

Information Sources on Radiotherapy Among Cancer Patients Attending the Oncoclinic, University of Nigeria Teaching Hospital (Unth), Enugu, Nigeria

OKEKE CHIMAOBI AUGUSTINE¹, SYLVESTER KELECHI KENNETH², OWOH SOLOMON UCHENNA³

^{1, 2, 3}Department of Radiotherapy, Oncoclinic, University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, Enugu State, Nigeria

Abstract- Patients' information sources shape how they understand and respond to radiotherapy, yet in many Nigerian oncology settings the channels through which patients actually learn about treatment remain poorly documented. This study identified the main sources of information through which cancer patients learn about radiotherapy at the Oncoclinic, University of Nigeria Teaching Hospital (UNTH), Enugu. A descriptive cross-sectional design was adopted, and a structured questionnaire was administered to 110 cancer patients undergoing radiotherapy, selected by simple random sampling. Data were analysed using descriptive statistics (frequencies, percentages, and means) with the aid of SPSS version 25.0. The results showed that doctors were the first source of information about radiotherapy for the majority of respondents (85.5%), while health professionals generally were identified as the most trusted source of information (90.0%). Over half of the respondents (53.6%) strongly agreed that health professionals explained radiotherapy clearly, and 46.4% disagreed that social media increased their fear of radiotherapy. Despite this, a majority (57.3%) still indicated a desire for more education about radiotherapy. The study concludes that healthcare professionals, particularly doctors, dominate as the primary and most trusted channel of radiotherapy information at UNTH, a pattern that likely underlies the good knowledge and low-risk perception observed among these patients. It is recommended that structured, continuous patient education programmes be strengthened to consolidate this advantage and further reduce reliance on informal or unverified sources.

Index Terms- Cancer Patients, Health Education, Information Sources, Radiotherapy, UNTH Enugu.

I. INTRODUCTION

Radiotherapy is one of the most effective modalities for treating cancer, using high-energy radiation to destroy or control the growth of malignant cells, often alongside surgery or chemotherapy (Thariat et al., 2013).

Despite its established clinical value, radiotherapy is frequently misunderstood by patients, some of whom believe it is harmful or capable of causing further disease, leading to fear or outright rejection of treatment (Thariat et al., 2013).

A patient's understanding of radiotherapy is shaped substantially by where that understanding comes from. Whether patients learn about radiotherapy from doctors, nurses, radiographers, family, friends, or the internet and social media strongly influences what they believe about the treatment, how much they trust it, and how willing they are to comply with it (Gillan et al., 2014).

Formal, professionally mediated sources of information tend to correct misconceptions and reduce fear, whereas informal or unverified sources have been associated with increased anxiety and delays in treatment uptake (Gillan et al., 2014).

At the Oncoclinic, University of Nigeria Teaching Hospital (UNTH), Enugu, radiotherapy is routinely used in the management of various cancers.

However, informal clinical observations suggest that patients' responses to radiotherapy vary, partly depending on the sources of information they rely on before and during treatment.

Establishing precisely which channels dominate, and how much patients trust them, is a necessary first step towards designing effective patient-education strategies.

This article reports the third specific objective of a broader study on knowledge, risk perception, and information sources about radiotherapy among cancer patients at UNTH: to identify the main sources of information through which cancer patients learn about radiotherapy.

II. LITERATURE REVIEW

Evidence from other settings underscores the importance of information sources in shaping radiotherapy-related beliefs. Soko et al. (2019), in a cross-sectional study of 629 participants (including cancer patients, health professionals, students, and members of the general public) in Dar es Salaam, Tanzania, found generally low awareness of radiotherapy, with many respondents holding misconceptions such as the belief that radiotherapy shortens lifespan or renders patients radioactive.

Perceptions were more favourable among medical students and health professionals, groups with greater access to professional and educational sources of information, than among the general population and cancer patients themselves.

Similarly, Ibe and Chikenzie (2024), studying patients with prior radiotherapy exposure in Aba, South-Eastern Nigeria, reported that fear rooted in negative information obtained before treatment (55.3%) was a leading cause of delay in commencing radiotherapy.

Many respondents described the information they had been exposed to as originating from informal or unverified sources and centred on exaggerated claims about complications and side effects. Notably, attitudes improved markedly after direct exposure to treatment, with the majority of previously treated patients willing to recommend radiotherapy to others, suggesting that firsthand clinical interaction can override earlier misinformation.

Taken together, these studies show that where patients get their information, whether from trained

health professionals or informal, non-clinical channels, has a measurable bearing on fear, delay, and acceptance of radiotherapy.

However, context-specific evidence on the dominant information channels for cancer patients in South-Eastern Nigerian teaching hospitals, such as UNTH, Enugu, remains limited, which this study sought to address.

III. METHODOLOGY

A descriptive cross-sectional research design was adopted to identify the main sources of information through which cancer patients learn about radiotherapy. The study was conducted at the Oncoclinic, University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, Enugu State, Nigeria, between October and December 2025.

The study population comprised cancer patients receiving radiotherapy at the Oncoclinic during the data-collection period. Using Taro Yamane's formula for a known population ($N = 150$, $e = 5\%$), a minimum sample size of 109 was calculated; 110 respondents were eventually recruited using simple random sampling, giving each eligible patient an equal chance of selection.

Eligible participants were cancer patients aged 18 years and above, currently receiving or having received radiotherapy at the Oncoclinic, physically and mentally fit to respond, and who gave informed consent. Patients who had not received radiotherapy, were below 18 years, were too ill to participate, or declined consent were excluded.

Data were collected using a structured, interviewer-administered questionnaire developed from relevant literature and the study objectives. For the purpose of this article, Section D of the instrument, covering sources of information (healthcare professionals, media, friends, family, internet, and related items), was the primary focus, alongside relevant demographic items from Section A. Responses combined multiple-choice items and a five-point Likert scale (Strongly Disagree to Strongly Agree).

Content validity was established through review by three experts in Radiography and Health Research Methodology at the University of Nigeria, Nsukka, and reliability was confirmed via a test-retest procedure with 10 patients at a comparable facility, analysed using Cronbach's Alpha (threshold ≥ 0.7). Questionnaires were administered face-to-face during clinic visits after explaining the purpose of the study and ensuring confidentiality.

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 25.0. Descriptive statistics, frequencies, percentages, and means, were used to summarise responses on information sources, and results are presented in tables.

Ethical approval was obtained from the UNTH Health Research Ethics Committee (UNTH/HREC/2026/05/0105), and written informed consent was obtained from all participants; confidentiality, voluntary participation, and anonymity were maintained throughout.

IV. RESULTS AND DATA ANALYSIS

A total of 110 questionnaires were completed and analysed. Table I summarises the demographic profile of respondents relevant to interpreting their information-seeking patterns.

Table I: Demographic Profile of Respondents (n = 110)

Variable	Category	Frequency (n)	Percentage (%)
Sex	Male	49	44.5
	Female	61	55.5
Age (years)	18 – 39	11	10.0
	40 – 59	61	55.4
	60 and above	38	34.5
Highest education	No formal / Primary	26	23.6
	Secondary	38	34.5
	Tertiary	46	41.8
Duration since diagnosis	< 6 months	35	31.8

	6 – 12 months	33	30.0
	> 1 year	42	38.2

Table II presents the main first and most-trusted sources of information about radiotherapy reported by respondents.

Table II: Main Sources of Information Through Which Cancer Patients Learn About Radiotherapy (n = 110)

Variable	Response category	n	%
First source of information about radiotherapy	Doctor	94	85.5
	Radiographer	2	1.8
	Nurse	11	10.0
	Family / Friends	1	0.9
	Internet / Media	2	1.8
Most trusted source of information	Health professionals	99	90.0
	Family / Friends	6	5.5
	Internet / Media	5	4.5

As shown in Table II, the overwhelming majority of respondents (n = 94, 85.5%) identified doctors as their first source of information about radiotherapy, with radiographers, nurses, family/friends, and internet/media accounting for the remainder.

When asked which source they trusted most, 90.0% (n = 99) named health professionals generally, compared with only 5.5% for family/friends and 4.5% for internet/media.

Table III presents respondents' agreement with statements relating to the clarity of professional communication, the influence of social media, and the desire for further education.

Table III: Respondents' Views on Communication and Education About Radiotherapy (n = 110)

Statement	SD (%)	D (%)	U (%)	A (%)	SA (%)
-----------	--------	-------	-------	-------	--------

Health professionals explained radiotherapy clearly.	0 (0.0)	17 (15.5)	6 (5.5)	28 (25.5)	59 (53.6)
Social media increased my fear of radiotherapy.	12 (10.9)	51 (46.4)	26 (23.6)	3 (2.7)	18 (16.4)
I would like more education about radiotherapy.	0 (0.0)	0 (0.0)	9 (8.2)	38 (34.5)	63 (57.3)

Table III shows that 53.6% of respondents strongly agreed that health professionals explained radiotherapy clearly, while a further 25.5% agreed, indicating that a substantial majority (79.1%) found professional explanations satisfactory.

Regarding social media, 46.4% disagreed and 10.9% strongly disagreed that social media increased their fear of radiotherapy, suggesting that social media was not a dominant source of anxiety for most respondents in this sample.

Nevertheless, 57.3% strongly agreed and a further 34.5% agreed that they would like more education about radiotherapy, indicating an appetite for continued patient education despite already-favourable exposure to professional sources.

V. DISCUSSION

The findings show that healthcare providers, particularly doctors, were the dominant and most trusted source of information about radiotherapy among cancer patients at UNTH. Most respondents first heard about radiotherapy from a doctor, and the large majority regarded health professionals collectively as their most trusted source, with only a small minority relying primarily on family, friends, or the internet.

This pattern contrasts with the findings of Soko et al. (2019) and Ibe and Chikenzie (2024), both of whom reported that informal channels, rumour, and unverified information contributed substantially to fear, misconception, and delayed uptake of radiotherapy in their respective settings.

The comparatively low reliance on informal sources among UNTH respondents, and the correspondingly low proportion attributing increased fear to social media, suggests that the clinical environment at UNTH provides patients with earlier and more consistent access to professional explanation than was documented in these other contexts.

The high proportion of respondents who felt health professionals explained radiotherapy clearly is consistent with the Health Belief Model's emphasis on cues to action, professional guidance functions as a cue that shapes patients' understanding of, and confidence in, their treatment (Jones et al., 2015; Carpenter, 2010).

This professional dominance in information provision likely underlies the generally good knowledge and low-risk perception recorded among UNTH radiotherapy patients, reinforcing the pivotal role of healthcare providers, rather than media or informal networks, in shaping patient understanding in this setting.

Even so, the substantial proportion of respondents who expressed a desire for more education indicates that satisfactory first-contact communication does not fully meet patients' ongoing informational needs. This is an important distinction: being satisfied with an initial explanation is not the same as feeling fully informed throughout the course of treatment, and it points to a gap that structured, continuous patient-education programmes could close.

VI. CONCLUSION AND RECOMMENDATIONS

This study identified healthcare professionals, particularly doctors, as the primary and most trusted source of information about radiotherapy among cancer patients at the Oncoclinic, UNTH, Enugu.

Informal sources such as family, friends, and social media played a comparatively minor role, and social media was not a major driver of fear in this sample. Nonetheless, a majority of patients still expressed a desire for more education about radiotherapy, indicating room to strengthen patient communication beyond the initial point of contact.

It is recommended that UNTH and similar oncology units formalise and sustain patient-education efforts, using brochures, visual aids, and digital resources alongside verbal explanation, so that the trust already placed in healthcare professionals is matched by ongoing, structured information delivery throughout the course of treatment.

Continuing professional communication training for clinical staff, and monitoring of patients' informational needs at each stage of care, would help consolidate the currently favourable pattern of information-seeking observed at UNTH. Further research across other Nigerian oncology centres is recommended to determine whether this pattern of professional dominance in radiotherapy information holds more broadly.

REFERENCES

- [1] Carpenter, C.J. (2010) 'A Meta-Analysis of the Effectiveness of Health Belief Model Variables in Predicting Behavior', *Health Communication*, 25(8), pp. 661–669. Available at: <https://doi.org/10.1080/10410236.2010.521906>.
- [2] Gillan, C. et al. (2014) 'Fears and Misperceptions of Radiation Therapy: Sources and Impact on Decision-Making and Anxiety', *Journal of Cancer Education*, 29(2), pp. 289–295. Available at: <https://doi.org/10.1007/s13187-013-0598-2>.
- [3] Ibe, I.U. and Chikenzie, O. (2024) 'Assessment of the Attitude and Perceptions to Radiotherapy by Patients with Previous Exposure in Aba, South Eastern Nigeria', *Quest Journals Journal of Medical and Dental Science Research*, 11(7), pp. 37–44. Available at: www.questjournals.org.
- [4] Jones, C.L. et al. (2015) 'The Health Belief Model as an Explanatory Framework in Communication Research: Exploring Parallel,

Serial, and Moderated Mediation', *Health Communication*, 30(6), pp. 566–576. Available at: <https://doi.org/10.1080/10410236.2013.873363>.

- [5] Soko, G.F. et al. (2019) 'Public awareness and perceptions of radiotherapy and their influence on the use of radiotherapy in Dar es Salaam, Tanzania', *Journal of Global Oncology*, 2019(5), pp. 1–10. Available at: <https://doi.org/10.1200/JGO.19.00175>.
- [6] Thariat, J. et al. (2013) 'Past, present, and future of radiotherapy for the benefit of patients', *Nature Reviews Clinical Oncology*, 10(1), pp. 52–60. Available at: <https://doi.org/10.1038/nrclinonc.2012.203>.