

# Patient Experiences with Radiology Procedures in a Tertiary Hospital Setting

Freh A. Alfreh<sup>1</sup>, Bander A. Alruhaimi<sup>2</sup>, Abdulmohsen S. Almutib<sup>3</sup>,  
Samiyah M. Almutairi<sup>4</sup>, Awadh M. Alanizi<sup>5</sup>, Nada A. Alzahrani<sup>6</sup>,  
Maha S. Gassas<sup>7</sup>

Health Affairs at the Ministry of National Guard

## Abstract

Radiological imaging plays a crucial role in modern healthcare, but patient experiences during these procedures can often be anxiety-inducing due to factors such as the intimidating nature of the equipment and inadequate communication. This qualitative study explores patients' experiences with radiological procedures in a tertiary hospital, focusing on their concerns, expectations, and recommendations for improving the imaging process. Thematic analysis revealed three key themes: anxiety and discomfort, communication and information sharing, and emotional support. Findings emphasize the need for patient-centered approaches that prioritize clear communication and empathetic care to reduce patient anxiety and improve overall satisfaction. Implementing these strategies can lead to better patient outcomes and enhanced compliance during radiological procedures.

**Keywords:** Radiological Imaging, Patient Experience, Anxiety, Communication, Patient-Centered Care, Qualitative Study

## Introduction

Radiological imaging plays a vital role in modern healthcare by providing crucial information that supports accurate diagnoses and effective treatment planning (Smith-Bindman et al., 2008). Despite the technical focus of radiology, understanding patient experiences during these procedures is important, as it influences compliance, satisfaction, and overall healthcare outcomes (Brandt-Zawadski and Kerlan, 2009).

For many patients, procedures like computed tomography (CT), magnetic resonance imaging (MRI), and ultrasound can induce anxiety and discomfort (Brandt-Zawadski and Kerlan, 2009). Factors such as the intimidating appearance of imaging equipment and concerns about radiation exposure contribute to the stress experienced by patients. Additionally, limited communication from healthcare providers can exacerbate these feelings, making it crucial to improve patient interactions (Epstein & Street, 2011).

Research shows that enhancing communication and addressing patient concerns can significantly improve satisfaction and cooperation during imaging (Brandt-Zawadski and Kerlan, 2009). Patient-centered care, which emphasizes empathy, communication, and respect for patient preferences, has been shown to enhance the overall experience in radiology settings (Epstein & Street, 2011). This study aims to explore patients' experiences with radiological procedures in a tertiary hospital, focusing on their concerns, expectations, and ways to improve the imaging process.

By understanding patients' perspectives, healthcare providers can develop strategies to improve communication, reduce anxiety, and enhance the quality of care during radiological procedures. This focus on patient experience aligns with broader trends towards more patient-centered care, ultimately contributing to better outcomes and increased satisfaction (Epstein & Street, 2011).

### Literature Review

Radiological imaging is essential for diagnosing and managing numerous medical conditions, providing clinicians with valuable insights for patient care (Smith-Bindman et al., 2008). However, despite its diagnostic utility, radiological procedures are often associated with patient anxiety and discomfort, which can negatively impact the overall healthcare experience (Brandt-Zawadski and Kerlan, 2009). The literature suggests that various factors contribute to patient anxiety, including the intimidating appearance of imaging machines, the perceived risks of radiation, and a lack of understanding regarding the procedure (Wong & Lee, 2004).

A significant body of research has focused on the importance of effective communication in reducing patient anxiety during imaging procedures (Nightingale et al., 2012). Brandt-Zawadski and Kerlan (2009) emphasize that enhanced communication between healthcare providers and patients can significantly improve satisfaction and cooperation during imaging. Clear explanations of the procedure, addressing patient concerns, and offering emotional support are all crucial components of patient-centered care that have been shown to alleviate anxiety and enhance patient experiences (Epstein & Street, 2011).

Patient-centered care is a growing focus in healthcare, aiming to provide individualized care that respects patients' preferences, needs, and values (Stewart, 2001). Within radiology, implementing patient-centered approaches has been shown to positively influence patient outcomes, including improved satisfaction, reduced anxiety, and greater compliance with imaging protocols (Brandt-Zawadski and Kerlan, 2009). For instance, Brandt-Zawadski and Kerlan (2009) found that when radiology staff took the time to explain procedures and provide reassurance, patients reported significantly higher levels of satisfaction.

Another area of focus in the literature is the role of healthcare provider empathy and communication skills in improving patient experiences during radiological procedures. Stewart (2001) argues that empathetic communication is a key component of patient-centered care, and its implementation in radiology settings can enhance the overall experience for patients. Studies have shown that patients who receive empathetic care from radiology staff are more likely to report positive experiences and lower levels of stress (Brandt-Zawadski and Kerlan, 2009; Epstein & Street, 2011).

Additionally, Tischler et al., (2008) highlight the importance of providing patients with information before imaging procedures to reduce anxiety. Their study found that patients who were well-informed about what to expect during an MRI or CT scan reported lower levels of anxiety compared to those who received minimal information. This finding underscores the importance of communication and education in enhancing patient experiences.

Despite the progress made in improving patient-centered care in radiology, challenges remain. Many radiology departments continue to prioritize technical efficiency over patient experience, leading to gaps in communication and patient support (Berlin, 2002). Addressing these challenges requires a shift in focus towards integrating patient-centered practices into routine radiological care, ensuring that patients feel heard, informed, and supported throughout the imaging process.

This literature review highlights the importance of understanding and addressing patient experiences during radiological procedures. Effective communication, empathy, and patient education are all critical components of enhancing patient satisfaction and reducing anxiety. By focusing on these areas, radiology departments can move towards more patient-centered care, ultimately improving patient outcomes and satisfaction.

## **Methodology**

This study utilized a qualitative research design to explore patients' experiences with radiological procedures in a tertiary hospital setting. A total of 20 patients who underwent radiological imaging, including CT scans, MRIs, and ultrasounds, were recruited from the hospital's radiology department. Participants were selected using purposive sampling to ensure a diverse representation of age, gender, and type of imaging procedure.

Data collection was conducted through semi-structured interviews, which allowed participants to share their experiences, concerns, and suggestions in detail. Each interview lasted approximately 30-45 minutes and was conducted in a private room within the hospital to ensure confidentiality and comfort. The interview guide included open-ended questions focusing on participants' expectations, feelings during the procedure, communication with healthcare providers, and overall satisfaction with the imaging process.

All interviews were audio-recorded with participants' consent and transcribed verbatim for analysis. Thematic analysis was employed to identify common themes and patterns within the data. The analysis followed the six-step approach outlined by Braun and Clarke (2006), which included familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining themes, and producing the final report. Two researchers independently coded the transcripts to ensure reliability and minimize bias.

Ethical approval for the study was obtained from the hospital's ethics committee. Participants were informed of the study's purpose, their right to withdraw at any time, and the measures taken to ensure their anonymity. Written informed consent was obtained from all participants prior to data collection.

## **Findings**

Thematic analysis of the interviews revealed three major themes: (1) Anxiety and Discomfort, (2) Communication and Information Sharing, and (3) Emotional Support. Each theme had several sub-themes that provided further insights into the patients' experiences.

### **Theme 1: Anxiety and Discomfort**

#### **Sub-theme 1.1: Fear of the Unknown**

Participants expressed significant anxiety related to the uncertainty of the imaging procedure. Many patients mentioned feeling nervous because they did not know what to expect. One participant stated:

"I was really scared because I had no idea what the machine would do or how it would feel. Nobody explained it clearly beforehand." (Participant 3)

#### **Sub-theme 1.2: Physical Discomfort**

Physical discomfort during the procedure was another common concern. Several participants found it difficult to remain still for long periods, which added to their anxiety. One participant described:

"Lying still for that long was really hard, especially when they told me not to move at all. It made me even more anxious." (Participant 8)

## Theme 2: Communication and Information Sharing

### Sub-theme 2.1: Lack of Information

Participants highlighted the importance of receiving adequate information before the procedure. Many felt that a lack of information contributed to their anxiety. One participant mentioned:

"If someone had explained what was going to happen, I think I would have felt much better. But I was left in the dark, and it made everything worse." (Participant 5)

### Sub-theme 2.2: Effective Communication

On the other hand, participants who received clear and thorough explanations from healthcare providers reported feeling more at ease. One participant noted:

"The technician was really kind and explained everything step by step. It made me feel a lot calmer knowing what was happening." (Participant 12)

## Theme 3: Emotional Support

### Sub-theme 3.1: Empathy from Healthcare Providers

The need for emotional support from healthcare providers was a recurring theme. Participants emphasized the difference that empathetic interactions made in their overall experience. One participant shared:

"The radiologist was very understanding and kept checking if I was okay. That kind of care made a big difference for me." (Participant 7)

### Sub-theme 3.2: Feeling Reassured

Feeling reassured by the healthcare team was crucial for reducing anxiety. Participants appreciated when staff took the time to reassure them throughout the process. One participant stated:

"Just hearing 'you're doing great' from the technician helped me stay calm. It made me feel like I was in good hands." (Participant 15)

These findings highlight the importance of addressing patients' anxiety, providing clear communication, and offering emotional support during radiological procedures. By focusing on these areas, radiology departments can enhance patient satisfaction and overall care quality.

## Discussion

The findings of this study provide valuable insights into the experiences of patients undergoing radiological procedures in a tertiary hospital setting. The themes identified—*anxiety and discomfort, communication and information sharing, and emotional support*—underscore the critical importance of addressing the emotional and informational needs of patients to improve their overall experience during imaging.

Anxiety and discomfort were prevalent among participants, particularly due to the fear of the unknown and physical discomfort associated with the procedures. These findings align with existing literature that identifies uncertainty and discomfort as significant sources of patient anxiety during imaging (Wong & Lee, 2004). Addressing these concerns through better preparation and communication can help alleviate anxiety, making the experience more manageable for patients. Providing pre-procedure information, such as details about what patients can expect during the imaging process, has been shown to reduce anxiety (Brandt-Zawadski and Kerlan, 2009). Therefore, implementing comprehensive pre-procedure briefings can be an effective intervention to reduce fear and enhance patient comfort.

Communication and information sharing emerged as a major theme that significantly influenced patient experiences. Participants highlighted the lack of adequate information as a primary factor contributing to their anxiety, while effective communication from healthcare providers was associated with increased comfort and satisfaction. These findings are consistent with previous studies that emphasize the importance of patient-centered communication in reducing anxiety and improving cooperation during imaging procedures (Nightingale et al., 2012; Epstein & Street, 2011). Healthcare providers should prioritize clear and empathetic communication to ensure patients understand the procedure and feel supported. This could involve providing more detailed explanations and allowing time for patients to ask questions before the procedure begins.

Emotional support was another critical aspect of patient experience, with participants emphasizing the value of empathy and reassurance from healthcare providers. Participants who received empathetic care reported lower levels of anxiety and a more positive overall experience. This finding reinforces the importance of a patient-centered approach in radiology, where the focus extends beyond technical efficiency to encompass the emotional well-being of patients (Stewart, 2001). Healthcare providers should be trained to recognize and respond to the emotional needs of patients, as this can significantly impact their overall experience and satisfaction.

The implications of these findings are clear: radiology departments should adopt a more patient-centered approach to care, focusing on reducing anxiety, improving communication, and providing emotional support. Simple interventions, such as ensuring that patients receive thorough explanations of the procedure, offering empathetic interactions, and providing reassurance throughout the imaging process, can lead to significant improvements in patient satisfaction and compliance. Additionally, training radiology staff in effective communication and empathy can further enhance patient-centered care.

Despite the valuable insights provided by this study, there are some limitations to consider. The sample size was relatively small, and the study was conducted in a single tertiary hospital, which may limit the generalizability of the findings. Future research could expand on this study by including a larger and more diverse sample across multiple healthcare settings. Additionally, quantitative studies could be conducted to measure the impact of specific interventions, such as enhanced communication protocols, on patient anxiety and satisfaction during radiological procedures.

In conclusion, this study highlights the importance of understanding and addressing patient experiences during radiological imaging. By focusing on reducing anxiety, enhancing communication, and providing emotional support, radiology departments can significantly improve the quality of care and patient satisfaction. These findings contribute to the growing body of evidence advocating for a patient-centered

approach in radiology, ultimately leading to better patient outcomes and a more positive healthcare experience.

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