Journal of Allied Health Sciences & Medical Research
Volume 2 Issue 2 June 2026
DOI: https://doi.org/10.53378/jahsmr.353170

Pre-internship program effectiveness and its impact on clinical internship outcome

[1]Brent Kiro G. Arbon, [1]Jomelyn Nicole G. Marino, [1]Carlos Von Luigui S. Sale, [2]Daniele Clyde C. Cacha & [3]Delcie F. Jader

Abstract

This study examined the effectiveness of the pre-internship program and its impact on the clinical internship performance of students from Batch 2017 and 2018. Since the program was halted during the pandemic, the study aimed to gather evidence that could support its revival and improvement for future cohorts. The primary objective was to determine whether pre-internship experiences significantly influenced student performance and to propose actionable recommendations. A quantitative research design was employed, involving document review and an online survey of 22 graduates from the identified batches. Findings revealed that students achieved an average pre-internship score of 4.00, reflecting strong initial readiness. However, performance slightly declined during Clinical Education I (mean grade of 2.49) and Clinical Education II (mean grade of 2.59). Statistical analysis showed a significant positive correlation ($r = 0.532$, $p = 0.011$) between pre-internship scores and Clinical Education I grades, suggesting that pre-internship activities effectively enhanced early clinical competence. Nonetheless, sustaining performance throughout the internship requires further program refinement. The study underscores the importance of strengthening the pre-internship program to better prepare students for real-world challenges in clinical settings. While the program successfully builds foundational skills and confidence, additional support in areas such as time management and critical decision-making is essential. Enhancing these aspects will ensure students maintain consistent performance and adaptability during their entire clinical education journey.

Keywords: *clinical education, radiologic technology, allied health program, internship*

Article History:

***Received**: March 19, 2026* ***Revised**: May 15, 2026*
***Accepted**: May 25, 2026* ***Published online**: June 6, 2026*

Suggested Citation:
Arbon, B.K.G., Marino, J.N.G., Sale, C.V.L.S., Cacha, D.C.C. & Jader, D.F. (2026). Pre-internship program effectiveness and its impact on clinical internship outcome. *Journal of Allied Health Sciences & Medical Research*, 2(2), 24-41. https://doi.org/10.53378/jahsmr.353170

About the authors:
[1]BS Radiologic Technology-IV, Calayan Educational Foundation, Inc.
[2]Registered Radiologic Technologist. Faculty, Calayan Educational Foundation, Inc. Email: danieleclyde.cacha@cefi.edu.ph
[3]Corresponding author. MA in Education Management. Dean, Calayan Educational Foundation, Inc. Email: delcie.jader@cefi.edu.ph

1. Introduction

The pre-internship program in Radiologic Technology is a specialized training initiative designed for Level III students as they transition from classroom learning to clinical practice. Conducted during the second semester, the program provides 72 hours of guided hospital exposure distributed across several weeks in coordination with partner medical institutions and students' academic schedules. Its primary purpose is to familiarize students with the hospital environment, particularly radiology departments, expose them to the services, equipment, and technologies used by professional radiologic technologists, and prepare them for the demands of clinical internship. The program also aims to cultivate professional values such as responsibility, dedication, commitment to work, and pride in contributing to patient care and the healthcare system.

Pre-internship programs are widely recognized as valuable preparatory experiences that enhance students' readiness for clinical training (Al Shahrani et al., 2022; Alruwaili et al., 2024; Dare et al., 2009; McKenzie & Mellis, 2017). Such programs provide students with insights into clinical practice, improve their understanding of professional expectations, and strengthen their competence before formal internship placement. In a study on ophthalmology education, Wu et al. (2020) described a structured pre-internship activity as an effective strategy for improving undergraduate students' readiness and adaptability to clinical internships. Empirical evidence shows that pre-internship experiences enhanced students' confidence and clinical skills, facilitating a smoother transition into clinical training (Ha & Siddiqui, 2025; Khalifa et al., 2026; van Hell et al., 2008). Similarly, the Commission on Higher Education (CHED) Memorandum No. 104, Series of 2017, Article 7, Sections 14 and 16, requires the conduct of pre-internship seminars or training programs as a prerequisite for internship deployment and stipulates that students must satisfy pre-internship requirements before undertaking internship placements.

The importance of pre-internship preparation is further reflected in the Guidelines for the Radiologic Technology Clinical Education Training Program under CHED Memorandum Order (CMO) No. 18, Series of 2006. The guideline identifies the Clinical Education Training Program, or Clinical Internship, as a fourth-year requirement in the Bachelor of Science in Radiologic Technology program. The internship consists of eleven months of intensive clinical training in general radiography and various radiology subspecialties, including CT scan, MRI, Interventional Radiology, Nuclear Medicine, Radiation Therapy, and Ultrasonography.

Beyond technical competency, the program seeks to develop positive values, professional commitment, compassion, and concern for others.

Although numerous studies have examined the implementation and outcomes of clinical internship programs (i.e., Magnaye, 2022; Capinpuyan & Miguel, 2019), there was no study specifically investigating the effectiveness of the pre-internship program in Radiologic Technology. This gap in the literature provided the impetus for the present study. Moreover, because the program was suspended during the COVID-19 pandemic, the findings may serve as a valuable basis for revising and strengthening its implementation. The study is expected to contribute to the enhancement of the pre-internship program for future cohorts of Radiologic Technology students.

This study aims to evaluate the perceived effectiveness of the pre-internship program and examine its outcomes and impact on the clinical internship experiences of Radiologic Technology graduates from 2017 and 2018. Specifically, the study seeks to: (1) obtain the pre-internship evaluation records of the graduates; (2) compile their Clinical Education 1 and Clinical Education 2 grades; (3) determine graduates' perceptions regarding the effectiveness of the pre-internship activity in preparing them for clinical internship; and (4) examine the relationship between pre-internship evaluations and clinical internship performance.

2. Literature Review

2.1. Pre-Internship Programs and Internship Readiness

Pre-internship programs serve as a critical bridge between classroom learning and clinical practice by familiarizing students with hospital environments, radiology services, diagnostic equipment, and professional expectations before they undertake full clinical responsibilities. These programs are intended to strengthen students' readiness, confidence, and competence, and facilitate a smoother transition into clinical internships (Ha & Siddiqui, 2025; Khalifa et al., 2026; van Hell et al., 2008). Wu et al. (2020) and Umpar and Sison (2025) found that structured pre-internship activities enhanced undergraduate students' confidence and clinical skills and improved their adaptability to clinical environments. Similarly, Megasari et al. (2025) demonstrated that pre-internship initiatives incorporating workshops on teamwork, communication, personal development, and industry engagement improved both technical and soft skills required for internship success.

Despite these benefits, concerns remain regarding the extent to which pre-internship activities reflect actual clinical realities. Rostami-Moez et al. (2022) reported that pre-internship examinations, although well organized, often failed to align with the practical skills required in clinical settings. Edward (2026) similarly identified a mismatch between students' expectations and internship realities, with many interns experiencing difficulties due to inadequate mentorship and heavy workloads. Legg and Cohen (2020) further found that radiology students experienced significant stress during pre-clinical training because of workload pressures, time constraints, and the challenge of mastering complex clinical skills. To address these concerns, they recommended stress-management interventions, time-management training, and simulation-based learning. Supporting the value of continuous program improvement, Allikmets and Vink (2016) found that incorporating student feedback into pre-internship assessments enhanced motivation and skill development. Likewise, Cruz et al. (2024) emphasized that insufficient clinical exposure before internship often results in stress and difficulty applying theoretical knowledge during clinical rotations.

2.2. Clinical Learning Environment and Competency Development

A substantial body of literature highlights the importance of clinical learning environments in developing students' competence and professional readiness (Flott & Linden, 2016; Munangatire et al., 2024; Atkins et al., 2026; Zhang et al., 2022; Nordquist et al., 2025; Bsharat et al, 2025). Ingrassia (2020) found that expert supervision, hands-on learning opportunities, exposure to diverse clinical cases, and positive reinforcement significantly enhance student learning and confidence. Similarly, Umpar and Sison (2025) reported that most Radiologic Technology students prefer experiential, hands-on learning approaches that directly contribute to competency development.

Clinical placements also play a crucial role in translating theoretical knowledge into practical skills. Lundvall et al. (2021) observed that direct clinical exposure enables radiography students to apply classroom concepts to patient-care situations. Likewise, Nyoni et al. (2021) concluded that well-structured clinical placements promote student learning, adaptability, and professional growth, particularly when supported by effective supervision and positive learning environments. Samaniego-Mananghaya (2025) further emphasized that supportive clinical settings, proper supervision, and positive learning experiences are essential for developing students' confidence, communication skills, and professional competence.

2.3. Academic Preparation, Competencies, and Internship Performance

Several studies have identified academic preparation and pre-internship competencies as important determinants of internship performance. For instance, van Hell et al. (2008) found that students with stronger academic achievement tend to perform better clinically because a solid theoretical foundation enhances diagnostic reasoning and problem-solving skills. Similarly, Almadani et al. (2024) reported that students with stronger academic preparation and prior clinical exposure were more likely to succeed during internship.

Research also highlights the role of competency development in internship outcomes (Sung et al., 2025; Draper & Louw, 2012). van Hell et al. (2008) found that students who developed stronger technical and interpersonal competencies during pre-internship activities achieved better clinical internship outcomes. Supporting these findings, Bohrer and Rodgers (2025) reported that students who received adequate training and exposure before internship demonstrated greater confidence and competence in performing clinical procedures.

Although clinical internships provide valuable learning opportunities, students often encounter challenges that affect their performance and adjustment. Aguilar et al. (2023) reported that Radiologic Technology interns commonly experienced stress, workload pressures, and difficulties adapting to clinical demands. Similarly, Cañete et al. (2024) found that students struggled with time management, communication, and adjustment to fast-paced hospital environments. Strengthening pre-internship preparation may help reduce the challenges students face during clinical training and improve their overall internship experience.

2.4. Theoretical Foundation: Experiential Learning Theory

This study is anchored on Kolb's (1984) Experiential Learning Theory (ELT), which posits that learning occurs through the transformation of experience and the integration of action, reflection, and application. The theory is particularly relevant to Radiologic Technology education, where students are expected to translate theoretical knowledge into clinical competence. Supporting this perspective, Umpar and Sison (2025) emphasized that hands-on learning experiences significantly contribute to competency development and professional readiness. Thus, pre-internship activities represent an important experiential learning opportunity that prepares students for the demands of clinical internship and professional practice.

3. Methodology

3.1. Research Design

This study employed a quantitative research design to evaluate the effectiveness of the pre-internship program in preparing Radiologic Technology graduates from Batches 2017 and 2018 for their clinical internship. The study utilized numerical data obtained from document reviews and survey responses to provide both objective measures of performance and subjective evaluations of the program's effectiveness.

3.2. Sample Participants

The participants consisted of regular students from the College of Radiologic Technology who completed both the pre-internship activity during their third year and the clinical internship during their fourth year. The sample included nine graduates from Batch 2017 and thirteen graduates from Batch 2018, for a total of twenty-two respondents. All participants experienced the pre-internship program through face-to-face delivery and subsequently completed their clinical internship requirements.

A purposive sampling technique was employed to ensure that only graduates who had fully participated in both the pre-internship and clinical internship programs were included. This approach ensured that the data collected were directly relevant to the evaluation of the program. Students who did not successfully complete the pre-internship activity were excluded to maintain consistency in participant experiences and outcomes.

3.3. Research Process and Data Collection

The study utilized two primary sources of data: document review and a survey questionnaire. The document review involved the examination of institutional records, specifically the pre-internship evaluation results and clinical internship grades of the graduates. These records provided objective indicators of student performance before and during clinical internship.

To complement the documentary data, a structured survey questionnaire was administered through Google Forms to gather information regarding graduates' perceptions of the effectiveness of the pre-internship program. The online format was selected to maximize accessibility and convenience, particularly for graduates residing in distant locations or

working abroad. Respondents were encouraged to provide honest and accurate responses to support the objectives of the study.

Prior to data collection, a formal request for access to school records was submitted to the Dean of the College of Radiologic Technology. Upon approval, the researchers obtained the necessary pre-internship evaluation records and clinical internship grades while strictly observing confidentiality requirements. Eligible graduates were contacted through private messages and provided with an invitation letter explaining the purpose of the study. Online informed consent was secured before participation. The use of Google Forms allowed respondents to complete the survey at their convenience, thereby increasing participation and minimizing logistical constraints.

3.4. Instrumentation

The study employed a researcher-developed survey instrument consisting of closed-ended questions designed to assess the perceived effectiveness of the pre-internship activity. Responses were measured using a four-point Likert scale rated from Strongly Agree (4) to Strongly Disagree (1). This scaling system enabled the researchers to determine the degree of agreement with each statement and facilitated the analysis and interpretation of survey results.

To establish content validity, the instrument was reviewed by two Registered Radiologic Technologists (RRTs) and one language specialist. A pilot test was subsequently conducted with ten graduates from Batch 2019 who had also participated in the pre-internship program. Feedback obtained from the pilot test was used to refine the questionnaire and improve its clarity and reliability.

3.5. Data Analysis

The weighted mean was employed to summarize and interpret the pre-internship evaluation records, clinical internship grades, and respondents' perceptions of the effectiveness of the pre-internship program. This statistical technique enabled the researchers to determine average responses while accounting for the assigned scale values. On the other hand, Spearman's Rank-Order Correlation (Spearman's Rho) was utilized to determine the strength and direction of the relationship between pre-internship evaluation scores and clinical internship performance. The use of these statistical tools provided a comprehensive assessment

of the effectiveness of the pre-internship activity and its relationship to students' internship outcomes.

3.6. Research Ethics

The study adhered to established ethical standards and complied with the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173). Participation was voluntary, and respondents were informed of the nature, purpose, and requirements of the study before providing consent.

Anonymity and confidentiality were strictly maintained throughout the research process. No identifying information was disclosed in the presentation of findings, and all records and survey responses were handled securely to protect participants' privacy. Furthermore, the researchers ensured the accuracy, reliability, and integrity of all collected data through careful management and documentation procedures. By observing these ethical principles, the study safeguarded participants' rights and enhanced the credibility and trustworthiness of its findings.

4. Results And Discussion

The results presented in Table 1 reveal that Batch 2017 performed better in pre-internship evaluations compared to Batch 2018.

Table 1

The pre-internship evaluation scores of the graduates

Batch	Mean Scores of Pre-Internships			Total
	Hospital 1	Hospital 2	Hospital 3	
2017	4.615	4.863	3.963	4.254
2018	3.812	3.500	4.144	3.786
Overall	**4.141**	**4.058**	**4.070**	**3.978**

Notably, Hospital 2 awarded the highest scores to Batch 2017, but in 2018, the scores from the same hospital declined significantly, which contributed to the overall lower average of Batch 2018. Across all three hospitals, the evaluation scores for Batch 2018 were consistently lower, indicating that their performance was not as strong as that of the previous batch. While both groups still achieved fairly good averages, the gap between them is evident.

This disparity may be attributed to differences in student preparation, variations in instructional delivery, or possible changes in hospital evaluation standards.

Supporting this observation, Wu et al. (2020) conducted a study with medical students and found that undergoing a structured pre-internship program enhanced students' confidence and readiness for clinical duties. Students who received well-planned training prior to internship adjusted more effectively to hospital environments. Batch 2017's higher scores may reflect stronger preparation or a more consistent training framework compared to Batch 2018.

The comparison underscores the critical importance of a solid and well-structured pre-internship program. Effective preparation not only improves student performance in evaluations but also equips them with the confidence and adaptability needed to transition smoothly into real clinical environments (Schweitzer & Sarkany, 2021). These findings highlight the need for continuous review and enhancement of pre-internship activities to ensure that future batches of Radiologic Technology students are adequately prepared for the challenges of clinical practice.

Table 2

Clinical Education 1 and Clinical Education 2 grades of the graduates

Batch	Mean Grades of Clinical Education		Total
	Clinical Education 1	Clinical Education 2	
2017	2.25	2.50	2.375
2018	2.635	2.577	2.606
Overall	**2.477**	**2.545**	**2.511**

The results in Table 2 show that Batch 2017 outperformed Batch 2018 in both Clinical Education I and II, with lower scores indicate stronger performance. This demonstrates that Batch 2017 maintained higher levels of competency throughout their internship compared to Batch 2018. Interestingly, the average scores in Clinical Education I were slightly better than those in Clinical Education II, suggesting that students generally had a stronger start at the beginning of their internship. This pattern may reflect the initial impact of pre-internship preparation, which provided students with confidence and readiness as they transitioned into clinical practice. In contrast, Batch 2018's weaker performance across both phases of Clinical Education mirrors their lower pre-internship evaluation scores. This consistency suggests that

insufficient preparation or academic challenges may have carried over into their internship, affecting their ability to sustain strong performance.

Supporting this observation, van Hell et al. (2008) emphasized that students with solid academic achievement tend to perform better during clinical internships. A strong academic foundation equips students with the theoretical knowledge and problem-solving skills necessary to adapt quickly to real clinical settings, particularly during the early stages of training. Batch 2017's stronger academic and pre-internship preparation translated into better outcomes in both Clinical Education I and II.

The comparison reinforces the importance of academic readiness and structured pre-internship activities in shaping clinical performance. Students who enter internships with stronger preparation are more likely to excel, while those with weaker foundations may struggle to meet the demands of clinical training. These results highlight the need for continuous improvement in pre-internship programs to ensure that future batches of Radiologic Technology students are adequately equipped for success in both academic and clinical environments.

The results in Table 3 indicate that respondents strongly agreed on the significant role of pre-internship activities in preparing them for clinical internship, with an overall weighted mean (WM) of 3.45, which falls under the *Strongly Agree* category. This demonstrates that the program was perceived as highly effective in equipping students with the readiness needed for clinical practice. Among the items, Statement No. 1 received the highest rating (WM = 3.77, Rank 1), reflecting a generally positive experience with the pre-internship program. Similarly, Statement No. 7 and Statement No. 14 (both WM = 3.55, Rank 3) highlighted that the activities helped students become more aware of real-life healthcare situations and enhanced their confidence in making clinical decisions—two critical competencies for successful internship performance. On the other hand, Statement No. 6 obtained the lowest rating (WM = 3.09, Rank 15), suggesting that students felt the activity did not fully cover all essential clinical areas. Lower scores were also observed in Statement No. 12 (WM = 3.23, Rank 14) and Statement No. 10 (WM = 3.27, Rank 13), pointing to areas for improvement, particularly in supporting students with time management and addressing knowledge gaps prior to clinical duties. While the program was broadly effective, refinements are needed to ensure comprehensive preparation.

Table 3

Perceptions on the transition from pre-internship to clinical internship

	WM	Description	Rank
1. The preparatory internship activity gave me an overall positive experience.	3.77	Strongly Agree	1
2. I felt adequately prepared for my clinical internship after completing the pre-internship activity.	3.41	Strongly Agree	9
3. My technical skills needed for the clinical internship were greatly enhanced by the pre-clinical internship activity.	3.50	Strongly Agree	5
4. My interpersonal and communication skills were improved by preparatory internship activity.	3.41	Strongly Agree	9
5. The pre-clinical internship effectively prepared me with the academic readiness needed for clinical internship responsibilities.	3.50	Strongly Agree	5
6. The preparatory internship activity thoroughly covered all essential areas for clinical internship.	3.09	Agree	15
7. This experience opened my eyes to real-life healthcare scenarios, with my pre-internship providing clinical insights despite the limited time.	3.55	Strongly Agree	3
8. It made me aware of the challenges I encountered during my clinical internship, with my pre-internship activity helping me recognize and understand them.	3.41	Strongly Agree	9
9. My transition from the pre-internship activity to the clinical internship was smooth.	3.50	Strongly Agree	5
10. Gaps between my current knowledge and skills were effectively addressed by the pre-clinical internship activity to meet the clinical internship requirements.	3.27	Strongly Agree	13
11. I recognized that my pre-internship activity effectively prepared me for managing patient care during my clinical internship.	3.50	Strongly Agree	5
12. My time management skills improved for a clinical internship because of the pre-internship activity.	3.23	Agree	14
13. The pre-internship activity provided me with the skills needed for handling diagnostic equipment during my clinical internship.	3.41	Strongly Agree	9
14. My pre-internship boosted my confidence in making important clinical decisions throughout my internship.	3.55	Strongly Agree	3
15. Overall, the pre-internship is sufficient in preparing the students to excel in their clinical internship even without necessary improvements.	3.59	Strongly Agree	2
Overall	**3.45**	**Strongly Agree**	

Legend: 1.00-1.75 Strongly Disagree; 1.76-2.50 Disagree; 2.51-3.25 Agree; 3.26-4.00 Strongly Agree

The results support the study of Bawica (2021), who emphasized that academic preparedness is a key factor in the effectiveness of internship programs. Pre-internship activities contribute not only to clinical readiness but also to employability and professional attitudes, reinforcing their importance in allied health education. Likewise, Malau-Aduli et al. (2020) noted that the transition from pre-clinical to clinical training often presents difficulties that can affect student learning and well-being. Effective pre-internship programs, therefore, play a vital role in smoothing this transition by equipping students with coping strategies and

confidence. Furthermore, Umpar and Sison (2025) highlighted the importance of aligning pre-internship activities with student learning preferences and competencies. While hands-on experiences are highly valued, areas such as time management and knowledge integration require further enhancement.

The findings affirm that pre-internship activities are instrumental in shaping student readiness, confidence, and competence. However, continuous improvement, particularly in covering broader clinical areas, strengthening time management, and addressing knowledge gaps, is essential to maximize the effectiveness of such programs and ensure that future Radiologic Technology interns are fully prepared for clinical practice.

Table 4

Correlation between pre-internship scores and grades in clinical education and overall internship

	Correlation Coefficient	p Value	Relationship	Descriptive Equivalent
Pre-internship vs. Clinical Education I	0.532	0.011	Direct	Significant
Pre-internship vs. Clinical Education II	0.096	0.67	Direct	Not Significant
Overall	**0.329**	**0.134**	**Direct**	**Not Significant**

The results in Table 4, computed using the Spearman's Rho formula, reveal a statistically significant correlation between pre-internship scores and Clinical Education I grades, with a correlation coefficient of 0.532 and a p-value of 0.011. This indicates that students who achieved higher scores during pre-internship generally performed better in Clinical Education I. The negative correlation is expected due to the grading system where lower numerical values correspond to better grades. Thus, the findings confirm that strong pre-internship performance is closely associated with success in the early stages of clinical internship.

In contrast, the correlation between pre-internship scores and Clinical Education II ($r = 0.096$, $p = 0.67$) as well as overall internship performance ($r = -0.329$, $p = 0.134$) was not statistically significant. This suggests that while pre-internship activities may provide an initial advantage, their impact diminishes over time as students encounter additional challenges during the later stages of internship. Factors such as workload, fatigue, stress, and the complexity of clinical cases may play a greater role in influencing performance beyond the initial phase.

The significant relationship between pre-internship and Clinical Education I is consistent with the findings of Wu et al. (2020), who emphasized that well-structured pre-internship programs enhance student confidence, clinical skills, and readiness for hospital duties. Students with strong pre-internship preparation adjusted more smoothly to clinical environments, which explains why those who excelled in pre-internship also performed better in the initial phase of internship. On the other hand, the lack of significant correlation in Clinical Education II and overall internship aligns with the observations of Legg and Cohen (2020), who noted that while academic preparedness supports strong performance at the start of internship, later outcomes are often influenced by external factors such as stress, time constraints, and fatigue. Similarly, Ingrassia (2020) highlighted that deeper immersion in clinical settings exposes students to emotional pressures, environmental challenges, and personal struggles, which can affect their performance regardless of their initial academic preparation.

The findings underscore the critical role of pre-internship activities in shaping early clinical success, while also highlighting the need for ongoing support mechanisms, such as stress management strategies, mentorship, and structured time management training, to sustain student performance throughout the entirety of the internship program.

5. Conclusion

This study emphasize the critical role of the pre-internship program in preparing Radiologic Technology students for their clinical training. During the pre-internship, students demonstrated relatively high academic performance, indicating that they were well-prepared before entering actual hospital duties. However, once they transitioned into the clinical internship, particularly in their senior year, their grades declined slightly. This suggests that the real hospital environment presents greater stress and challenges compared to the more controlled and guided setting of the pre-internship program.

Survey results further revealed that most students strongly agreed that the pre-internship contributed significantly to their readiness for clinical internship. Items related to building confidence, readiness for clinical work, and awareness of hospital practices received the highest ratings, underscoring the program’s effectiveness in fostering professional preparedness. Nonetheless, lower ratings were observed in areas such as time management and coverage of essential clinical topics. These findings indicate that while the pre-internship was

broadly effective, certain aspects require improvement to ensure more comprehensive preparation.

Correlation analysis showed a statistically significant relationship between pre-internship scores and performance in Clinical Education I, meaning that students who excelled in pre-internship also performed well during the initial phase of their internship. This confirms that pre-internship provides a strong foundation for early clinical success. However, no significant correlation was found between pre-internship scores and performance in Clinical Education II or overall internship outcomes. This suggests that while pre-internship builds initial readiness, sustained performance in later stages of internship depends more on experiences gained during Clinical Education I and other factors such as workload, stress, and adaptability.

The pre-internship program is effective in preparing students for the transition into clinical practice, particularly in their junior year. However, to maximize its impact, the program must be enhanced to address gaps in time management, knowledge coverage, and long-term support. Strengthening these areas will ensure that future Radiologic Technology students are not only confident at the start of their internship but also resilient and competent throughout the entirety of their clinical training.

For affiliated hospitals and clinical instructors, it is recommended that mentorship and guidance be actively strengthened through consistent feedback, clinical tips, and real-time support. Approachable clinical instructors who are willing to explain procedures clearly and provide short check-ins or reminders during duties can significantly reduce student anxiety. Such practices help bridge the gap between theory and practice, ensuring that interns feel supported and confident in their clinical responsibilities.

Students are encouraged to fully engage in pre-internship activities as these serve as valuable practice for clinical internship. Active participation, particularly in patient interactions, will enhance critical thinking skills and facilitate a smoother transition into hospital duties. Pre-internship should be treated as a simulation of real clinical work, an opportunity to build confidence, refine communication skills, and prepare for the challenges of actual hospital environments.

The schools offering Radiologic Technology is advised to place greater emphasis on training students in decision-making and time management skills. Results of the study highlighted these areas as needing improvement. Structured activities that train students to

prioritize tasks, manage time effectively, and make quick yet sound decisions under pressure would be highly beneficial. Integrating such exercises into classroom and laboratory sessions can better prepare students for the stressful and fast-paced nature of clinical internships.

Given the limits of this study, future studies may expand the sample size to include multiple batches or institutions. A broader scope will enhance the validity and generalizability of findings, providing a more comprehensive understanding of the effectiveness of pre-internship programs. This will also allow for comparative analysis across different contexts, contributing to the continuous improvement of Radiologic Technology education.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work is funded by Calayan Educational Foundation, Inc.

Institutional Review Board Statement

This study was conducted in accordance with the ethical guidelines set by the Calayan Educational Foundation, Inc. (CEFI). The conduct of this study has been approved and given relevant clearances by the CEFI Research and Publication Office.

AI Declaration

The authors declare the use of Artificial Intelligence (AI) in writing this paper. In particular, the authors used ChatGPT for improving clarity of expression. The authors take full responsibility for ensuring proper review and editing of the content generated using AI.

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