

Cognitive And Affective Dimension Of Critical Thinking To Student Engagement Among Nursing Students In Rizal Province

Dovie B. Ponciano¹, Emerson G. Aliswag²

¹RN, MAN Faculty, Centro Escolar University, Makati City, Philippines

²DNS, PhD, PDSML, FPNA Faculty, National University, Philippines

Cite this paper as: Dovie B. Ponciano, Emerson G. Aliswag, (2025) Cognitive And Affective Dimension Of Critical Thinking To Student Engagement Among Nursing Students In Rizal Province. *Journal of Neonatal Surgery*, 14 (16s), 351-356.

ABSTRACT

Background: Critical thinking is a key nursing competency that allows nurses to deal with the intricacies of healthcare issues, e.g., lack of resources and heterogeneity of patient needs, maintaining quality care. It has a close relationship with problem-solving, as Garcia and Lopez (2022) underscore. Despite this, some barriers prevent the production of critical thinking among nurses in training, i.e., prevailing rote memorization, lack of adequate exposure to actual clinical situations, and poor evaluation practices (Cruz, 2020). Moreover, Acaín et al. (2020) emphasize the importance of the clinical learning environment, whereas Lee et al. (2020) and Capistrano & Rubio (2022) prove the efficacy of blended and simulation-based learning in developing critical thinking. Cultural beliefs, for example, respect for authority and obedience can also deter students from challenging current practices (Hofstede Insights, 2023). In addition, David and Macatangay (2020) propose that disposition towards critical thinking among students will affect academic success. The study aims to address the gap in research on dimensions of critical thinking among young Filipino nursing students through the exploration of factors that affect its development and student participation. Finally, the results will help enhance the quality of nursing education and patient care in the country.

Result: The critical thinking is an essential skill for the nurses, as it allows them to address the complex issues for the patients in healthcare facilities, make appropriate clinical decisions, and offer a high-quality care to patients. Various studies indicate a several factors affecting the critical thinking acquisition, such as teaching approaches, clinical learning settings, and culture. The use of the traditional rote memorization and insufficient exposure to the actual clinical situations inhibits the development of the critical thinking, whereas blended and simulation-based learning have been proven to be an effective in developing the analytical skills. Students' disposition towards the critical thinking and school participation also plays an important role in the whether they can implement a reasoning and problem-solving in practice. With these considerations, the developing critical thinking competencies among the nursing students are not only important for maximizing the patient outcomes but also for the growth of the nursing profession.

Conclusion: the study necessitates an integrative strategy in nursing education that encompasses the emotional resilience, intellectual curiosity, and behavioral consistency. Specifically, the targeted the interventions, such as curricular adjustments and active engagement of the Nursing Clinical Instructors and Professors, are critical in transposing the theoretical learning into a realistic practice. Enhancing these aspects will improve the production of the well-rounded nursing professionals who are ready for the realities of today's healthcare setting.

Keywords: Cognitive, Critical Thinking, Student, Nursing.

1. INTRODUCTION

Critical thinking is the cornerstone of providing effective nursing care in the demanding and constantly evolving field of healthcare furthermore, the attitudes, including the critical thinking attitudes, constitute an important part of the idea of good care, of the good professional (Falcó-Pegueroles et al., 2021). It's the invisible thread that unites intuition, experience, and knowledge to enable nurses to make wise decisions, manage challenging circumstances, and provide the best possible care for their patients. Beyond technical skills and clinical knowledge, critical thinking gives nurses the capacity to effectively assess information, detect potential problems, and predict their repercussions. It cultivates an inquiring mindset, encouraging nurses to investigate all possibilities prior to making decisions and acting. This analytical approach is critical for guaranteeing patient safety, encouraging optimal outcomes, and providing tailored care that actually addresses individual requirements.

Critical thinking is a dynamic talent that is developed via practice, reflection, and a dedication to lifelong learning. Typical barriers while teaching critical thinking in pre-graduate and even in the practice in the clinical settings should be establish

and eliminate (Christodoulakis, A. et al., 2023). Therefore, through acceptance of this dynamic process, nurses develop a solid basis for decision-making, which makes it possible for them to adjust to unanticipated events and efficiently address problems that ineluctably occur in the healthcare setting.

Teaching students' high-level cognitive skills, especially critical thinking, can help them to improve their function in various circumstances (Bangun & Praghlapati, 2021). The benefits learning and practicing critical thinking extend well beyond the nurse practitioners who want to make a more successful decision in both in their personal and professional lives (Turan & Yildiran 2019). But also favourably benefiting the entire healthcare system and in particular the client. It also develops cooperation and communication among the healthcare team, which results in a patient care strategy that is more comprehensive and effective. Furthermore, critical thinking enables nurses to act as champions and advocates for their patients, making sure their needs are satisfied and their opinions are heard.

2. METHODS

Research Design

The researcher will utilize a multi-method design, wherein it comprises of the following, survey correlational, regression analysis, and path analysis research design on which it involves the collection and statistical analysis of numerical data. With this approach, the researcher will explore the relationship between the affective dimension, student engagement, and cognitive skills hence, the researcher will benefit more on well-rounded understanding of the enumerate research questions.

Respondents of the Study

The study will involve of nursing who are currently enrolled their clinical academic requirements for the year 2024-2025.

Instruments of the Study

The researcher uses a two-part research instrument to measure the critical thinking and students' engagement levels among nursing students. The cognitive skills and affective aspects are measured in the first part with the Assessing Critical Thinking (ACT) rubric, using vignette-style responses to indicate students' skill in identifying, justifying, and specifying critical thinking skills. The approach was developed from a Delphi study with expert nurses to provide orderly assessment through the use of standardized scoring. To ensure objectivity, a third-party nurse educator helps in rating the responses. The second component assesses student engagement with the Student Engagement in Schools Questionnaire (SESQ), which is a self-report Likert-scale questionnaire that measures affective, behavioral, and cognitive engagement. Both tools together give a complete analysis of nursing students' critical thinking and level of engagement.

3. RESULT

Cognitive Skills of Nursing Students

The results show that the cognitive abilities of the nursing students on the seven thinking dimensions that are essential in the critical thinking. "Analysing" was the most prominent skill, reflecting of the students' ability to the identify patterns, evaluate information critically, and make conclusions critically. "Applying standards" and "Predicting" were also a prominent, reflecting competence in following guidelines and forecasting consequences in the clinical decision-making. Nonetheless, "Transforming knowledge" was the weakest of the all the skills, with wide variation among the students, which implies that it needs to be improved in order to synthesize and use the information creatively. The other dimensions, including the "Discrimination," "Information Seeking," and "Logical Reasoning," had a relatively strong performance with some of the variation. Overall, the results indicate that although the nursing students have a good cognitive skills, their focused efforts are necessary to improve their ability for the innovation and problem-solving.

This aligns with the findings of Smith et al. (2021), who observed that students often face challenges in integrating theoretical knowledge into practical applications due to limited opportunities for experiential learning in traditional curricula. Also supported by recent research emphasizing the importance of critical thinking skills in nursing education to prepare students for complex healthcare environments (Johnson & Lee, 2022). This reinforces the call for curricular reforms emphasizing applied critical thinking and problem-solving skills, as highlighted in the works of Garcia and Moreno (2023). By addressing these gaps, nursing programs can better prepare students for the demands of modern clinical practice.

Affective Dimensions of Critical Thinking

The findings show that nursing students have high affective critical thinking capabilities, especially open-mindedness, contextual perspective, and intellectual integrity, reflecting openness to various ideas, ethical thought, and integrity in decision-making. Curiosity and confidence are also high, reflecting self-assurance and inquisitiveness in clinical practice. Flexibility and intuition are in a low, reflecting difficulty in being flexible in the response to the changing situations and using intuitive decision-making. Creativity also needs to be more developed to support the innovative problem-solving for the nursing students. These results underscore the necessity of the experiential and reflective learning approaches to enhance the adaptability, intuition, and creative thinking, more effectively preparing students for complex in healthcare settings

problems.

These findings are consistent with research promoting critical thinking in student learning environments is therefore crucial for modern education. Lu (2021) describes the design and implementation of a blended learning environment aimed at promoting critical thinking by developing a deeper understanding of the concept of critical thinking and its importance and explores students' perceptions of the environment and its impact on their critical thinking environment. Expert teachers emphasize creating a safe atmosphere, maintaining a supportive climate, and addressing to optimize the learning environment for critical thinking (Jaffle et al., 2019). In health sciences education, critical thinking is particularly important for improving care quality (Christodoulakis, Kritsotakis, et al., 2023).

Affective Engagement: Liking for Learning

The student engagement of the data, in show that the affective aspect of "liking for learning," demonstrates that the nursing students tend to enjoy their education more. They are most enjoying learning new things in class, as shown by the high rates of agreement on statements such as "I like learning new things in class" and "I am interested in learning." Overall, the satisfaction with the learning experience and teaching styles can be inferred by these results. But the lower rating for "I think learning is boring" indicates that a significant point of disengagement where some of the students find parts of their learning less engaging. The variation in results indicates that the majority of students are engaged, modifications to teaching styles or content presentation may be required to maintain interest levels across all learners.

These findings align with recent research on student engagement in nursing education. For instance, Brown and Taylor (2022) highlighted that student engagement is highest when active, interactive, and student-centered teaching methods are employed, such as problem-based learning or simulation. Also, critical for fostering intrinsic motivation and deep learning (Miller & Johnson, 2021). However, the need for educational strategies that addresses areas of disengagement, such as diversifying teaching approaches or offering more relevant and meaningful learning experiences (Wilson & Carter, 2020).

Affective Engagement: Liking for School

The affective engagement for the on liking for school data indicates that nursing students, in general, have a moderate positive attitude towards their school. Most students are proud to be at school and report happiness at belonging to the school, although their enthusiasm is not extremely strong. There is some variability in responses, especially with regard to students' feelings about going to school every day, suggesting areas of improvement. Although the overall attitude is positive, measures to improve the school climate and intervene in student motivational factors would enhance their feeling of satisfaction and belonging even more.

This aligns with findings indicate that the implementation of these mentioned methods on a larger scale brings challenges particularly noting the need for increased investments in teaching training and improvements in school facilities and infrastructure to support these innovations. Furthermore, Boso et. al. (2021) found that most nursing students demonstrated a positive inclination towards critical thinking, with confidence in reasoning being their strongest attribute. Unfolding case studies have also been found to be more effective than traditional case studies in developing critical thinking skills, as evidenced by higher examination scores (Englund, 2020). Strategies such as simulation, case studies, and real clinical experience, along with guidance from instructors, were identified as effective in stimulating critical thinking and clinical reasoning

Behavioral Engagement: Effort and Persistence

The behavioral engagement on the effort and persistence of the data indicates that the nursing students overall tend to show high a commitment and tenacity towards the academic work. Most of the students make strenuous efforts during the class, struggle through challenging assignments, and make a genuine effort to listen attentively, showing an extensive engagement. Nevertheless, some of the students show a variable effort, as evidenced from the lower scores in maintaining attention and full class participation. The variation in response indicates that although the majority of the students are persistent, others might find it difficult to maintain the engagement. These results highlight that the importance of a supportive learning environment that will fosters persistence and maintains students' consistent engagement in learning.

The relatively low variability and high mean scores for most items suggest that nursing students are generally well-prepared to persist in challenging situations, a critical trait for success in clinical settings. However, the lower scores for certain items reflect potential barriers to consistent engagement, such as stress, fatigue, or lack of motivation, which are commonly observed in intensive academic programs (Jones & Smith, 2021). Addressing these barriers through targeted interventions such as mentorship programs, time management training, and wellness initiatives can help students build resilience and maintain their focus over extended periods.

Behavioral Engagement: Extra-curricular Activities

The extracurricular activity data show that the students in nursing engage moderately, with some of an inconsistent participation. Although a lot of students are involved within the school activities like sports day and volunteering, active enrollment in extracurricular programs is relatively low. From the findings, it can be inferred that the involvement could be

a determined by the factors of interest, availability, or schedule. Considering the significance of the extracurricular activities in developing a interpersonal skills and a sense of belonging, institutions can make more flexible and varied programs available to foster the higher student participation. Enhancing the support for extracurricular activity can improve the overall educational experience of students and prepare them better for professional challenges.

These findings align with the observations of Martinez and Wang (2022), who reported that nursing students often prioritize academic responsibilities over extracurricular involvement due to the demanding nature of their coursework and clinical rotations. The overall moderate engagement levels highlight the importance of balancing academic and extracurricular activities in nursing education. Research by Kim and Lee (2023) underscores the benefits of extracurricular involvement, including the development of teamwork, leadership, and stress management skills, which are critical for professional success in nursing with the study by Johnson et al. (2021), which emphasized the need for extracurricular programs to be more flexible and tailored to students' needs. Despite moderate engagement, extracurricular activities remain an essential component of nursing education, providing opportunities for students to develop interpersonal skills and build a sense of community. To increase participation, institutions should consider implementing more diverse and accessible extracurricular programs that accommodate the unique time constraints of nursing students. Enhancing awareness of the long-term professional benefits of extracurricular involvement may also encourage greater engagement, as noted by Garcia et al. (2023).

Cognitive Engagement

The cognitive engagement of the data emphasizes that the nursing students express a high intellectual investment in learning. Students are actively practice in critical thinking, problem-solving, and application of the knowledge to a real-world situations, evidenced by their strong preference for putting a lot of ideas into their own words and relating a new information to their personal experiences. Although overall engagement is strong, lower scores in deep processing strategies like analyzing topics beyond simple reading indicate areas for development. The results highlight the necessity of creative teaching approaches to further boost cognitive engagement and facilitate higher-order thinking skills necessary for nursing practice.

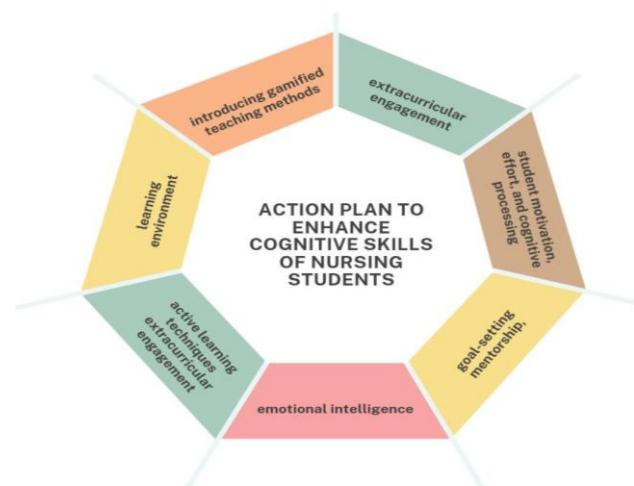
These findings align with research by Smith et al. (2021), who noted that nursing students often demonstrate strong intellectual commitment due to the rigorous demands of their curriculum and the necessity to master complex theoretical and practical skills. This level of engagement is crucial in fostering deep learning, critical thinking, and evidence-based decision-making. Research by Lee and Johnson (2023) supports this, highlighting the importance of interactive learning techniques, such as simulations and case-based learning, in enhancing students' cognitive involvement.

Action Plan to Enhance Cognitive Skills of Nursing Students

Holistic Action Plan for Enhancing Cognitive Critical Thinking Skills through Affective Dimensions and Student Engagement

This action plan seeks to promote the cognitive critical thinking abilities among the nursing students by reinforcing a affective engagement, behavioral persistence, and a cognitive involvement. It takes advantage of the robust association between the emotional resilience and cognitive skills, facilitated by structured interventions under the guidance of Nursing Clinical Instructors and Professors.

Some of the key strategies are emotional intelligence workshops, goal-setting mentoring, active learning techniques, and extracurricular engagement to enhance student effort, motivation, and cognitive processing. An inclusive creating an inclusive learning environment and introducing gratified teaching methods will also encourage more enjoyment and active participation.



The strategy is faculty-led, with Clinical Instructors leading students in real-world experiences, and Professors overseeing interactive and dynamic classroom experiences. Progress will be tracked through surveys, evaluations, and feedback, with success quantified by the enhancement of cognitive abilities, student participation, and overall satisfaction. This integrated holistic approach nursing students for the complexities of modern healthcare by balancing emotional and intellectual growth.

4. CONCLUSION

The study sheds a light on the important of the interaction between the affective and cognitive aspects in determining the nursing students' academic and clinical preparedness. Although the students exhibit a well-developed cognitive abilities like analysis and application, areas such as converting the knowledge need improvement. Affective of the characteristics such as open-mindedness and intellectual integrity are the areas of strength, but flexibility, intuition, and creativity require strengthening. The results on the student engagement report have a high cognitive and behavioral participation, especially in the effort, persistence, and enjoyment of learning. The moderate extracurricular participation and lower the engagement in liking for the learning and school indicate that some of the room for improvement in creating a more inclusive and stimulating learning environment.

5. CONFLICTS OF INTEREST

The study declares that there is no conflict of interest between the authors. The research was conducted with impartiality, and no personal, financial, or professional interests influenced the study's design, data collection, analysis, or conclusions.

REFERENCES

- [1] Christodoulakis, A., Kritsotakis, G., Gkorezis, P., Sourtzi, P., & Tsiligianni, I. (2023). Linking Learning Environment and Critical Thinking through Emotional Intelligence: A Cross-Sectional Study of Health Sciences Students. *Healthcare*, 11(6), 826. <https://doi.org/10.3390/healthcare11060826>
- [2] Bangun, A. V., & Praghlapati, A. (2021). Enhancing critical thinking skills in nursing higher education in preparation for the Industrial Revolution 4.0. *KnE Life Sciences*, 793–804. <https://doi.org/10.18502/cls.v6i1.8756>
- [3] Westerdahl, F., Carlson, E., Wennick, A., & Borglin, G. (2022). Bachelor nursing students' and their educators' experiences of teaching strategies targeting critical thinking: A scoping review. *Nurse Education in Practice*, 63, 103409. <https://doi.org/10.1016/j.nepr.2022.103409>
- [4] Garcia, R. M. C., & Lopez, M. C. (2022). The relationship between critical thinking and problem-solving skills among nursing students. *Journal of Advanced Nursing*, 78(3), 887–896.
- [5] Lu, D. (2021). Students' perceptions of a blended learning environment to promote critical thinking. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.696845>
- [6] Christodoulakis, A., Kritsotakis, G., Gkorezis, P., Sourtzi, P., & Tsiligianni, I. (2023). Linking Learning Environment and Critical Thinking through Emotional Intelligence: A Cross-Sectional Study of Health Sciences Students.
- [7] Boso, C. M., Van Rooyen, D. R. M., & Wyk, N. C. V. (2020). Critical thinking skills of nursing students: Observations of classroom instructional activities. *Nursing Open*, 7(3), 814–822. <https://doi.org/10.1002/nop2.426>
- [8] Englund, H. (2020). Using unfolding case studies to develop critical thinking skills in baccalaureate nursing students: A pilot study. *Nurse Education Today*, 93, 104542. <https://doi.org/10.1016/j.nedt.2020.104542>
- [9] Campaner, J. P., & Lipayo, V. C. S. (2024). The operational efficiency practices of selected virtual service freelancers in the Philippines. *Globus: An International Journal of Management & IT*, 15(2), 23–29. <https://doi.org/10.46360/globus.mgt.120241003>
- [10] Pacis, C. R., Vasquez, F. A., Nicolas, G. A., Orata, E. F., Tuiza, A. Y. A. T., Dejel, O. T., & Immaculata, M. V. (2024). Nurses' level of knowledge, attitudes, and practices in relation to implementation of evidence-based practice and their disaster preparedness. *Cosmos Journal of Engineering & Technology*, 14(1), 07–13. <https://doi.org/10.46360/cosmos.et.620241002>
- [11] Jones, A., & Smith, B. (2021). Barriers to nursing student engagement: The impact of stress, fatigue, and motivation in intensive academic programs. *Journal of Nursing Education and Practice*, 11(4), 45–56.
- [12] Smith, C., & Johnson, D. (2021). Enhancing nursing student resilience through mentorship programs. *Nurse Education Today*, 99, 104752.
- [13] Garcia, L., Torres, M., & Rivera, J. (2023). Encouraging extracurricular engagement in nursing education: Long-term professional benefits. *Journal of Nursing Education*, 62(3), 145–158.

-
- [14] Gupta, T., & Khan, S. (2023). Education and international collaboration in the digital age. *Globus Journal of Progressive Education*, 13(1), 79–87. <https://doi.org/10.46360/globus.edu.220231008>
- [15] Pascual, I. L. O., Hipona, J. B., Tuazon, A. A., Dael, C. C. C., Dionisio, A. S., Zapico, S. V., & Lumbo, H. B. (2024). Behaviors, barriers and motivation to incident reporting among staff nurses. *Globus: An International Journal of Medical Science, Engineering & Technology*, 13(1), 26–28. <https://doi.org/10.46360/globus.met.320241007>
- [16] Agarwal, N., et al. (2023). An innovative framework in the enhancement of blended learning from the student's perspective in higher education institutions. *Community Practitioner*, 29(9), 154–161.
- [17] Smith, R., Patel, J., & Williams, T. (2021). Intellectual commitment and its impact on nursing students' learning outcomes. *Journal of Nursing Education*, 60(5), 234-245.
- [18] Cruz, C. (2020). Critical thinking in Philippine education: A review of research. *The Normal Lights*, 17(1), 125-150.
- [19] Acain, M. A., et al. (2020). Clinical learning environment and critical thinking skills of nursing students. *International Journal of Nursing Education*, 10(1), 1-6.
- [20] Caballero, M. A., Cruz, K. A., Lucas, J. J., Ortega, L. D., & Sangil, M. (2023). Lived experiences of COVID-19 survivors from the province of Pampanga. *Cosmos: An International Journal of Management*, 12(2), 79–83. <https://doi.org/10.46360/cosmos.mgt.420231009>
- [21] Galvez, R. S. (2022). Learners' psychological well-being and academic performance in the midst of health crisis: A correlational study. *Cosmos: An International Journal of Art and Higher Education*, 11(1), 45–52. <https://doi.org/10.46360/cosmos.ahe.520221006>
- [22] David, C. C., & Macatangay, K. D. (2020). Critical thinking disposition and academic performance of nursing students. *Journal of Nursing Research*, 28(4), 1-8.
-