



HEALTHCARE POLICIES AND THEIR IMPACT ON RADIOGRAPHY

PRACTICES AND PATIENTS CARE IN A TERTIARY INSTITUTION IN BENIN

CITY

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OF BENIN

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CERTIFICATION

This is to certify the project on HEALTHCARE POLICIES AND THEIR IMPACT ON RADIOGRAPHY PRACTICES AND PATIENTS CARE IN A TERTIARY INSTITUTION IN BENIN written by AGHO STEPHANIE with matriculation number BMS2007264 in partial fulfillment of the Bachelor of Radiography Degree (B.Rad) in the DEPARTMENT OF RADIOGRAPHY, SCHOOL OF BASIC MEDICAL SCIENCES, UNIVERSITY OF BENIN.

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DEDICATION

This work is lovingly dedicated to Almighty God, whose grace, strength, and guidance have carried me through every step of this journey. With all my heart, I dedicate this project to my wonderful family — Mr. Godwin, Mrs. Betty, Mummy Marvelous, Mummy Jaron, Daddy Kendra, Valentina, Freebirth, Loveth, and Roberta. Your love, prayers, encouragement, and unwavering support have been my greatest sources of strength and inspiration. Each of you has played a special role in shaping who I am today, and I am forever grateful for your presence in my life. This achievement is as much yours as it is mine. From the depths of my heart — thank you for everything.

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TABLE OF CONTENT

| | |
|---|------|
| CERTIFICATION | ii |
| DEDICATION | iii |
| ACKNOWLEDGEMENT | iv |
| TABLE OF CONTENT | v |
| ABSTRACT | viii |
| CHAPTER ONE | 1 |
| INTRODUCTION | 1 |
| 1.1 Background of the Study | 1 |
| 1.2 Statement of the Problem | 6 |
| 1.3 Research Questions | 7 |
| 1.4 Research Hypothesis | 8 |
| 1.5 Research Aim | 8 |
| 1.6 Research Objectives | 8 |
| 1.7 Significance of the Study | 8 |
| 1.8 Scope of the Study | 10 |
| 1.9 Operational Definition of Terms | 11 |
| CHAPTER TWO | 12 |

| | |
|---|----|
| LITERATURE REVIEW | 12 |
| 2.1 Conceptual Review | 12 |
| 2.1.1 Radiography, Healthcare Policy, and Patient Care. | 12 |
| 2.1.2 The Nigerian Health Policy as Relating to Radiography | 17 |
| 2.1.3 Patient Care within the Context of Radiography and Health Care Policies. | 22 |
| 2.2 Empirical Review | 25 |
| 2.3 Theoretical Review | 30 |
| CHAPTER THREE | 32 |
| RESEARCH METHODOLOGY | 32 |
| 3.1 Research Setting | 32 |
| 3.2 Research Design | 32 |
| 3.3 Target Population | 33 |
| 3.4 Sample Technique and Sample Size | 34 |
| 3.5 Instrument of Data Collection | 34 |
| 3.6 Validity of Instrument | 35 |
| 3.7 Reliability of Instrument | 36 |
| 3.8 Method of Data Collection | 36 |
| 3.9 Method of Data Analysis | 36 |

| | |
|--|----|
| 3.10 Ethical Considerations | 37 |
| CHAPTER FOUR | 37 |
| RESULTS AND DISCUSSION | 37 |
| 4.1 Results | 38 |
| 4.2 Hypothesis Testing | 41 |
| 4.3 Discussion of Findings | 42 |
| CHAPTER FIVE | 52 |
| CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDIES | 52 |
| 5.1 Conclusion | 52 |
| 5.2 Recommendations | 53 |
| 5.3 Limitations of the Study | 54 |
| 5.4 Suggestions for Further Studies | 54 |
| REFERENCES | 55 |
| APPENDIX I | 59 |
| APPENDIX II | 61 |

LIST OF TABLES

| | |
|--|----|
| Table 4.1: Demographic Characteristics of Respondents (n = 31) | 38 |
| Table 4.2: Awareness of Healthcare Policies (n = 31) | 39 |

| | |
|--|----|
| Table 4.4: Impact of Healthcare Policies on Patient Care (n = 31)..... | 40 |
| Table 4.5: Challenges in Adhering to Healthcare Policies (n = 31)..... | 41 |
| Table 4.6: Chi-Square Test on Policy Influence (n = 31)..... | 41 |

ABSTRACT

Healthcare policies are central to the regulation of radiographic practice and play a vital role in shaping the quality of patient care. This study investigated the impact of healthcare policies on radiographers at the University of Benin Teaching Hospital (UBTH), focusing on policy awareness, influence on daily practice, patient care outcomes, and the challenges of policy adherence. A descriptive cross-sectional design was used, and data were collected from

31 radiographers through a structured questionnaire. The results showed that 61.3% of respondents were aware of institutional healthcare policies, while 74.2% could identify policy documents relevant to their duties. Full compliance with radiation safety requirements (100%) was observed, demonstrating strong adherence in safety-sensitive areas. Policies were found to substantially influence professional conduct, as 93.5% agreed that policies guide daily radiographic practice, while 87.1% indicated that policies ensure standardization and 90.3% affirmed improved accountability. In terms of patient care, 93.5% agreed that policies enhance service quality and 87.1% believed they promote consistency, although only 42.0% felt that policies reduce imaging time. A Chi-square test further confirmed a statistically significant relationship between healthcare policies and daily radiographic practice ($\chi^2 = 61.29$, $df = 1$, $p = 0.000$), leading to the rejection of the null hypothesis. Despite these positive outcomes, radiographers reported major challenges such as inadequate resources (87.1%), insufficient training (61.3%), outdated guidelines (58.1%), and inconsistent implementation across departments (58.0%). The study concludes that healthcare policies positively shape radiographic practice and patient care at UBTH, but their effectiveness is limited by systemic and administrative constraints. Strengthening policy communication, updating guidelines, improving resource availability, and expanding training opportunities will enhance policy adherence and further improve patient outcomes in radiography.

Keywords: Healthcare policies, radiography, policy awareness, patient care, Chi-square, implementation challenges, UBTH, compliance, radiation safety.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The relationship between healthcare policies and the practice of radiography is often complex, yet profoundly influential on both radiographers' professional practices and the quality of patient care. Radiography, as a vital diagnostic tool in modern healthcare, is shaped by various healthcare policies, and governance structures (Hardee et al., 2012). These policies can either enhance or hinder the effectiveness and efficiency of radiographic services, which directly impact patient outcomes. This background explores the significant role of healthcare policies in shaping radiography practices, focusing on the governance frameworks, evidence-based practices, and regulatory challenges radiographers face globally, with a particular emphasis on Nigeria (Kuhlmann et al., 2015)

Healthcare policies are a crucial aspect of the broader governance of the healthcare system, encompassing guidelines, and frameworks that influence the delivery of medical services, including radiography. Governance in healthcare is defined as the structures, processes, and relationships that determine how health systems function and how resources are allocated (Barbazza & Tello, 2014). In many countries, including Nigeria, these policies are designed to improve the accessibility, quality, and efficiency of healthcare services. However, despite the growing importance of radiography in diagnostic medicine, the policies governing the

practice of radiographers often fail to keep pace with the rapid technological advancements and changing healthcare needs (Hardee et al., 2012).

The governance frameworks that influence radiographic practices include institutional policies, national health strategies, and international guidelines. These frameworks often emphasize safety, quality control, and regulatory compliance, which are essential to ensure both the safety of patients and the professional integrity of radiographers. In the context of Nigeria, the National Health Policy aims to promote the health of Nigerians through enhanced healthcare delivery, ensuring that policies are aligned with socio-economic development goals (Federal Ministry of Health, 2016). However, the implementation of these policies often encounters challenges due to limited resources, inadequate training, and inconsistent regulatory oversight, which impact the efficacy of radiography services (Kuhlmann et al., 2015).

The importance of evidence-based practices (EBPs) in healthcare cannot be overstated. EBPs are grounded in research findings that demonstrate the effectiveness of specific interventions, and they are essential for optimizing clinical outcomes (Almeida *et al.*, 2022). In radiography, EBPs are critical for ensuring that imaging techniques are applied correctly and safely. Evidence-based guidelines help radiographers stay updated with best practices and evolving technologies, improving the overall quality of patient care. Almeida *et al.*, (2022) discuss how radiographers' perceptions of EBPs influence their practices, highlighting the need for continuous education and adaptation to new technologies and regulatory changes.

Healthcare policies directly impact radiographers' professional practices in various ways.

Policies related to radiation safety, equipment usage, and the appropriate use of imaging procedures can either facilitate or constrain the work of radiographers. For instance, well-structured referral guidelines ensure that imaging services are used appropriately, helping to avoid unnecessary procedures that can expose patients to unnecessary radiation (Tay et al., 2025). A systematic review by Tay et al. (2025) demonstrates how imaging referral guidelines can reduce inappropriate imaging requests, leading to better resource utilization and improved patient outcomes.

However, policies can also impose restrictions on radiographers' professional autonomy. In some regions, radiographers face challenges in decision-making due to rigid policies or lack of authority to make clinical judgments. The absence of clear guidelines or the misalignment of policies with current best practices can lead to inefficiencies in practice, such as delays in patient care or suboptimal imaging procedures (Bolejko et al., 2025). The lack of professional autonomy and inconsistent policy enforcement can hinder the development of evidence-based practices among radiographers in public healthcare settings (Bolejko et al., 2025).

In addition, the regulatory frameworks governing radiography can create challenges in managing the growing complexity of medical imaging technologies. As new imaging modalities, such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET), continue to emerge, policies must evolve to address the safe and effective use of these advanced tools (Bolejko et al., 2025). This requires radiographers to stay updated with continuous professional development and adapt to technological changes. Without proper policy support, radiographers may struggle to integrate new technologies into clinical

practice, potentially compromising patient care (Bolejko et al., 2025).

The implementation of healthcare policies in radiography often faces significant barriers, particularly in low- and middle-income countries like Nigeria (Barbazza & Tello, 2014). The lack of resources, inadequate infrastructure, and insufficient training for radiographers are critical obstacles that hinder effective policy enforcement. Radiographers in these regions may encounter difficulties adhering to national guidelines due to a lack of access to modern imaging equipment, which is essential for maintaining high standards of patient care (Barbazza & Tello, 2014). This situation is further exacerbated by staffing shortages, which result in increased workloads and pressure on radiographers to deliver quality care under challenging conditions (Hardee et al., 2012).

The inconsistent application of policies is another issue that radiographers face. According to Cross *et al.*, (2001), the lack of standardized procedures for the operationalization of policies in healthcare can lead to uneven care delivery, particularly in areas with limited access to healthcare services. Inconsistent policy enforcement often leads to disparities in the quality of care across different healthcare facilities. These disparities can affect both radiographers and patients, as radiographers may be uncertain about which protocols to follow or may have to compromise on patient care due to resource limitations (Cross *et al.*, 2001).

Additionally, policies related to patient care in radiography are critical in shaping the patient experience. Yorke (2016) argues that patient care involves not only the technical aspects of healthcare but also the ethical and interpersonal dimensions of the patient-provider relationship. In radiography, this encompasses the communication of procedure details,

ensuring patient comfort during imaging, and minimizing the risks associated with radiation exposure (Yorke, 2016). Policies that prioritize patient-centered care are essential for improving the overall healthcare experience and ensuring that radiographers uphold the highest ethical standards (Yorke, 2016).

Despite the challenges associated with current healthcare policies, there is a growing recognition of the need for reform. As radiographic technologies continue to evolve, policies must be updated to reflect these changes and to ensure that radiographers are equipped with the necessary tools, training, and authority to provide high-quality care (Barbazza & Tello, 2014). A comprehensive review of healthcare policies related to radiography is essential for identifying gaps in current policies and making the necessary adjustments to support evidence-based practice and professional development (Basu & Lee, 2011).

Basu and Lee (2011) highlight the importance of providing adequate policy training for healthcare professionals, including radiologists and radiographers. This training ensures that they are well-equipped to navigate the complexities of healthcare policies and make informed decisions that benefit both patients and the healthcare system. Moreover, the integration of evidence-based policies into radiographic practice can help mitigate the risks associated with outdated procedures and improve the quality of diagnostic imaging.

A well-established framework for policy reform is crucial in addressing the challenges faced by radiographers and enhancing the delivery of patient care. The involvement of radiographers in policy discussions and decision-making processes is essential for ensuring that policies are practical, evidence-based, and aligned with the needs of both healthcare

professionals and patients (Almeida et al., 2022). By fostering collaboration between policymakers, radiographers, and healthcare administrators, it is possible to create a regulatory environment that supports the growth and development of radiographic practice, ultimately leading to improved healthcare outcomes (Kuhlmann et al., 2015).

1.2 Statement of the Problem

Radiography, as a crucial component of modern healthcare, plays a significant role in the diagnosis and management of various medical conditions. It serves as the visual backbone of medicine quietly guiding doctors through the fog of uncertainty with precise images of the human body. However, behind the seamless images and swift diagnoses lies a complex network of healthcare policies that shape the daily realities of radiographers and the quality of care patients receive (Hardee et al., 2012). In recent years, the healthcare system has experienced a wave of reforms aimed at improving access, quality, and cost-efficiency of services. While these policies are often designed with good intentions, their real-world implications on radiography practice are not always clear-cut. Radiographers find themselves navigating a labyrinth of institutional and governmental policies, accreditation requirements, safety protocols, and ethical guidelines (Kuhlmann et al., 2015). Unfortunately, in many instances, these policies are either outdated, inconsistently implemented, or not tailored to the unique dynamics of radiographic practice.

Radiographers may face constraints in decision-making, reduced autonomy, or limited resources, which can hinder their ability to perform optimally. Policies governing radiation safety, patient privacy, documentation, and equipment usage often demand strict

compliance—yet, the lack of training, awareness, or institutional support can make full adherence difficult. Moreover, healthcare policies often fail to address the evolving technological advancements in radiography, leaving gaps that can compromise both patient safety and practitioner efficiency. On the patient side, the ripple effect is evident. Delays in imaging, limited access to advanced diagnostics, and inconsistencies in care delivery can stem from these policy shortcomings. In underserved regions, rigid policies without supportive frameworks have led to equipment underutilization, staff burnout, and even compromised patient outcomes.

There is an urgent need to critically analyze how healthcare policies influence radiography in both theory and practice. Do these policies support or stifle the potential of radiographers? Are they improving patient care or creating new layers of complexity? What voices are missing in policy formulation, and how can radiographers become more active participants in shaping the policies that govern their work?

1.3 Research Questions

1. What is the awareness level of healthcare policies among radiographers at UBTH?
2. How do healthcare policies influence the daily practices of radiographers in healthcare settings?
3. What is the impact of healthcare policies on the quality of patient care provided by radiographers?
4. What challenges do radiographers face in adhering to healthcare policies?

1.4 Research Hypothesis

Null Hypothesis (H0): Healthcare policies do not have a significant impact on the daily practices of radiographers in radiography departments.

Alternative Hypothesis (H1): Healthcare policies significantly influence the daily practices of radiographers in radiography departments.

1.5 Research Aim

The aim of this study is to analyze the impact of healthcare policies on radiography practices and the quality of patient care.

1.6 Research Objectives

1. To assess the awareness of healthcare policies among radiographers at UBTH.
2. To evaluate the influence of healthcare policies on the day-to-day practices of radiographers.
3. To assess the impact of existing healthcare policies on patient care in radiography departments.
4. To explore the challenges radiographers encounter in adhering to healthcare policies.

1.7 Significance of the Study

This study holds significant value for multiple stakeholders in the healthcare system, particularly radiographers, policymakers, healthcare administrators, and ultimately, patients. By examining how healthcare policies influence radiographic practice and patient care, this research provides a much-needed lens into the often-overlooked but highly impactful

relationship between policy and clinical practice.

For radiographers, this study gives voice to their daily struggles, challenges, and experiences within the framework of healthcare policies. It aims to spotlight areas where policies may unintentionally hinder effective practice or contribute to professional burnout. By doing so, it opens the door for meaningful conversations about advocacy, professional autonomy, and better inclusion of radiographers in policy development and decision-making processes.

For healthcare policymakers and administrators, this study provides critical insights into how policies manifest in real-world clinical environments. It highlights the gaps between policy design and actual implementation, allowing for more informed, practical, and adaptive approaches to policies. With the findings, decision-makers will be better equipped to revise or introduce policies that support efficiency, safety, and technological advancement in radiographic services.

For patients, the significance is deeply human. Diagnostic imaging is often the first step in a patient's journey to healing. Understanding and improving the policies that shape radiography directly translates to more timely diagnoses, reduced waiting times, enhanced imaging accuracy, and a more compassionate, efficient patient experience. In essence, better policies can contribute to better outcomes.

In the context of global and local healthcare reforms, this study is especially timely. As health systems continue to evolve, there is a growing emphasis on safety, quality assurance, and evidence-based practice. Radiography, being a technologically-driven and safety-sensitive field, must not be left behind in these reforms. This research contributes to the body of

knowledge that can influence how radiography is integrated into the broader health system in a way that is both progressive and protective.

1.8 Scope of the Study

This study will be limited to a specific scope in order to maintain focus and manageability.

The research will be conducted solely within the University of Benin Teaching Hospital (UBTH) in Benin City, Nigeria. While healthcare policies impact radiography practices on a broader scale, the study's findings will be specific to the experiences and perceptions of radiographers working at UBTH, a major tertiary healthcare facility. The choice of UBTH is driven by its prominent role in the healthcare system and its diverse radiographic services, making it an ideal location for exploring the impact of policies on radiography practice.

The study will focus exclusively on radiographers employed at UBTH, excluding other healthcare professionals such as physicians, nurses, and administrative staff. This decision ensures that the research directly addresses the perspectives of those who are most directly involved in radiography practices. While other healthcare professionals may indirectly influence radiographic work, their perspectives will not be included in this study.

The sample size for the study will consist of 30 radiographers, representing both junior and senior radiographers within the department. While this sample size is expected to provide sufficient data for analysis, it is important to note that the results may not fully represent radiographers in other healthcare settings such as private hospitals or smaller clinics, where healthcare policies and practices may differ. Thus, the findings will be contextual to the environment at UBTH and may not be generalizable to other institutions with different

operational frameworks. Additionally, the study will be conducted over a period of four weeks, which provides a snapshot of the current state of healthcare policies and their impact on radiography practices. This timeframe limits the ability to capture long-term trends or changes in policy. The study will also focus solely on the impact of healthcare policies related to radiography, excluding other aspects of healthcare policy that might affect other disciplines within the hospital.

1.9 Operational Definition of Terms

Healthcare Policies: The guidelines, rules, and standards set by healthcare authorities or institutions that govern the practices and delivery of healthcare services, specifically those that affect radiography practices, such as diagnostic imaging protocols and radiation safety regulations.

Radiography Practices: The professional activities and procedures conducted by radiographers, including the operation of imaging equipment, patient positioning, and ensuring the safety of patients during diagnostic imaging processes.

Radiographers: Healthcare professionals trained in the use of radiographic equipment to produce diagnostic images, ensuring patient safety and effective image quality for medical diagnosis.

Patient Care: The management and service provided to patients during diagnostic imaging procedures, ensuring their safety, comfort, and well-being in accordance with healthcare policies and standards.

Impact: The effect or influence of healthcare policies on the practices of radiographers and

the quality of patient care in the radiology department.

CHAPTER TWO

LITERATURE REVIEW

The intersection of healthcare policy and radiography practice plays a critical role in shaping the quality, accessibility, and efficiency of diagnostic imaging services. As healthcare systems evolve to accommodate rising patient demands, technological innovations, and budgetary constraints, radiographers find themselves at the center of policy-driven shifts in clinical expectations and service delivery. Despite their essential role in patient diagnosis and safety, radiographers are often overlooked in policy design and implementation, creating a disconnect between regulatory intentions and practical realities. This review explores the current landscape of healthcare policies affecting radiographic practice, with particular attention to their impact on clinical workflows, professional autonomy, and patient care outcomes. By identifying existing gaps in literature and highlighting key policy challenges, this review aims to establish the foundation for a deeper investigation into how policies translate into practice at the radiographer–patient interface.

2.1 Conceptual Review

2.1.1 Radiography, Healthcare Policy, and Patient Care.

Radiography, as a clinical imaging practice, involves the use of ionizing radiation such as X-rays and gamma rays as well as certain forms of non-ionizing radiation to visualize the

internal structures of the human body. It serves as a foundational tool in modern healthcare, with applications broadly classified under diagnostic radiography and therapeutic radiography. While radiographic techniques also find relevance in non-medical contexts, such as industrial inspection and airport security (e.g., backscatter X-ray scanners), their core significance lies in supporting accurate diagnosis, monitoring, and treatment within clinical environments.

In everyday clinical radiographic practice, the process typically begins with the generation of an X-ray beam using a controlled X-ray tube. This beam is directed through the patient's body toward an image receptor either conventional film or a digital detector. As the X-rays interact with the body, different tissues absorb varying amounts of radiation depending on their density and atomic composition. Denser structures, such as bone, absorb more radiation and appear whiter on the resulting image, while less dense tissues allow more X-rays to pass through, appearing darker. This principle of differential absorption, or attenuation, enables the visualization of internal anatomical structures on a two-dimensional radiographic image, a process known as projectional radiography.

In more advanced imaging modalities, such as computed tomography (CT), radiography practice extends beyond simple static images. Here, an X-ray tube and detectors rotate around the patient while capturing numerous cross-sectional images. These images are then reconstructed using computer algorithms to produce detailed views in multiple anatomical planes—axial, sagittal, and coronal—and can be further processed into three-dimensional renderings for enhanced clinical evaluation. These imaging advancements have dramatically improved diagnostic accuracy and have become indispensable in trauma care, oncology, and

interventional procedures.

The clinical practice of radiography relies not only on technical execution but also on a strong understanding of human anatomy, radiation physics, patient care, and image quality assessment. The field of radiographic anatomy is dedicated to studying the human body through the interpretation of radiographic images, which requires both theoretical knowledge and practical skills. In most healthcare settings, radiographers are responsible for acquiring diagnostic images, ensuring radiation safety, positioning patients appropriately, and optimizing image quality. While radiologists typically perform the detailed interpretation and reporting of images, an increasing number of radiographers now receive advanced training in preliminary image evaluation and reporting particularly in regions with workforce shortages or structured radiographer reporting roles.

Radiography practice is therefore a dynamic and evolving clinical discipline. It demands precision, critical thinking, and adherence to ethical and safety standards. As healthcare policies continue to influence clinical workflows, scope of practice, and access to imaging services, radiographers play a critical role in ensuring that diagnostic imaging contributes effectively to patient-centered care.

Health policy can be defined as the "decisions, plans, and actions that are undertaken to achieve specific healthcare goals within a society." According to the World Health Organization, an explicit health policy can achieve several things: it defines a vision for the future; it outlines priorities and the expected roles of different groups; and it builds consensus and informs people.

Health policy often refers to the health-related content of a policy. Understood in this sense, there are many categories of health policies, including global health policy, public health policy, mental health policy, health care services policy, insurance policy, personal healthcare policy, pharmaceutical policy, and policies related to public health such as vaccination policy, tobacco control policy, or breastfeeding promotion policy. Health policy may also cover topics related to healthcare delivery, for example financing and provision, access to care, quality of care, and health equity.

Health policy also includes the governance and implementation of health-related policy (Babarza et al, 2014), sometimes referred to as health governance, health systems governance, or healthcare governance (Khulman et al, 2015). Conceptual models can help show the flow from health-related policy development to health-related policy and program implementation and to health systems and health outcomes (Cross et al, 2001). Policy should be understood as more than a national law or health policy that supports a program or intervention. Operational policies are the rules, regulations, guidelines, and administrative norms that governments use to translate national laws and policies into programs and services. The policy process encompasses decisions made at a national or decentralized level (including funding decisions) that affect whether and how services are delivered. Thus, attention must be paid to policies at multiple levels of the health system and over time to ensure sustainable scale-up. A supportive policy environment will facilitate the scale-up of health interventions (Hardee et al, 2012).

There are many aspects of politics and evidence that can influence the decision of a

government, private sector business, or other group to adopt a specific policy. Evidence-based policy relies on the use of science and rigorous studies such as randomized controlled trials to identify programs and practices capable of improving policy-relevant outcomes. Most political debates surround personal health care policies, especially those that seek to reform healthcare delivery, and can typically be categorized as either philosophical or economic. Philosophical debates center around questions about individual rights, ethics, and government authority, while economic topics include how to maximize the efficiency of health care delivery and minimize costs.

The modern concept of healthcare involves access to medical professionals from various fields as well as medical technology, such as medications and surgical equipment. It also involves access to the latest information and evidence from research, including medical research and health services research.

In many countries, it is left to the individual to gain access to healthcare goods and services by paying for them directly as out-of-pocket expenses, and to private sector players in the medical and pharmaceutical industries to develop research. Planning and production of health human resources is distributed among labour market participants.

Other countries have an explicit policy to ensure and support access for all of its citizens, to fund health research, and to plan for adequate numbers, distribution, and quality of health workers to meet healthcare goals. Many governments around the world have established universal health care, which takes the burden of healthcare expenses off of private businesses or individuals through pooling of financial risk. There are a variety of arguments for and

against universal healthcare and related health policies. Healthcare is an important part of health systems and therefore it often accounts for one of the largest areas of spending for both governments and individuals all over the world.

2.1.2 The Nigerian Health Policy as Relating to Radiography

The formulation and implementation of healthcare policy significantly determine the structure, accessibility, quality, and equity of healthcare services within a country. In the Nigerian context, the 2016 National Health Policy, developed by the Federal Ministry of Health, presents a renewed strategic vision aimed at achieving Universal Health Coverage (UHC) and strengthening the national health system. It responds to the challenges identified in the implementation of prior policies, including the 2004 revision and the National Health Act of 2014, by introducing integrated policy thrusts that cut across governance, health service delivery, financing, human resources, infrastructure, and technology. In connecting this framework to radiography practice and its impact on patient care, it is evident that the effectiveness of imaging services is inherently tied to how well these health policies are conceptualized, operationalized, and monitored within the broader system.

At the heart of radiography policy lie three pillars—justification, optimization, and dose limits. The IAEA’s GSR Part 3 frames these as non-negotiable safety standards, insisting that every exam be backed by a clear benefit, fine-tuned for the lowest reasonable dose, and monitored against strict limits (International Atomic Energy Agency, 2014). Europe turned those principles into law with Directive 2013/59/Euratom, obliging nations to set up approval processes, patient-risk disclosures, machine QA checks, and diagnostic reference levels to

flag high exposures (Council Directive 2013/59/Euratom, 2013).

In Nigeria, the 1995 Nuclear Safety and Radiation Protection Act created the NNRA to license and inspect all X-ray and radiopharmacy sites, enforce dose-tracking records, and require certified radiation-protection training for staff (Federal Republic of Nigeria, 1995).

The WHO's Global Initiative on Radiation Safety in Health Care Settings calls on facilities to embed radiation protection into quality-of-care programs—through risk assessments, patient dialogues, and shared accountability for dose reduction (World Health Organization, 2018).

Professional drives such as Image Gently and Image Wisely keep the focus on pediatric and adult dose optimization, underscoring that safeguarding patients is a team effort (Goske et al., 2008; Brink & Amis, 2010).

Radiography, as a clinical imaging discipline, is not isolated from the dynamics of health policy. On the contrary, the practice of radiography encompassing diagnostic and therapeutic imaging services is critically influenced by policy decisions related to health infrastructure, workforce planning, regulation, and funding. The Nigerian National Health Policy explicitly identifies the role of diagnostic services within its broader goal of promoting equitable and quality healthcare delivery. While the document does not focus solely on radiography, it presents a structural framework where radiographic services, like other health interventions, must align with system-wide reforms and investments in primary health care, health technology, and human resources.

One of the critical intersections between healthcare policy and radiography practice lies in health system infrastructure and technology investment. The policy acknowledges that the

mere presence of healthcare facilities does not translate into quality healthcare delivery. It highlights, for instance, the uneven distribution of services, poor referral systems, and the lack of a universally defined minimum package of health services—all of which undermine timely and effective access to diagnostic imaging, especially in rural or underserved areas. For radiographers, this translates into environments where essential imaging tools may be unavailable, outdated, or underutilized, resulting in compromised patient care, delays in diagnosis, and lower clinical confidence.

The policy's emphasis on health financing further underscores the challenges associated with radiographic service delivery. Out-of-pocket expenditure continues to dominate Nigeria's health spending profile, comprising over 70% of total health expenditure. This not only limits access to high-quality imaging for low-income populations but also exposes radiography departments to resource constraints and operational inefficiencies. The policy calls for improved domestic financing mechanisms, better accountability in fund utilization, and expansion of insurance schemes—measures that, if effectively implemented, could transform access to diagnostic imaging by reducing financial barriers to care.

In terms of human resources for health, the policy reveals a significant challenge with workforce distribution and specialization. While Nigeria has a relatively large stock of health professionals, the availability of trained radiographers is low and their distribution across the country is grossly uneven. According to data presented in the policy, there were only 1,286 registered radiographers in Nigeria as of 2012, with a concerning population ratio of just 0.76 per 100,000 individuals a stark contrast to the growing diagnostic demands of the population.

Furthermore, radiographers are disproportionately concentrated in the South-West region, leaving many northern and rural areas underserved. This reflects not just a gap in professional distribution, but also a broader policy failure in aligning human resource planning with population health needs.

The regulatory and governance landscape discussed in the National Health Policy also directly impacts radiography. The policy critiques the weak implementation of standards, fragmented coordination among government levels, and a lack of transparency in health planning and budgeting. In radiography practice, this leads to inconsistencies in facility licensing, variable adherence to radiation safety standards, and poor enforcement of professional practice guidelines. Although the National Health Act mandates that health facilities acquire a certificate of standards, the policy points out that the required regulations to guide this process are yet to be fully enacted or enforced leaving imaging centers vulnerable to unregulated operations, compromised patient safety, and professional malpractice.

Another key area of policy relevance to radiography is the integration of health information systems. The National Health Policy emphasizes the need for robust data collection and digital health platforms to enhance evidence-based planning, service monitoring, and patient follow-up. For radiography, the transition to digital imaging and Picture Archiving and Communication Systems (PACS) represents a significant step in improving efficiency, access, and interdisciplinary communication. However, the policy highlights the uneven adoption of such technologies and the general inadequacy of health information

infrastructure—challenges that delay diagnostic timelines and reduce the capacity for integrated patient care.

Additionally, healthcare delivery models as envisioned in the policy also influence the role and responsibilities of radiographers. The shift toward revitalized primary healthcare and the decentralization of service delivery call for a new model of radiography practice—one that is community-inclusive, preventive-focused, and adaptable to low-resource settings. This includes training radiographers not only in advanced imaging but also in patient education, preliminary interpretation, and integration into multi-disciplinary teams. The policy’s recommendation for expanded community participation and stronger public-private partnerships supports this shift and encourages the repositioning of radiographers as frontline contributors to health outcomes, rather than merely technical operators.

Lastly, the emphasis placed on equity, access, and patient-centered care throughout the policy offers a valuable lens through which to assess radiography’s contribution to health. The disparities in health outcomes, service utilization, and maternal-child care between the North and South, urban and rural, and among different socioeconomic groups, are extensively documented in the policy. In radiography, these disparities manifest in access to imaging modalities, delays in diagnostic workups, and limited radiological consultation. Bridging these gaps requires not only infrastructural investment but also policy-driven deployment of radiographers, targeted capacity-building, and standardization of imaging protocols across all tiers of healthcare.

The 2016 National Health Policy presents a comprehensive framework that, if earnestly

implemented, has the potential to elevate the standard and accessibility of radiographic services in Nigeria. However, the translation of this policy into tangible improvement in radiography practice requires deliberate inclusion of diagnostic imaging in health planning, investment in equipment and digital systems, equitable workforce distribution, and the establishment of enforceable regulatory structures. Radiography, being a critical pillar in disease diagnosis, treatment monitoring, and emergency care, must be central in policy implementation if Nigeria is to truly achieve its goal of universal health coverage and equitable patient care.

2.1.3 Patient Care within the Context of Radiography and Health Care Policies.

Patient care, though central to all clinical practice, remains one of the most difficult concepts to define uniformly in healthcare literature. It is a term that healthcare professionals often understand instinctively, yet struggle to articulate comprehensively. As Yorke (2016) rightly notes, definitions of patient care are often reduced to vague or purely functional interpretations, equating care with treatment or physical assistance. However, through dialogue with healthcare practitioners, she reveals that patient care is far more dynamic, incorporating emotional, spiritual, educational, and collaborative dimensions that evolve with experience and context.

In clinical radiography, patient care cannot be detached from technical performance, even though the interaction between radiographer and patient is often brief. The essence of care lies not just in operating equipment or producing diagnostic images, but in the manner of communication, the respect for patients' comfort and dignity, and the professional's

attentiveness to fear, vulnerability, or confusion. As Yorke emphasizes, patient care becomes meaningful when it is individualized, when the practitioner anticipates and responds to patient needs, and when healing is viewed holistically not merely as the correction of pathology but the restoration of trust, comfort, and human connection.

From a policy perspective, the Nigerian National Health Policy (2016) affirms that the goal of the healthcare system is to deliver services that are not only efficient and equitable but also acceptable and patient-centered. This reinforces the need to prioritize patient care in practical and measurable ways, especially in diagnostic services. Unfortunately, the fragmentation of services, infrastructural gaps, and underfunding identified in the policy have contributed to weak patient-provider relationships, poor communication, and inadequate emphasis on comfort and care, especially in overcrowded, resource-strained public imaging units.

Moreover, the policy's concern with human resources and professional development indirectly delves into Yorke's observation that effective patient care requires professional maturity. In her reflection, younger professionals defined patient care largely in terms of physical tasks, while more experienced providers viewed it as a broader process involving shared decision-making, ongoing education, and family support. For Nigerian radiographers, this distinction is especially important in a system where workload is high, training opportunities are limited, and the scope of practice often lacks formal reinforcement from regulatory bodies. Without a structured policy mandate that reinforces patient engagement, emotional sensitivity, and continuous professional development, patient care risks being reduced to a technical transaction rather than a healing relationship.

Yorke also explains that patient care is inherently collaborative, requiring communication between multiple healthcare providers to align their actions with the patient's goals. This view aligns with Nigeria's policy direction, which emphasizes integrated care, interprofessional collaboration, and functional referral systems. In radiography, where imaging often supports diagnosis and treatment across departments, the radiographer must act as a bridge not only producing accurate images but also ensuring that the patient's comfort, understanding, and safety are preserved throughout the process. However, the systemic weaknesses in Nigeria's health governance and service delivery such as poor facility distribution, weak referral pathways, and lack of clear care coordination often disrupt this collaborative flow, affecting both the efficiency and the human quality of patient care.

Finally, the importance of documentation and accountability in patient care, as highlighted by Yorke, cannot be overstated. Documentation is not merely administrative; it is a tool for ensuring continuity, protecting patient rights, and enabling quality monitoring. The Nigerian policy recognizes this through its call for strengthened health information systems and improved service monitoring. For radiographers, thorough documentation of imaging procedures, radiation doses, and patient responses not only ensures clinical accuracy but also reflects a commitment to patient-centeredness and safety—core elements of ethical practice and public trust.

Understanding patient care within the context of radiography and healthcare policy in Nigeria reveals that the delivery of effective care is not confined to clinical excellence alone. It is a broader, more intricate commitment to empathy, communication, dignity, and partnership. As

both Yorke's insights and the National Health Policy suggest, the future of healthcare especially diagnostic services rests on aligning technical skill with compassionate practice, and policy intent with practical reform.

2.2 Empirical Review

The influence of healthcare policy on radiographic practice and patient care has attracted increasing scholarly attention in recent years, particularly as global health systems move toward value-based care models. The reviewed studies provide diverse insights into how evolving health policy frameworks are reshaping radiology practice, emphasizing cost-effectiveness, patient safety, interdisciplinary collaboration, and evidence-based decision-making.

A pivotal study by Bindman (2014) titled: Health care reform and its impact on radiology practice, explored the implications of the Affordable Care Act (ACA) on radiology services in the United States. The study emphasized that the transition from volume-based to value-based reimbursement—through mechanisms like pay-for-performance, bundled payments, and Accountable Care Organizations (ACOs)—requires radiologists to not only justify the clinical value of imaging but also engage more deeply in quality reporting and patient safety initiatives. The shift repositions radiologists from behind-the-scenes consultants to active participants in cost-containment strategies and population health management.

Building upon this theme, Lee and Basu (2011) in their work-The Radiologist's Guide to Health Services and Policy Research Training- emphasized the need for radiologists to acquire skills in health services and policy research in order to demonstrate the value of their

work. They briefly described the driving forces of radiology's changing landscape because of health care reform and outlined opportunities for radiologists in training to use health services and policy research skills to help show the value of radiologists in patient care, defined the future business model of radiology, and shaped wide-reaching public policy. They argue that imaging must be evaluated not only for clinical efficacy but also for cost-effectiveness, appropriateness, and patient-centered impact. Their work predicts a paradigm where radiologists will play advisory roles in shaping clinical guidelines, appropriateness criteria, and payment reforms. This has direct implications for radiographers, who are increasingly required to align their practices with evidence-based imaging protocols and contribute to clinical quality outcomes.

In a European context, the European Society of Radiology (2022) issued a White Paper, titled: *The role of radiologist in the changing world of healthcare*, affirming the centrality of radiology to modern multidisciplinary care. The ESR Board conducted a structured narrative review of peer-reviewed literature and existing policy statements, then refined key themes through iterative expert consensus meetings; no new patient data were collected. It cautions, however, that the increasing demand for rapid turnaround and high imaging volumes risks reducing radiologists to "reporting machines," detached from direct patient engagement. The paper stresses the importance of maintaining clinical visibility, interdisciplinary communication, and ethical imaging practices. Radiologists—and by extension, radiographers—must protect patient safety, ensure justification of radiation use, and participate actively in screening, early detection, and care coordination.

Bolejko et al. (2025) in their study, Factors of importance for the development of evidence-based practice amongst radiographers in public healthcare, focused on the uptake of evidence-based practice (EBP) among radiographers across Nordic public healthcare systems. An online survey was performed amongst 640 radiographers in four Nordic countries. Multivariate logistic regression was performed to investigate the odds ratio (OR) of facilitators for and barriers to radiographers' development of evidence-based practice. A reflective approach in everyday practice and being aware of the current research evidence were significant facilitators for radiographers' development of evidence-based practice (OR \geq 3.10, $p < 0.001$). Discussing research with colleagues and managers was associated with engagement in the utilisation of evidence (OR 7.21, $p < 0.001$). Difficulties in evaluating research evidence represented the only significant barrier (OR 1.84, $p 0.009$). Their findings reveal that while radiographers are often motivated to engage in research, many still rely on department protocols and traditional practices rather than current scientific literature. Significant facilitators of EBP included reflective practice, discussions with colleagues and managers, and awareness of up-to-date evidence. The authors highlight that leadership support, academic training, and a learning culture are critical to embedding EBP within radiographic routines. This is directly relevant to Nigerian healthcare, where policies often emphasize quality care without adequately investing in systems that support professional development and research engagement.

Similarly, Tay et al. (2025) in their study titled Impact and effect of imaging referral guidelines on patients and radiology service, conducted a systematic review examining the

impact of imaging referral guidelines. An electronic database search was conducted in Medline, Embase and Web of Science to retrieve citations published between 2013 and 2023. The search was constructed using medical subject headings and keywords. Only full-text articles and reviews written in English were included. The quality of the included papers was assessed using the mixed methods appraisal tool. A narrative synthesis was undertaken for the selected articles. The search yielded 4384 records. Following the abstract, full-text screening, and removal of duplication, 31 studies of varying levels of quality were included in the final analysis. Imaging referral guidelines from the American College of Radiology were most commonly used. Clinical decision support systems were the most evaluated mode of intervention, either integrated or standalone. Interventions showed reduced patient radiation doses and waiting times for imaging. There was a general reduction in radiology workload and utilisation of diagnostic imaging. Low-value imaging utilisation decreased with an increase in the appropriateness of imaging referrals and ratings and cost savings. Clinical effectiveness was maintained during the intervention period without notable adverse consequences. They found that the implementation of evidence-based referral protocols reduced patient radiation exposure, shortened wait times, and curbed low-value imaging. Moreover, these guidelines enhanced the appropriateness of referrals and improved healthcare efficiency without sacrificing clinical effectiveness. These outcomes underscore the importance of embedding clinical decision support tools within radiographic services to improve quality, reduce harm, and optimize resource utilization—goals strongly aligned with Nigeria’s national health policy framework.

Finally, de Almeida et al. (2022) conducted a regional study in Portugal titled Framework for health care quality and evidence-based practice in radiology departments, to evaluate how radiographers perceive healthcare quality systems and evidence-based radiology in their departments. A cross sectional study was performed in four radiology departments from public and private healthcare facilities from Algarve region (Portugal). A paper-based survey was sent to all radiographers to assess the quality systems implemented in their radiology departments and their perspective on the use of scientific evidence in clinical practice. In total, 62 radiographers (61.4%) completed the survey. The quality dimensions that obtained the highest degree of compliance were the existence of quality assurance and improvement activities (43.0%), existence of standards in clinical practice of radiographers (42.7%) and the existence of special provisions (37.6%). The quality dimension related to patient's involvement was the one with the lowest level of compliance. Moreover, from the radiographers perspective, positive responses were obtained related to evidence-based actions (83.0%), sources of evidence (76.0%) and the significance of research activities (74.0%). The study found relatively high compliance with quality assurance activities and standardized protocols but noted weak engagement with patient involvement. Despite this, radiographers showed strong recognition of the importance of scientific research and evidence-informed actions. This suggests a readiness among practitioners to adopt policy-driven reforms, provided that institutions establish clear frameworks for continuous quality improvement and support staff education.

In conjunction , the reviewed literature affirms that health policies—whether at the national,

institutional, or global level—play a decisive role in shaping radiography practice. Policies that promote evidence-based practice, align incentives with patient outcomes, and integrate radiographers into decision-making processes contribute to better patient care and system-wide improvements. However, successful implementation depends on strong governance, access to continuing education, interdisciplinary collaboration, and the establishment of a supportive professional culture. For nations like Nigeria, where health systems are still maturing, the integration of these global insights into local policy frameworks can elevate the role of radiography and improve the quality of diagnostic services.

2.3 Theoretical Review

Understanding how healthcare policies shape a radiographer's daily work and patient care begins with familiar models that explain why policies look the way they do, how they get put into practice, and what happens once they reach the clinic floor. First, most policy scholars agree there are three core stages—formulation, adoption, and implementation. In formulation, stakeholders like government officials, professional bodies, and frontline practitioners discuss goals such as improving patient safety or expanding access to imaging services. Adoption is the formal “green light,” but the real challenge is implementation, where hospitals and individual radiographers must turn broad aims into concrete routines—deciding which machines to buy, how to train staff, and which safety checks to embed in the workflow (Kingdon, 1984).

Closely tied to policy stages is the idea of evidence-based practice, which insists that imaging

protocols and dose settings rest on solid research rather than habit. When policies mandate evidence-based standards, they help keep clinical guidelines up to date as new studies emerge. Yet theory tells us that without a culture of learning and strong leadership, even well-designed guidelines can sit unused on a shelf (Sackett et al., 1996).

Technology adoption theory offers a clear roadmap for rolling out new equipment. According to Rogers's diffusion model, organisations move through awareness, interest, trial, and full adoption. In practice, this means policymakers who plan pilot trials with hands-on support and realistic timelines see smoother transitions—from film screens to digital detectors, for example—than those who demand instant adoption (Rogers, 2003; Greenhalgh et al., 2004).

Finally, patient-centered care theory reminds us that every imaging exam involves a real person who may be anxious or uncomfortable. Policies that embed simple patient-engagement steps—like explaining the procedure in plain language, using gentle positioning, and following up on results—transform radiography from a cold technical task into a compassionate encounter (Institute of Medicine, 2001; Mead & Bower, 2000).

Together, these frameworks—policy stages, evidence-based practice, technology adoption, and patient-centered care—offer a holistic lens for analyzing and strengthening the rules that govern radiography. They show that writing a policy is only the start; real change happens when big ideas become everyday habits supported by research, thoughtful rollout plans, and genuine concern for patient experience.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter outlines the methodology that was used in the study on healthcare policies affecting radiography practices at the University of Benin Teaching Hospital (UBTH). It detailed the research setting, design, target population, sample technique, data collection methods, and the procedures for ensuring the validity and reliability of the instruments. Ethical considerations will also be addressed to ensure the study adheres to research ethics.

3.1 Research Setting

The research was conducted at the University of Benin Teaching Hospital (UBTH) in Benin City, Edo State, Nigeria. UBTH is a prominent tertiary healthcare institution that provides comprehensive radiographic services, making it an ideal setting for investigating the impact of healthcare policies on radiography practice and patient care. The hospital has a well-established radiology department, which will serve as the focus for the study.

3.2 Research Design

This study employed a descriptive cross-sectional research design. A cross-sectional design is suitable for obtaining a snapshot of the current state of healthcare policies and their perceived effects on radiographic practices and patient care at UBTH. This design will allow for the collection of data from radiographers at a single point in time, providing insights into the direct impact of healthcare policies.

3.3 Target Population

The target population for this study consisted of radiographers employed at UBTH. The radiographers included both junior including interns and senior professionals working in the radiology department, providing a comprehensive perspective on how policies affect individuals at different stages of their careers. The study focused solely on radiographers directly involved in diagnostic imaging procedures.

Inclusion Criteria

Participants must:

1. Be qualified radiographers (including interns, junior, and senior radiographers) employed in the radiology department at UBTH.
2. Be directly involved in diagnostic imaging services at the time of the study.
3. Be willing to participate voluntarily and provide informed consent.
4. Have been working at UBTH for at least 6 months, ensuring familiarity with the operational policies and practices.

Exclusion Criteria

Participants will be excluded if they:

1. Are radiographers on leave or secondment during the data collection period.
2. Decline to provide informed consent or withdraw from participation at any stage.
3. Are students, trainees not yet licensed, or healthcare professionals other than radiographers (e.g., radiologists, nurses).

3.4 Sample Technique and Sample Size

A census sampling technique was used in this study. This approach involves the entire population of interest rather than selecting subset. In this case, all radiographers possibly affected by healthcare policies during the study period was included. The use of census sampling ensures comprehensiveness coverage of the target population. By including every eligible radiographer the study aims to provide more accurate and generalizable findings regarding impact of healthcare policies on radiographers.

3.5 Instrument of Data Collection

The primary instrument for data collection was a structured questionnaire. The questionnaire was designed to assess the radiographers' perceptions of healthcare policies and their impact on radiography practices and patient care. It included both closed-ended and Likert-scale questions to capture quantitative data on the effectiveness and challenges of current policies.

The questionnaire had five sections;

Section A: Demographics - Includes questions about the radiographers' background such as their age, level of education, years of practice, and the type of healthcare facility where they work.

Section B: Awareness of Healthcare Policies – This section assesses radiographers' level of awareness and familiarity with healthcare policies guiding radiography practice. It covers exposure to training, knowledge of institutional and national policies, communication of policy updates, and adherence to safety-related policies.

Section C: Influence of Healthcare Policies on Daily Practices – This section explores how

healthcare policies shape the professional activities of radiographers. It examines how policies affect workflow, professional autonomy, flexibility in decision-making, standardization of imaging procedures, and accountability in practice.

Section D: Impact on Patient Care – This section evaluates the role of healthcare policies in patient-related outcomes. It considers whether policies enhance service quality, ensure consistency in patient handling, reduce imaging time, and contribute to better patient feedback and satisfaction.

Section E: Challenges in Adhering to Policies – This section investigates the barriers radiographers face in complying with healthcare policies. It covers issues such as limited training, inconsistency in implementation across departments, resource inadequacies, outdated policies, and lack of involvement in decision-making processes.

The questionnaire was pre-tested with a small group of radiographers to ensure clarity and relevance before the main data collection.

3.6 Validity of Instrument

To ensure the validity of the instrument, the questionnaire was developed based on an extensive review of the literature and existing frameworks for assessing healthcare policies in radiography. Content validity was ensured by consulting with experts in radiography and healthcare policy to evaluate whether the questionnaire accurately captures the concepts it intends to measure. The instrument was also pre-tested with a small sample of radiographers to identify any ambiguities or areas for improvement.

3.7 Reliability of Instrument

The reliability of the questionnaire was assessed through a test-retest method. A small group of radiographers completed the questionnaire twice, with a two-week interval between administrations. The responses from both tests was compared using statistical methods such as Pearson's correlation coefficient to determine the consistency of the instrument. A high correlation between the two sets of responses indicated that the instrument is reliable.

3.8 Method of Data Collection

Data was collected through the distribution of the structured questionnaire to the selected sample of radiographers at UBTH. The questionnaires was administered in person to ensure that the participants fully understand the questions and are able to ask for clarification if needed. Participants were given adequate time to complete the questionnaires, and the completed forms will be collected on the same day. All data collection was conducted under controlled conditions to minimize distractions and ensure the accuracy of the responses.

3.9 Method of Data Analysis

The data collected was analyzed using both descriptive and inferential statistical methods. Descriptive statistics, such as frequencies, percentages, means, and standard deviations, was used to summarize the responses to the closed-ended questions. Inferential statistics, including chi-square tests, was used to assess any significant relationships between the demographic characteristics of the radiographers and their perceptions of healthcare policies. Data analysis was conducted using statistical software, such as SPSS v. 27 (Statistical

Package for the Social Sciences), to ensure accuracy and reliability.

3.10 Ethical Considerations

Ethical approval was obtained from the Institutional Review Board (IRB) of UBTH before the study begins. Informed consent was sought from all participants, and they will be assured that participation is voluntary and that they can withdraw at any time without consequence. Confidentiality was maintained by assigning unique identification numbers to each participant, ensuring that personal information is not linked to their responses. The study adhered to ethical guidelines for research, ensuring that the rights and well-being of the participants are protected throughout the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents the results obtained from the 31 radiographers who participated in the study. The findings are arranged in line with the research objectives and are presented in tables followed by statistical interpretations. Frequencies and percentages were used to demonstrate the distribution of responses.

4.1 Results

Table 4.1: Demographic Characteristics of Respondents (n = 31)

| Variable | Frequency (n) | Percentage (%) |
|-----------------------|----------------------|-----------------------|
| Age | | |
| 20–29 | 23 | 74.2 |
| 30–39 | 5 | 16.1 |
| 40–49 | 3 | 9.7 |
| 50 and above | 0 | 0.0 |
| Gender | | |
| Male | 24 | 77.4 |
| Female | 7 | 22.6 |
| Highest Qualification | | |
| B.Sc | 24 | 77.4 |

| Variable | Frequency (n) | Percentage (%) |
|-------------------|---------------|----------------|
| M.Sc | 3 | 9.7 |
| Others (PGC) | 1 | 3.2 |
| Years of Practice | | |
| Less than 1 year | 12 | 38.7 |
| 1–5 years | 16 | 51.6 |
| 6–10 years | 3 | 9.7 |
| Duration in UBTH | | |
| Less than 1 year | 12 | 38.7 |
| 1–3 years | 9 | 29.0 |
| 4–6 years | 6 | 19.4 |
| More than 6 years | 2 | 6.5 |

Table 4.1 shows that the respondents were predominantly young, with 74.2% between 20–29 years. The profession was also male-dominated (77.4%). Most respondents held a B.Sc (77.4%) and had practiced for 1–5 years (51.6%). This indicates a relatively young and early-career workforce within UBTH.

Table 4.2: Awareness of Healthcare Policies (n = 31)

| Statement | Yes (%) | No (%) | Not Sure (%) |
|----------------------------------|-------------|------------|--------------|
| Awareness of policies | 19 (61.3%) | 8 (25.8%) | 4 (12.9%) |
| Trained on policies | 17 (54.8%) | 9 (29.0%) | 5 (16.1%) |
| Can identify policies | 23 (74.2%) | 6 (19.4%) | 2 (6.5%) |
| Familiar with policies | 18 (58.1%) | 8 (25.8%) | 5 (16.1%) |
| Follow radiation safety policies | 31 (100.0%) | 0 | 0 |
| Policy information is clear | 18 (58.1%) | 9 (29.0%) | 4 (12.9%) |
| Seek policy updates | 13 (41.9%) | 15 (48.4%) | 3 (9.7%) |

Awareness of healthcare policies was generally high, with 61.3% confirming awareness and 74.2% able to identify specific policies. Radiation safety policies received full compliance

(100%), revealing strong enforcement in that area. However, only 41.9% actively sought updates and 29.0% indicated poor communication, showing that awareness is good but continuous sensitization is still needed.

| Statement | SA (%) | A (%) | N (%) | D (%) | SD (%) |
|---------------------------|--------|-------|-------|-------|--------|
| Policies guide daily work | 41.9 | 51.6 | 6.5 | 0 | 0 |
| Influence autonomy | 41.9 | 41.9 | 16.1 | 0 | 0 |
| Restrict flexibility | 32.3 | 29.0 | 16.1 | 16.1 | 6.5 |
| Ensure standardization | 54.8 | 32.3 | 12.9 | 0 | 0 |
| Improve accountability | 41.9 | 48.4 | 9.7 | 0 | 0 |

Policies strongly influenced daily professional activities, with 93.5% agreeing they guide daily work and 87.1% acknowledging improved standardization. Although 61.3% agreed that policies restrict flexibility, the findings clearly show policies have a regulatory effect on workflow and professional conduct.

Table 4.4: Impact of Healthcare Policies on Patient Care (n = 31)

| Statement | SA (%) | A (%) | N (%) | D (%) | SD (%) |
|--------------------------------|--------|-------|-------|-------|--------|
| Enhance quality of care | 64.5 | 29.0 | 6.5 | 0 | 0 |
| Improve consistency | 45.2 | 41.9 | 12.9 | 0 | 0 |
| Patients benefit from policies | 41.9 | 48.4 | 9.7 | 0 | 0 |
| Reduce imaging time | 22.6 | 19.4 | 35.5 | 16.1 | 6.5 |
| Improve feedback | 25.8 | 22.6 | 38.7 | 12.9 | 0 |

The majority (93.5%) agreed that policies enhance patient care, and 87.1% agreed they improve consistency. However, only 42.0% believed policies reduce imaging time, indicating that while policies improve care quality, they do not necessarily improve workflow speed.

Table 4.5: Challenges in Adhering to Healthcare Policies (n = 31)

| Statement | SA (%) | A (%) | N (%) | D (%) | SD (%) |
|-----------------------------|--------|-------|-------|-------|--------|
| Lack of training | 16.1 | 45.2 | 32.3 | 6.5 | 0 |
| Inconsistent implementation | 29.0 | 29.0 | 22.6 | 19.4 | 0 |
| Insufficient resources | 45.2 | 41.9 | 0 | 6.5 | 6.5 |
| Policies outdated | 32.3 | 25.8 | 22.6 | 16.1 | 3.2 |
| Lack of involvement | 19.4 | 35.5 | 25.8 | 12.9 | 6.5 |

The main challenges were insufficient resources (87.1%) and inadequate training (61.3%). Inconsistent implementation (58.0%) and outdated policies (58.1%) also contributed to poor policy adherence, revealing structural and administrative gaps.

4.2 Hypothesis Testing

H₀: Healthcare policies do not have a significant impact on the daily practices of radiographers.

H₁: Healthcare policies significantly influence the daily practices of radiographers.

Table 4.6: Chi-Square Test on Policy Influence (n = 31)

| Response Category | Observed (O) | Expected (E) |
|-------------------------|--------------|--------------|
| Agree (SA + A) | 55 | 31 |
| Disagree (D + SD) | 7 | 31 |
| Chi-Square (χ^2) | 61.29 | |
| df | 1 | |
| p-value | 0.000 | |

Decision Rule: Reject H₀ if $p < 0.05$

Decision: Since $p = 0.000 < 0.05$, H₀ is rejected. Healthcare policies have a significant influence on the daily practices of radiographers in UBTH.

4.3 Discussion of Findings

The findings from this study show that radiographers at UBTH generally demonstrated a good level of policy awareness, with 61.3% reporting awareness of existing healthcare policies and 74.2% able to identify specific policy documents relevant to their practice. Radiation safety policies stood out as the most recognized and strictly adhered to, receiving a full 100% compliance rate. Although basic awareness and identification levels were relatively strong, the results also revealed areas of weakness, particularly in policy engagement. Just 54.8% had received formal training or orientation on relevant policies, only 58.1% believed that policy information was well communicated, and less than half 41.9% actively sought updates on evolving policies. These figures suggest that policy literacy among radiographers at UBTH is present but not consistently reinforced, leaving room for improvement in institutional communication and continuous professional development.

These results are consistent with the observations of de Almeida et al. (2022), who reported high compliance with established quality standards in radiology departments but identified gaps in broader engagement and continuity of policy-related learning. Just as de Almeida and colleagues noted strong adherence to core procedures alongside weaker patient- and policy-engagement elements, the present study also shows that radiographers are most confident in areas that are heavily regulated and routinely practiced such as radiation safety while showing less consistency in policy areas that rely on sustained communication, institutional support, and personal initiative. A broader link is also seen with Bolejko et al. (2025), who emphasized that radiographers often rely on departmental protocols rather than

continuous access to new evidence or policy updates. This reflects the pattern in UBTH, where many radiographers appear compliant but not necessarily proactive in staying updated. Together, these findings suggest that awareness tends to flourish when policies are embedded into daily routines, but enthusiasm declines when staff are expected to independently monitor policy changes without structured reinforcement.

In contrast, the findings diverge somewhat from what Tay et al. (2025) reported in settings where evidence-based referral guidelines and decision-support tools are routinely integrated into imaging services. Tay and colleagues observed that when policies are technologically embedded such as in digital clinical decision support systems awareness becomes continuous, and adherence improves across multiple domains, not only radiation safety. The comparatively lower update-seeking behavior in UBTH implies that such reinforcing systems are either weak or absent, causing radiographers to rely heavily on initial training rather than ongoing, automated policy reminders.

The implications of this pattern are clear. Radiographers at UBTH are willing to follow policies and can recognize their importance, but the system around them does not yet fully support continuous awareness. The uneven communication levels, limited refresher training, and lack of structured update channels mean that awareness may remain static rather than evolving with changing standards. For policy awareness to mature into policy culture, radiographers need regular engagement through clearer communication loops, periodic training, and institutional mechanisms that make updated policies visible in everyday workflow. Strengthening these structures would elevate policy awareness from a compliance

requirement into a confident, sustained professional mindset—one consistent with modern radiography practice and global healthcare expectations.

The findings from this study reveal that healthcare policies have a clear and measurable influence on daily radiographic practice at UBTH. A combined 93.5% of respondents agreed that policies guide their day-to-day work, and 87.1% indicated that policies ensure standardization across procedures. Similarly, 90.3% agreed that policies improve accountability in their professional conduct. These results suggest that healthcare policies are not merely administrative guidelines but active determinants of clinical behavior, shaping how radiographers approach patient positioning, exposure selection, documentation, and safety practices. At the same time, a notable proportion 61.3% felt that policies can restrict flexibility, showing that while policies provide structure, they may also limit personal discretion, especially in complex clinical situations.

Taken together, these findings indicate that institutional policies at UBTH play a stabilizing and harmonizing role in clinical workflow. Radiographers appear to rely on policies as a reference framework that supports uniformity, reduces ambiguity, and reinforces professional responsibility. However, the perception of reduced flexibility suggests that some radiographers may experience tension between standardized protocols and individualized patient-centred decisions. In essence, policies are functioning as an anchor for quality and safety, but occasionally at the cost of spontaneity and professional autonomy.

These results are strongly aligned with the position of Bindman (2014), who observed that modern healthcare policies particularly in value-based systems encourage uniform standards,

accountability, and justification of imaging decisions. Bindman noted that radiology practice is increasingly shaped by structured policy frameworks designed to prevent errors, reduce unnecessary imaging, and promote safety. This reflects the UBTH findings, where policies appear to foster consistency and accountability. Likewise, Lee and Basu (2011) emphasized that policies are reshaping radiology into a more standardized, quality-driven discipline, requiring practitioners to anchor clinical decisions in approved guidelines rather than habit or intuition. The strong agreement among UBTH radiographers that policies guide their daily practice demonstrates this same pattern of policy-driven standardization. However, the current findings differ from the concerns highlighted by the European Society of Radiology (2022), which warned that strict policy environments may risk turning imaging professionals into “reporting or protocol machines,” limiting critical judgment and individualized decision-making. The ESR position reflects the flexibility concern seen in this study, but in contrast to UBTH, the European narrative suggests a more negative consequence of over-standardization. While radiographers in this study acknowledged reduced flexibility, they did not view it as undermining their clinical contribution; instead, the dominant sentiment remained positive, suggesting that structure is valued in the UBTH practice environment, whereas in more technologically advanced settings, strict policy enforcement may feel more restrictive.

The implication of these findings is that healthcare policies in UBTH are functioning as intended: they support order, safety, and consistency in radiographic procedures. However, as policies increasingly shape daily practice, there is a need to consciously preserve professional

discretion, especially in cases that require adaptive decision-making. Encouraging radiographers to balance adherence with clinical reasoning, rather than interpreting policies as rigid rules, may help sustain both safety and autonomy. Ongoing dialogue between administrators and frontline radiographers will be essential to ensure that policy implementation strengthens rather than stifles professional judgment. Ultimately, the UBTH experience shows that when policies are understood and accepted, they can enhance clinical practice, raise accountability, and foster a more unified radiographic service that benefits patient outcomes.

The findings for this objective show that healthcare policies have a predominantly positive influence on patient care delivery at UBTH. An overwhelming 93.5% of respondents agreed that policies enhance the overall quality of care, and 87.1% affirmed that policies improve consistency in patient handling. Likewise, 90.3% stated that patients benefit directly from policy-driven guidelines, suggesting that policies are achieving their intended purpose of improving safety, clarity and uniformity in clinical procedures. However, responses concerning workflow efficiency were mixed. Only 42.0% believed that policies reduce imaging time, while 35.5% remained neutral and 22.6% disagreed. A similar ambivalence appeared in perceptions of patient feedback, where 38.7% of respondents were uncertain. These patterns suggest that while policies strongly improve care quality and procedural consistency, they do not necessarily translate into faster workflow or better patient satisfaction metrics.

The data indicate that radiographers view policies as an important foundation for delivering

predictable and safe services. The high consensus on improved quality and consistency suggests that policies are successfully supporting standard operating procedures helping ensure that patients receive equitable care regardless of the specific staff on duty. The mixed responses regarding time efficiency, however, reflect a familiar tension: policies can make processes safer and more thorough, but they can also introduce additional steps that may slow service delivery. This tension implies that the effectiveness of policies on patient care is multifaceted. Policies are protecting and improving core clinical standards, but they may not yet be optimized for speed and patient experience.

These findings correspond strongly with Tay et al. (2025), who reported that evidence-based referral guidelines and decision support systems contributed to reduced radiation exposure, improved imaging appropriateness, and better service outcomes. Tay and colleagues concluded that healthcare policies, when meaningfully integrated, enhance safety and optimize resource use—an influence that aligns with UBTH respondents' belief that patients benefit from policy-driven radiographic care. The shared message in both studies is that structured guidelines create clearer pathways, reduce clinical variation, and protect patients from low-value or unsafe imaging. The present findings also relate to the quality emphasis highlighted by de Almeida et al. (2022), who documented strong compliance with quality assurance systems and standard protocols in radiology departments. In both contexts, policies serve as frameworks that stabilize service quality and encourage evidence-informed practice. However, unlike the UBTH data, Bindman (2014) emphasized that strict policy frameworks in value-based care models can also generate administrative pressures that influence

workflow and patient throughput. This contrasts with the UBTH findings, where radiographers did not attribute negative patient-care outcomes to policy demands; instead, they primarily questioned the effect of policies on speed, not the value of policies themselves. In other words, while global literature raises concerns that policy-driven environments may burden workflow, UBTH radiographers still interpret policies as beneficial to patient care, even if efficiency outcomes are uneven.

The implication of these findings is that healthcare policies in UBTH are functioning as effective instruments for promoting patient-centered diagnostic care, but optimization is still achievable. If policies are to improve not only care quality but also the patient experience, future revisions should address workflow efficiency—perhaps through technological integration, simplified documentation pathways, or periodic policy audits to remove redundancies. Radiographers appear to support policy-guided care, and this provides a strong foundation for institutional leaders to build upon. With targeted refinements, healthcare policies can evolve from being primarily safety-oriented to becoming balanced tools that enhance both quality and efficiency, ultimately improving the radiographic care experience for patients across all touchpoints.

The findings from this objective reveal that radiographers at UBTH encounter several notable challenges in complying with healthcare policies. The most prominent barrier reported was inadequate resources, with 87.1% of respondents agreeing that insufficient equipment, consumables, or support systems make it difficult to fully comply with policy requirements. A further 61.3% identified lack of training as a major barrier, suggesting that many

radiographers do not receive ongoing capacity-building to help them interpret and apply evolving policy guidelines. Inconsistent policy implementation across departments (58.0%) and the perception that some policies are outdated (58.1%) also emerged as significant concerns, while 55.0% felt insufficiently involved in policy-related decision-making. These results indicate that while radiographers are aware of and willing to follow policies, institutional and systemic gaps weaken full compliance and continuity.

The pattern that emerges from these findings is one in which policy adherence is not limited by unwillingness, but by structural and administrative bottlenecks. A workforce that is expected to follow policies without the tools, training, or support structures to do so will inevitably experience reduced compliance and inconsistent application. The perception of outdated or poorly enforced policies also suggests a disconnect between frontline practice and institutional policy review cycles. When radiographers feel excluded from decisions that affect their workflow, policy ownership diminishes, and compliance becomes more about obligation than professional conviction. These insights imply that the challenge is not the presence of policies, but the ecosystem within which those policies are expected to function.

These findings closely align with the concerns highlighted by Bolejko et al. (2025), who found that although radiographers may be motivated to practice in an evidence-based and policy-aligned manner, the lack of institutional support particularly in research engagement, access to resources, and continuous learning remains a major barrier. Both studies point to the reality that policy effectiveness depends not just on drafting guidelines, but on building systems that empower radiographers to internalize and apply them in daily work. Similarly,

de Almeida et al. (2022) observed that while radiology departments tended to have strong policy frameworks on paper, implementation challenges persisted due to limited patient involvement, uneven quality systems, and gaps in continuous improvement culture. This mirrors the UBTH experience, where good intentions are undermined by operational limitations. However, the findings in this study stand somewhat at odds with the more optimistic perspective offered by Tay et al. (2025), whose review of decision-support policy interventions reported improvements in workflow, reduced radiation exposure, and streamlined imaging processes when policies were supported by strong structures and digital tools. In contrast, the UBTH environment has not yet achieved the same level of systemic integration, explaining why respondents did not perceive similar workflow benefits. While Tay and colleagues demonstrate how policies can elevate efficiency when properly supported, the UBTH findings illustrate a different truth: even well-crafted policies will underperform without the infrastructure to sustain them.

The implication of this analysis is that healthcare policies in radiography can only be as effective as the systems that uphold them. If UBTH intends to strengthen policy adherence and improve clinical outcomes, there is a need for investment in training, modern equipment, inclusive policy development, and periodic review of departmental guidelines. When radiographers are given the tools, updated policies, and a voice in decision-making, policy compliance shifts from burden to shared professional culture. In such an environment, policies stop being documents that sit on shelves and instead become living instruments that guide safe, efficient, and patient-focused radiographic practice.

The hypothesis for this study examined whether healthcare policies have a significant influence on the daily practices of radiographers in UBTH. The Chi-square test conducted for this purpose showed a clear and statistically meaningful outcome. The majority of respondents agreed that policies guide and shape their routine radiographic activities, and this was reflected in the numerical pattern of responses. The combined agreement category (SA + A) yielded 55 observed responses, compared to only 7 in the combined disagreement group (D + SD). When subjected to Chi-square analysis, the result produced a χ^2 value of 61.29, with 1 degree of freedom, and a p-value of 0.000, which is well below the 0.05 significance threshold. This statistical outcome led to the rejection of the null hypothesis and confirmed that healthcare policies do, in fact, have a significant impact on the daily practices of radiographers at UBTH.

This finding reinforces what emerged from the descriptive results: radiographers rely heavily on policy frameworks as a guide for clinical decision-making, professional accountability, and procedural consistency. The strength of the statistical association suggests that policies are not operating in the background as mere administrative documents, but are actively shaping how radiographers think, work, and interact with both equipment and patients. In many respects, policy has become a silent but persistent influence that standardizes practice, reduces uncertainty, and strengthens safety culture within the department. The outcome of this hypothesis aligns with the position expressed by Bindman (2014), who argued that modern health systems increasingly tether clinical behavior to policy directives in order to ensure safety, transparency, and accountability. It also complements the position of Lee and

Basu (2011), who emphasized that policy frameworks are now integral to imaging practice and not optional add-ons to clinical work. Where these scholars describe policy as a structural driver of professional behavior, the UBTH findings provide local statistical confirmation of this reality. By contrast, the concerns raised by the European Society of Radiology (2022) that over-standardization may reduce clinical autonomy did not weaken the statistical evidence in this context. Despite some radiographers indicating reduced flexibility, the overall influence of policies remained clearly positive and statistically significant.

The implication of this hypothesis finding is that policy engagement is indispensable to radiographic practice in UBTH. Since policies demonstrably shape clinical behavior, any gaps in policy quality, training, or communication will inevitably translate into gaps in clinical performance. Strengthening policy dissemination, updating outdated guidelines, and involving radiographers in policy development would likely deepen ownership and reinforce the already strong influence that healthcare policies exert.

CHAPTER FIVE

CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDIES

5.1 Conclusion

This study demonstrated that healthcare policies play a significant role in shaping radiographic practice and patient care in UBTH. Radiographers showed good awareness of

policy requirements and acknowledged strong policy influence on daily clinical activities, workflow standardization, and quality of patient care. However, systemic challenges such as inadequate resources, insufficient training, weak communication structures, and outdated guidelines limit full policy adherence. The study's hypothesis test confirmed the significant impact of healthcare policies on radiographers' daily practice. Overall, the findings suggest that while policies provide a solid foundation for safe and consistent radiographic practice, institutional support must be strengthened to maximize their effectiveness.

5.2 Recommendations

1. **Regular Policy Training:** Management should organize periodic training, workshops, and refresher courses to keep radiographers updated on current policy standards and procedural expectations.
2. **Improved Policy Communication:** Multiple communication channels, such as departmental briefings, digital updates, and visual reminders, should be used to ensure clearer and consistent policy dissemination.
3. **Policy Review and Updating:** Institutional leaders should review and update outdated policies to reflect current best practices and technological advancements in radiography.
4. **Provision of Adequate Resources:** The hospital should invest in modern radiographic equipment, consumables, and supportive tools to remove resource-related barriers to policy adherence.
5. **Inclusive Policy Development:** Radiographers should be actively involved in policy formulation and review processes to increase ownership and improve compliance.

5.3 Limitations of the Study

1. **Single-Centre Scope:** The study was conducted in one tertiary hospital, which limits the generalizability of its findings to other institutions.
2. **Self-Reported Responses:** The data relied on self-administered questionnaires, which may be influenced by response bias or socially desirable answers.
3. **Cross-Sectional Design:** Because data were collected at a single point in time, the study could not capture changes in policy awareness or practice over an extended period.

5.4 Suggestions for Further Studies

1. **Multi-Centre Research:** Future studies should include multiple hospitals or states to allow for broader comparisons and more generalizable conclusions.
2. **Longitudinal Studies:** Researchers should consider tracking policy awareness and adherence over longer periods to assess the impact of ongoing changes or interventions.
3. **Qualitative or Mixed-Methods Approaches:** Incorporating interviews or focus groups could provide deeper insights into radiographers' experiences and challenges in policy implementation.
4. **Evaluation of Digital Policy Tools:** Further research could investigate how decision-support systems, electronic guidelines, and automated reminders influence compliance and workflow efficiency.

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APPENDIX I

QUESTIONNAIRE

Dear Respondent,

This questionnaire is designed to gather information for a research study on "Healthcare Policies and Their Impact on Radiography Practices and Patient Care in UBTH." Your responses will be treated with utmost confidentiality and used solely for academic purposes.

Kindly answer the questions honestly. Thank you.

SECTION A: Demographic Information

1. Age:

23 20–29 5 30–39 3 40–49 50 and above

2. Gender:

24 Male 7 Female

3. Highest Educational Qualification:

28 B.Sc PGD 3 M.Sc Ph.D Others (specify):
PGC _____

4. Years of Practice:

12 Less than 1 year 16 1–5 years 3 6–10 years More than 10 years

5. Duration at UBTH:

12 Less than 1 year 9 1–3 years 6 4–6 years 2 More than 6 years

SECTION B: Awareness of Healthcare Policies

Please tick Yes / No / Not Sure for each statement.

1. I am aware of the existence of healthcare policies guiding radiography practice at UBTH.

19 Yes 8 No 4 Not Sure

2. I have received training or orientation on healthcare policies in my department.

17 Yes 9 No 5 Not Sure

3. I can identify specific institutional or national radiography policies relevant to my work.

23 Yes 6 No 2 Not Sure

4. I am familiar with institutional and national radiography policies.

18 Yes 8 No 5 Not Sure

5. I follow policies related to radiation safety in my routine practice.

31 Yes No Not Sure

6. Policy information is adequately communicated to staff in my department.

18 Yes 9 No 4 Not Sure

7. I actively seek updates on new or revised healthcare policies.

13 Yes 15 No 3 Not Sure

SECTION C: Influence of Healthcare Policies on Daily Practices

Where SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

| S/N | Statement | SA | A | N | D | SD |
|-----|---|----|----|---|---|----|
| 1 | Existing healthcare policies guide my daily work as a radiographer. | 13 | 16 | 2 | | |

| | | | | | | |
|---|--|----|----|---|---|---|
| 2 | Policies positively influence my professional autonomy. | 13 | 13 | 5 | | |
| 3 | Policies sometimes restrict flexibility in decision-making during patient imaging. | 10 | 9 | 5 | 5 | 2 |
| 4 | Policies ensure standardized approaches in performing imaging tasks. | 17 | 10 | 4 | | |
| 5 | Policies have improved accountability in my radiography practice. | 13 | 15 | 3 | | |

SECTION D: Impact of Healthcare Policies on Patient Care

Where SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

| S/N | Statement | SA | A | N | D | SD |
|-----|---|----|----|----|---|----|
| 1 | Healthcare policies enhance the quality of patient care I deliver. | 20 | 9 | 2 | | |
| 2 | Policies ensure consistency in patient handling during imaging. | 14 | 13 | 4 | | |
| 3 | Patients benefit from imaging guidelines outlined in hospital policies. | 13 | 15 | 3 | | |
| 4 | Time taken for imaging is reduced due to policy-based workflow. | 7 | 6 | 11 | 5 | 2 |
| 5 | Patient feedback on radiography services has improved due to clear policy implementation. | 8 | 7 | 12 | 4 | |

SECTION E: Challenges in Adhering to Healthcare Policies

Where SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

| S/N | Statement | SA | A | N | D | SD |
|-----|---|----|----|---|----|----|
| 1 | Lack of training limits my ability to follow some policies. | 5 | 14 | | 10 | 2 |
| 2 | Policy implementation is inconsistent across departments. | 9 | 9 | 7 | 6 | |
| 3 | There are insufficient resources to comply with all healthcare policies. | 14 | 13 | | 2 | 2 |
| 4 | Some policies are outdated and do not reflect current radiographic practices. | 10 | 8 | 7 | 5 | 1 |
| 5 | I am not adequately involved in policy decisions affecting my practice. | 6 | 11 | 8 | 4 | 2 |

Thank you for your participation.

APPENDIX II

HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

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CHAIRMAN Prof. (Mrs.) Antoinette N. Ofili



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Committee email: ubthresearchethics@gmail.com

Registration Number:

NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL.VII/2025/210

PROPOSAL TITLE: "HEALTHCARE POLICIES AND THEIR IMPACT ON RADIOGRAPHY PRACTICES AND PATIENTS CARE IN A TERTIARY INSTITUTION IN BENIN CITY"

PRINCIPAL INVESTIGATOR(S): AGHO STEPHANIE

DEPARTMENT/INSTITUTION: DEPARTMENT OF RADIOGRAPHY, SCHOOL OF BASIC MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE

DATE CONSIDERED: AUGUST 20TH, 2025

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 20/8/2025 TO 19/8/2026. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

CHAIRMAN: PROF. (MRS) A.N. OFILI

SUPERVISOR (S): MRS. F.O. IGBINEDION

SIGNATURE & DATE

Signature: [Handwritten Signature] Date: 20/8/2025



DECLARATION BY INVESTIGATOR(S):

PROTOCOL NUMBER (please quote in all enquiries)

Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual re-port to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification

Signature & Date.....



ubthresearchethics@gmail.com

Registration Number: NHREC/24/01/202