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Breast Cancer Patients' Perspectives on Care Quality in Cameroon: A Mixed-Methods Study from Yaoundé Referral Hospitals

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Abstract

Background: Breast cancer is the leading cause of female cancer mortality in sub-Saharan Africa, where over 70% of women present at advanced stages due to late diagnosis and financial barriers. Despite progress in oncology, few studies document patient perspectives on care quality in this region. Understanding these experiences is crucial because satisfaction influences adherence, trust, and outcomes. This study evaluated women's perceptions of breast-cancer-care quality and the factors shaping satisfaction in Yaoundé, Cameroon. **Methods:** A mixed-methods, cross-sectional study was conducted between January and May 2025 at the Yaoundé General Hospital (HGY) and the Yaoundé Gynaeco-Obstetric and Paediatric Hospital (HGOPY). Eligible participants were women with histologically confirmed breast cancer receiving active treatment and/or follow-up care within the preceding five years. Data were collected using a locally adapted questionnaire derived from validated quality-of-life instruments (EORTC QLQ-C30/BR23 and FACT-B) and qualitative focus-group discussions. Dimensions assessed included communication, timeliness, psychosocial support, and financial hardship. Data were analysed with SPSS v26 using χ^2 tests and logistic regression; qualitative data underwent thematic analysis. Ethical approval was granted by the FMBS-UYI Ethics Committee. **Results:** Of 389 participants (mean age 45.2 ± 13 years), overall satisfaction was 65.4%. Independent predictors of satisfaction were good provider-patient communication

(aOR 3.03, 95% CI 1.92 - 4.77; $p < 0.001$), psychosocial support (aOR 2.07, 1.22 - 3.50; $p = 0.007$), shorter waiting time (aOR 1.89, 1.21 - 2.95; $p = 0.005$), and higher income (aOR 2.79, 1.60 - 4.87; $p < 0.001$). Only 18% received psychosocial support and 81% reported financial difficulty. Qualitative themes revealed poor counselling, long waits, and emotional distress: *"We are treated for the body, but no one asks about our fears".* **Conclusion:** Patient satisfaction with breast-cancer care in Yaoundé is moderate. Weak communication, inadequate psychosocial services, and financial strain limit perceived quality. Integrating psycho-oncology, improving provider-patient communication, and expanding financial protection are priorities for quality improvement in sub-Saharan Africa.

Keywords

Breast Cancer, Perspective, Care Quality, Cameroon

1. Introduction

Breast cancer is the most common malignancy among women worldwide, accounting for 2.3 million new cases and 685,000 deaths in 2020 (11.6% of all cancers) [1]. Mortality has declined in high-income countries through early detection and modern therapy, yet incidence and mortality continue to rise in low- and middle-income countries (LMICs) [1]-[3]. In sub-Saharan Africa, annual cases grew from 25,000 to 83,000 between 1990 and 2019 [2] [3]. In Cameroon, 2797 new cases and 1433 deaths were recorded in 2020; five-year survival is 30% [4]-[6]. Over 70% present at stage III - IV, demanding early-detection and comprehensive-care strategies [7].

Patient-centred care—respecting preferences, providing emotional support, and ensuring shared decisions—has become essential in oncology [8]. Studies show that satisfied patients adhere better, experience less anxiety, and achieve improved survival; poor communication undermines trust and adherence [9] [10]. Incorporating the patient voice is therefore indispensable, especially in resource-limited contexts.

Cancer control in Africa is hindered by late diagnosis, resource scarcity, and out-of-pocket costs [7]. In Cameroon, oncology services are largely centralized in national referral and teaching hospitals that manage the majority of breast cancer cases; however, these facilities face recurrent chemotherapy shortages, delays in radiotherapy, and significant staffing constraints [4] [11] [12]. Only two public radiotherapy machines serve the country, with waiting times often beyond six months [12]. More than 80% of health spending is paid directly by households, while health-insurance coverage remains ≤ 6% [13]. Economic hardship, stigma, and cultural interpretations of cancer—as punishment or spiritual affliction—delay presentation [5] [11]. Psychosocial care is virtually absent, though >60% of patients experience anxiety or depression [14].

Few African studies explore patient experience or satisfaction. Most focus on

clinical outcomes and survival rather than perceived quality [4] [6]. Generating local data on patient perspectives will guide service improvement, policy planning, and culturally appropriate assessment tools.

2. Methods

2.1. Study Design and Setting

A cross-sectional mixed-methods design combined quantitative and qualitative approaches to capture both measurable and experiential aspects of care. Conducted from January to May 2025 at HGY and HGOPY who are amongst the principal tertiary hospitals for adult and gynaecologic oncology [6] [7]. HGY provides surgery, medical oncology, and radiotherapy; HGOPY offers multidisciplinary gynaeco-oncologic services. Ethical clearance was obtained from the FMBS-UYI Ethics Committee, and administrative authorization from both hospitals. Participation was voluntary and confidential.

2.2. Participants

Inclusion:

Women aged ≥ 18 years with a confirmed diagnosis of breast cancer, attending either hospital for treatment or follow-up, who provided informed consent and had received breast cancer care within the past five years.

Exclusion: Women who were critically ill, sedated, unable to participate in interviews, or who declined consent were excluded. Patients with severe psychiatric disorders impairing communication or comprehension were also excluded to ensure the reliability of self-reported responses. Women with unstable severe comorbidities requiring emergency management at the time of recruitment were not enrolled because their acute medical condition could substantially interfere with participation and perception assessment.

Sampling:

A mixed-methods sampling strategy was employed. For the quantitative survey, women aged ≥ 18 years with a confirmed diagnosis of breast cancer attending the study sites for treatment or follow-up were eligible. The minimum sample size was calculated using the single population proportion formula:

$$N = z^2 \times p\,(1 - p)/d^2$$

where $z = 1.96$ for a 95% confidence level, $p = 0.50$, and $d = 0.05$, yielding a minimum required sample size of 385. To account for non-response, 500 eligible women were selected using simple random sampling from hospital records. A total of 389 participants consented and completed the survey and were included in the analysis.

For the qualitative component, purposive sampling was used to select 40 participants from the survey respondents, ensuring variation by hospital, treatment stage, and sociodemographic characteristics. Four focus group discussions (FGDs) were conducted (two per hospital, 10 participants each), with sampling guided by

the principle of thematic saturation.

2.3. Data Collection Instruments

Quantitative: Data were collected using a structured, interviewer-administered questionnaire adapted from the EORTC QLQ-C30/BR23 and FACT-B instruments. The questionnaire was pretested among 20 breast cancer patients prior to the main study. It comprised sections on sociodemographic characteristics, clinical information, perceived quality of care (including communication, timeliness, empathy, information, and continuity of care), and psychosocial and financial dimensions. Internal consistency of the adapted satisfaction scale demonstrated acceptable reliability with a Cronbach's alpha coefficient of 0.82. Domains retained from the EORTC QLQ-C30/BR23 and FACT-B instruments included communication, emotional support, treatment burden, continuity of care, and psychosocial functioning.

Responses were recorded on a five-point Likert scale ranging from "very dissatisfied" to "very satisfied." The primary outcome, overall satisfaction with care, was calculated as a composite score obtained from all satisfaction-related items. Scores above the median composite value were categorised as "satisfied," whereas scores below the median were classified as "not satisfied" for regression analyses.

Qualitative: Semi-structured FGDs (60 - 90 min) explored patient journeys, interactions, barriers, emotions, and expectations. Discussions were conducted in French, English, and local languages according to participant preference. Sessions were audio-recorded, transcribed verbatim, and translated into English where necessary by trained bilingual research assistants. Thematic coding was performed independently by two researchers, and disagreements were resolved through consensus discussion.

2.4. Data Collection Procedure

Trained assistants administered tools in private rooms after consent. FGDs were conducted after quantitative completion, moderated bilingually, and anonymised. The principal investigator supervised all procedures and daily data checks.

2.5. Statistical Analysis

Data were analysed in SPSS version 26. Descriptive statistics summarised participant characteristics and satisfaction domains. Chi-square tests examined associations between independent variables and overall satisfaction. Variables considered clinically relevant a priori (age, hospital, stage at diagnosis, household income, communication quality, psychosocial support, and waiting time) were entered into the multivariable logistic regression model. Additional variables with $p < 0.20$ in bivariate analysis were also considered for inclusion. Missing data represented less than 5% of observations and were handled using complete-case analysis. Adjusted odds ratios (aORs) with 95% confidence intervals (CIs) were reported. Model discrimination was assessed using the area under the receiver operating characteristic curve (AUC), and calibration was evaluated using the Hosmer-Lemeshow

goodness-of-fit test. A p-value < 0.05 was considered statistically significant.

Qualitative data underwent thematic analysis by two independent coders; themes were triangulated with quantitative results for validity.

3. Results

3.1. Participant Characteristics

Of the 500 women identified, 423 met the eligibility criteria, and 389 completed the quantitative survey, yielding a response rate of 92%. The mean age of participants was 45.2 ± 13 years (range: 24 - 78 years). Most participants were married (62.7%), had a low monthly income below 200,000 CFA francs (74.8%), and were diagnosed at an advanced stage of breast cancer (stage III - IV; 71.2%). Only 18% of participants reported having received psychosocial support during their care (Figure 1 and Table 1).

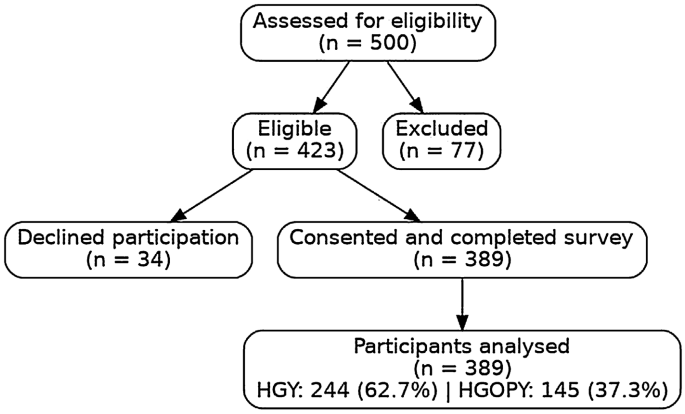

Figure 1. Recruitment flowchart of study participants.

Table 1. Sociodemographic and clinical characteristics of participants (n = 389).

Characteristic	n (%) or Mean ± SD
Age (years)	45.2 ± 13.0
<40	100 (25.7)
40 - 49	151 (38.8)
≥50	138 (35.5)
Marital status	
Married	258 (66.4)
Not married*	131 (33.6)
Region of origin	
Centre	124 (31.9)
West	95 (24.4)
Southwest	46 (11.7)
Other regions	124 (31.9)

Continued

Education level	
Secondary or less	238 (61.2)
Tertiary	151 (38.8)
Employment status	
Employed/self-employed	287 (73.6)
Unemployed/retired	102 (26.4)
Monthly income (CFA francs)	
≤200,000	293 (75.3)
>200,000	96 (24.7)
Time since diagnosis (years)	2.7 ± 2.1
≤1	198 (50.8)
>1	191 (49.2)
Clinical stage at diagnosis	
Early (Stage I - II)	113 (29.0)
Advanced (Stage III - IV)	276 (71.0)
Histological type	
Invasive ductal carcinoma	340 (87.3)
Other types	49 (12.7)
SBR grade	
Grade 2 - 3	333 (85.3)
Molecular subtype	
Luminal (A/B)	179 (45.9)
HER2-positive	51 (13.0)
Triple-negative	55 (14.0)
Not available	84 (21.5)

*Not married includes single, divorced, widowed, and cohabiting.

3.2. Overall Evaluation of Quality of Care

Overall satisfaction with breast cancer care was reported by 65.4% of participants. Satisfaction was highest for perceived technical competence (78.2%) and provider courtesy (71.6%), while the lowest satisfaction scores were observed for information provision (42.3%) and waiting time (39.8%). There was no statistically significant difference in overall satisfaction between the two hospitals (67.1% vs. 63.3%; $p = 0.21$).

Qualitative findings reinforced these results, with participants acknowledging provider competence but expressing frustration with prolonged waiting times and limited attention to emotional needs (**Figure 2** and **Table 2**).

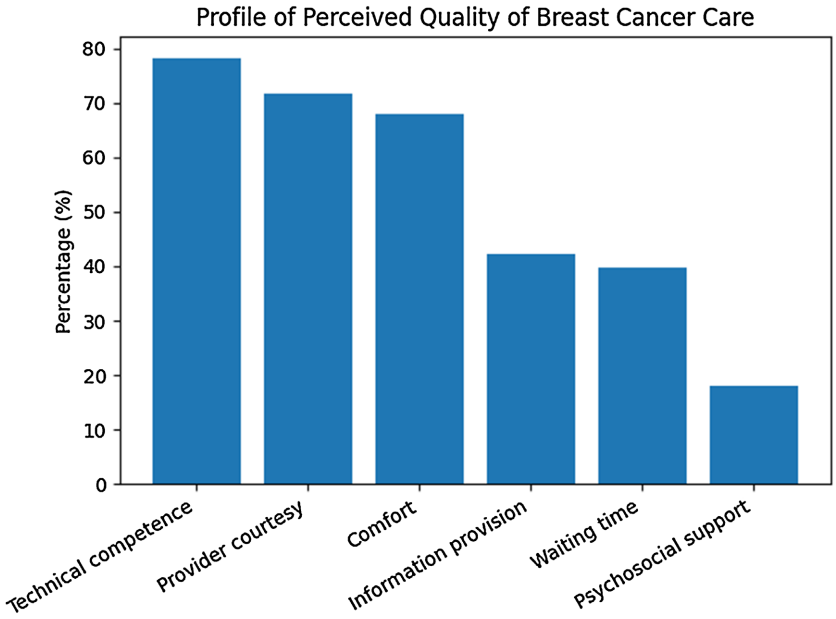

Figure 2. Profile of perceived quality of breast cancer care.

Table 2. Satisfaction scores by quality dimension and hospital.

Quality Dimension	Overall %	HGY %	HGOPY %	*p*-value
Technical competence	78.2	79.4	76.1	NS
Courtesy/respect	71.6	73.2	69.8	NS
Comfort during care	68.0	69.1	66.5	NS
Information provision	42.3	43.8	40.1	NS
Waiting time	39.8	41.0	38.2	NS
Psychosocial support	18.0	19.3	16.4	NS

NS = not significant.

3.3. Communication and Provider-Patient Relationship

Regarding communication, 72% of participants rated physician attitude as good, and 65% reported feeling listened to during consultations. However, only 42% stated that they received complete information about their condition and treatment, and 38% reported understanding treatment side effects. Qualitative analysis revealed themes of information deficits, emotional neglect, and the role of empathy in fostering trust. In quantitative analysis, good communication was a strong predictor of patient satisfaction (aOR = 3.03; $p < 0.001$).

3.4. Coordination and Continuity of Care

Only 36.8% of participants reported continuous follow-up with the same physician, while 54% experienced difficulties navigating care between departments. Participants described fragmented care pathways, characterised by repeated referrals and lack of coordination. Poor coordination was significantly associated with

lower satisfaction ($p = 0.004$).

3.5. Accessibility, Delays, and Financial Constraints

A large proportion of participants (81%) reported experiencing financial hardship related to breast cancer care. The mean delay from diagnosis to treatment was 6.4 months. Satisfaction was significantly higher among women treated within three months (74.6%) compared with those treated after more than six months (49.3%; $p < 0.001$). Waiting time remained an independent predictor of satisfaction in multivariable analysis (aOR = 1.89).

3.6. Factors Associated with Patient Satisfaction

In multivariable analysis, factors independently associated with higher satisfaction were good communication (aOR = 3.03), receipt of psychosocial support (aOR = 2.07), shorter waiting time (aOR = 1.89), and higher income (aOR = 2.79), with good model fit. Differences between hospitals were small and not statistically significant (Table 3 & Table 4).

Table 3. Multivariable logistic regression of factors associated with satisfaction.

Variable	Adjusted Odds Ratio (aOR)	95% CI	p-value	Interpretation
High income (>200,000 XAF)	2.79	1.60 - 4.87	<0.001	≈2.8× higher odds of satisfaction.
Good communication (vs poor)	3.03	1.92 - 4.77	<0.001	≈3× higher odds of satisfaction.
Short waiting time (≤30 min vs long)	1.89	1.21 - 2.95	0.005	≈1.9× higher odds of satisfaction.
Psychosocial support (yes vs no)	2.07	1.22 - 3.50	0.007	≈2.1× higher odds of satisfaction.

aORs adjusted for hospital, age group, clinical stage, household income, communication quality, waiting time, and psychosocial support. CIs are 95% Wald CIs. Interpretations refer to odds, not risk. Model fit: Hosmer-Lemeshow $p = 0.68$; AUC = 0.81.

Table 4. Alignment of quantitative and qualitative findings.

Theme	Quantitative Finding	Qualitative Evidence
Communication	aOR = 3.03, $p < 0.001$	"They didn't explain my results. I just kept following blindly."
Psychosocial support	aOR = 2.07, $p = 0.007$	"You are fighting cancer and depression, but no one sees the second one."
Waiting time	aOR = 1.89, $p = 0.005$	"I came at 6 a.m. and left at 5 p.m. with nothing done."
Financial difficulty	81.3% of patients reported constraints	"I spent more on transport than on medicine last month."
Cultural/gender constraints	Not captured in survey	"My husband said no surgery. So I just waited until it got worse."

3.7. Patients' Recommendations

Participants emphasised the need for improved communication and information, integration of psychosocial services, reduction of treatment delays through decentralised care, financial support mechanisms, and improved coordination and continuity of care.

Box 1. Representative Patient Quotes by Theme

- *"Doctors are competent, but we wait too long."*
- *"We are treated for the body, but no one asks about our fears."*
- *"Each department works alone; we go back and forth."*
- *"We sold land to buy drugs."*

Box 2. Practical Recommendations for Clinicians

- Improve communication and information delivery.
- Integrate psychosocial support into routine care.
- Strengthen coordination and continuity of care.
- Reduce delays and improve accessibility.
- Consider patients' financial constraints in care planning.

4. Discussion

The findings are consistent with international evidence indicating that communication, psychosocial care, and timeliness are major determinants of patient satisfaction in oncology [14]-[16]. Studies from both high-income and low- and middle-income countries have shown that effective communication enhances trust, treatment adherence, and emotional well-being, whereas poor communication undermines perceived quality of care [16]. The moderate satisfaction level observed in this study is comparable to reports from other low-resource settings, where satisfaction rates typically range between 60% and 70%, but remains lower than those reported in high-income countries [7] [17].

The low proportion of participants receiving psychosocial support (18%) mirrors findings from other African settings, where psychosocial services are frequently underdeveloped or absent [14]. Similarly, the high prevalence of financial hardship (81%) aligns with studies reporting catastrophic out-of-pocket expenditures among cancer patients in sub-Saharan Africa [17]-[19]. These parallels suggest that the challenges identified are not unique to Cameroon but reflect broader structural constraints in resource-limited health systems [20].

Several context-specific factors influence breast cancer care experiences in Cameroon. Cultural beliefs, stigma, and alternative interpretations of cancer may delay care-seeking and affect treatment adherence [21]. Family dynamics often play a central role in decision-making, sometimes limiting women's autonomy. The centralisation of oncology services, long travel distances, workforce shortages, and fragmented care pathways contribute to delays and poor continuity of care [11] [12]. Economic vulnerability further exacerbates these challenges, as the majority of patients rely on out-of-pocket payments to finance treatment [17] [19].

These findings underscore the need to strengthen patient-centred care in breast cancer services. Improving provider-patient communication through training in empathy and effective information-sharing may enhance satisfaction and trust [16]. Better coordination of care, including continuity of follow-up and inter-departmental collaboration, could reduce patient frustration and delays [22]. Integrating psychosocial support into routine oncology care is essential to address

emotional distress and improve the overall care experience [23] [24].

At the policy level, incorporating patient-experience indicators into quality assessment frameworks may support monitoring and improvement of oncology services [25]. Expanding financial protection mechanisms and reducing out-of-pocket expenditures are critical to improving access and satisfaction [26] [27]. Decentralisation of selected oncology services and investment in multidisciplinary teams may further enhance equity and continuity of care [12]. These measures are necessary to improve the quality of breast cancer care in Cameroon.

5. Limitations

Selection bias may exist as only women under follow-up were included; those lost to follow-up—likely less satisfied—were excluded. Social desirability bias is possible since interviews were face-to-face. Cultural nuances could have affected responses because instruments were not locally validated. The cross-sectional design limits temporal inference. Finally, results from two urban hospitals may not generalise to rural or private settings. Nevertheless, combining quantitative and qualitative methods strengthens internal validity.

6. Conclusion

This study provides the first comprehensive assessment of breast-cancer patients' experiences of care quality in Cameroon. Overall satisfaction was moderate; patients valued clinical competence but were dissatisfied with communication, timeliness, and psychosocial support. Key improvement areas include strengthening communication, integrating psycho-oncology, shortening waiting times, and expanding financial protection. Training healthcare teams in patient-centred approaches and improving coordination are essential. Finally, Western quality models must be adapted to African realities, where socioeconomic constraints and cultural beliefs profoundly shape patient experiences.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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