

**RADIOLOGIC TECHNOLOGISTS' PROFESSIONALISM, ETHICAL PRACTICES
AND PATIENT'S SATISFACTION IN LAGUNA PROVINCIAL HOSPITAL – SAN
PABLO CITY DISTRICT HOSPITAL**

Richard M. Bonagua, RRT
University of Perpetual Help System
Adviser- Dr. Chona D. Cabatay, RRT, PhD
UPH-Dr. Jose G. Tamayo Medical University

<https://doi.org/10.54922/IJEHSS.2025.0957>

ABSTRACT

This study assessed the radiologic technologists' level of professionalism, ethical practices and level of patient's satisfaction. It also probed the relationship between the radiologic technologists' level of professionalism and ethical practices; between their ethical practices and level of patient's satisfaction; and between their level of professionalism and level of patient's satisfaction.

The study utilized the descriptive-correlational research design, which involved one hundred twenty-five (125) patients-respondents who were already encountered different radiographic procedures in the radiology department. The findings revealed that majority of the radiologic technologists had positive perceptions about their work culture. Further, radiologic technologists had a very high level of professionalism, better ethical practices and very high level of patient's satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital. Results also revealed that there is significant relationship between the radiologic technologists' level of professionalism and ethical practices, there is also significant relationship between radiologic technologists' ethical practices and level of patient's satisfaction, and lastly, the study also showed that there was a significant relationship between the radiologic technologists' level of professionalism and level of patient's satisfaction.

In conclusion, the radiologic technologists demonstrated a very high level of professionalism, better ethical practices, and very high level of patient's satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital. In addition, based on the findings of the study, it indicates a strong commitment that higher the level of radiologic technologists' professionalism, the better the ethical practices towards it. The better the radiologic technologists' ethical practices along communication, the higher their level of patient's satisfaction. The better the radiologic technologists' level of professionalism, the higher the level of patient's satisfaction.

Keywords: Radiologic Technologists, Professionalism, Ethical Practices, Patient's Satisfaction, Provincial Hospital.

1. INTRODUCTION

In healthcare, professionalism, ethical practices, and patient satisfaction are interconnected and crucial for quality care. Professionalism encompasses responsibility, initiative, integrity and appearance, while ethical practices ensure fair, just, and patient-centered care, ultimately leading to higher patient satisfaction.

Professionalism encompasses the skills, experience, and ethical conduct required to deliver high-quality, patient-centered care, characterized by accountability, respect, and a commitment to continuous improvement. Professionalism involves consistently achieving high standards, both in the work you do and the way you behave. Being professional helps you to achieve high-quality results, while impressing and inspiring others – and feeling good about yourself. Recently, professionalism, across health care professions, has been discussed extensively due to concerns over unethical, illegal, and unprofessional behavior and its negative consequences.

The concept of professionalism embodies the commitment of health care professionals to act ethically, responsibly, and compassionately toward their patients and colleagues.¹ Brennan and Monson posited that professionalism is associated with many advantages to health care organizations and patient safety and care. Developing professionalism is an essential part of any health care profession. For radiologic technologists, professionalism is a multifaceted concept that includes clinical expertise, communication skills, empathy, and adherence to the American Registry of Radiologic Technologists (ARRT) Standards of Ethics and the American Society of Radiologic Technologists (ASRT) Practice Standards. In 2020, Haynes found that radiologic technologists perceived that professional values, including accountability, altruism, caring, excellence, integrity, professional duty, and social responsibility, were all important to the profession. (Laura Aaron 2024)

Ethical practices refer to actions and behaviors that align with moral principles and standards of right conduct, encompassing honesty, fairness, and respect for others, and are crucial in various contexts, including business, professions, and personal life. Ethical practices are fundamental ethical requirement that radiologic technologists should do at all times with patients in providing good radiographic practice.

Ethical considerations play a crucial role in the field of medical imaging as they ensure the protection of patients' rights, safety, and welfare. It is essential to prioritize ethical considerations in medical imaging due to the potential risks and consequences associated with the procedures involved. The well-being of patients should always be the top concern, and ethical guidelines provide a framework for achieving this. Medical imaging procedures often involve the use of radiation or contrast agents, which can pose health risks to patients. Ethical considerations help in minimizing these risks by setting standards and guidelines for safe practices. Ensuring the safety of patients is not the only concern when it comes to ethical considerations in medical imaging. Ethical guidelines also ensure that patients' informed consent is obtained before undergoing any imaging procedure. This protects their autonomy and allows them to make informed decisions about their healthcare. By considering ethical principles such as beneficence and non-maleficence, healthcare professionals can uphold their duty to provide the best possible care while avoiding harm to patients. These principles guide healthcare professionals in providing optimal care while taking into account the potential risks and benefits of medical imaging procedures. Moreover, ethical considerations in medical imaging extend to issues of privacy and confidentiality. It is essential to ensure that patients' personal information and imaging data are handled securely. This is crucial to maintain their trust and protect their privacy rights. (DVR 2025)

Patient satisfaction refers to the extent to which a patient feels content with the healthcare services they received, encompassing their perception of the quality of care, access to care, and understanding of their care plan. Radiological services are simply services provided to patients who attend the radiology department and can be either standard services performed on a daily basis

or unique examinations. Patient satisfaction was seen as desired, which was also crucial for radiology services.

Patient satisfaction with healthcare provision services and the factors influencing it are becoming the main focus of many scientific studies. Assuring the quality of the provided services is essential for the fulfillment of patients' expectations and needs. Thus, this systematic review seeks to find the determinants of patient satisfaction in a global setting. We perform an analysis to evaluate the collected literature and to fulfill the literature gap of bibliometric analysis within this theme. This review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) approach. We conducted our database search in Scopus, Web of Science, and PubMed in June 2022. Studies from 2000–2021 that followed the inclusion and exclusion criteria and that were written in English were included in the sample. We ended up with 157 articles to review. A co-citation and bibliographic coupling analysis were employed to find the most relevant sources, authors, and documents. We divided the factors influencing patient satisfaction into criteria and explanatory variables. Medical care, communication with the patient, and patient's age are among the most critical factors for researchers. The bibliometric analysis revealed the countries, institutions, documents, authors, and sources most productive and significant in patient satisfaction. (Diogo Cunha Ferreira 2023)

METHODS

Radiologic technologists' level of professionalism, ethical practices and level of patient's satisfaction rates among the patients who already encountered different radiographic procedures in the radiology department in this study using a descriptive-correlational research design. It searched these variables for potential correlations or patterns. A self-made questionnaire was given to 125 patients from five private hospitals to gather primary data for the study. The sample size was calculated using the Quota sampling technique

Three sections made up the questionnaire: (1) level of professionalism, which took into consideration variables like responsibility, initiative, integrity and appearance; (2) ethical practices; and (3) level of patient's satisfaction, which took into consideration variables like communication, delivery of the procedure and environment. Experts in research, statistics, and radiologic technologists validated the instrument. Following a pilot test, Cronbach's alpha reliability analysis revealed high level of professionalism (0.855), better ethical practices (0.842), and patient's satisfaction (0.854).

Following approval from hospital administrators and consent from respondents, personal interview surveys were used to gather data. The responses were measured using a 4-point Likert scale. The weighted mean for data analysis was used to determine the radiologic technologists' level of professionalism, ethical practices, and level of patient's satisfaction. Pearson's r correlation was used to examine these variables' relationships.

3. RESULTS AND DISCUSSION

A discussion on radiologic technologists level of professionalism, ethical practices and patient's satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital was presented in the succeeding tables and textual presentations:

Table 1. The Level of Radiologic Technologists' Professionalism in Laguna Provincial Hospital – San Pablo City District Hospital: Responsibility

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Rad Tech assess, evaluate and perform the procedure correctly.	3.65	Very High	1
2. Tech on duty prepares and position patient for imaging.	3.53	Very High	4
3. Attending to patient needs during imaging procedures.	3.58	Very High	3
4. Applying and maintaining up-to-date knowledge of radiation protection and safety practices for patients.	3.50	High	5
5. Prioritizing patients to complete all scheduled appointments and allow for emergency.	3.59	Very High	2
Overall Weighted Mean	3.57	Very High	

As shown in Table 1, indicator 1 states that “Rad Tech assess, evaluate and perform the procedure correctly.” ranked 1 with the highest weighted mean of 3.65 and interpreted as very high. Next are indicators 2, 3, and 5 which has weighted mean ranging from 3.53 to 3.59 and interpreted as very high. Indicator 5 “Prioritizing patients to complete all scheduled appointments and allow for emergency.” ranked 2 and has a weighted mean of 3.59. Indicator 3 “Attending to patient needs during imaging procedures.” ranked 3 and has a weighted mean of 3.58. Indicator 2 “Tech on duty prepares and position patient for imaging.” ranked 4 and has weighted mean of 3.53. Lastly, indicator 4 “Applying and maintaining up-to-date knowledge of radiation protection and safety practices for patients.” ranked 5 and has the lowest weighted mean of 3.50 and interpreted as high.

In summary, the overall weighted mean was 3.57 and verbally interpreted as very high level of professionalism in terms of responsibility. This means that the radiologic technologists had a very high level of professionalism in Laguna Provincial Hospital – San Pablo City District Hospital in terms of responsibility. The radiologic technologists performed well in terms of assessing, evaluating, preparing, and positioning of the patients during procedures. Be in possession in radiation protection and safety practices to the patients. And also completed scheduled appointments consistently.

The results were supported by the study conducted by J Healthc Leadersh (2022), professionalism has been a foundational principle in the practice of medicine serving as “the basis of medicine’s contract with society.” This informal agreement was rejuvenated in the 1990s when leaders in the medical field delineated a more refined set of ethical values and competency standards that are to be expected in the delivery of clinical care.^{12–15} Incrementally, these core competencies have been included in medical education and training, both undergraduate and graduate, with an emphasis on acceptable professional behaviors and the pursuit of ethical principles in the effective and safe delivery of clinical care as well as for conduct in the public sphere. The **core components** of this framework of professionalism include altruism, dependability, **responsibility**, quest for excellence, appreciation of duty, agency, honesty,

rectitude and integrity, collegiality, respect for others, continuous learning and improvement, and humility.

Table 2. The Level of Radiologic Technologists' Professionalism in Laguna Provincial Hospital – San Pablo City District Hospital: Initiative

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Communicating clearly and respectfully with patient.	3.48	High	4
2. Taking on a task that others have avoided.	3.54	Very High	2
3. Building positive and trusting relationship with the patient.	3.49	High	3
4. Demonstrating leadership, passion, and commitment in work.	3.46	High	5
5. Offering to help when no one asks.	3.74	Very High	1
Overall Weighted Mean	3.54	Very High	

The results presented in Table 2, Indicator 5 “Offering to help when no one asks.” ranked 1 with the highest weighted mean of 3.74 and interpreted very high. Indicator 2 “Taking on a task that others have avoided.” ranked 2 and has weighted mean of 3.54 and interpreted as very high. Next are indicators 1, 3, and 4 which has weighted mean ranging from 3.46 to 3.49 and interpreted as high. Indicator 3 “Building positive and trusting relationship with the patient.” ranked 3 and has a weighted mean of 3.49. Indicator 1 “Communicating clearly and respectfully with patient.” ranked 4 and has weighted mean of 3.48. To sum up, indicator 4 “Demonstrating leadership, passion, and commitment in work.” ranked 5 and has the lowest weighted mean of 3.46.

In summary, the overall weighted mean was 3.54 and verbally interpreted as very high level of professionalism in terms of initiative. This means that the radiologic technologists had a very high level of professionalism in Laguna Provincial Hospital – San Pablo City District Hospital in terms of initiative. The radiologic technologists are communicating clearly and respectfully to the patients, taking a task that others avoided, had a positive and trusting relationship to the patients, demonstrated leadership, passion and commitment to work, and showed hospitality.

Evidently, according to Grant Bummer (2022), an employee who takes initiative will quickly establish themselves as a valued member of the team, which is also likely to lead to future career success. These are the people who are thought of for promotions, pay rises and development opportunities. This is because taking initiative demonstrates confidence, high self-esteem and a willingness to work hard. This is also the case in your personal life, as being confident helps you to feel ready for whatever life throws at you. Taking initiative also means setting goals, achieving goals and completing tasks. These are all things that help you to stay organized, motivated and happy on a personal level.

Table 3. The Level of Radiologic Technologists' Professionalism in Laguna Provincial Hospital – San Pablo City District Hospital: Integrity

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Expressing gratitude.	3.50	High	3
2. Valuing honesty and openness.	3.49	High	4
3. Taking responsibility and accountability.	3.62	Very High	2
4. Demonstrating reliability and trustworthiness.	3.38	High	5
5. Showing patience and flexibility.	3.66	Very High	1
Overall Weighted Mean	3.53	Very High	

Table 3 shows that with regards in professionalism in terms of integrity, indicator 5 “Showing patience and flexibility.” ranked 1 with the highest weighted mean of 3.66 and interpreted as very high. Indicator 3 “Taking responsibility and accountability.” ranked 2 and has weighted mean of 3.62 and interpreted as very high. Next are indicators 1, 2, and 4 which has weighted mean ranging from 3.38 to 3.50 and interpreted as high. Indicator 1 “Expressing gratitude.” ranked 3 and has weighted mean of 3.50. Indicator 2 “Valuing honesty and openness.” ranked 4 and has weighted mean of 3.49. To conclude, indicator 4 “Demonstrating reliability and trustworthiness.” ranked 5 and has the lowest weighted mean of 3.38.

In summary, the overall weighted mean was 3.53 and verbally interpreted as very high level of professionalism in terms of initiative. This means that the radiologic technologists had a very high level of professionalism in Laguna Provincial Hospital – San Pablo City District Hospital in terms of integrity. They showed gratitude to the patients, valuing honesty and openness consistently, taking responsibility and accountability at all times, showed reliability and trustworthiness, as well as patience and flexibility.

The results were supported also by the study conducted by J Healthc Leadersh (2022), professionalism has been a foundational principle in the practice of medicine serving as “the basis of medicine’s contract with society.” This informal agreement was rejuvenated in the 1990s when leaders in the medical field delineated a more refined set of ethical values and competency standards that are to be expected in the delivery of clinical care.^{12–15} Incrementally, these core competencies have been included in medical education and training, both undergraduate and graduate, with an emphasis on acceptable professional behaviors and the pursuit of ethical principles in the effective and safe delivery of clinical care as well as for conduct in the public sphere. The **core components** of this framework of professionalism include altruism, dependability, responsibility, quest for excellence, appreciation of duty, agency, honesty, rectitude and **integrity**, collegiality, respect for others, continuous learning and improvement, and humility.

Table 4. The Level of Radiologic Technologists' Professionalism in Laguna Provincial Hospital – San Pablo City District Hospital: Appearance

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Proper workplace attire.	3.62	Very High	2
2. Proper hygiene.	3.50	High	3
3. Proper grooming.	3.43	High	4
4. Imaging equipment is organized.	3.34	High	5
5. Keeping the radiology department cleanliness.	3.66	Very High	1
Overall Weighted Mean	3.51	Very High	

As can be seen from Table 3, indicator 5 “Keeping the radiology department cleanliness.” ranked 1 with the highest weighted mean of 3.66 and interpreted as very high. Indicator 1 “Proper workplace attire.” ranked 2 and has weighted mean of 3.62 and also interpreted as very high. Next are indicators 2, 3, and 4 which has weighted mean ranging from 3.34 to 3.50 and interpreted as high. Indicator 2 “Proper hygiene.” ranked 3 and has weighted mean of 3.50. Indicator 3 “Proper grooming.” ranked 4 and has weighted mean of 3.43. In closing, indicator 4 “Imaging equipment is organized.” ranked 5 and has the lowest weighted mean of 3.34.

In summary, the overall weighted mean was 3.54 and verbally interpreted as very high level of professionalism in terms of appearance. This means that the radiologic technologists had a very high level of professionalism in Laguna Provincial Hospital – San Pablo City District Hospital in terms of appearance. The radiologic technologists’ showed proper work attire, good hygiene and grooming, imaging equipment is well organized and the radiology department has maintained a clean environment that is crucial for public health and well-being.

The result was supported by the study of J Healthc Leadersh (2022), as it investigated the the understanding of healthcare professionalism and perceived barriers and enablers towards the display of professionalism. Professionals are expected to dress respectably as “You will be treated as you are dressed” (Wong & Wong, 2009). Many professions have identifiable uniforms such as law enforcements, military and nursing staffs and these dress codes guide appropriateness of attire and build a common identity that differentiates them from other professions (Furnham et al., 2013). While in uniform, professionals are expected to behave in accordance with their respective code of conduct (Kalisch & Kalisch, 1985). In general, uniform generates authority and status, and inspires greater confidence to patients (Gherardi et al., 2009), whereas casual attire conveys compassion, friendliness and approachability (Gledhill et al., 1997), but also incompetence and failure to pass off confidence because of its unkempt appearance (Gherardi et al., 2009). Similarly, lawyers prefer formal dressing as a symbol of reliability, authoritative and competency (Furnham et al., 2013). Despite a uniform not being present for teachers, they are still encouraged to dress appropriately and to err on the side of formality (Kramer, 2003).

Table 5. Summary Table of the Level of Radiologic Technologists' Professionalism in Laguna Provincial Hospital – San Pablo City District Hospital

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Responsibility	3.57	Very High	1
2. Initiative	3.54	Very High	2
3. Integrity	3.53	Very High	3
4. Appearance	3.51	Very High	4
Overall Weighted Mean	3.54	Very High	

In summary table of the Level of Radiologic Technologists' Professionalism in Laguna Provincial Hospital – San Pablo City District Hospital. The overall weighted mean 3.54 and interpreted as very high. All indicators interpreted as very high. Indicator 1 "Responsibility" ranked 1 with the highest average and weighted mean of 3.57. Indicator 2 "Initiative" ranked 2 and has weighted mean of 3.54. Indicator 3 "Integrity" ranked 3 and has weighted mean of 3.53. In conclusion, indicator 4 "Appearance" ranked 4 and has weighted mean of 3.51. The overall weighted mean was 3.54 and verbally interpreted as very high level of professionalism. This means that the radiologic technologists had a very high level of professionalism in Laguna Provincial Hospital – San Pablo City District Hospital. They showed well professionalism in terms of responsibility, initiative, integrity and appearance.

Table 6. The Ethical Practices of Radiologic Technologists in Laguna Provincial Hospital – San Pablo City District Hospital

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Observe the highest standards of competence and ethics in the practice of the profession.	3.55	Very High	5
2. Commit to serve their fellow men, with justice, good faith and respect for human rights.	3.38	High	8
3. Respect the dignity, privacy and right to self-determination of the patients.	3.61	Very High	2
4. Provide patient care, without discrimination, by reason of age, race, sex, socio-economic status, religious or political belief or nature of disease/illness.	3.51	Very High	7
5. Possess such degree of technical knowledge and skills, reflective of their competence in the field.	3.30	High	10
6. 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 minimal.	3.33	High	9
7. Uphold the principle of informed consent.	3.66	Very High	1
8. Hold in confidence all information obtained in the course of their professional practice and shall only	3.54	Very High	6

disclose such information in accordance with the law and principles of medical ethics.			
9. Provide services for which they are qualified by virtue of their education, training and experience.	3.59	Very High	4
10. Provide patient care in accordance with the accepted professional and ethical standards.	3.60	Very High	3
Overall Weighted Mean	3.51	Very High	

As shown in Table 6, indicator 7 “Uphold the principle of informed consent.” ranked 1 with the highest weighted mean of 3.66 and interpreted as very high. Next are indicators 1, 3, 4, 8, 9 and 10 has the closest weighted mean ranging from 3.51 to 3.61 and interpreted as very high. Indicator 3 “Respect the dignity, privacy and right to self-determination of the patients.” ranked 2 and has a weighted mean of 3.55. Indicator 10 “Provide patient care in accordance with the accepted professional and ethical standards.” ranked 3 and has a weighted mean of 3.60. Indicator 9 “Provide services for which they are qualified by virtue of their education, training and experience.” ranked 4 and has a weighted mean of 3.59. Indicator 1 “Observe the highest standards of competence and ethics in the practice of the profession.” ranked 5 and has a weighted mean of 3.55. Indicator 8 “Hold in confidence all information obtained in the course of their professional practice and shall only disclose such information in accordance with the law and principles of medical ethics.” ranked 6 and has a weighted mean of 3.54. Indicator 4 “Provide patient care, without discrimination, by reason of age, race, sex, socio-economic status, religious or political belief or nature of disease/illness.” ranked 7 and has a weighted mean of 3.51. For indicators 2, 5, and 6 has a weighted mean ranging from 3.30 to 3.38 and interpreted as high. Indicator 2 “Commit to serve their fellow men, with justice, good faith and respect for human rights.” ranked 8 and has a weighted mean of 3.38. Indicator 6 “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 minimal.” ranked 9 and has a weighted mean of 3.33. Lastly, indicator 5 “Possess such degree of technical knowledge and skills, reflective of their competence in the field.” ranked 10 and has the lowest weighted mean of 3.30.

In summary, the overall weighted mean was 3.51 and verbally interpreted as very high. This means that the radiologic technologists be in possession of ethical practices in Laguna Provincial Hospital – San Pablo City District Hospital. The radiologic technologists demonstrate ethical considerations by upholding patient confidentiality, acting with compassion and professionalism, and adhering to ethical codes, ensuring quality patient care and responsible use of technology.

Evidently, ASRT (2023) states that ethical professional conduct is expected of every member of the American Society of Radiologic Technologists and every individual registered by the American Registry of Radiologic Technologists. As a guide, the ASRT and the ARRT have issued a code of ethics for their members and registrants. By following the principles embodied in this code, radiologic technologists will protect the integrity of the profession and enhance the delivery of patient care. Adherence to the code of ethics is only one component of each radiologic technologist’s obligation to advance the values and standards of their profession. Technologists also should take advantage of activities that provide opportunities for personal growth while enhancing their competence as caregivers. These activities may include participating in research

projects, volunteering in the community, sharing knowledge with colleagues through professional meetings and conferences, serving as an advocate for the profession on legislative issues and participating in other professional development activities. By exhibiting **high standards of ethics** and pursuing professional development opportunities, radiologic technologists will demonstrate their commitment to **quality patient care**.

Table 7. The Level of Radiologic Technologists Patient's Satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital: Communication

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Rad Tech had a formal tone of voice.	3.86	Very High	1
2. Spoke with humility.	3.61	Very High	2
3. Tech on duty was conversational and having empathy.	3.57	Very High	4
4. Giving proper instruction during radiological examination (x-ray/ultrasound).	3.42	High	5
5. Made sure that I understood everything.	3.59	Very High	3
Overall Weighted Mean	3.61	Very High	

As can be seen from Table 7, indicator 1 “Rad Tech had a formal tone of voice.” ranked 1 with the highest weighted mean of 3.86 and interpreted very high. Next are indicators 2, 3, and 5 which has weighted mean ranging from 3.57 to 3.61 and interpreted as very high. Indicator 2 “Spoke with humility.” ranked 2 and has weighted mean of 3.61. Indicator 5 “Made sure that I understood everything.” ranked 3 and has weighted mean of 3.59. Indicator 3 “Tech on duty was conversational and having empathy.” ranked 3 and has a weighted mean of 3.57. In closing, indicator 4 “Giving proper instruction during radiological examination (x-ray/ultrasound).” ranked 5 with the lowest weighted mean of 3.34 and interpreted as high.

In summary, the overall weighted mean was 3.61 and verbally interpreted as Very High of patient's satisfaction in terms of communication. This means that the radiologic technologists had a very high level of patient's satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital in terms of communication. They demonstrated strong communication skills.

Evidently, Rezarta Kalaja (2023) states that patient satisfaction is one of the most important factors to determine the success of health care providers. Determining the exact definition, determinants and characteristics of patients that influence satisfaction, as well as different theories on satisfaction, are highly discussed elements in the literature for a long period of time. The research instrument was a literature review by combining different view from many researchers. The literature was searched in databases such as Emerald, Medline/PubMed, Web of Science, ScienceDirect, Scopus. Patient satisfaction appears to play an important role in evaluation of service quality. From the literature review, it was observed that the main determinants of patient satisfaction were the demographic characteristics, expectations and experiences of the patients.

Communication is also an extremely important element that affects **patient satisfaction**. Other research should be conducted to delve even more into this very important area of health care.

Table 8. The Level of Radiologic Technologists Patient's Satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital: Delivery of the Procedure

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Treated with respect.	3.54	Very High	3
2. Friendly and approachable.	3.56	Very High	2
3. Paid attention to me (looked at me, listens to my concerns).	3.49	High	4
4. Showed care and emotional support.	3.47	High	5
5. Greeted in a way that made feel comfortable.	3.81	Very High	1
Overall Weighted Mean	3.57	Very High	

As can be seen from Table 7, indicator 5 “Greeted in a way that made feel comfortable.” ranked 1 with the highest weighted mean of 3.81 and interpreted very high. Next are indicators 1 and 2 which has weighted mean ranging from 3.54 and 3.56 and interpreted as very high. Indicator 2 “Friendly and approachable.” ranked 2 and has weighted mean of 3.56. Indicator 1 “Treated with respect.” ranked 3 and has a weighted mean of 3.54. Indicators 3 and 4 which has weighted mean ranging from 3.47 and 3.49 and interpreted as high. Indicator 3 “Paid attention to me (looked at me, listens to my concerns).” ranked 4 and has weighted mean of 3.49. In closing, indicator 4 “Showed care and emotional support.” ranked 5 with the lowest weighted mean of 3.47.

In summary, the overall weighted mean was 3.57 and verbally interpreted as very high of patient's satisfaction in terms of delivery of the procedure. This means that the radiologic technologists had a very high level of patient's satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital in terms of delivery of the procedure. They performed the delivery of the procedure well.

Table 9. The Level of Radiologic Technologists Patient's Satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital: Environment

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. The dressing room/restroom is clean.	3.59	Very High	3
2. Communicates me in noiseless workplace.	3.49	High	4
3. Protects us from toxic exposures.	3.65	Very High	2
4. Always sanitize the equipment needed for radiological examination (x-ray/ultrasound).	3.41	High	5
5. Patients are in comfortable area of the department (waiting area with chairs).	3.69	Very High	1
Overall Weighted Mean	3.56	Very High	

As shown in Table 7, indicator 5 “Patients are in comfortable area of the department (waiting area with chairs).” ranked 1 with the highest weighted mean of 3.69 and interpreted very high. Next are indicators 1 and 3 which has weighted mean ranging from 3.59 and 3.65 and interpreted as very high. Indicator 3 “Protects us from toxic exposures.” ranked 2 and has weighted mean of 3.65. Indicator 1 “The dressing room/restroom is clean.” ranked 3 and has a weighted mean of 3.59. Indicators 2 and 4 which has weighted mean ranging from 3.41 and 3.49 and interpreted as high. Indicator 2 “Communicates me in noiseless workplace.” ranked 4 and has weighted mean of 3.49. In closing, indicator 4 “Always sanitize the equipment needed for radiological examination (x-ray/ultrasound).” ranked 5 with the lowest weighted mean of 3.41.

In summary, the overall weighted mean was 3.56 and verbally interpreted as very high of patient’s satisfaction in terms of environment. This means that the radiologic technologists had a very high level of patient’s satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital in terms of environment. They showed pleasant environment characterized by safety, cleanliness, sustainability, and the promotion of well-being for the patients.

Table 10. Summary Table of the Level of Radiologic Technologists’ Patients’ Satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital

Indicator	Weighted Mean	Verbal Interpretation	Rank
1. Communication	3.61	Very High	1
2. Delivery of the procedure	3.57	Very High	2
3. Environment	3.56	Very High	3
Overall Weighted Mean	3.58	Very High	

In summary table of the Patients’ Satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital. The overall weighted mean 3.58 and interpreted as Very High. All indicators interpreted as very high. Indicator 1 “Communication” ranked 1 with the highest average and weighted mean of 3.61. Indicator 2 “Delivery of the procedure” ranked 2 and has weighted mean of 3.57. In conclusion, Indicator 3 “Environment” ranked 3 and has weighted mean of 3.56. The overall weighted mean was 3.54 and verbally interpreted as very high level of professionalism. This means that the radiologic technologists had a very high level of patient’s satisfaction in Laguna Provincial Hospital – San Pablo City District Hospital. They showed strong communication skills, well performed delivery of the procedure, and a pleasant environment.

The result was supported by the study of Dwi Ratna Sari (2021), effective communication is crucial to support nurses in providing excellent service, including a caring attitude towards patients to help facilitate their needs and to realize patient satisfaction. The purpose of this literature review was to describe the impact of effective communication on the improvement of the quality of excellent service and patient satisfaction in outpatient departments. This review was conducted by searching published articles on Google with selected keywords including “effective communication,” “excellent service” and “patient satisfaction.” The search was limited to publications between 2009 and 2019. The result of the study showed that effective communication can significantly impact the improvement of excellent service quality, thereby increasing patient

satisfaction with the health care they receive. The study recommends a collaboration between the HR and the Head of Nursing to conduct effective communication training. Nurses are expected to be able to improve their effective communication skills with patients, and further studies are needed to dig deeper into the impact of effective communication on improving the quality of excellent service and patient satisfaction.

Table 11. Relationship between the Radiologic Technologists' Level of Professionalism and Ethical Practices

Radiologic Technologists Professionalism	Pearson r value	p-value	Interpretation
Responsibility	0.344** Low correlation	0.000	Significant
Initiative	0.218* Low correlation	0.014	Significant
Integrity	0.374** Low correlation	0.000	Significant
Appearance	0.371** Low correlation	0.000	Significant
**Significant @ 0.01, *Significant @ 0.05			

For the relationship between the Radiologic Technologists' Level of Professionalism and Ethical Practices, in terms of responsibility, initiative, integrity and appearance, a Pearson's r value ranging from 0.218 to 0.374 was obtained indicating a low correlation. Meanwhile, a probability value ranging from 0.000 to 0.014 which was lower than the test of significance at .01 and 0.05 showed that there is a sufficient statistical evidence to reject the null hypothesis, suggesting a significant relationship between the radiologic technologists' level of professionalism and ethical practices. This means that the higher the level of radiologic technologists' professionalism, the better the ethical practices towards it.

The result was supported by the study of Dwi Ratna Sari (2021), ethical decision-making ability is regarded as one of the core competences of nursing practice and has the potential to resolve ethical issues. It is important to identify the key variables related to ethical decision-making and understand their relationship between them respectively. It is also helpful to design interventions to promote nursing students' ability to resolve ethical dilemmas. This study aims to examine the relationship between moral sensitivity, professional values and ethical decision-making respectively, and to explore whether professional values have mediating effect on the relationship between moral sensitivity and ethical decision-making among nursing undergraduates in Chinese nursing education context. Design This study is a cross-sectional descriptive correlational design. Methods 263 nursing undergraduates from Nursing and Health School, Zhengzhou University in Henan province of China participated in the study and received the investigation. Their ethical decision-making, moral sensitivity and professional values were measured through the following three questionnaires, including the Judgement About Nursing Decision (JAND), Chinese Moral Sensitivity Questionnaire-Revised Version (MSQ-R-CV) and

Chinese Nurses' Professional Values Scale–Revised Version (NPVS-R-CV). The data were processed and analysed by SPSS 23.0 and AMOS 24.0. The statistical methods included descriptive statistics, independent-samples t-tests, one-way analysis of variance, Pearson's correlation analyses and structural equation modeling. Moral sensitivity is positively correlated with ethical decision-making ($P < 0.01$). Professional values is positively correlated with ethical decision-making ($P < 0.01$) and also has a mediating effect on the relationship between moral sensitivity and ethical decision-making ($P < 0.01$). The investigation contributes to a broader understanding of the factors that influence nursing students' ethical decision-making. Developing ethics education around nursing students' professional values and moral sensitivity can improve their ethical decision-making ability.

Table 12. Relationship between the Radiologic Technologists' Ethical Practices and Level of Patients' Satisfaction

Patients' Satisfaction	Pearson r value	p-value	Interpretation
Communication	0.249** Low correlation	0.005	Significant
Delivery of the procedure	-0.042 Negligible correlation	0.642	Not Significant
Environment	0.104 Low correlation	0.249	Not Significant
**Significant @ 0.01			

For the relationship between the Radiologic Technologists Ethical Practices and Level of Patients' Satisfaction, in terms of Communication, a Pearson's r value of 0.249 was obtained indicating a low correlation. Meanwhile, a probability value of 0.005 which was lower than the test of significance at .01 showed that there is a sufficient statistical evidence to reject the null hypothesis, suggesting a significant relationship between the radiologic technologists' ethical practices and level of patients' satisfaction. On the other hand, in terms of Environment, a Pearson's r value of 0.104 was obtained indicating a low correlation. A probability value of 0.249 which was highest than the test of significance at .01 showed that there is no sufficient statistical evidence to reject the null hypothesis, suggesting no significant relationship between the radiologic technologists' ethical practices and level of patients' satisfaction. Lastly, in terms of Delivery of the procedure, a Pearson's r value of -0.042 was obtained indicating a negligible correlation. A probability value of 0.642 which was highest than the test of significance at .01 showed that there is no sufficient statistical evidence to reject the null hypothesis, suggesting no significant relationship between the radiologic technologists' ethical practices and level of patients' satisfaction. This means that the better the radiologic technologists' ethical practices along communication, the higher their level of patient's satisfaction.

Table 13. Relationship between the Radiologic Technologists' Level of Professionalism and Level of Patients' Satisfaction

Radiologic Technologists Professionalism	Patients' Satisfaction		
	Communication	Delivery of the procedure	Environment
Responsibility	0.488** Moderate correlation p=0.000	0.290** Low correlation p=0.001	0.453** Moderate correlation p=0.000
Initiative	0.350** Low correlation p=0.000	0.550** Moderate correlation p=0.000	0.540** Moderate correlation p=0.000
Integrity	0.282** Low correlation p=0.001	0.393** Low correlation p=0.001	0.549** Moderate correlation p=0.000
Appearance	0.333** Low correlation p=0.000	0.302** Low correlation p=0.001	0.326** Low correlation p=0.000
**Significant @ 0.01			

For the relationship between the Relationship between the Radiologic Technologists Level of Professionalism and Level of Patients' Satisfaction, in terms of communication, when it comes in responsibility, a Pearson's r value of 0.488 was obtained indicating a moderate correlation, a probability value of 0.005 which was lower than the test of significance at .01 showed that there is sufficient statistical evidence to reject the null hypothesis. Now, for initiative, integrity and appearance a Pearson's r value ranging from 0.282 to 0.350 was obtained indicating a low correlation. Meanwhile, a probability value ranging from 0.000 to 0.001 which was lower than the test of significance at .01 showed that there is sufficient statistical evidence to reject the null hypothesis, suggesting a significant relationship between the radiologic technologists' level of professionalism and level of patients' satisfaction. On the other hand, in terms of Delivery of the procedure, when it comes in Initiative, a Pearson's r value of 0.550 was obtained indicating a moderate correlation, a probability value of 0.000 which was lower than the test of significance at .01 showed that there is sufficient statistical evidence to reject the null hypothesis, suggesting a significant relationship between the radiologic technologists' level of professionalism and level of patients' satisfaction. For responsibility, integrity and appearance a Pearson's r value ranging from 0.290 to 0.393 was obtained indicating a low correlation. Meanwhile, these 3 sub-variables has the same probability value of 0.001 which was lower than the test of significance at .01 showed that there is sufficient statistical evidence to reject the null hypothesis, suggesting a significant relationship between the radiologic technologists' level of professionalism and level of patients' satisfaction. Finally, in terms of Environment, when it comes in appearance, a Pearson's r value of 0.326 was obtained indicating a low correlation, a probability value of 0.000 which was lower than the test of significance at .01 showed that there is sufficient statistical evidence to reject the

null hypothesis, suggesting a significant relationship between the radiologic technologists' level of professionalism and level of patients' satisfaction. For responsibility, initiative and integrity, a Pearson's r value ranging from 0.453 to 0.549 was obtained indicating a moderate correlation. Meanwhile, these 3 sub-variables has the same probability value of 0.000 which was lower than the test of significance at .01 showed that there is sufficient statistical evidence to reject the null hypothesis, suggesting a significant relationship between the radiologic technologists' level of professionalism and level of patients' satisfaction. This means that the higher the radiologic technologists' level of professionalism, the higher the level of patient's satisfaction.

Proposed Action Plan to Sustain the Radiologic technologists' Level of Professionalism, Ethical Practices and Level of Patient's Satisfaction

Rationale:

The plan is proposed to sustain the very high level of professionalism, sustain better ethical practices, and sustain the very high level of patient's satisfaction among the radiologic technologists. This would be accomplished by identifying the areas of concern, establishing a specific program, time frame, budget allocation for each proposed program, identifying the persons involved in implementing the program, and setting the expected outcomes.

Table 14. Action Plan to Maintain the Level of Radiologic Technologists' Professionalism, Ethical Practices and Level of Patient's Satisfaction

Areas of Concern	Program	Time Frame	Budget Allocation	Persons Involved	Expected Outcome
Professionalism	Trainings, seminars and workshops in handling patients with professionalism.	At least once a year	P10,000.00	Chief radiologic technologists, radiologic technologists,	90% Strengthen the high level of professionalism of the radiologic technologists.
Ethical Practices	Seminars on new/updated protocols ethical practices in handling patients that provides department knowledge, policies and	At least once a year	P10,000.00	Chief radiologic technologists, radiologic technologists,	Enhance and sustain better ethical practices for radiologic technologist with new/updated protocols, if available.

	safety procedures.				
Patient's Satisfaction	Seminars to encourage the radiologic technologists to be more resilient and to inspire them to work full pledge to reach their patient satisfaction.	At least once a year	P10, 000.00	Chief radiologic technologists, radiologic technologists,	Enhance and Sustain the very high level of Patient's Satisfaction.

4. CONCLUSION

The study found that the radiologic technologists demonstrated very high level of professionalism. They showed well in terms of responsibility, initiative, integrity and appearance. Further, the radiologic technologists demonstrated better ethical practices. Moreover, the radiologic technologists demonstrated very high level of patient's satisfaction. They showed strong communication skills, well performed delivery of the procedure, and a pleasant environment. Hospitals should implement strategies to sustain the existing very high level of professionalism, sustain better ethical practices and sustain the very high level of patient's satisfaction.

Proposed Action Plan to Reduce Occupational Stress, Improve Job Satisfaction, and Enhance Job Retention of Radiologic Technologists

Rationale:

Proposed Action Plan to Sustain the Radiologic technologists' Level of Professionalism, Ethical Practices and Level of Patient's Satisfaction

Rationale:

The plan is proposed to sustain the very high level of professionalism, sustain better ethical practices, and sustain the very high level of patient's satisfaction among the radiologic technologists. This would be accomplished by identifying the areas of concern, establishing a specific program, time frame, budget allocation for each proposed program, identifying the persons involved in implementing the program, and setting the expected outcomes.

Table 14. Action Plan to Maintain the Level of Radiologic Technologists' Professionalism, Ethical Practices and Level of Patient's Satisfaction

Areas of Concern	Program	Time Frame	Budget Allocation	Persons Involved	Expected Outcome
Professionalism	Trainings, seminars and workshops in handling patients with professionalism.	At least once a year	P10,000.00	Chief radiologic technologists, radiologic technologists,	90% Strengthen the high level of professionalism of the radiologic technologists.
Ethical Practices	Seminars on new/updated protocols ethical practices in handling patients that provides department knowledge, policies and safety procedures.	At least once a year	P10,000.00	Chief radiologic technologists, radiologic technologists,	Enhance and sustain better ethical practices for radiologic technologist with new/updated protocols, if available.
Patient's Satisfaction	Seminars to encourage the radiologic technologists to be more resilient and to inspire them to work full pledge to reach their patient satisfaction.	At least once a year	P10,000.00	Chief radiologic technologists, radiologic technologists,	Enhance and Sustain the very high level of Patient's Satisfaction.

5. RECOMMENDATIONS

To sustain very high level of professionalism, the radiologic technologists must focus on developing key traits like dependability, respect, and a positive attitude. This includes being punctual, managing your time effectively, and demonstrating strong communication skills. Additionally, focus on continuous learning, staying informed about industry best practices, and embracing constructive feedback. To improve better ethical practices, organizations should prioritize establishing clear ethical standards, providing ongoing ethics training, fostering a culture of accountability, and encouraging continuous improvement. Moreover, to enhance patient's satisfaction, the radiologic technologists must focus on clear communication, respectful interactions, efficient processes, caring attitude, be more resilient and work their full pledge to reach their patient satisfaction.

REFERENCES

- Aaron, Laura; Welch Haynes, Kelli (2024) Relationship Between Professional Behaviors and Radiologic Technologists' Demographics. from https://openurl.ebsco.com/EPDB%3Aacd%3A3%3A28469571/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aacd%3A178373314&crl=c&link_origin=scholar.google.com.ph
- Acta Medica Bulgarica (2024) Models of Ethical Decision Making in the Field of Healthcare Services – A Literature Review from https://www.researchgate.net/publication/384624576_Models_of_Ethical_Decision_Making_in_the_Field_of_Healthcare_Services_-_A_Literature_Review
- Ajzen, 1991 theory of planned behavior. theory-based study of doctors' intentions to engage in professional behaviours from https://ascnhighered.org/ASCN/change_theories/collection/planned_behavior.html
- Amna A. Ajam (2021) Patient Satisfaction in Outpatient Radiology: Effects of Modality and Patient Demographic Characteristics from https://journals.sagepub.com/doi/10.1177/23743735211049681?icid=int.sj-full-text.similar-articles.5&fbclid=IwY2xjawJD7ztleHRuA2FlbQIxMAABHaYxFrYEXEycvA14vC7iTeKs6NRWcdq1s9hNtJA4WfTmahlh7RapNj1Q_aem562f3bEBe0mGJGUb2wA64w
- Angela Alibrandi (2023) Patient satisfaction and quality of hospital care from <https://www.sciencedirect.com/science/article/pii/S0149718923000289>
- Anne Kari Tolo Heggstad (2021) Ethical challenges in home-based care: A systematic literature review from <https://pubmed.ncbi.nlm.nih.gov/33334250/>
- Antonia Rich (2020) A theory-based study of doctors' intentions to engage in professional behaviours from <https://pmc.ncbi.nlm.nih.gov/articles/PMC7011214/>
- ASRT (American Society of Radiologic Technologists) (2024) from https://catalog.wallace.edu/sites/default/files/pdf/academic_page/asrt-code-of-ethics-american-society-of-radiologic-technologists.pdf?1706032128
- Beauchamp & Childress (2009) theory of principlism from [https://www.sciencedirect.com/topics/psychology/principlism#:~:text=Principlism%20is%20an%20established%20approach,Beauchamp%20&%20Childress%2C%202009\).](https://www.sciencedirect.com/topics/psychology/principlism#:~:text=Principlism%20is%20an%20established%20approach,Beauchamp%20&%20Childress%2C%202009).)

- Bernardo Oliber Jr Alconis Arde (2017) Consonance theory: A proposed theory of patient satisfaction from https://www.researchgate.net/publication/328268255_Consonance_theory_A_proposed_theory_of_patient_satisfaction
- Christopher M. Hayre (2021) Ethical Considerations in Radiography Research from <https://www.taylorfrancis.com/chapters/edit/10.1201/9780367559311-4/ethical-considerations-radiography-research-christopher-hayre>
- Cita Rosita Sigit Prakoeswa (2022) A Systematic Review on Hospital's Patient Satisfaction and Loyalty in Indonesia from <https://oamjms.eu/index.php/mjms/article/view/10100>
- Diogo Cunha Ferreira (2023) Patient Satisfaction with Healthcare Services and the Techniques Used for its Assessment: A Systematic Literature Review and a Bibliometric Analysis from https://pmc.ncbi.nlm.nih.gov/articles/PMC10001171/?fbclid=IwY2xjawJD7zhleHRuA2FlbQIxMAABHeJMeqEEcOSaufJ1rP29_PZiSuFW5lgxKtMEBrv6VQSBllkXDH2SPDaq9aA_aem_xKivQWOdOWUj328220SKvA
- DVR (Desert Valley Radiology) (2025) Ethical Considerations in Medical Imaging from <https://www.dvrphx.com/ethical-considerations-in-medical-imaging.html>
- Dwi Ratna Sari (2021) Impact of Effective Communication on the Quality of Excellent Service and Patient Satisfaction in the Outpatient Department from https://www.researchgate.net/publication/350401413_Impact_of_Effective_Communication_on_the_Quality_of_Excellent_Service_and_Patient_Satisfaction_in_the_Outpatient_Department
- Eiad AlFaris (2023) Physicians' professionalism from the patients' perspective: a qualitative study at a single-family practice in Saudi Arabia from <https://bmcmethics.biomedcentral.com/articles/10.1186/s12910-023-00918-9>
- Grant Bummer (2022) The Importance of Taking Initiative and Being Proactive from <https://www.skillfindergroup.com/blog/2022/08/the-importance-of-taking-initiative-and-being-proactive?source=google.com>
- Guy Schofield (2021) Defining ethical challenge(s) in healthcare research: a rapid review from <https://bmcmethics.biomedcentral.com/articles/10.1186/s12910-021-00700-9>
- J Healthc Leadersh (2022) Medical Professionalism in the Provision of Clinical Care in Healthcare Organizations from <https://pmc.ncbi.nlm.nih.gov/articles/PMC9618247/>
- Kebede Dinsa (2022) Comparison of Patients Satisfaction Levels Toward Nursing Care in Public and Private Hospitals, Jimma, Ethiopia from <https://www.dovepress.com/comparison-of-patients-satisfaction-levels-toward-nursing-care-in-publ-peer-reviewed-fulltext-article-NRR>
- Laura Aaron (2024) Relationship Between Professional Behaviors and Radiologic Technologists' Demographics from https://www.asrt.org/docs/default-source/publications/radt/radt_vol95_no6.pdf
- Laxman Datt Bhatt (2024) Patient satisfaction and their determinants in outpatient department of a tertiary public hospital in Nepal from <https://jpro.springeropen.com/articles/10.1186/s41687-024-00696-x>
- Li Yun Chan (2024) Exploring the understanding of healthcare professionalism and perceived barriers and enablers towards the display of professionalism: a qualitative study from <https://mededpublish.org/articles/14-15>

- N. Rafiq, N. Naz, R. Memon, J. Shoukat, K. Kumari, H. Shaikh & F. Akram (2024) A 360-degree evaluation of the professionalism and communication skills of technologists working in the radiology department of a public sector tertiary care hospital in Karachi, Pakistan from <https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-024-06045-2>
- Qin Chen (2021) The relationship between moral sensitivity and professional values and ethical decision-making in nursing students from <https://www.sciencedirect.com/science/article/abs/pii/S0260691721003130>
- Rezarta Kalaja (2023) Determinants of Patient Satisfaction with Health Care: A Literature Review from https://www.researchgate.net/publication/370956537_Determinants_of_Patient_Satisfaction_with_Health_Care_A_Literature_Review
- Robert M Taylor (2013) Ethical principles and concepts in medicine from <https://pubmed.ncbi.nlm.nih.gov/24182363/#:~:text=The%20most%20common%20approach%20to,beneficence%2C%20nonmaleficence%2C%20and%20justice.Ethical principles and concepts in medicine>
- S. Bockhold (2022) Research ethics training, challenges, and suggested improvements across Europe: Radiography research ethics standards for Europe (RRESFE) from <https://www.sciencedirect.com/science/article/pii/S1078817422000980>
- Saira Afzal (2021) Ethical issues among healthcare workers using electronic medical records: A systematic review from <https://www.sciencedirect.com/science/article/pii/S266699002100029X>
- Welch Haynes, Kelli (2022) The Importance of Professionalism in Radiologic Sciences. from https://openurl.ebsco.com/EPDB%3Aagd%3A7%3A28469415/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aagd%3A155386891&crl=c&link_origin=scholar.google.com.ph
- WHO (2022) Ethics and medical radiological imaging: a policy brief for health-care providers from https://www.who.int/publications/i/item/9789240047785?fbclid=IwY2xjawJD85lleHRuA2FlbQIxMAABHbfGvCpjuP84esRdqBKJNYKm9RwJNBYGyTrPNBNM4BU3H8KNBjLKki77Kka_aem_dVEeNrVMcBFGepP_n3aHHA
- Xiaojie Li (2021) A Systematic Literature Review of Ethical Challenges Related to Medical and Public Health Data Sharing in China from <https://journals.sagepub.com/doi/abs/10.1177/15562646211040299>