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Diagnostic Efficiency, Challenges and Job Satisfaction of Radiologic Technologists in Picture Archiving and Communication System (PACS)

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Abstract

Radiology departments were integral to medical decision-making, with imaging modalities such as X-rays, CT scans, MRI, and ultrasound playing crucial roles in diagnostics and treatment planning. However, traditional film-based systems have long been associated with inefficiencies, including delays in image processing, difficulties in archiving, and limited accessibility for consultations. PACS technology addresses these challenges by digitizing radiology services, allowing seamless integration with hospital information systems (HIS) and electronic medical records (EMRs). This integration was particularly critical in tertiary hospitals where a high patient volume necessitates efficient workflow management. Thus, the adoption of PACS was not merely a technological upgrade but a strategic intervention aimed at optimizing resource allocation, reducing diagnostic turnaround times, and ultimately improving patient outcomes. This study aimed to evaluate the specific benefits and challenges of PACS implementation, particularly in terms of workflow efficiency and job satisfaction among radiology professionals. A descriptive correlational research design was employed. The study revealed that in terms of diagnostic efficiency, challenges, and job satisfaction, radiologic technologists had a very high impact in adapting Picture Archiving and Communication Systems (PACS). The results support the sustainability of diagnostic efficiency and job satisfaction while addressing the challenges radiologic technologists face in adapting to PACS.

Keywords: Diagnostic Efficiency, Challenges, Job Satisfaction, Radiologic Technologists

Introduction

Digital technologies have revolutionized numerous sectors, including healthcare, where advancements in medical imaging have significantly influenced clinical practices and patient outcomes. Among the pivotal innovations in radiology was the Picture Archiving and Communication System (PACS), a technology designed to streamline the acquisition, storage, and retrieval of medical images. PACS eliminates the reliance on physical films, providing clinicians with a digital platform to view and share diagnostic images. This innovation has reshaped radiology workflows, promising improved efficiency, enhanced diagnostic accuracy,

and increased accessibility to imaging data. The implementation of PACS represents a transformative approach to radiology, aligning with global trends in digital healthcare to address the growing demands of patient care in a modernized, urban hospital setting. PACS's ability to improve workflow efficiency, ensure faster diagnostic processes, and bolster collaboration among healthcare professionals (Martinez et al., 2021; Lee & Park, 2023).

While PACS offers numerous benefits, the transition to such a system necessitates an evaluation of its broader implications, particularly concerning radiology professionals' workflow and job satisfaction. Research by Abbasi et al. (2020) highlights that while PACS can enhance workflow efficiency, issues such as system usability, technical support, and training significantly impact overall satisfaction levels. Park et al. (2021) further emphasize that PACS enhances interdepartmental collaboration, particularly in high-pressure settings like trauma centers, where real-time data access is critical. These studies collectively underline the need for further exploration into PACS adoption's human and operational dimensions.

The increasing reliance on medical imaging as a diagnostic tool underscores the necessity for efficient image management systems. According to the World Health Organization (WHO), imaging procedures contribute to approximately 70% of medical diagnoses, highlighting the critical role of radiology in modern medicine (WHO, 2020). However, traditional film-based radiology systems are increasingly viewed as outdated due to their limitations in speed, accuracy, and accessibility. The adoption of PACS within high-volume healthcare settings, such as provides a practical solution to these challenges, aligning with global best practices in healthcare delivery.

This study aimed to bridge the gap in understanding the impact of PACS on the workflow efficiency and job satisfaction of radiology professionals in a high-pressure tertiary hospital setting. While the technical advantages of PACS, such as faster image retrieval and improved storage, are well-documented, fewer studies have explored its effects on the daily experiences of radiology staff. By addressing this gap, the study provides valuable insights into optimizing PACS implementation to enhance both operational efficiency and the well-being of healthcare professionals.

With such, this study aimed to evaluate the specific benefits and challenges of PACS implementation, particularly in terms of workflow efficiency and job satisfaction among radiology professionals. The findings were expected to contribute to evidence-based strategies for adopting healthcare technologies in tertiary hospitals, improving both patient outcomes and staff experiences in similar high-pressure environments.

Methods

The study used a descriptive-correlational research design since it determined the diagnostic efficiency, challenges, and job satisfaction of radiologic technologists in the Picture Archiving and Communication System in Las Piñas General Hospital and Satellite Trauma Center. Likewise, it identified possible patterns of relationships that exist among variables. Data used in the investigation came from 41 radiologic technologists. Out of 41 respondents, this study was based on the Raosoft calculator, arriving at 38 sample respondents who were randomly given a research questionnaire instrument, utilizing the 95% level of confidence and 5% margin of error. The research used a researcher-made questionnaire to collect the needed

primary data. The first part measured the level of diagnostic efficiency of radiology workflows; the second part measured the challenges in PACS; and the third part measured the level of job satisfaction, which was measured using the Likert scale. The researcher made the letter of intent addressed to the department's chairman for their approval for the study to be conducted. After gaining permission, the researcher distributed the survey instrument face-to-face to the respected respondents. To ensure that the data gathered were precisely treated, a weighted mean was used to determine the respondents' level of diagnostic efficiency, challenges, and job satisfaction in the Picture Archiving and Communication System. Descriptive statistics such as Pearson Product Moment of Correlation or Pearson-r were used to ascertain if there is a relationship between the level of diagnostic efficiency, challenges, and level of job satisfaction.

Results and Discussion

Discussion on the diagnostic efficiency, challenges, and job satisfaction of radiologic technologists in picture archiving and communication systems was presented in the succeeding tables and textual presentations:

Table 1
The level of Diagnostic Efficiency of the Respondents in Adapting PACS

Indicators **Picture Archiving and Communications System (PACS) will**	**Weighted Mean**	**Verbal Interpretation**	**Rank**
A. Workflow			
1. Reduced the time required to retrieve diagnostic images.	3.89	Very High (Strongly Agree)	4
2. reduced redundancies in radiology workflows	3.82	Very High (Strongly Agree)	5
3. improved the accuracy of image processing and reporting.	3.92	Very High (Strongly Agree)	2.5
4. minimized delays in radiological services for patients.	3.95	Very High (Strongly Agree)	1
5. streamlined the process of storing and organizing medical images.	3.92	Very High (Strongly Agree)	2.5
Average	**3.90**	**Very High (Strongly Agree)**	**1**
B. **Autonomy**			
1. help to manage workflow without requiring constant supervision	3.95	Very High (Strongly Agree)	1
2. provide adequate tools for prioritizing tasks	3.92	Very High (Strongly Agree)	2
3. impact your ability to manage urgent imaging tasks	3.87	Very High (Strongly Agree)	3.5
4. reduces your reliance on supervisors or colleagues for task completion	3.87	Very High (Strongly Agree)	3.5
5. confident in independently troubleshooting PACS-related issues	3.76	Very High (Strongly Agree)	5
Average	**3.87**	**Very High (Strongly Agree)**	**2**
Overall Average	**3.89**	**Very High (Strongly Agree)**	

Legend: (Strongly Agree/ Very high – 4, Agree/High – 3, Disagree/Low– 2, Strongly Disagree/Very Low– 1)

As seen in Table 1, the highest-ranked indicator in the workflow category is indicator 4, which states, "PACS minimized delays in radiological services for patients," with a weighted mean of 3.95 and a categorical interpretation of Very High. This is followed by indicators 3 and 5, which state, "PACS improved the accuracy of image processing and reporting" and "PACS streamlined the process of storing and organizing medical images," both ranking 2.5 with a weighted mean of 3.92 and a categorical interpretation of Very High. Meanwhile, indicator 1, "PACS reduced the time required to retrieve diagnostic images," ranked 4 with a weighted mean of 3.89, and indicator 2, "PACS reduced redundancies in radiology workflows," ranked 5 with a weighted mean of 3.82, both with a categorical interpretation of Very High. The average weighted mean for the Workflow category is 3.90, classified as Very High.

In the Autonomy category, the highest-ranked indicator is indicator 1, which states, "PACS helps to manage workflow without requiring constant supervision," with a weighted mean of 3.95 and a categorical interpretation of Very High. This is followed by indicator 2, "PACS provides adequate tools for prioritizing tasks," ranked 2 with a weighted mean of 3.92. Indicators 3 and 4, which state, "PACS impacts the ability to manage urgent imaging tasks" and "PACS reduces reliance on supervisors or colleagues for task completion," both ranked 3.5 with a weighted mean of 3.87. Lastly, indicator 5, "PACS increases confidence in independently troubleshooting PACS-related issues," ranked 5 with a weighted mean of 3.76. The category's average weighted mean is 3.87, classified as Very High.

Overall, the obtained weighted mean of 3.89 indicates that the respondents strongly agreed with the efficiency of PACS in improving workflow and autonomy. The system was most beneficial in minimizing delays in radiological services and allowing radiologic technologists to manage workflow independently without constant supervision. The findings suggest that PACS is crucial in enhancing diagnostic efficiency by reducing redundancies, improving image processing accuracy, and providing tools for prioritization and troubleshooting.

Likewise, prior studies affirm that PACS implementation enhances radiologic workflow and associated efficiencies. Studies have shown that PACS reduces diagnostic turnaround time, increases productivity, and improves image accessibility, thus facilitating better clinical outcomes. For instance, Wenderott et al. (2024) stated that although PACS adoption greatly enhanced workflow efficiency, continued technical support would aid in achieving freedom from dependency. This results in the understanding that whereas PACS increases the efficiency of diagnosis, regular upgrades and user training of the system would ensure reaching its full potential.

Table 2
The Primary Challenges Encountered by the Radiologic Technologists Professionals in Adapting PACS

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Navigating complex software interfaces and adapting to new workflows.	3.79	Strongly Agree	5
2. Ensuring data accuracy and security	3.82	Strongly Agree	4
3. Maintaining efficient communication among healthcare teams	3.84	Strongly Agree	2.5
4. Develop new technical skills and adjust to a digital environment that differs greatly from traditional film-based practices.	3.87	Strongly Agree	1
5. Engaging in comprehensive education on the software	3.84	Strongly Agree	2.5
Average	**3.83**	Strongly Agree	

Legend: (Strongly Agree – 4, Agree – 3, Disagree – 2, Strongly Disagree – 1)

As shown in Table 2, the primary challenge encountered by radiologic technologists in adapting to PACS is indicator 4, which states, "Develop new technical skills and adjust to a digital environment that differs greatly from traditional film-based practices," ranking first with a weighted mean of 3.87 and a categorical interpretation of Strongly Agree.

This is followed by indicators 3 and 5, which state, "Maintaining efficient communication among healthcare teams" and "Engaging in comprehensive education on the software," both ranked 2.5 with a weighted mean of 3.84 and a categorical interpretation of strongly agree.

Indicator 2, "Ensuring data accuracy and security," ranked fourth with a weighted mean of 3.82 and a categorical interpretation of Strongly Agree. Lastly, indicator 1, "Navigating complex software interfaces and adapting to new workflows," ranks fifth with a weighted mean of 3.79 and a categorical interpretation of strongly agree.

Overall, the obtained weighted mean of 3.83 suggests that radiologic technologists strongly agree that they face significant challenges when adapting to PACS. The most pressing issue is developing new technical skills and transitioning from traditional film-based practices to a fully digital system. Other significant concerns include ensuring data accuracy and security, improving communication among healthcare teams, and engaging in sufficient training to use the software efficiently. These findings emphasize the importance of structured training programs and support systems to facilitate a smoother transition to PACS.

These findings align with previous research emphasizing PACS adoption's technical and training challenges. A study by Arif (2024) found that radiologic technologists often struggle with system complexity and require ongoing education to maintain proficiency. This reinforces the need for continuous professional development, technical support, and structured training programs to effectively address the challenges of PACS adoption.

Table 3

The Level of Job Satisfaction of the Radiologic Technologists Professionals in Adapting PACS

Indicators	Weighted Mean	Categorial Interpretation	Rank
Workload			
1. It reduced manual processes, such as filing and retrieving physical films.	3.97	Very high (Strongly Agree)	1
2. I feel less stressed due to automating repetitive tasks like image distribution and reporting	3.95	Very high (Strongly Agree)	3
3. Enable remote access, allowing me to view and manage images from home or other locations if needed	3.82	Very high (Strongly Agree)	5
4. I spend less time on repetitive tasks due to the capabilities of PACS.	3.95	Very high (Strongly Agree)	3
5. Reduced errors associated with manual processes, such as lost or damaged films, which can lead to rework.	3.95	Very high (Strongly Agree)	3
Average	**3.93**	**Very high (Strongly Agree)**	**2**
Autonomy			
1. Resolving PACS-related issues on your own using available resources (e.g., error logs, help options, or manuals)	3.89	Very high (Strongly Agree)	5
2. PACS enhances my ability to work independently.	4.00	Very high (Strongly Agree)	1.5
3.I have in my role positively impacts my job satisfaction.	4.00	Very high (Strongly Agree)	1.5
4.I feel trusted by my supervisors to make decisions in my work involving PACS.	3.97	Very high (Strongly Agree)	3
5.I feel empowered and confident in handling my responsibilities.	3.95	Very high (Strongly Agree)	4
Average	**3.96**	**Very high (Strongly Agree)**	1
Professional support			
1. I have attended regular training or professional development related to PACS.	3.79	Very high (Strongly Agree)	5
2. Reduces stress caused by PACS-related challenges.	3.89	Very high (Strongly Agree)	2.5

3. Knowing I have access to support makes me feel more confident in using PACS.	3.89	Very high (Strongly Agree)	2.5
4. Enhances my ability to meet diagnostic and workflow demands.	3.92	Very high (Strongly Agree)	1
5. I received assistance from technical support when you faced problems with PACS.	3.87	Very high (Strongly Agree)	4
Average	**3.87**	Very high (Strongly Agree)	**3**
Overall Average	**3.92**	**Very high (Strongly Agree)**	

Legend: (Strongly Agree/ Very high – 4, Agree/High – 3, Disagree/Low– 2, Strongly Disagree/Very Low– 1)

As shown in Table 3, the level of job satisfaction of radiologic technologists in adapting PACS is categorized as Very High based on an overall weighted mean of 3.92.

Autonomy ranked the highest among the three categories, with an average weighted mean of 3.96. The highest-ranked indicators in this category are indicator 2, "PACS enhances my ability to work independently," and indicator 3, "Having this role positively impacts job satisfaction," with a weighted mean of 4.00 and a categorical interpretation of Very High. Following closely is indicator 4, " Trust from supervisors allows for decision-making in work involving PACS," with a weighted mean of 3.97. In contrast, indicator 5, "Empowerment and confidence are evident in handling responsibilities," ranked fourth with a weighted mean of 3.95. The lowest-ranked indicator in this category is indicator 1, "Resolving PACS-related issues on your own using available resources (e.g., error logs, help options, or manuals)," which had a weighted mean of 3.89.

Workload ranked second with an average weighted mean of 3.93. The highest-rated indicator in this category is indicator 1, "It reduced manual processes, such as filing and retrieving physical films," which received the highest weighted mean of 3.97. Indicators 2, 4, and 5 state, "Reduced stress comes from automating repetitive tasks like image distribution and reporting," "less time is spent on repetitive tasks due to the capabilities of PACS," and "reduced errors associated with manual processes, such as lost or damaged films, which can lead to rework," all ranked third with a weighted mean of 3.95. The lowest-ranked indicator in this category is indicator 3, "Enable remote access, allowing me to view and manage images from home or other locations if needed," with a weighted mean of 3.82.

Lastly, professional support ranked third with an average weighted mean of 3.87. The highest-ranked indicator in this category is indicator 4, "Enhances my ability to meet diagnostic and workflow demands," which received a weighted mean of 3.92. Indicators 2 and 3, "Reduces stress caused by PACS-related challenges" and "Access to support enhances confidence in using PACS," both ranked second with a weighted mean of 3.89. Following this is indicator 5, "Assistance from technical support is provided when problems with PACS arise," ranked fourth with a weighted mean of 3.87. In contrast, the lowest-ranked indicator is

indicator 1, "Regular training or professional development related to PACS has been attended," which received a weighted mean of 3.79.

In summary, an overall weighted mean of 3.92 showed that radiologic technologists had a very high level of job satisfaction in adapting PACS along with workflow, autonomy, and professional support. The findings suggest that radiologic technologists experience very high job satisfaction with PACS, particularly regarding workload, autonomy, and professional support. The ability to work independently, reduced manual processes and minimized stress due to automation contribute significantly to job satisfaction. However, professional support, particularly regular training and professional development, has the lowest ratings, indicating that more structured training and technical assistance could further enhance satisfaction levels.

This finding agrees with existing research on the adoption of PACS, which emphasizes the role of such systems in improving job satisfaction in terms of work productivity and autonomy. A PACS system was shown by Ji et al. (2024) to enhance job satisfaction by radiologic technologists owing to the higher control they have over imaging processing and lesser manual workload. However, they must not leave their users out of continued professional support and training efforts to derive the integration benefits. Thus, there is further justification for the preparation of continuous education and technical assistance by hospitals and health institutions to improve user experience and job satisfaction.

Table 4
Relationship between the Level of Diagnostic Efficiency and Challenges of the Respondents in Adapting PACS

Diagnostic Efficiency	Pearson r value	p-value	Interpretation
Workflow	-0.047 Negligible correlation	0.781	Not Significant
Autonomy	0.188 Low Correlation	0.257	Not Significant
**Significant level @ 0.05			

As shown in Table 4, the study found a negligible negative correlation (r=−0.047r = -0.047r=−0.047, p=0.781p = 0.781p=0.781) between workflow challenges and diagnostic efficiency, implying that these difficulties have little to no impact. Similarly, autonomy exhibits a low positive correlation (r=0.188r = 0.188r=0.188, p=0.257p = 0.257p=0.257), implying increased autonomy may slightly improve diagnostic efficiency. However, both correlations were statistically insignificant because their p-values were more significant than the 0.05 significance level.

Furthermore, these findings suggest that, while workflow and autonomy were essential considerations when adapting PACS, their direct impact on diagnostic efficiency is minimal. The lack of correlation with workflow could indicate that healthcare professionals have devised strategies to maintain efficiency despite workflow challenges. Meanwhile, the low correlation with autonomy suggests that some degree of independence may improve efficiency; other factors, such as training, technical support, and system usability, were likely to be more critical in determining diagnostic accuracy and speed. This finding implies that the

higher the level of diagnostic efficiency of the respondents, the more challenges they face remain the same.

Moreover, these findings align with previous studies highlighting the complexity of PACS integration in healthcare settings. Research by Atillo et al. (2024) emphasized that while workflow modifications and autonomy adjustments are necessary during PACS adoption, the overall efficiency of diagnosis was more significantly affected by system design, training programs, and user adaptability. This supports the notion that future efforts should improve PACS usability and provide sufficient training to ensure that adaptation challenges do not hinder diagnostic efficiency.

Table 5
Relationship between the Challenges and Level of Job Satisfaction of the Respondents in Adapting PACS

Job Satisfaction	Pearson r value	p-value	Interpretation
Workflow	0.294 Low correlation	0.073	Not Significant
Autonomy	0.622** Moderate Correlation	0.000	Significant
Professional Support	0.499** Moderate correlation	0.000	Significant
**Significant @ 0.01			

As shown in Table 5, there is no significant relationship between the challenges and level of job satisfaction of the respondents in adapting PACS in terms of workflow, as indicated by Pearson's r-value of 0.294 and p-value of 0.073. The probability value of 0.073 was greater than the 0.01 significant level, suggesting that the relationship between the challenges and job satisfaction level in adapting PACS workflow terms is weak and not statistically significant. There was a significant relation between the challenges and level of job satisfaction of the respondents in adapting PACS in terms of autonomy and professional support, as indicated by a Pearson r value of 0.622 and a p-value of 0.000 in terms of autonomy and a Pearson r value of 0.499, and a p-value of 0.000 in terms of professional support. The probability value of 0.000 was less than the 0.01 significant level, suggesting that strategies should be considered to enhance autonomy and strengthen professional support. This means that the challenges faced by the respondents did not affect the level of job satisfaction, autonomy, and professional support.

These results align with previous research emphasizing PACS adaptation's multifaceted nature. A study by Montazeri and Khajouei (2022) found that while workflow efficiency and autonomy contribute to overall system usability, the primary determinants of diagnostic efficiency include proper training, system usability, and technical support. This suggests that to maximize the benefits of PACS. Institutions should focus on enhancing user training programs and optimizing system design rather than solely addressing workflow or autonomy challenges.

Table 6
Relationship between the Level of Diagnostic Efficiency and Level of Job Satisfaction of the Respondents in Adapting PACS

Diagnostic Efficiency	Workflow	Job Satisfaction Autonomy	Professional Support
Workflow	r=0.560** Moderate correlation p=0.000	r=0.026 Negligence correlation p=0.876	r=0.083 Negligible correlation p=0.621
Autonomy	r=0.577** Moderate correlation p=0.000	r=0.410* Moderate correlation p=0.011	r=0.188 Low correlation p=0.259
**Significant @ 0.01; *Significant @ 0.05			

Table 6 shows that the workflow has a small negative correlation with the diagnostic efficiency (r=−0.047, p=0.781), which implies that the challenges faced in workflows may not significantly affect the diagnostic efficiency. Autonomy shows a low positive correlation (r=0.188, p=0.257), indicating a weak relationship between an increase in autonomy and diagnostic efficiency. However, both correlations were statistically insignificant since the associated p-values exceed the 0.05 significance level.

These findings suggest that although workflow and autonomy factors may add to job satisfaction, they little influence the efficiency of diagnosis. The low correlation with workflow may mean that professionals have adjusted to workflow overhead such that it does not affect their efficiency. On the other hand, low correlation with autonomy suggests that increased freedom while working with PACS may help only to an extent; other factors, including system usability, institutional support, and training, matter more in determining diagnostic efficiency. The higher the respondent's level of diagnostic efficiency along workflow and autonomy, the higher the level of job satisfaction.

Such findings also agree with the previously conducted ones, which addressed the multifaceted relationship between job satisfaction and diagnostic performance. In the research done by Maqbool et al. (2023), they concluded that with a positive work environment, workflow improvements contribute to making a person more autonomously inclined towards performing his/her work. The actual and primary drivers towards diagnostic efficiency include technical support access availability, user-friendly interfaces, and continuous training. Therefore, healthcare institutions can increase efficiency and job satisfaction by improving PACS usability and providing adequate support and well-structured training for medical professionals.

Conclusion

The radiologic technologists had an excellent understanding of minimizing delays in radiological services for patients and assisting in workflow management without constant supervision. The respondents strongly agreed to developing new technical skills and adjusting

to a digital environment that differs significantly from traditional film-based practices and have a very high job satisfaction with adapting PACS in terms of workload, autonomy, and professional support, implying that the respondents' ability to work independently, reduced manual processes, and reduced stress due to automation all contribute significantly to job satisfaction. Additionally, an understanding of the significant relationship between the level of diagnostic efficiency, challenges, and their level of job satisfaction in adapting PACS shows that the higher the respondents' level of diagnostic efficiency along with workflow and autonomy, the higher the level of job satisfaction. The results signify that radiologic technologists must sustain diagnostic efficiency and job satisfaction while addressing the challenges among radiologic technologists in adapting PACS.

Table 7
Proposed Action Plan to Sustain Efficiency and Job Satisfaction in PACS Adoption

Areas of Concern	Strategy/Tasks	Person(s) Responsible	Time Frame	Resources	Source of Budget	Budget Allocation	Success Indicator
Sustaining Workflow Efficiency	1. Continuous Conduct of periodic PACS training sessions to optimize workflow processes	Head of Radiology Department, IT Team	Quarterly	Training Manuals, PACS Guidelines	Annual Operational Budget	₱8,000	At least 98% of staff demonstrating improved workflow efficiency
	2. Implement workflow audits to identify areas for improvement	Radiology Supervisor, QA Team	Bi-Annually	Audit Tools, PACS Logs	Annual Operational Budget	₱5,000	At least 98% of workflow issues resolved post-audit
Sustaining Autonomy of Radiologic Technologists	1. Develop advanced PACS certification courses for independent decision-making	Training Officer, Radiology Department	Annually	Training Modules, Online Resources	Annual Operational Budget	₱10,000	At least 80% participation in advanced training
	2. Establish decision-making protocols to grant greater autonomy	Radiology Leadership Team	Bi-Annually	SOP Manual, PACS Workflow Guides	Annual Operational Budget	₱6,000	At least 90% compliance with new autonomy guidelines

	while maintaining standardization						
Sustaining Technical Skill Development	1. Conduct hands-on workshops focusing on PACS troubleshooting and optimization	IT Department, Training Officer	Quarterly	Workshop Modules, PACS Demo System	Annual Operational Budget	₱7,000	At least 85% of participants rating workshops as effective
	2. Assign PACS mentors to assist technologists with technical difficulties	Senior Radiologic Technologists	Monthly	Mentorship Program Guidelines	Annual Operational Budget	₱4,000	At least 90% satisfaction from mentees regarding mentor support
Improving Interdisciplinary Communication	1. Organize regular interdisciplinary meetings to discuss PACS-related issues	Chief Radiologic Technologist, IT Team	Monthly	Meeting Agendas, Communication Reports	Annual Operational Budget	₱3,000	At least 90% of issues addressed within a month
	2. Develop a standardized reporting system for PACS concerns and troubleshooting	IT Department	Bi-Annually	Issue Tracking Software, Reporting Templates	Annual Operational Budget	₱5,000	At least 85% reduction in recurring PACS-related communication issues
Strengthening Professional Support Systems	1. Establish a peer-support group for knowledge sharing and collaboration	Radiologic Technologists, Training Officer	Bi-Annually	Discussion Forums, Case Study Reviews	Annual Operational Budget	₱4,000	At least 80% participation in peer-support activities
	2. Provide access to technical	IT Support Team	Daily	Helpdesk Software,	Annual Operati	₱6,000	At least 90% resolution

	assistance through a dedicated PACS helpdesk			SOP Manual	onal Budget		of reported technical issues within 24 hours
Promoting Continuous Evaluation and Feedback	1. Conduct annual staff surveys to assess PACS effectiveness and user satisfaction	HR Department, Quality Assurance Team	Annually	Survey Forms, Online Feedback Tools	Annual Operational Budget	₱5,000	At least 85% of respondents reporting satisfaction with PACS improvements
	2. Establish a PACS review committee to oversee implementation and necessary modifications	Radiology Leadership, IT Team	Bi-Annually	Committee Meeting Resources, Data Analytics Tools	Annual Operational Budget	₱7,000	At least 90% of recommended improvements implemented successfully

Recommendations

The current study presents an opportunity for growth, particularly concerning its sample size, which was limited to radiologic technologists within Las Piñas General Hospital and the Satellite Trauma Center. To enhance understanding and foster progress, future researchers are encouraged to investigate comprehensive strategies to improve efficiency, job satisfaction, and overall system effectiveness. This exploration should also consider the advancements in PACS technology and the changing needs of the healthcare industry.

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