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Knowledge and Practices of the Code of Ethics among Radiologic Technology Interns of Calamba, Laguna

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Index Terms:

knowledge, clinical practice, Radiologic Technology Code of Ethics, interns, ALARA Principle, professional standards

Abstract. Persistent gaps between the acquisition of knowledge and its consistent application in clinical practice continue to be a concern in radiologic education and patient care settings. Therefore, this study examined the relationship between knowledge and clinical practice of radiologic technology interns regarding the Radiologic Technology Code of Ethics during clinical internship. Specifically, it assessed interns' knowledge in terms of responsibility to patients, evaluated their ethical clinical practice, determined the relationship between the two variables, and proposed an action plan based on the findings. A descriptive-correlational design was employed involving sixty-seven (67) radiologic technology interns in Calamba City during the academic year 2025–2026, selected through total population sampling. Data were collected using a structured questionnaire and analyzed using weighted mean and Spearman rho. Results showed that interns demonstrated high knowledge *(M = 0.62)*, particularly in providing care aligned with professional standards and informed consent. Their clinical practice was rated satisfactory *(M = 3.17)*, with strong adherence observed in the application of the As Low as Reasonably Achievable (ALARA) principle and patient communication. Further analysis revealed a significant moderate positive relationship between knowledge and clinical practice *(r = 0.54, p = 0.04)*, suggesting that better understanding of ethical principles is associated with improved clinical behavior. Despite this, gaps remain in understanding professional boundaries and consistently applying value-based ethical decision-making. In response, an action plan was proposed to strengthen awareness of professional scope, reinforce ethical judgment, and improve the application of knowledge through structured case analysis, reflective writing, and mini skill reminder tools to support more consistent and ethical clinical practice.

Introduction

Radiologic Technology is an important part of healthcare to make accurate diagnoses and patient management through medical imaging. Because of this, ethical practice is needed to ensure patient safety, accountability, and quality care. In the Philippines, the Code of Ethics for Radiologic Technologists is implemented under the regulatory authority of the Professional Regulatory Board of Radiologic Technology in accordance with Republic Act 7431. This code serves as a guide for proper professional behavior, especially in protecting patient rights and maintaining standards of practice during clinical training and internship. According to Tafesse et al (2022), healthcare workers are expected to make patient care decisions in different situations, and these decisions go beyond simply choosing the best treatment. For interns, the clinical setting becomes a training ground where they apply their knowledge and principles in real situations. However, not all healthcare workers consistently follow these ethical standards. Yeshineh et al. (2022) found that the overall practice of the code of ethics among health professionals in the Central Gondar Zone was poor. The study pointed out issues such as lack of proper communication, insufficient patient information, and limited counseling.

Similarly, Heidari et al. (2025), observed that nursing interns showed limited ethical maturity when dealing with ethical dilemmas, which affected their decision-making.

Given these concerns, conducting a descriptive study on the knowledge and practice of Radiologic Technology interns regarding the Code of Ethics is important, especially during clinical training. Despite the critical role of ethical standards play in ensuring safe and professional patient care, there is a noticeable lack of existing studies that specifically focus on the level of knowledge and actual ethical practices among Radiologic Technology interns, highlighting the need to further investigate this area. Addressing this gap has both theoretical and practical implications. From a theoretical perspective, this can be related to Miller's Pyramid of Clinical Competence (1990) which explains how clinical skills develop from knowledge to practice. The stages include knowing, knowing how, showing how, and doing (Cate et al., 2021).

Objectives of the Study

This study aims to analyze the level of knowledge and practice of Radiologic Technology interns in relation to the Radiologic Technology Code of Ethics and determine the relationship between these variables during clinical internship. Specifically, this study sought to:

1. Determine the level of knowledge of Radiologic Technology interns regarding the Radiologic Technology Code of Ethics in terms of responsibility to patients.
2. Evaluate the level of practice of Radiologic Technology interns in applying the Radiologic Technology Code of Ethics during clinical practice.
3. Examine the significant relationship between the level of knowledge and the level of practice of Radiologic Technology interns regarding the Code of Ethics.
4. Propose an action plan based on the findings of the study.

Literature Review

Ethical knowledge among healthcare professionals and students is widely recognized as a core component of professional competence. According to Varkey (2020), ethical awareness helps maintain integrity, accountability, and public trust in the healthcare system. Similarly, Thangavelu et al. (2024) reported that although the majority of healthcare professionals demonstrate adequate knowledge of bioethical principles, gaps in deeper understanding still exist. Moreover, Rani (2022) emphasized the role of clinical exposure in strengthening ethical knowledge, noting that interns tend to have higher levels of ethical knowledge compared to students in earlier stages, showing that experience contributes significantly to learning. However, this does not always translate into full understanding. Koshkaki et al. (2020) found that although participants showed moderate awareness of ethical standards, their knowledge of specific ethical guidelines remained limited.

In clinical practice, ethical application is important in radiologic technology because of the use of ionizing radiation and patient vulnerability during imaging procedures. Radiologic technologists are expected to follow radiation protection principles such as ALARA (As Low As Reasonably Achievable), as emphasized by Bonagua and Cabatay (2025). Beyond radiation safety, effective communication also plays a key role in ethical care delivery, as it enhances patient understanding, cooperation, and overall imaging quality (Herrera Horta et al., 2023). Furthermore, informed consent is a critical ethical requirement in radiologic procedures, ensuring that patients are adequately informed about risks and benefits prior to imaging (Alshamrani, 2023). These practices are based on key ethical principles such as autonomy, beneficence, justice, and confidentiality. Together, these principles help guide healthcare providers in delivering care that is safe, respectful, and appropriate for patients in clinical settings (Sharip et al., 2022).

The relationship between ethical knowledge and clinical practice has been widely discussed in healthcare education literature. Khalifa et al. (2024) found that higher levels of ethical knowledge are associated with improved professional attitudes and more appropriate application of ethical principles in clinical settings. In a similar manner, Luo et al. (2023) reported that increased moral awareness among healthcare trainees contributes to more responsible ethical decision-making and professional behavior during clinical practice. In contrast, Edin et al. (2025) also suggest that ethical knowledge does not always directly translate into practice. The study emphasized that institutional constraints, limited supervision, and clinical workload may hinder the consistent application of ethical principles of radiologic technology trainees despite adequate theoretical understanding. This implies that although ethical knowledge is important, its translation into practice is influenced by contextual and environmental factors within clinical training settings.

Building on this, recent studies highlight that the ethical standards are applied more effectively when classroom learning is closely connected with actual clinical experience, rather than being taught only in theory. The American Society of Radiologic Technologists (2022) showed the importance of regularly updating educational curricula to ensure that ethical competencies remain aligned with current clinical practice. Furthermore, Tay and McNulty (2023) suggested using more

practical teaching approaches like case-based learning, simulation activities, and closer coordination between educators and clinical supervisors. These strategies help bridge the gap between understanding ethical concepts and actually applying them in real clinical situations.

Methodology

Research Design

This study employed a quantitative approach using a descriptive-correlational research design to examine the relationship between knowledge of the Radiologic Technology Code of Ethics and clinical practice among fourth-year radiologic technology interns. Descriptive research aims to provide in-depth details about a certain population, situation, or phenomenon by addressing the what, where, when, and how questions, although an explanation for the occurrence is not needed (McCombes, 2023). In addition, correlational research is a methodological approach that aims to identify the relationship of 2 or more variables without manipulation (Putri et al., 2025). It describes existing conditions, relationships, and practices, as well as beliefs, ongoing processes, and their effects.

Research Locale

This study was conducted in the three higher education institutions in Calamba, Laguna, Philippines, all of which offer the Bachelor of Science in Radiologic Technology program. Each institution provides both academic instruction and clinical internship through affiliated hospitals or healthcare facilities. In these settings, students are exposed to real clinical environments where they apply theoretical knowledge, including the Code of Ethics.

Respondents of the Study

The respondents consisted of sixty-seven (67) radiologic technology interns from the selected college/universities in Calamba, Laguna. Participants were chosen based on specific inclusion criteria. To qualify, respondents must be officially enrolled during the academic year 2025–2026 and must have completed at least 150 hours of clinical internship in an affiliated hospital. These requirements ensured that all respondents had sufficient clinical exposure relevant to the objectives of the study.

Sampling Technique

A non-probability total population sampling technique was used in this study. Given the relatively small number of eligible interns, this approach allowed the researchers to include all qualified participants in the study. As a result, the data collected reflected the full group of interns within the defined criteria, improving the overall representation of the sample.

Research Instrument

The study utilized a modified structured instrument consisting of two components to assess the variables. Part I measured the level of knowledge using a true or false objective test, while Part II focuses on scenario-based questions assessing the interns' application of ethical principles in clinical situations. Some of the indicators were adapted from the study conducted by Shrestha et al. (2021). The use of situational questions helped capture not only what the respondents know, but also how they respond to ethical issues in practice.

Instrument Validity and Reliability

To ensure validation and consistency, the instrument underwent content validation by five experts from statistics, research, and the field of radiologic technology. A pilot test was conducted and underwent reliability testing by using Cronbach's alpha to identify the internal consistency of the instrument. Both instruments revealed an acceptable to good internal consistency. The Level of Knowledge in Code of Ethics scale obtained a Cronbach alpha coefficient of 0.75, and the Level of Clinical Practices gained a Cronbach alpha coefficient of 0.84. These values indicate that the items were sufficiently consistent and appropriate for measuring the intended variables.

Data Gathering Procedure

Before data collection, formal approval was obtained from the deans and program coordinators of the participating institutions. The instrument was first validated by experts and tested through a pilot study to ensure reliability. Data was then collected on-site with the assistance of program coordinators. Respondents were given approximately 20 minutes to complete the questionnaire, and the entire data collection process was completed within one week. After gathering the

responses, the data were encoded, organized, and prepared for statistical analysis. The results were then interpreted based on the objectives of the study.

Statistical Treatment of Data

The collected data were analyzed using appropriate statistical tools to address the research questions of the study, with all computations performed using Microsoft Excel and JAMOVI software.
The level of knowledge on the Radiologic Code of Ethics was determined by scoring each correct response in the dichotomous (True/False) items as one (1) and each incorrect response as zero (0), with frequency and percentage used for item-level description. Mean scores were interpreted using the scale presented in Table 1.

Mean Ranges	Interpretation Level
0.00 - 0.20	Very Low Knowledge
0.21 - 0.40	Low Knowledge
0.41 - 0.60	Average Knowledge
0.61 - 0.80	High Knowledge
0.81 – 1.00	Very High Knowledge

Table 1. Interpretation of Knowledge Levels

The level of practice in applying the Code of Ethics was measured using a 4-point Likert scale, where Always was equivalent to 4, Sometimes to 3, Rarely to 2, and Never to 1. Mean scores were interpreted using the scale shown in Table 2.

Mean Ranges	Interpretation Level
3.26 - 4.00	Very Satisfactory
2.51 - 3.25	Satisfactory
1.76 - 2.50	Needs Improvement
1.00. - 1.75	Poor

Table 2. Interpretation of Practice Levels

To examine the relationship between knowledge and practice, Spearman's Rank Correlation was used due to the ordinal nature of the data and the non-fulfillment of parametric assumptions such as normality and linearity. It was evaluated at a 0.05 level of significance ($p < 0.05$) to determine whether to reject or fail to reject the null hypothesis.

Ethical Considerations

This study followed ethical research standards to ensure the protection of participants' rights, dignity, and confidentiality. Informed consent was obtained from all participants before the data collection, with clear information provided regarding the study's objectives and procedures. Participation was voluntary, and respondents were informed of their right to refuse or withdraw at any time without penalty. All data collected were treated with strict confidentiality and used solely for academic purposes. Data records were securely stored, and physical copies were properly disposed of through shredding after completion of the study to maintain data security and research integrity.

Results and Discussion

Level of knowledge of radiologic technology interns

The level of Knowledge about Code of Ethics in terms of Patient Responsibility is shown in table 3.

INDICATORS	Correct		$\bar{x}$	VI
	f	%		
1. In accordance with Article II, Section 6, a radiologic technology may proceed with a procedure based solely on a nurse's assurance that the patient is "cleared," even when informed consent is not documented.	48	71.64	0.72	HK
2. Article IV of the Philippine Revised Code of Ethics for Radiologic Technologists and X-Ray Technologists is entitled "Responsibility to the Patients."	26	38.81	0.39	LK
3. A 16-year-old patient's procedure results may be disclosed to a parent without permission, despite the professional duty to maintain confidentiality of patient information.	47	70.15	0.70	HK
4. In a hectic schedule, a radiologic technology intern may ignore a patient's anxiety to save time, which follows the professional standards of patient care in Article II, Section 1.	45	67.16	0.67	HK
5. Information obtained during radiologic practice shall be kept in confidence and disclosed only in accordance with the law and principles of medical ethics, as stated in Article II, Section 7.	48	71.64	0.72	HK
6. The revised code of professional ethics for radiologic technologists and xray technologists was effective in the year 2015.	29	43.28	0.43	AK
7. Ethical conduct is important only to avoid legal action.	39	58.21	0.58	AK
8. Patients do not only need to consent for operations but also for tests or medications.	53	79.10	0.79	HK
9. Article II, entitled Responsibility to Patients, Section 2 states that "They should not discriminate against anybody and should attend to all patients/clients regardless of creed, race, belief, or political affiliation."	26	38.81	0.39	LK
10. In Article II, Responsibility to Patients, Section 4 states that "They should provide the highest level of technical know-how in the performance of their work, employing courtesy, empathy, compassion, and privacy to the patient/client and his family.	52	77.61	0.78	HK
11. Article II, Section 1 states that "Radiologic Technologists and X-ray Technologists shall provide patient care in accordance with the accepted professional and ethical standards."	54	80.6	0.81	VHK
12. In Article II, Section 5 states that "They shall advocate the best interests and safety of the patients as well as of the entire health care team by ensuring that the radiation exposure is kept at a minimum."	50	74.63	0.75	HK
13. In section 2, the quality of patient care may vary depending on the patient's background or type of illness, as long as diagnostic images are obtained.	40	59.7	0.60	AK
14. In accordance with Article II, Section 8, performing a procedure beyond one's level of training is acceptable if it helps speed up workflow during busy clinical hours.	22	32.84	0.33	LK
15. Adjusting the imaging procedure for a patient who cannot sit upright due to injury, even if it slightly increases radiation exposure, to prioritize patient comfort and safety follows Article II, Section 5.	41	61.19	0.61	HK
OVERALL MEAN			**0.62**	**HK**

Legend: 0.00-0.20 - Very Low knowledge (VLK), 0.21-0.40 - Low Knowledge (LK), 0.41-0.60 - Average Knowledge (AK), 0.61-0.80 - High Knowledge (HK), 0.81-1.00 - Very High Knowledge (VHK)

Table 3. Level of Knowledge about Code of Ethics in terms of Patient Responsibility

The overall mean score was 0.62, interpreted as High Knowledge (HK). Among the indicators, Indicator 11 obtained the highest mean score (M = 0.81), which falls under Very High Knowledge (VHK). This suggests that interns show a strong level of familiarity with fundamental ethical responsibilities, particularly those related to adherence to professional standards in patient care. These principles are often emphasized during clinical exposure, which may explain their higher level of understanding. This result aligns with the findings of Thangavelu et al. (2024), who reported that healthcare practitioners generally exhibit adequate knowledge of bioethical principles, particularly those reinforced through clinical exposure and professional practice. Similarly, Rani (2022) emphasized that clinical immersion significantly enhances ethical awareness among interns, as experiential learning strengthens understanding of patient-centered care and

informed decision-making. The high performance in these indicators may therefore be attributed to increased exposure to clinical settings, where principles such as informed consent and confidentiality are routinely applied.

In contrast, Indicators 2 and 9 obtained the lowest mean scores (M = 0.39) evaluated as low knowledge (LK) indicating a lack of knowledge with specific ethical provisions and non-discrimination principles. The low scores indicate a tendency toward practice-based ethical knowledge rather than document-specific recall. A similar observation was reported by Koshkaki et al. (2020), who found that although students may demonstrate moderate to high general ethical awareness, their understanding of detailed ethical guidelines is often limited. Overall, the results indicate that the interns possess strong foundational ethical awareness in patient-centered scenarios; there is a need to strengthen their knowledge of the formal provisions of the Code of Ethics.

Level of practice of radiologic technology interns

The level of practice of the Code of Ethics in terms of Clinical Practices among radiologic technology interns during clinical internship is shown in table 4.

INDICATORS	$\bar{x}$	VI
1. I trust a nurse's assurance that a patient is cleared for examination even without obtaining an informed consent.	2.99	S
2. I respect and accommodate a patient's religious beliefs and practices while protecting their rights and dignity, without overlooking minor lapses in clinical care.	3.43	VS
3. When a patient asks about the procedure, I give my responses as full details of the examination, ordered by the requesting physician.	3.48	VS
4. When preparing for an MRI scan, I noticed a patient's hand trembling as the procedure was explained. I continued the usual steps of the examination, and reassure the patient to lessen fear.	3.30	VS
5. I always consider the confidentiality of a patient's records, though if a case is quite interesting, I share it with colleagues.	2.99	S
6. I keep myself fully informed and updated to the Radiologic Technology Code of Ethics to keep up with clinical competencies of the field.	3.24	S
7. I just simply avoid to be unethical around patients for the sake of not having to face legal actions about my behavior.	2.39	NI
8. If a patient comes around the radiology department for an examination, I always ask to obtain their consent letter to proceed.	3.43	VS
9. Based on my judgement, I choose the level of care that I give to patients depending on their religion, beliefs, and political views.	2.87	S
10. When a patient is anxious, scared, or in pain, I show empathy by reassuring them, explaining the procedure, and handling them carefully while following protocols.	3.43	VS
11. If a patient compliments me or requests a meeting, I stay respectful while maintaining professional boundaries and focusing on my duties.	3.43	VS
12. I always see to it that the "ALARA" principle is always applied to all patients with no exceptions.	3.73	VS
13. I never pick patients based solely on the severity of their examination, my sole purpose is to provide quality radiographs for their physicians.	3.22	VS
14. I always perform an examination even if I do not have much training to further enhance my skills and competencies, and lessen workflow for the department.	2.87	S
15. If a geriatric patient struggles with positioning, I let them rest, see another patient, then return to complete the exam.	2.79	S
OVERALL MEAN	**3.17**	**S**

Legend: 1.00-1.75 - Poor (P), 1.76-2.50 - Needs Improvement (NI), 2.51-3.25 - Satisfactory (S), 3.26-4.00 Very Satisfactory (VS)

Table 4. Level of Practice of the Code of Ethics in terms of Clinical Practices

The computed mean score was 3.17, interpreted as Satisfactory (S). In terms of the highest-rated indicators, indicator 12 obtained the highest mean (M = 3.73) included in very satisfactory (VS) which reflects strong adherence to the ALARA principle. This supports Bonagua and Cabatay (2025), who emphasized that radiation protection and patient safety are central ethical responsibilities in medical imaging practice.

On the other hand, the lowest-rated indicators highlight areas of ethical concern. Item 7 obtained the lowest mean (M = 2.39), interpreted as needs improvement (NI) indicating that some respondents practice ethically mainly to avoid legal consequences rather than from internalized professional values.

Generally, the findings suggest that while interns demonstrate a satisfactory level of ethical practice in radiation safety, communication, and patient respect, gaps remain in professional accountability and internal ethical internalization. This highlights the need for strengthened ethics integration in clinical training to ensure more consistent application of professional standards in practice.

Significant relationship between the levels of knowledge and practices

The significant relationship between the respondents' level of knowledge and practices in terms of responsibility to the patient and clinical practices was shown in table 5.

	KNOWLEDGE	**PRACTICES**
Overall weighted mean	0.62	3.17
Verbal Interpretation	High Knowledge	Satisfactory
Correlation Coefficient		0.544
p-value		0.036
Decision		reject the H_0
Correlation is significant at the 0.05 level (2-tailed)		

Table 5. Relationship between the levels of knowledge and practices of fourth-year interns

Overall, the level of knowledge of the respondents demonstrated a weighted mean of 0.62 means that the level of knowledge of the respondents is classified as high knowledge. While a weighted mean of 3.17, which correlates to satisfactory in their practices.

The relationship between the two variables was analyzed using the Spearman Rank Order Correlation (Spearman rho) to determine whether a significant association exists between knowledge and practices. The results revealed a moderate positive correlation (r = 0.544), indicating that higher levels of knowledge are associated with better clinical practices among the respondents. A moderate correlation implies a meaningful but not strong relationship between the variables, suggesting that while knowledge contributes to improved practices, other factors may also influence clinical performance. Furthermore, the computed p-value of 0.036, which is lower than the level of significance set at 0.05, indicates that the relationship is statistically significant. Thus, the null hypothesis is rejected. This implies that the respondents' level of knowledge is significantly related to their clinical practices, suggesting that improved understanding of ethical principles contributes to better implementation of appropriate patient care practices.

The result is consistent with the findings of Khalifa et al. (2024), whose comparative study among Egyptian physicians revealed that higher levels of knowledge in medical ethics were associated with improved professional attitudes and practices. Their study emphasized that theoretical instruction, when reinforced by clinical exposure, enhances the delivery of responsible patient care. Similarly, Luo et al. (2023) reported that nurse interns with higher levels of moral awareness and ethical sensitivity demonstrated stronger ethical decision-making abilities. This further supports the positive relationship between knowledge of ethical principles and the application of professional responsibility in clinical practice.

Action Plan based on the findings of the study

Area of Concern	**Objective/s**	**Activities**	**Time Frame**	**Persons Involved**	**Expected Outcome**
Misunderstanding of professional scope and limitations (Article II, Section 8; 32.84% correct, Mean = 0.33)	To enhance interns' understanding of professional boundaries and scope of practice	Structured Case Analysis Worksheets: • Interns complete worksheets based on 1–2 brief clinical scenarios focused	Once every semester.	Organizer: Assigned Group Leader (material distribution and collection)	Interns demonstrate improved accuracy in identifying appropriate roles and

		on scope of practice • Each intern determines whether the action is within or beyond scope and provides a brief justification • A standardized answer key is provided for self-checking after submission		Monitoring: Program Coordinator Participants: Radiologic Technology interns	limitations based on professional guidelines
Ethical behavior driven by fear of legal consequences rather than values (Mean = 2.39, Needs Improvement)	To promote internalized professional values and ethical responsibility beyond legal compliance	Reflective Writing with Gratitude/Positive Moment Log: • Interns submit a minimum of 300-word reflection describing an ethical situation and the values applied (e.g., empathy, accountability) • Each entry includes a Gratitude or Positive Moment Log highlighting a meaningful action or interaction • Outputs are reviewed every semester.	Once a month	Organizer: Class Representative Monitoring: Program Coordinator Participants: Interns	Interns demonstrate increased self-awareness and value-based ethical reasoning in written outputs.
Need to strengthen the application of ethical knowledge into consistent clinical practice	To reinforce the direct application of ethical knowledge into actual clinical behavior through guided learning and discussion	Mini Skill Reminder Cards Development: • Interns create and maintain Mini Skill Reminder Cards (digital or notebook format) summarizing ethical principles • Each entry includes a short example of correct application in a clinical scenario.	Once a month	Organizer: Assigned Peer Facilitator (collection and compliance checking) Participants: Interns	Interns demonstrate improved recall and consistent application of ethical principles through personalized reference materials

Table 6. Proposed Action Plan

The proposed action plan was presented in Table 6. It outlines a structured set of interventions that directly address the areas of concern identified in the study, specifically the limited understanding of professional scope, the need to strengthen value-driven ethical behavior, and the application of ethical knowledge in clinical practice. The recommended interventions, including structured case analysis, reflective writing, and the development of mini skill reminder tools, are intended to bridge the gap between theoretical knowledge and its application in clinical settings. These approaches emphasize active learning and self-reflection, which are essential in increasing understanding of ethical reasoning and enhancing professional accountability among interns.

The action plan aligns with the American Society of Radiologic Technologists (2022), which highlights the importance of integrating ethical competencies within clinical training and regularly updating educational approaches to remain relevant to practice. Similarly, the inclusion of case-based and reflective activities supports the findings of Tay and McNulty (2023), who emphasized that innovative, practice-oriented teaching strategies are necessary to strengthen the connection between ethics education and real-world clinical performance. Collectively, the proposed action plan is expected to enhance interns' ethical competence by promoting both deeper understanding and value internalization within clinical settings.

Conclusion and Recommendations

The results of the study indicate that the radiologic technology interns from Calamba possess high levels of knowledge regarding the Code of Ethics, specifically in areas of responsibility to patients, including informed consents, standards of quality care, and confidentiality. However, gaps are still present in areas of professional scope, non-discrimination, and the contents of the code, showing inconsistent levels of knowledge. In terms of clinical practice, a satisfactory level of ethical principle application was shown, especially in terms of patient safety, communication, and respect for patient dignity, although inconsistencies in the integration of ethical values and behaviors are still noticeable.

Furthermore, a significant moderate positive correlation was found between knowledge of the code of ethics and the interns' clinical practice, suggesting that higher knowledge contributes to improved ethical practices in clinical settings. Based on these findings, the proposed action plan is considered essential in addressing existing gaps by strengthening ethical understanding and promoting more consistent application of ethical principles, thereby supporting the development of competent and patient-centered radiologic technology interns.

These findings have important implications for radiologic technology education and clinical training. Strengthening the importance of understanding the Code of Ethics may be considered, particularly in areas such as professional boundaries and non-discriminatory care. Clinical training could also benefit from structured reflective learning and strengthened mentorship to support the consistent application of ethical principles.

At the professional and regulatory level, regular review and updating of the Code of Ethics for Radiologic Technologists by the Professional Regulation Commission may be considered in response to current ethical concerns. These include patient autonomy, data privacy, advances in imaging technologies, and the evolving roles of radiologic technologists, all of which are important in maintaining accountability and ethical standards in the profession. For future research, it is recommended to include a larger sample size and to explore other variables that may influence ethical practice, such as organizational culture, workload demands, and the quality of clinical supervision.

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Competing Interests Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data Availability Statement

The data used in this research can be accessed through a formal request to the author of the study.

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Appendices

No appendices are attached to this study.