitators (Suliman et al., 2022).

Despite extensive review of the effectiveness of simulation-based clinical practice, there has remained a barrier in understanding students' challenges in applying clinical practices in real-world environments (Alharbi et al., 2024). Most studies have focused on students' standpoints, experiences, and struggles. However, limited research examines how the clinical area's complexity and facilitators' collaborative attitude affect the level of clinical competence among nursing students.

Previous scholarly work tended to focus on the technical performance of skills or on general challenges in clinical practice. Still, only a few have explored the combined effects of clinical complexity, facilitators' collaborative attitude, and nursing students' clinical competence. This gap underscored the need for a study that holistically examined the dynamic relationship among clinical complexity, facilitators' collaboration, and the level of clinical competence required to perform clinical practices in clinical settings effectively.

2. METHODOLOGY

2.1 Research Design

In this study, the researchers utilized a descriptive-correlational with mediating analysis research design with a survey approach to interpret the results and determine the relationship between clinical area complexity, facilitators' collaboration attitude and clinical competence among nursing students in a private college of nursing in Iloilo.

Descriptive-correlational research was generally used when a researcher wanted to determine the characteristics of a particular group of people or find relationships between different variables (Brodowicz, 2024). A mediating variable explains how or why an independent variable causes an outcome variable. It sat in the causal pathway between the independent and outcome variables, transmitting the effect (McLeod, 2025). The descriptive-correlational design was valuable in nursing research for understanding the current status of certain phenomena, exploring patterns, and identifying potential associations (Polit

and Beck, 2021). This design allowed researchers to collect data on various variables and assess whether there are correlations or associations between these variables.

2.2 Study Setting

This research study was conducted in a private college institution in Iloilo City. The institution is located in the middle of the city in a highly urbanized area. Their varied academic standings were anticipated to provide valuable insights into how clinical area complexity and facilitators' collaboration attitudes influence the development and enhancement of clinical competence.

2.3 Population and Sampling

The study population was 523 nursing students from the second year who were enrolled in a private college of nursing. The sample size was calculated using Raosoft's sample size calculator, providing a confidence level of 95% and a margin of error of 5%. The researchers used a stratified sampling technique to obtain samples from the population of the second-year nursing students. This included dividing the population into subgroups with the same characteristics. This ensured that every subgroup or stratum within the population was adequately represented in the sample.

3.4 Instrument

The researcher utilized a combination of a researcher-made questionnaire and adapted questionnaires to gather the data necessary for the study. The questionnaire was administered via Google Forms, an online survey platform. Consisting of several parts, the questionnaire was designed to gather data on specific variables relevant to the study: clinical area complexity, facilitators' collaboration attitude, and perceived level of clinical competence.

3.5 Data Gathering

In this study, the researchers implemented a comprehensive data management strategy to collect, store, organize, and process research data. The data gathering was conducted systematically through standardized instruments conducted among second year students in private schools who already started their clinical duty. The researchers first secure formal permission from the appropriate authorities, such as the dean or head of the private school's nursing department. These data collection processes had informed consent prior to the actual data collection and followed a specific schedule within the planned timeframe.

The researchers began with a brief introduction of themselves and the purpose of the study, emphasizing the respondent's confidentiality. Google Forms were distributed to the participants to be answered for 10 to 20 minutes. There was no chance of a missing question for the questionnaires since they are digital-based surveys. Respondents were informed about the purpose of the study and the privacy rights of their responses. Researchers also asked permission to record the survey sessions for documentation and transcription purposes. Future steps, including the return interview, was to stand as a follow-up session to thank respondents for their cooperation and to clarify any points that may have been unclear during the main data collection. It also allowed the researcher to verify and validate specific responses to ensure data accuracy. Upon completing data collection, the researchers organized and transferred all collected data into digital files and stored them to implement rigorous encryption and password security protocols in the future.

3.6 Data Analysis

The data encoded into Microsoft Excel, ensuring that it was organized and ready for analysis. Subsequently, it was transferred to processed through the Statistical Package for the Social Sciences (SPSS) software version 31 (IBM, 2025). To gather and analyze the descriptive data, this study used the following statistical tools:

Frequency was used to determine the number of respondents who have a common demographic profile, specifically sex.

Percentage was used to determine the proportion of clinical area complexity, facilitators' collaboration attitude, and clinical competence, and to determine whether the data is homogeneous or heterogeneous.

Mean was used to determine the perceived clinical area complexity, facilitators' collaboration attitude, and clinical competence among nursing students, each indicator in the respective questionnaire was assigned numerical equivalents, and the mean was computed. The first two variables in the questionnaire had a scale of 1 to 4, while the last variable had a scale of 1 to 5, with corresponding interpretations. The higher the mean, the higher the level of the mentioned variables.

Standard Deviation was used to assess the variability in nursing students' perceived clinical area complexity, facilitators' collaboration attitude, and clinical competence, and to determine whether the data is homogeneous or heterogeneous

To gather and analyze the inferential data, this study used the following statistical tools:

Kolmogorov - Smirnov Test was used to determine the normality of data and the specific test for the relationship between variables.

Spearman's rho was used when the data is not normally distributed, used instead of Pearson's r.

Linear Regression Analysis was used to test whether Facilitators' Collaboration Attitude mediates the relationship between Clinical Area Complexity and Clinical Competence.

The statistical tests were carried out at a 0.05 level of significance. The null hypothesis was rejected if the p-value was less than the set level of significance, which was 0.05. After that, data interpretation was carried out.

3. RESULTS AND DISCUSSION

3.1 Descriptive Analysis

3.1.1 Profile of the Respondents

Table 1 shows the respondents' profile by sex. The majority of the 223 respondents were female (79.8%), while males comprised 20.2%, showing that the respondents were predominantly female.

Table 1. Profile of the Respondents (n=223)

Sex	*f*	%
Male	45	20.2
Female	178	79.8
Total	223	100

3.1.2 Clinical Area Complexity

Table 2 presents the mean responses to the specific indicators assessing clinical area complexity among nursing students. The findings indicated a moderate level of clinical area complexity, with an overall mean score of 2.77. Among the subdomains, patient interaction obtained the highest mean (M=2.85), suggesting that students commonly experience challenges related to patient care, particularly the need for more exposure to diverse patient conditions to build confidence (M=3.37). Students also reported feelings of nervousness when patients' conditions change during duty (M=2.82) and difficulty understanding certain patient conditions (M=2.73).

In terms of time pressure, the results showed that students felt physically tired at the end of clinical duty due to tasks required (M=3.1) and experienced difficulty completing assigned patient care tasks and

documentation within the allotted time (M=2.94). Lower mean scores were noted in balancing clinical tasks and schoolwork (M=2.54) and feeling rushed when performing basic patient care activities (M=2.43) indicating varying levels of time-related stress among respondents.

Regarding the unpredictability of the clinical area, students reported feeling overwhelmed when managing complex medical devices and clinical situations (M=2.82) and nervous when unexpected events occurred during duty (M=2.72). Sudden changes in patient assignments and difficulty adjusting were also identified as factors moderately disrupted learning (M=2.56).

For role challenges, students expressed pressure to meet the expectations of clinical instructors and staff nurses (M=2.94). They also reported hesitation in asking questions due to staff being busy (M=2.60) and uncertainty about the task they were allowed to perform as student nurses (M=2.54). Communication with other student nurses during duty received the lowest mean score (M=2.44).

These findings were supported by Li et al. (2024), which revealed that nursing students experience moderate to high levels of stress during clinical practice due to workload demands, unfair clinical responsibilities, patient care challenges, and role ambiguity. The study emphasized that unpredictable clinical environments and time pressure significantly affect students' confidence and learning engagement, which corroborates the present study's findings on the moderate level of clinical area complexity experienced by nursing students.

Table 2. Mean responses on the Clinical Area Complexity, specific indicators (n=223)

Clinical Area Complexity	Mean	Standard Deviation
Time Pressure		
I feel tired at the end of clinical duty because of the tasks I need to do.	3.10	0.60
Collecting information for a case study takes longer than I expected.	2.96	0.54
I experience time pressure to complete all my assigned patient care tasks and documentation accurately within the allocated clinical hours.	2.94	0.64
I feel like there is not enough time to observe and learn everything I want during duty hours.	2.64	0.72
I find it hard to balance clinical tasks and my schoolwork.	2.54	0.64
I feel rushed to finish tasks: taking vital signs or assisting with basic patient care.	2.43	0.74
Mean	2.77	0.43
Patient Interaction		

I wish I had more exposure to different types of patients to build my confidence.	3.37	0.64
I feel nervous when a patient's status changes during my shift.	2.82	0.60
The procedures I observed on seriously ill patients make me nervous about my future responsibilities.	2.74	0.72
The patients I am assigned to sometimes have conditions that are difficult for me to understand.	2.73	0.62
I am hesitant about how to prioritize what task to do first for my assigned patient.	2.60	0.71
Mean	2.85	0.46
Unpredictability of Clinical Area		
I feel overwhelmed by the need to manage some complex medical devices simultaneously for my assigned patients	2.82	0.64
Unexpected duty makes me nervous.	2.72	0.73
I get asked to do tasks or assist in procedures without enough preparation.	2.61	0.64
Sudden changes in patient assignments disrupt my learning process.	2.56	0.66
I find it hard to adjust quickly to new instructions or assignments during duty.	2.54	0.68
The clinical area becomes busy and stressful, which affects my learning.	2.42	0.61
Mean	2.61	0.50
Role Challenges		
I feel pressured to meet the expectations of my clinical instructor and the staff nurses.	2.94	0.61
I hesitate to ask questions to nurses or doctors because they are busy.	2.60	0.79
I am unsure about which tasks I am allowed to perform as a nursing student.	2.54	0.69
I feel intimidated when interacting with patients or their relatives.	2.54	0.68
Communicating with other student nurses during duty can be confusing.	2.44	0.69
Mean	2.61	0.53
Overall Mean	2.77	0.43

3.1.3 Facilitators Collaboration Attitude

Table 3 presents the distribution of respondents specifically related to facilitators collaboration attitude. The mean responses from each indicator of the facilitators' collaboration attitude were used to assess the level of collaboration of the instructor students on duties. The findings indicated that overall facilitators collaboration attitude is above average, with an average mean score of 3.24, indicating that there is a good collaboration among facilitators.

Among the specific indicators, students who reported the highest satisfaction felt a safe learning environment from instructors (M=3.31). Instructors that knew how to communicate with the healthcare

team and knew how to assess the behavior and attitude of the students have secured the second highest mean (M=3.27). Students felt that the instructor showed a mutual respect with the students and staff created an approachable environment (M=3.26). The moderate mean among the indicators included that the instructor slightly knew how to organize the clinical plan and is moderately prepared when in times of activities (M=3.25). These findings supported Alhassan and Alghofaily (2024), suggesting that facilitators with enough knowledge and communication skills have more positive attitudes toward facilitating students.

However, indicators that have lower means, reflected on the instructors' lack of constructive feedback on the students regarding their clinical duties (M=3.24). Issues on poor debriefing after clinical experience received the mean of (M=3.21). Instructors lacking personalized learning support among students had the second lowest mean of (M=3.20). Lastly, instructors who gave deficient instructions on students with their patient assignment that caused a complexity challenge to students had the lowest mean among indicators with the mean of (M=3.12). These findings were supported by Lervik et.al (2025), unclear feedback, poor debriefing and unprepared facilitators can potentially affect students' confidence and improvement.

Table 3. Mean responses on Facilitators Collaboration Attitude, specific indicators (n=223)

Facilitators Collaboration Attitude Indicator	Mean	Standard Deviation
My instructor practiced a safe learning environment.	3.31	0.52
My instructor assessed my attitude and behavior to communicate effectively with the healthcare team	3.27	0.52
My instructor is approachable and easy to talk to about my clinical concerns	3.26	0.50
My instructor creates an environment of mutual respect with students and staff	3.26	0.47
My instructor works with me to set clear, specific learning objectives for the clinical placement.	3.25	0.50
My instructor involves me in the planning of my clinical activities and learning opportunities.	3.25	0.47
My instructor sensitively provides constructive advice when I face emotional or stressful clinical situations.	3.24	0.47
My instructor utilizes debriefing sessions to encourage self-reflection on my clinical decisions and rationales.	3.21	0.48
My instructor offers specific, individualized support tailored to my perceived learning needs.	3.20	0.51
My instructor deliberately increases the complexity of my patient care assignments to challenge my skills.	3.12	0.50
Overall Mean	3.24	0.40

3.1.4 Clinical Competence

Table 4 presents the distribution of respondents specifically related to clinical competence. The mean responses from each indicator were used to assess the clinical competence of participants. The findings indicated that overall clinical competence was good above average, with an average mean score of 3.8.

Among the specific indicators with the higher means, infection control during clinical procedures was reported as the strongest area (M=4.00). Effective communication with instructors and peers during care (M=3.97), as well as giving emotional support to patients and their families (M=3.95), were also seen as key strengths. Many participants also felt confident when doing basic nursing skills (M=3.91).

However, the lowest-rated areas included recognizing patient changes and reporting them right away (M=3.89), and knowing how to lower patients' risks in the clinic (M=3.81). Further lower scores were seen for doing full physical assessments and recording findings (M=3.77), helping patients with movement and transfers (M=3.72), and gathering patient history or giving health education (M= 3.71). The lowest scores were for answering patient or family questions confidently (M=3.64), making personalized care plans (M=3.64), and assessing nutritional needs and fluid intake accurately (M=3.63). These findings support Cañaveras et al., (2019), suggesting that nursing students typically master foundational skills first, while advanced competencies require additional training and practice to develop fully.

Table 4. Mean response on the Clinical Competence, specific indicators (n=223)

Clinical Competence	Mean	Standard Deviation
I can apply proper infection control measures during clinical procedures.	4.00	0.60
I can communicate effectively with my clinical instructors and peers during patient care.	3.97	0.57
I can offer emotional support and encouragement to patients and their families.	3.95	0.57
I can demonstrate confidence when performing basic nursing skills.	3.91	0.59
I can recognize changes and report them immediately.	3.89	0.62
I know how to take preventive measures to reduce patients' risks in the clinical area.	3.81	0.66
I can perform a thorough physical assessment and accurately record the findings.	3.77	0.67
I can safely help patients with mobility, positioning, and transfers.	3.72	0.65
I can gather a complete patient history during admission.	3.71	0.70
I am capable of providing health education to patients or families about their condition and care.	3.71	0.67
I can respond to patients' or families' questions with	3.64	0.70

confidence and understanding.		
I am knowledgeable in developing an individualized care nursing plan.	3.64	0.69
I can assess a patient's nutritional needs and fluid intake accurately.	3.63	0.71
Overall Mean	3.80	0.48

3.2 Inferential Analysis

To test the normality of data and what specific inferential statistical tool was utilized, the researcher used the Kolmogorov-Smirnov test (Faizi & Alvi, 2023). The test showed that data in overall Clinical Area Complexity, along with its subdomains, Faculty Collaboration Attitude, and Clinical Competence yielded a p-value less than 0.05 (See appendix G) that violated normal distribution, and nonparametric tests can ideally be applied. Thus, the researcher applied Spearman's rho correlation.

3.2.1 Relationship between the Clinical Area Complexity and Clinical Competence

Using the Spearman rho to test for relationships between variables showed that Clinical Area Complexity, along with its sub-domains and Clinical Competence, had no statistically significant relationship (r_s = 0.091, P = 0.175); therefore, the null hypothesis failed to be rejected.

Results in Table 5 shows that at the 5% level of significance, none of the sub-domains of Clinical Area Complexity yielded a statistically significant association with Clinical Competence. Specifically, Time Pressure (r_s = 0.091, P = 0.175), Patient Interaction (r_s = 0.050, P = 0.460), Unpredictability (r_s = 0.072, P = 0.285), and Role Challenges (r_s = 0.057, P = 0.393) all yielded p-values greater than 0.05.

Furthermore, the correlation coefficients for all variables fall within the range of 0.00–0.19, which is interpreted as a very weak relationship (Peter, 2025). Given that the overall correlation coefficient is r_s = 0.091, this indicates a very weak positive relationship between Clinical Area Complexity and Clinical Competence. This suggests that increases in clinical area complexity are not associated with changes in the level of clinical competence. These findings suggest that clinical competence among student nurses may not be significantly influenced by the complexity of the clinical area alone, but rather may depend on other contributing factors such as supervision quality, instructional support, learning strategies, and individual preparedness.

These findings are supported by existing literature in nursing education that there is no clear evidence establishing a direct relationship between the number of required clinical hours and the achievement of nursing competency (Bowling et. al., 2018). Their review emphasized that increasing clinical exposure alone does not guarantee improved competence outcomes, suggesting that competency development is influenced by multiple educational and contextual factors. This corroborates the present study's finding that clinical area complexity does not significantly predict clinical competence.

The result of the study can be understood through Benner's From Novice to Expert Theory (1984). This theory explained that clinical skills grow gradually through hands-on learning and practice over time. Although this study did not find a statistically significant relationship between Clinical Area Complexity and Clinical Competence, it still fits within Benner's framework. Benner pointed out that learners at the novice level and advanced beginner stages depend on rules, guidance, and supervision. Competence develops step by step as they gain valuable clinical experience. The lack of a significant relationship suggests that just facing complex clinical situations is not enough to lead to measurable improvements in competence among student nurses.

Table 5. Significant Relationship Between the Clinical Area Complexity and Clinical Competence

Clinical Area Complexity	Clinical Competence
	r- value *(r_s)* *P*-value
Time Pressure	r_s = 0.091 *P* = 0.175
Patient Interaction	r_s = 0.050 *P* = 0.460
Unpredictability	r_s = 0.072 *P* = 0.285
Role Challenges	r_s = 0.057 *P* = 0.393
Overall	0.091

**. Correlation is significant at the 0.05 level (2-tailed).*

3.2.2 Relationship Between Facilitators' Collaboration Attitude and Clinical Competence

Using Spearman rho to test for relationships between variables revealed that facilitators' collaboration attitude and level of clinical competence have a highly significant relationship (*P* = <.001**). Therefore the null hypothesis was rejected. The extent of the direction of their relationship was based on Schober et al's (2018) interpretation, showing a low correlation (r_s = 0.307). Although it is not very strong, it still showed

an association between variables. It further reflected that the computed correlation coefficient indicates a positive relationship between facilitators' collaboration attitude and clinical competence. This implies that as facilitators demonstrate a more positive and collaborative attitude, the level of students' clinical competence also tends to increase.

There was a highly significant and positive relationship (*P* = 0.001), towards the influence of clinical educators in nursing student's self efficacy and competence (International Journal of Nursing Education, 2021). Respondents perceived their clinical educators have a high level of clinical competence. This finding is supported by the study of Gaber (2011) who stated that nurse educators have a responsibility to provide nursing students with clinical instructions that are most effective at facilitating learning and developing skills. Moreover, clinical nurse educators are responsible to use their teaching and clinical competence to support student nurses and apply their knowledge to the complex clinical conditions.

Table 6. Relationship Between Facilitators' Collaboration Attitude and Clinical Competence

	Clinical Competence
	r- value *(r_s)* *P*-value
Facilitators' Collaboration Attitude	r_s = 0.307 *P* = <.001**

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

3.2.3 Mediation of Faculty Attitude on the Relationship Between Clinical Area Complexity and Clinical Competence

The results of the mediation analysis are presented in Figure 2 as path estimates. The interpretation of the extent path estimates was derived from Funder and Ozer (2019). The analysis revealed a significant positive relationship between Clinical Area Complexity and Facilitator Attitude in a small manner (Path a = .1449, *P* = .017). Furthermore, Facilitator Attitude had a large, significant positive effect on Clinical Competence (Path b = .4175, *P* < .001). The path c (.13, *P* = .076) indicates the overall relationship between Clinical Area Complexity and Clinical Competence before accounting for the mediator and showed no significant results.

Figure 2. Regression Coefficient for the relationship between clinical area complexity and clinical competence as indirectly mediated by facilitator attitude.

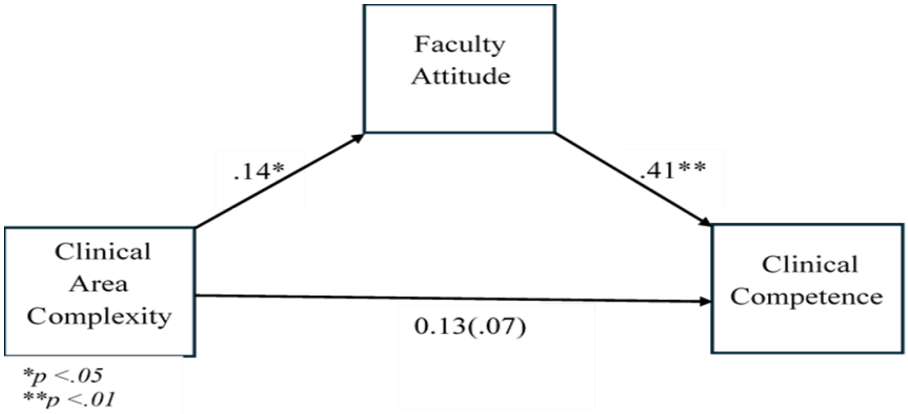

Table 7 shows the results of the mediation effects. The indirect effect (ab) notably showed small but significant results (ab = .0605, *P* = .029) while the total effect value showed a positive trend, it failed to reach statistical significance, suggesting that direct (c') and indirect (ab) complexity alone does not reliably predict competence. When Faculty Attitude was introduced into the model as a mediator, the relationship was partitioned, revealing a Direct Effect (Path c' = .07, *P* = .316) that was both reduced in magnitude and remained non-significant.

The substantial drop of total effect estimated value from .13 to direct effect, value of .07, coupled with a significant Indirect Effect confirmed a pattern of Full Mediation or indirect-only mediation (Hayes, 2022; Zhao et al., 2010). Recent literature has emphasized that the indirect effect could serve as the primary requirement for establishing a mediational mechanism (Memon et al., 2018). These results have statistically demonstrated that Clinical Area Complexity does not possess an independent, direct influence on student competence; rather, its impact is entirely dependent on the mechanism of improving Facilitators' Attitude.

Although studies on facilitators' attitude as a mediator between clinical area complexity and clinical competence is limited, multiple studies back up the individual correlations identified in this model. A cross-sectional study found that undergraduate nursing students' perceptions of the clinical learning environment significantly predicted their perceptions of clinical competence, implying that contextual factors in clinical settings influence competency outcomes (Abuadas, 2022).

Furthermore, research on aspects of the clinical environment, such as instructional relationships, presence, and support, has found that positive faculty engagement and supervision have been associated with higher student satisfaction, clinical confidence, and skill development, even in complex ward conditions (Yazid et al., 2025). Quality faculty-student relationships marked by support, guidance, and constructive engagement increase students' sense of competence and willingness to participate in clinical learning, which is consistent with the finding that faculty attitude is critical to translating clinical complexity into competence (Opoku-Danso et al., 2025).

These findings lend support to the conceptual pathway proposed in this study: while the complexity of clinical areas may not directly improve competence, a positive faculty attitude within the clinical environment fosters student engagement and learning, facilitating enhanced clinical competence.

Table 7. Mediation of Faculty Attitude on the Relationship Between Clinical Area Complexity and Clinical Competence

Effect Type	Estimate (β)	SE	Z	*P*-value
Indirect Effect (ab)	0.0605	0.0277	2.18	0.029*
Direct Effect (c')	0.0703	0.0702	1	0.316
Total Effect (c)	0.1308	0.0738	1.77	0.076

4. SUMMARY

This chapter summarizes findings, conclusions and recommendations in the factors of complexity, attitude, and clinical competence among nursing students. Significantly, this study aimed to determine the correlation between clinical area complexity and facilitators' collaboration attitude towards the level of clinical competence among nursing students in a private college.

This study utilized a descriptive-correlational with mediating analysis research design to describe the clinical area complexity, mediated by facilitators collaboration attitude and the affected clinical competence of the nursing students. The population was composed of forty-five (45) male nursing students and one hundred seventy-eight (178) female nursing students with an overall total of two hundred twenty-three (223) second-year nursing students in a private college. Using a stratified sampling technique total enumeration was employed.

5. CONCLUSIONS

The respondents of this study are second-year nursing students who generally perceived facilitators' collaboration attitude as good, while the level of clinical area complexity across its subdomains (time pressure, patient interaction, unpredictability and role challenges) was present manageable.

The overall level of clinical competence among the nursing students has been found to be good, with competency indicators reflecting satisfactory demonstration of clinical knowledge, psychomotor skills, and professional behaviors in the clinical setting.

The relational analysis revealed that clinical area complexity and its subdomains have no statistically significant relationship with clinical competence. The very weak positive correlations indicate that variations in perceived clinical area complexity do not substantially influence the level of students' clinical competence. This suggests that clinical competence may be shaped more by other factors such as instructional support, supervision quality, and individual preparedness rather than clinical area complexity alone.

6. RECOMMENDATIONS

For student nurses, it is encouraged to strengthen adaptive coping strategies, clinical decision-making skills, and self-directed learning. Open communication with clinical instructors regarding learning needs, difficulties encountered, and areas requiring guidance is likewise recommended to promote confidence and optimize clinical competence development.

For clinical instructors, nonetheless, since clinical area complexity has not been found to significantly influence clinical competence, it is recommended that the nurse educators to further enhance supervisory support, structured clinical guidance, and timely constructive feedback during clinical exposure. Strengthening mentorship, pre and post-clinical conferences, and competency-based supervision strategies may help students effectively integrate theoretical knowledge with clinical practice and manage complex clinical situations.

For the Dean and Academic Administrators, in light of the findings that clinical competence may be influenced by factors beyond clinical area complexity, it is recommended that clinical instruction programs

be further strengthened through faculty development initiatives, competency-based curriculum enhancement, and systematic monitoring of clinical supervision quality. Continued resource allocation for clinical training, faculty capability-building programs, and strengthened partnerships with affiliating hospitals and healthcare institutions are likewise encouraged. Institutional policies that uphold safe, well-supervised, and student-centered clinical environments are essential to ensure adequate and meaningful clinical learning experiences and to optimize students' clinical competence across year levels.

For Future Researchers, it is recommended that future studies may explore other variables that may significantly influence clinical competence among nursing students, such as quality of clinical supervision, learning environment, student motivation, and instructional strategies. Qualitative or mixed-methods research is also recommended to gain deeper insights into students' lived experiences in complex clinical settings. Additionally, longitudinal investigations may be conducted to examine how exposure to varying levels of clinical area complexity affects the development of clinical competence over time.

ETHICAL APPROVAL AND CONSENT

The iloilo Doctor’s College approved the research protocol of the research ethical committee. The informed consent was obtained from participants after explaining voluntary participation, study goals, risk and benefits.

AI (ARTIFICIAL INTELLIGENCE) DISCLOSURE

The researchers used Grammarly to refine and edit grammar. The same tool was also used to improve the structuring and phrasing of the sentences in the write-up.

COMPETING INTERESTS

The author declared that no competing interests exist.

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