# QUALITY CONTROL IN RADIOLOGICAL SERVICES IN ANAMBRA STATE THROUGH CLIENTS' FEEDBACK

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#### ABSTRACT

**Background:** Patients' perceptions of quality of care affect their attitude after discharge, and positive ratings of service quality may spur them to re-visit the same hospital. Furthermore, little attention has been given to patients' satisfaction with the quality of radiodiagnostic services in developing countries. Whether the radiology staff in Anambra State meet the expectations of their patients is uncertain. Resolving this uncertainty will guide healthcare managers in addressing lapses in quality assurance.

**Objective:** To generate feedback from patients attending radiodiagnostic services in Anambra State on the quality of care received from staff.

**Methodology:** A hospital sample was picked purposively from public, faith-based and private blocks respectively. Patients and their relatives constituted the target. A sample size of 341 was determined by formula and subjects were recruited using convenience sampling method.

A validated questionnaire adopted from a previous work was modified and used as the instrument for data collection. It had 34 close-ended questions divided into three sections. The first section elicited demographic information. The second was on awareness while the third was on perception. Responses were limited to satisfactory, not satisfactory and indifferent. Responses were elicited only after radiological services had been accessed. The responses were then collated using frequencies and percentages. Data was manually analyzed using electronic calculator.

**Results** 341 respondents participated in the study. 314 (92%) were satisfied with the way they were addressed. 293 (86%) saw the radiology staff as friendly. 290 (85%) were satisfied with the level of communication between staff and patients. 269 (79%) considered the departments neat enough. 266 (78%) confirmed that staff reassured them when they were agitated. Only 215 respondents (63%) agreed that the procedures were explained to them. However, 54% of respondents (n = 184) were comfortable with the time spent in the department while 46% (n = 157) felt otherwise. The departments were highly rated for service delivery by 310 respondents (91%).

**Conclusion:** Radiology patients in Anambra State of Nigeria have a high opinion of care in service delivery. However, undue delay in assessing services should be addressed and proper explanation of the procedures should be done to improve the perception of quality service delivery.

Keywords: Radiology, service delivery, patients

## Introduction

Every healthcare system is expected to provide good quality service to the patients, [1] who are the most important people in the entire hospital setup [2]. Patients' perceptions of quality of care affect their health behaviour after discharge, and positive ratings of service quality seem to be correlated with no hesitation about revisiting the same hospital [3].

Respect for patient's needs and wishes, is central to any humane health care system. Patient's perception about healthcare has been predominantly accepted as an important indicator for measuring quality of health care and a critical component of performance improvement and clinical effectiveness [4,5]. It is therefore, the duty of the health personnel to give special attention to the management of patients to enhance effective service delivery [2].

Providing excellent service can however, be difficult to achieve in practice given its intangible nature as well as the heterogeneity and unpredictability of the large number of patients, frontline staff, and environmental circumstances that define the patient experience [6]. Nonetheless, healthcare authorities in western countries have placed a responsibility on healthcare institutions to involve patients in decision making and to establish systems for feedback from patients [1].

A trip to the Radiology department can be exasperating to a patient because of the diverse range of services rendered and the large throughput of other patients. Radiology staff are therefore, in a good position to properly coordinate patients and provide anticipatory guidance to allay fears, reduce stress and give timely diagnosis which will lead to efficient treatment [7].

Presently, there is an increasing interest to assess patients' satisfaction with healthcare services in the United States and other developed countries, with comparatively little attention being given to the topic in public-sponsored settings in developing countries[8]. Whether the Radiology staff meet the expectations of their patients in Anambra State is uncertain. This work therefore, sets out to generate feedback about the quality of care from a cross-section of patients and their relatives. The outcome will guide healthcare managers in addressing lapses in quality assurance.

#### Methodology

A prospective, questionnaire-based study carried out between May to August, 2014 and August to September, 2015 in the radiology department of three multi-disciplinary hospitals in Anambra State of Nigeria. A hospital sample was picked purposively from public, faith-based and private blocs respectively.

Ethical approval was got from one of the hospitals. Patients, their relations and, or well-wishers constituted the target population from where the sample size of 341 was drawn using convenience sampling method. Respondents gave informed, signed consent and were intimated that they could refrain from giving responses without repercussion. Unlettered and, or visually impaired respondents gave verbal consents and responses. The confidentiality of the respondents was strictly maintained by omitting their names, medical reasons for visiting the department as well as home addresses, from the questionnaire.

A validated questionniare adopted from a previous work by Ugwu et al [7] was modified and used as the instrument for data collection. It had 34 close-ended questions divided into three sections. The first section elicited demographic information. The second was on awareness while the third was on perception. Responses were limited to satisfactory, not satisfactory and indifferent. The responses were elicited only after radiological services had been accessed.

Three neat, cheerful and properly-dressed, female clinical Radiography students on Students Industrial Work Experience Scheme (SIWES) were co-opted as research assistants (RAs) and trained. They were responsible for explaining the research to respondents, seeking their consent to participate, and distributing and collecting the properly filled questionnaires.

The responses were subsequently collated using frequencies and percentages. Data was manually analyzed using electronic calculator.

Table 1: Age of respondents

Age (years)		Total		
	Public	Faith-based	Private	
15-20	5	15	11	31
21-30	9	40	57	106
31-40	35	22	30	87
41-50	23	17	14	54
>50	13	34	16	63
Total	85 (25%)	128 (37.5%)	128 (37.5%)	341

Table 2: Academic qualification of respondents

Qualification	Hospitals	i		
	Public	Faith-based	Private	Total
Non-lettered	27	22	5	54 (16%)
Primary school	20	15	9	44 (13%)
Secondary school	25	38	32	95 (28%)
Diploma	8	16	16	40 (11.7%)
First degree/HND	3	35	62	100 (29%)
M.Sc/PhD	2	2	4	8 (2.3%)
Total	85	128	128	341

Table 3: Radiological services patients were provided

Modality	Public	Faith-based	ased Private	
Ultrasound	Yes	Yes	Yes	
Fluoroscopy	Yes	No	No	
X-Ray	Yes	Yes	Yes	
Mammography	Yes	Yes	Yes	
Computed tomography	Yes	Yes	Yes	
MRI	Yes	No	No	

Table 4: Mean daily throughput of patients in common modalities

Variable	Ultrasound	X-Ray	Mammography	CT	Total	
Public	18	37	1	3	59 (46%)	
Faith-based	15	8	3	5	31 (24%)	
Private	30	5	1	2	38 (30%)	
Total	63	50	5	10	128	

Table 5: Opionion of respondents on the quality of care

Variable	Hospital bloc	Satisfactory	Mean	Not	Mean	Indifferent
	0.0	(%)	percentage	satisfactory (%)	percentage	(%)
Time spent in	Public	63		35		2
the department	Faith-based	51	54	49	46	0
	Private	47		53		0
Adequate	Public	87		13		0
Communication	Faith-based	84	85	16	15	0
	Private	85		15		0
Re-assurance	Public	66		25		9
after prolonged	Faith-based	77	78	23	22	0
waiting	Private	91		9		0
Names	Public	93		7		0
mentioned	Faith-based	91	92	9 8	08	0
correctly	Private	92		8		0
Explanation of	Public	42		57		1
procedure	Faith-based	63	63	37	37	0
	Private	84		16		0
Neatness	Public	84		16		0
	Faith-based	76	79	24	21	0
	Private	77		23		0
Friendliness	Public	92		8		0
	Faith-based	76	86	24	14	0
	Private	90		10		0
Overall rating	Public	95		5		0
of service	Faith-based	84	91	16	09	0
2022 OSS	Private	94		6		0

## Discussion:

Patient satisfaction has been defined as the degree of congruency between a patient's expectations of ideal care and their perception of the real care(s) received. Their satisfaction represents a vital key marker for the quality of health care delivery and this is an internationally accepted factor which needs to be studied repeatedly for smooth functioning of the health care systems [4,9].

Our findings show that Radiology clients in all hospital blocks in Anambra State have a high opinion on the quality of care. Some major factors that influenced this positive rating were the proper way in which patients' names were pronounced (92 %), the friendly disposition of staff (86 %), adequate communication (85 %), neatness of the environment (79 %) and reassurance (78 %) whenever they were agitated (table 5).

The length of time spent in the department was equally important to the respondents. Waiting time has been considered as the total time from registration of the patient in the radiology department to the time the reports are collected. It was equally noted that it is an aspect of healthcare that patients value most and they therefore, feel dissatisfied with health care system for having to wait for long period of time in the waiting area [2].

From our work, the feedback on time spent in the departments gave out that area as the achilles' hill of radiological practice in Anambra State as 46 % of respondents considered the time spent as not satisfactory. Although the public hospitals were faster (63 %) in attending to patients, the difference between all hospital blocks was marginal (47 – 63 % satisfactory). Moreover, adequate staffing which is often lacking in other blocks, may have contributed to making the public sector faster.

A previous work in the same environment noted that delays were as a result of the time used in sorting out the patient's request card [10]. However, another work considered the main radiological procedure as the major source of delay in the department [11]. It is suggested that dissatisfaction with long waiting time can be tolerated if the radiology personnel could communicate to the patients from time to time on the reason for the delay [12].

Interestingly, communication was considered adequate by a large number of respondents (85%) in this study. Little wonder that their overall opinion on the quality of care was high. However, communication had lapses in that 37% of respondents were not satisfied with the communication skill of the radiology staff for leaving them in the dark concerning the nature of their investigations.

Conclusion: Patients have a high opinion on the quality of care in the Radiology departments of Anambra State hospitals. However, to sustain this rating, measures should be put in place to minimize clients' waiting time. Also, let it be assumed that proper explanation of the procedures was not done by the referring clinicians. This should place an obligation on Radiographers to do the needful.

**Recommendation:** Further works to ascertain the causes of delay in accessing radiological services in Anambra State should be undertaken. Also, specific perception of patients regarding Radiographers would be worth the effort.

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