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Research Article

Knowledge Attitude and Perception of Oncology Patients and Barriers to their Participation in Clinical Trials South West Nigeria

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Abstract

Background: *Clinical trials are essential for advancing oncology treatments and improving patient outcomes. However, participation rates remain low, particularly in low- and middle-income countries like Nigeria.*

Objective*: This study investigates the knowledge, attitudes, and perceptions of oncology patients toward clinical trials and identifies barriers to their participation in Lagos, Nigeria.*

Methods: *A cross-sectional study was conducted at MEDSERVE-LUTH Cancer Centre (October 2024–April 2025) using structured questionnaires (N=330) and interviews. Data were analyzed using chi-square tests and inductive thematic analysis.*

Results: *Only 23.9% were aware of clinical trials, with degree holders showing significantly higher awareness (31.0% vs ≤high school: 17.4%, p<.001). While 86.4% emphasized need for full risk/benefit disclosure, just 7.9% valued independent materials. Most (84.6%) believed trials benefit society, yet only 5.8% participated. Key barriers included unclear information (28.5%), personal constraints (20.9%), and cost concerns (17.3% overall; 23.8% among unemployed vs 6.5% employed, p<.001). Younger patients (<50 years) showed greater willingness to participate (69.1% vs ≥50 years: 57.5%, p=.02). Healthcare workers understood randomization better (43.8% vs 19.4%, p=.017). Motivators included access to best treatment (97.3%) and new therapies (67.6%). Notably, no participants reported feeling pressured.*

Conclusion: *The low awareness and participation, coupled with demographic disparities in education, employment, and age, highlight the need for targeted interventions (e.g., financial support for unemployed patients, age-sensitive recruitment). Improving health literacy and physician engagement may enhance trial enrollment.*

Keywords: *Clinical trials, oncology, patient perception, barriers, participation, Nigeria*

Introduction

Clinical trials are foundational to medical advancement, particularly in oncology, where they play a central role in the development and validation of new therapies aimed at improving patient survival and quality of life[1]. These trials provide an avenue for patients to access innovative treatments that may not yet be widely available[2]. However, despite the recognized benefits, global participation rates in oncology clinical trials remain suboptimal. This gap is especially pronounced in low- and middle-income countries (LMICs), where limited awareness, infrastructural challenges, and sociocultural barriers hinder enrollment[3,4].

In Nigeria, cancer incidence continues to rise, yet participation in oncology clinical trials remains markedly low[5]. Previous studies in high-income settings have highlighted substantial knowledge deficits and perceptual barriers among patients that contribute to low participation rates[6,7]. However, limited research exists within the Nigerian context to evaluate patients' understanding and perspectives regarding clinical trials. Without this knowledge, it is challenging to design effective strategies that address participation barriers and enhance patient engagement[8].

Understanding the knowledge, attitudes, and perceptions of oncology patients toward clinical trials is vital for fostering inclusive research and improving clinical outcomes. Factors such as fear of side effects, mistrust in the healthcare system, logistical difficulties, and a lack of culturally relevant education contribute to patients' reluctance to participate in trials[9,10]. In resource-limited environments like Nigeria, these issues are often compounded by socioeconomic constraints, inadequate health infrastructure, and limited patient-provider communication[11].

This study addresses a critical gap by exploring the knowledge, attitudes, and perceptions of oncology patients in Lagos, Nigeria, toward clinical trial participation. It also seeks to identify the specific barriers they face and to propose actionable strategies to increase enrollment. The insights derived from this research will contribute to improving the design and communication of clinical trials, enhancing trust in medical research, and ensuring broader access to potentially life-saving cancer therapies in Nigeria and similar settings[12,13].

Methods

Study Location

The study was conducted at the MEDSERVE-LUTH Cancer Centre (MLCC), Idi-Araba, Lagos, a comprehensive cancer center that receives referrals from around the country and provides advanced radiotherapy and chemotherapy treatment services.

MLCC is a public-private partnership hospital with 3 linear accelerators, a chemotherapy suite, and a brachytherapy suite, making it the largest cancer center in West Africa.

Lagos University Teaching Hospital (LUTH) is a referral center for other government-owned and private hospitals in the state with over 700 bed spaces in the private and open wards. It is on the Mainland of Lagos with a population of over 20 million inhabitants.

MLCC is the first of the pilot program of The Federal Ministry of Health to address the inefficient treatment of cancer in Nigeria, a feat intended to be replicated in all the geo-political zones in the country. This center situated in LUTH runs her clinic five days a week where both new and follow-up patients on treatment are seen.

Study Design

A cross-sectional study was conducted over a six-month period (Oct 2024–April 2025) using structured questionnaires administered during routine clinic visits. Quantitative data was collected through structured questionnaires, while qualitative data was gathered from interviews with a subset of participants.

Study Population

The study population will consist of oncology patients aged 30 to 70 years who have been diagnosed with cancer and are currently receiving treatment at LUTH. Patients who have previously participated in a clinical trial will be excluded to ensure the study focuses on those without prior trial experience.

Inclusion Criteria

To determine the eligibility of oncology patients for participation in the study, the following inclusion criteria were applied:

1. **Age**: Participants must be between 30 and 70 years old.
2. **Cancer Diagnosis**: Patients must have a confirmed diagnosis of any cancer.
3. **Treatment Status**: Participants must receive cancer treatment at MEDSERVE-LUTH Cancer Center.
4. **Previous Clinical Trial Participation**: Patients must have never participated in any clinical trials related to their cancer treatment.
5. **Informed Consent**: Patients must be able and willing to provide written informed consent to participate in the study.

Exclusion Criteria

The following exclusion criteria were implemented to identify participants who should not be included in the study:

1. **Prior Clinical Trial Participation**: Patients who previously participated in clinical trials.
2. **Terminal Illness**: Patients diagnosed with terminal illnesses or those in critical condition are unable to provide informed consent.

3. **Cognitive Impairment**: Patients with cognitive impairments affecting their ability to understand the study and provide informed consent will also be excluded.

These criteria are designed to ensure a clear focus on the target population, enhancing the study's findings regarding knowledge, attitudes, perceptions, and barriers to clinical trial participation among oncology patients.

Sample Size Determination

The sample size was calculated using Cochran's formula for determining sample size:

$$n = \frac{Z^2pq}{d^2}$$

Where

n = minimum sample size

Z = standard normal deviate at 95% confidence level = 1.96

p = prevalence of cancer patients perception toward participation in clinical trials[18] = 14.8% = 0.148

q = 1-p = (1 – 0.148) = 0.852

d = acceptable margin of sampling error = 5% = 0.05

Therefore,

$$n = \frac{1.96^2 \ x \ 0.148 \ x \ 0.852}{0.05^2}$$

n = 193.76

Therefore the minimum sample size was 194

Accounting for Attrition:

To account for attrition at 10%, the sample size is increased by 10%:

Adjusted Sample Size = 194 × 1.10 = 213.4

Rounding up, the final adjusted sample size was **214** patients.

Note: The required sample size was calculated to be 214, inclusive of a 10% adjustment for expected attrition, based on anticipated prevalence, confidence level of 95%, and a power of 80%. However, 330 eligible participants were ultimately enrolled. This oversampling was due to higher-than-expected patient availability during the recruitment period and to strengthen the statistical power of subgroup analyses. The increased sample also improves the precision of estimates and enhances generalizability. All enrolled patients met the eligibility criteria and provided informed consent.

Data Analysis

Data analysis will employ both descriptive and inferential statistics. Descriptive statistics will include frequency distributions, means, and standard deviations. Chi-square tests will assess associations between knowledge, attitudes, perceptions, and barriers to clinical trial participation. Qualitative data from interviews were analyzed using inductive thematic analysis to identify recurring themes related to barriers, motivators, and patient perceptions.

Ethical Consideration

Ethical approval was obtained from LUTH's Health Research Ethics Committee (HREC). Before participating in the study, all participants must provide written informed consent. Participation was voluntary, and respondents were assured of confidentiality by anonymizing their responses. All collected data were handled per ethical guidelines to ensure participant privacy and integrity.

Results

Table 1: Socio-demographic characteristics of study participants

Variable	**Frequency (n)**	**Percentage (%)**
Ag group (years)		
less than 50	123	37.3
50-55	73	22.1
56-60	46	13.9
61-65	31	9.4
more than 65	57	17.3
Education		
Elementary	26	7.9
Lower middle school	34	10.3
High school	112	33.9
Degree or more	158	47.9
Employment		
Paid work	124	37.6
No paid work	206	62.4
Work in healthcare		
Yes	16	4.8
No	314	95.2
Time of diagnosis		
1999-2009	4	1.2
2010-2020	20	6.1
>2020	306	92.7
Participation in clinical trial		

Yes	19	5.8
No	311	94.2

Table 1 presents the distribution of participants' educational levels, employment status, healthcare work experience, time of diagnosis, and clinical trial participation. The majority of participants (47.9%) had a degree or higher, while 33.9% completed high school, 10.3% had lower middle school education, and 7.9% had only elementary education. Additionally, most participants were not engaged in paid work (62.4%), did not work in healthcare (95.2%), and had been diagnosed most frequently in 2024 (55.2%), with only 5.8% reporting participation in a clinical trial.

Table 2: Awareness of clinical trial among respondents

Statements	**Frequency (n)**	**Percentage (%)**
Awareness of of clinical trial		
Yes	79	23.9
No	251	76.1
Knowledge of randomization		
Yes	68	20.6
No	262	79.4
Heard of informed consent		
Yes	139	42.1
No	191	57.9
Trial ethics		
Yes	171	51.8
No	159	48.2
Impact of science and technology on clinical trial		
Negative impact	7	2.1
No impact	7	2.1
Positive impact	284	86.1
I don’t know	32	9.7

Table 2 summarizes participants' knowledge and perceptions of clinical trials, informed consent, trial ethics, and the impact of science and technology. While less than a quarter of participants (23.9%) were aware of clinical trials, an even lower percentage (20.6%) understood the concept of randomization, and only 42.1% had heard of informed consent. Additionally, slightly more than half (51.8%) recognized the ethical considerations in clinical trials, and the majority (86.1%) believed science and technology had a positive impact, while a small proportion (4.2%) perceived no or negative impact.

Table 3: Knowledge of clinical trial among respondents

Statements	**Yes n(%)**	**No n(%)**
Most important consideration before taking part in a clinical trial		
Full information on the advantages and disadvantages	285 (86.4%)	45 (13.6%)
A clear description of how it will be conducted and what participation implies (visits, extra costs, etc.)	245 (74.2%)	85 (25.8%)
Confidence that the results will be useful for future patients	191 (57.9%)	139 (42.1%)
Information material to consult independently	26 (7.9%)	304 (92.1%)
Have a group of physicians or health professionals for reference	74 (22.4%)	256 (77.6%)
Be covered by insurance	65 (19.7%)	265 (80.3%)
Know who finances the study (non-profit organizations or associations, pharmaceutical companies, private companies, etc.)	37 (11.2%)	293 (88.8%)
Doctors asking patients to participate in a clinical trial when they have data in favor of a new treatment but not certain	247 (74.8%)	83 (25.2%)
Perceived reasons why doctors invite for clinical trial		
For the good of the patient and community	276 (83.6%)	54 (16.4%)
Because otherwise, the doctor would not know how to treat the patient	67 (20.3%)	263 (79.7%)
For personal gain	31 (9.4%)	299 (90.6%)
To foster the progress of science and medicine	231 (70.0%)	99 (30.0%)
For a pharmaceutical company's interests	23 (7.0%)	307 (93.0%)

Table 3 shows that the majority (86.4%) of respondents considered full information on the advantages and disadvantages as the most important factor before participating in a clinical trial, while 74.2% emphasized the need for a clear description of the trial process, including visits and extra costs. More than half (57.9%) believed that confidence in the usefulness of results for future patients was important, but only 7.9% valued having independent information material, and 19.7% regarded insurance coverage as essential. Regarding the perceived reasons why doctors invite patients to clinical trials, most respondents (83.6%) believed it was for the good of the patient and community, while 70.0% saw it as a way to foster scientific and medical progress. In contrast, only 20.3% thought it was due to a lack of treatment knowledge, and concerns about personal gain (9.4%) and pharmaceutical company interests (7.0%) were minimal.

Table 4: Respondents' Perceptions of the Benefits, Risks, and Willingness to Participate in Clinical Trials.

Statements	**Strongly Disagree n(%)**	**Disagree n(%)**	**Neutral n(%)**	**Agree n(%)**	**Strongly Agree n(%)**
Clinical trials benefit patients and society	14 (4.2%)	4 (1.2%)	33 (10.0%)	172 (52.0%)	108 (32.6%)
The risks of participating in a clinical trial outweigh the potential benefits	26 (7.9%)	77 (23.3%)	109 (32.9%)	75 (22.7%)	44 (13.3%)
The doctor plays an important role in the decision to participate in the study	9 (2.7%)	24 (7.3%)	35 (10.6%)	180 (54.4%)	83 (25.1%)
I would be in favor of participating in a clinical trial	13 (3.9%)	28 (8.5%)	85 (25.7%)	142 (42.9%)	63 (19.0%)
I would also encourage the participation of a relative or friend in a clinical trial	10 (3.0%)	23 (6.9%)	89 (26.9%)	141 (42.6%)	68 (20.5%)
All clinical trial results, positive or negative, must be made public in scientific articles and lay publications	18 (5.4%)	31 (9.4%)	34 (10.3%)	140 (42.3%)	108 (32.6%)

Table 4 shows that the majority of respondents (84.6%) agreed or strongly agreed that clinical trials benefit patients and society, with only a small proportion (5.4%) disagreeing. Opinions on the risks of participation were more divided, with 36% agreeing that the risks outweigh the potential benefits, while 31.2% disagreed, and 32.9% remained neutral. Most respondents (79.5%) acknowledged the important role of doctors in influencing the decision to participate in a clinical trial. Additionally, 61.9% of participants expressed willingness to join a clinical trial, and 63.1% indicated they would encourage a relative or friend to participate, reflecting a generally positive perception of clinical research. Finally, 74.9% of respondents agreed or strongly agreed that all clinical trial results, whether positive or negative, should be made public in scientific and lay publications.

The key barriers to participation included unclear trial information (28.5%), personal reasons (20.9%), and trust in their doctor’s treatment selection (19.4%). Cost concerns (17.3%) and fear of not receiving the experimental treatment (12.4%) also influenced decisions. On the other hand, the majority (97.3%) joined clinical trials because they believed it offered the best possible treatment, while 67.6% valued access to new therapies. Societal benefit (65.8%) and confidence in the proposing doctor (3.3%) were also factors. Notably, 100% of respondents reported that they did not feel pressured into participation.

Table 5: Factors Influencing Participation and Non-Participation in Clinical Trials

Statements	Yes n (%)	No n (%)
Reasons for Non-Participation		
Unclear or inadequate trial information	94 (28.5)	236 (71.5)
Additional costs for visits/transport	57 (17.3)	273 (82.7)
Personal reasons (e.g., schedule conflicts)	69 (20.9)	261 (79.1)
Little confidence in clinical research	18 (5.5)	312 (94.5)
Advised against by family/friends	16 (4.8)	314 (95.2)
Prefer doctor to select therapy	64 (19.4)	266 (80.6)
Fear of not receiving experimental treatment	41 (12.4)	289 (87.6)
Insufficient time to decide	46 (13.9)	284 (86.1)
Reasons for Participation		
Access to new therapies	223 (67.6)	107 (32.4)
Belief in trial benefits to society	217 (65.8)	113 (34.2)
Best possible treatment available	320 (97.3)	9 (2.7)
Confidence in the proposing doctor	11 (3.3)	319 (96.7)
Recommended by family/friends	1 (0.3)	329 (99.7)
Clarity and completeness of information	6 (1.8)	324 (98.2)
Felt unable to refuse	0 (0.0)	330 (100.0)
More frequent checkups/assistance	8 (2.4)	322 (97.6)

Table 6: Education Level vs. Clinical Trial Awareness

Education Level	Aware of Trials (n=79)	Not Aware (n=251)	Total	p-value
Elementary	4 (15.4%)	22 (84.6%)	26	<0.001*
Lower middle school	8 (23.5%)	26 (76.5%)	34	
High school	18 (16.1%)	94 (83.9%)	112	
Degree or more	49 (31.0%)	109 (69.0%)	158	

*Significant at $p < 0.05$

Table 6 shows a strong positive correlation between education level and clinical trial awareness ($p < 0.001$). Participants with a degree or higher education (31.0%) were significantly more aware of clinical trials compared to those with only elementary education (15.4%). This suggests that higher education may enhance health literacy and access to trial-related information.

Table 7: Employment Status vs. Participation Barriers

Barrier	Employed (n=124)	Unemployed (n=206)	p-value
Additional costs	8 (6.5%)	49 (23.8%)	<0.001*
Personal reasons	15 (12.1%)	54 (26.2%)	0.003*
Prefer doctor's choice	18 (14.5%)	46 (22.3%)	0.08

*Significant at p < 0.05

Table 7 shows that employment status was significantly associated with perceived barriers to participation. Unemployed individuals were more likely to cite additional costs (23.8% vs 6.5%, p < 0.001) and personal reasons/scheduling issues (26.2% vs 12.1%, p = 0.003) as deterrents. These findings highlight the need for financial support mechanisms such as travel stipends and flexible scheduling to ensure equitable access to trials.

Table 8: Age Group vs. Willingness to Participate

Age Group	Willing (n=204)	Neutral/Unwilling (n=126)	p-value
<50 years	85 (69.1%)	38 (30.9%)	0.02*
≥50 years	119 (57.5%)	88 (42.5%)	

*Significant at p < 0.05

Table 8 suggests that younger individuals (<50 years) demonstrated significantly higher willingness to participate in clinical trials (69.1% vs 57.5%, p = 0.02). Older adults (≥50 years) were more likely to be neutral or unwilling, potentially due to health-related concerns, comorbidities, or conservative attitudes. Strategies for this age group should focus on reassurance regarding safety, tailored risk communication, and physician endorsement.

Table 9: Healthcare Work Experience vs. Trial Perception

Perception	Healthcare Workers (n=16)	Non-Healthcare (n=314)	p-value
Trials be2nefit society (Agree)	14 (87.5%)	266 (84.7%)	0.75
Understand randomization	7 (43.8%)	61 (19.4%)	0.02*

*Significant at p < 0.05

Table 9 shows that while both healthcare and non-healthcare participants shared similar beliefs about the societal benefits of clinical trials (87.5% vs 84.7%, p = 0.75), healthcare workers had a significantly better understanding of randomization (43.8% vs 19.4%, p = 0.02). This suggests that technical knowledge is more strongly influenced by occupational exposure than general attitudes, presenting an opportunity to use peer-led education by healthcare-informed individuals to demystify clinical trial procedures.

Discussion

Demographic Characteristics and Clinical Trial Participation

The study revealed that majority of participants (94.2%) had never participated in a clinical trial, aligning with global trends of low enrollment in oncology trials, particularly in low- and middle-income countries (LMICs) [19]. The analysis also revealed a significant association between education level and awareness of clinical trials. Degree holders had a notably higher awareness rate (31.0%) compared to those with elementary education (15.4%, $p<0.001$), suggesting a strong education-awareness gradient. This underscores the influence of health literacy on trial engagement, even though education alone does not guarantee participation.

The demographic profile of the participants, with 47.9% holding a degree or higher, suggests that educational attainment alone does not guarantee awareness or participation in clinical trials. This finding is consistent with studies indicating that even highly educated patients often lack sufficient knowledge about clinical trials[20]. The high proportion of participants not engaged in paid work (62.4%) may also reflect socioeconomic barriers, such as financial constraints or logistical challenges, which are known to deter trial participation[21].

Awareness and Knowledge of Clinical Trials

An important finding was the low level of awareness about clinical trials, with only 23.9% of respondents indicating familiarity with the concept. This is consistent with studies in other LMICs, where limited health literacy and inadequate patient education contribute to poor awareness[22]. The lack of understanding about key aspects of clinical trials, such as randomization (20.6% awareness) and informed consent (42.1% awareness), further underscores the need for targeted educational interventions. These findings aligns with Kessels' assertion that patients often perceive clinical trials as complex and opaque, leading to misunderstandings and reluctance to participate in such laudable scientific exercises[23].

Interestingly, while only 20.6% of all respondents understood randomization, healthcare workers demonstrated significantly better understanding (43.8%) than non-healthcare participants (19.4%, $p=0.02$), despite sharing similar overall attitudes about trial benefits. This suggests that workplace exposure enhances technical understanding, and healthcare-informed individuals could serve as peer educators. Thus, utilizing healthcare workers as community ambassadors may help bridge technical knowledge gaps.

Majority of respondents (86.4%) emphasized the importance of receiving full information about the advantages and disadvantages of clinical trials before participating. This highlights the critical role of clear, transparent communication from healthcare providers in shaping patient perceptions and decisions. However, the low percentage of respondents (7.9%) who valued independent information materials suggests that current educational resources may not be accessible or tailored to the needs of oncology patients.

Attitudes and Perceptions toward Clinical Trials

The stark disparity between perceived benefits (84.6%) and actual participation (5.8%) may reflect systemic gaps, such as inadequate trial availability or under-referral by physicians. While patients endorsed trials' societal value, individual decisions were likely constrained by unaddressed barriers (e.g., logistical hurdles, latent hesitations). However, ambivalence was evident in the perception of risks, with 36% of respondents agreeing that the risks of participation outweigh the potential benefits. Additionally, willingness to participate varied by age group, with younger respondents (<50 years) more inclined to enroll (69.1%) than older participants (≥50 years: 57.5%, p=0.02). This age-related difference may reflect health concerns or more conservative treatment preferences among older adults. These findings suggest that recruitment strategies must be age-sensitive and emphasize safety assurances for older populations. It also aligns with the Health Belief Model, which posits that perceived risks and benefits significantly influence health-related decisions[24].

The role of physicians in influencing participation decisions was also evident, with 79.5% of respondents acknowledging their importance. This underscores the need for healthcare providers to actively discuss clinical trial opportunities with patients, as physician recommendations are a key driver of enrollment[25]. However, the low proportion of respondents (9.7%) who reported being invited to participate in a clinical trial suggests that healthcare providers may not be adequately identifying or referring eligible patients.

Barriers to Participation

The study identified several barriers to clinical trial participation, including unclear or inadequate trial information (28.5%), financial concerns (17.3%), and personal reasons such as difficulty adhering to trial schedules (20.9%). These findings align with global literature highlighting logistical and systemic challenges as major deterrents to participation[26].

This study further found that unemployed participants reported cost-related barriers (23.8% vs 6.5%) and personal/scheduling conflicts (26.2% vs 12.1%) at significantly higher rates than employed participants (p<0.001 and p=0.003, respectively). This indicates that financial and logistical barriers are disproportionately experienced by economically disadvantaged individuals, reinforcing the need for decentralized trials and support mechanisms such as travel stipends. Such socioeconomic disparities necessitate more inclusive trial designs that accommodate patients' lived realities.

The relatively low level of financial concern (82.7% reported no additional costs) may reflect the study setting, where patients often rely on public healthcare services. However, it is possible that financial barriers are underreported or not fully understood by participants.

To address the low uptake of independent information materials (7.9%), interventions could leverage trusted community channels (e.g., peer educators, visual aids in local languages) alongside clinician recommendations to enhance accessibility and trust.

Trust in clinical research was notably high, with 94.5% of respondents expressing confidence in the system. This contrasts with the historical mistrust observed in some communities, particularly in LMICs[27]. Additionally, family and friends had minimal influence on participation decisions (95.2% reported no external pressure), diverging from findings in collectivist societies, where social and cultural factors play a more prominent role[28]. The study context may reflect a more individualistic decision-making approach.

Factors Influencing Participation

The belief that clinical trials offer the best possible treatment (97.3%) emerged as the strongest motivator for participation, emphasizing the importance of positioning trials as a means of accessing advanced care. Access to new therapies (67.6%) and the perceived societal benefit of participation (65.8%) were also significant motivators, though altruistic motivations were less prominent compared to studies in high-income countries, where contributing to research is often a key factor[29].

Notably, 100% of respondents reported that they did not feel pressured into participation, reinforcing the voluntary nature of trial enrollment in this setting. While confidence in the proposing doctor was a minor factor (3.3%), this finding suggests that personal trust in physicians played a limited role compared to the perceived benefits of the trial itself.

Implications for Practice and Policy

The findings of this study have several implications for healthcare providers, researchers, and policymakers. First, there is an urgent need for educational initiatives to improve awareness and understanding of clinical trials among oncology patients. These initiatives should focus on demystifying clinical trials, addressing misconceptions, and providing clear, accessible information about the risks and benefits of participation.

Secondly, healthcare providers must play a more active role in discussing clinical trial opportunities with patients. Training programs for physicians and nurses on effective communication strategies could enhance patient engagement and trust in the clinical trial process.

Thirdly, logistical and financial barriers must be addressed to improve access to clinical trials. This could include providing transportation assistance, covering out-of-pocket costs, and offering flexible scheduling options to accommodate patients' needs.

Finally, efforts to improve diversity and representation in clinical trials must be prioritized. This includes engaging with community leaders and patient advocacy groups to build trust and address historical mistrust of medical research.

Conclusion

This study highlights the complex relationship of knowledge, attitudes, perceptions, and barriers that influence oncology patients' participation in clinical trials in Lagos, Nigeria. While the findings reveal significant gaps in awareness and understanding, they also point to opportunities for targeted interventions to improve enrollment rates. By addressing these barriers, stakeholders can enhance patient engagement in clinical research, ultimately leading to more effective cancer treatments and improved health outcomes for patients in Nigeria and beyond.

Future studies should also investigate the impact of specific interventions, such as patient education programs and physician training, on clinical trial participation rates.

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