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Sexuality after breast cancer: a cross-sectional study of women's experiences and partner perceptions in a camerounian milieu

La sexualité après un cancer du sein : étude transversale sur les expériences des femmes et les perceptions de leurs partenaires en milieu camerounais

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Article Original

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ABSTRACT

Background: Advances in early diagnosis and multimodal treatment have improved survival, shifting focus toward quality-of-life outcomes such as sexual health. Breast cancer and its treatments can deeply affect femininity, body image, and sexual functioning, yet sexuality remains insufficiently explored in routine oncological care, especially in sub-Saharan Africa, where the partner's perspective is rarely integrated. This study aimed to assess the impact of breast cancer on female sexuality, and explore partner perceptions.

Methods: A descriptive cross-sectional study was conducted from January to May 2024 in the oncology departments of the Yaoundé Gynaeco-Obstetric and Paediatric Hospital and the Yaoundé General Hospital. Women treated for breast cancer and their partners were recruited according to predefined eligibility criteria. Female sexual function was evaluated using the Female Sexual Function Index (FSFI), which covers desire, arousal, lubrication, orgasm, satisfaction, and pain. Partner perceptions of sexual and relational changes were assessed with a structured questionnaire.

Results: Among 307 women, the prevalence of female sexual dysfunction was 72.3%. Sexual changes mainly involved desire, arousal, and pain. Sexual dysfunction was significantly associated with stage at diagnosis, histological grade, chemotherapy, hormone therapy, type of surgery, frequency of intercourse, and partner distress. Partners reported reduced sexual frequency, altered intimacy, emotional distress, and an unmet need for information and professional support.

Conclusion: Breast cancer has a marked negative impact on women's sexuality and couples' intimate relationships. Integrating sexual health assessment and partner involvement into breast cancer care is essential to improve quality of life.

RESUME

Introduction : Le diagnostic précoce et le traitement multimodal du cancer du sein ont amélioré la qualité de vie, notamment la santé sexuelle. Pourtant, la sexualité reste insuffisamment prise en compte dans les soins oncologiques, particulièrement en Afrique subsaharienne, où le point de vue du partenaire est rarement intégré. Cette étude a évalué l'impact du cancer du sein sur la sexualité féminine et les perceptions des partenaires.

Méthodes : nous avons mené une étude descriptive transversale de janvier à mai 2024 dans les services d'oncologie de l'HGOPY et de l'HGY. Des femmes traitées pour un cancer du sein et leurs partenaires ont été recrutés selon des critères d'éligibilité prédéfinis. La fonction sexuelle féminine a été évaluée à l'aide de l'indice de fonction sexuelle féminine (FSFI). Les perceptions des partenaires concernant les changements relationnels ont été évaluées à l'aide d'un questionnaire structuré.

Résultats : Sur 307 femmes, la prévalence des troubles sexuels féminins était de 72,3 %. Les changements sexuels concernaient principalement le désir, l'excitation et la douleur. Les troubles sexuels étaient significativement associés au stade de la maladie au moment du diagnostic, au grade histologique, à la chimiothérapie, à l'hormonothérapie, au type de chirurgie, à la fréquence des rapports sexuels et à la détresse du partenaire. Les partenaires ont fait état d'une diminution de la fréquence des rapports sexuels, d'une altération de l'intimité, d'une détresse émotionnelle et d'un besoin non satisfait d'informations et de soutien professionnel.

Conclusion : Le cancer du sein a un impact négatif sur la sexualité du couple.

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Introduction

Breast cancer is a major global public health problem, with high incidence and substantial mortality, particularly in low- and middle-income countries [1,2]. In sub-Saharan Africa, late diagnosis and unequal access to treatment contribute to poorer outcomes compared with high-income settings [3,4]. However, ongoing improvements in diagnosis and therapy are progressively increasing survival, shifting attention toward long-term outcomes and quality of life among survivors [5,6].

Sexuality is a key component of quality of life and overall wellbeing [5,7]. Many women treated for breast cancer experience sexual difficulties related to physical, hormonal, and psychosocial changes, including reduced desire, discomfort during intercourse, altered body image, and emotional distress [8,9]. Despite this, sexual health remains insufficiently addressed in routine oncology care [7,10].

Sexual adjustment after breast cancer also occurs within the context of a couple. Partners play an important role in emotional support, intimacy reconstruction, and relational adaptation [11,12]. However, most existing studies focus primarily on women’s sexual outcomes and rarely incorporate the partner’s perspective, especially in African settings [11,13].

To our knowledge, no study in Cameroon has simultaneously examined women’s sexual experiences after breast cancer and partner perceptions [3,4]. Generating such evidence is important to inform culturally appropriate, couple-centered supportive care strategies [7,11]. The objective of this study was therefore to assess the impact of breast cancer on female sexuality and to evaluate partner perceptions of sexual and relational changes following diagnosis and treatment.

Methods

This was a descriptive cross-sectional study conducted to assess the impact of breast cancer on female sexuality and to explore partner perceptions regarding sexual and relational changes following breast cancer diagnosis and treatment. Data collection was conducted over a five-month period from January 2024 to May 2024. The study was carried out in the oncology departments of the Yaoundé Gynaeco-Obstetric and Paediatric Hospital (HGOPY) and the Yaoundé General Hospital (HGY), which are the two main referral centres for breast cancer management in Yaoundé, Cameroon. These hospitals provide comprehensive oncology services including surgery, chemotherapy, radiotherapy, and hormone therapy.

The study population consisted of women diagnosed with breast cancer and receiving treatment or follow-up care at the study sites, as well as their partners. Women were eligible for inclusion if they: had a confirmed diagnosis of breast cancer; were aged 18 years or older; had received at least one form of breast cancer treatment (surgery, chemotherapy, radiotherapy, and/or hormone therapy); were in a stable relationship at the time of the study and provided informed consent to participate. Partners were included if they were identified by the patient as a stable sexual partner; were aged 18 years or older and provided informed consent to participate. Women or partners were excluded if they: were critically ill or unable to respond to the questionnaire, refused or withdrew consent; had incomplete or unusable questionnaire data; had pre-existing diagnosed sexual dysfunction and had a major psychiatric disorder affecting response reliability.

Participants were recruited using simple random sampling from the oncology register until the minimum sample size was reached. A total of 307 women with breast cancer were ultimately included in the analysis, along with their partners when available. Data were collected through face-to-face interviews using structured questionnaires administered by trained data collectors. Interviews were conducted in a private setting to ensure confidentiality and encourage open discussion of sensitive topics related to sexuality. Female sexual function was assessed using the Female Sexual Function Index (FSFI), a validated multidimensional questionnaire designed to evaluate sexual function over the previous four weeks. The FSFI assesses six domains: sexual desire, sexual arousal, vaginal lubrication, orgasm, sexual satisfaction and pain (dyspareunia).

Each domain is scored separately, and a total FSFI score is calculated by summing domain scores. Sexual dysfunction was defined based on the FSFI scoring criteria used in the original instrument.

Partners completed a structured questionnaire designed to assess perceived changes in sexual activity and frequency, emotional intimacy and relational satisfaction, perceived distress related to the patient’s illness, and communication within the couple regarding sexuality. The partner questionnaire was adapted to the local context and administered in the same manner as the patient questionnaire. The instrument was pilot-tested for clarity and comprehension before data collection.

Additional data collected included: sociodemographic characteristics (age, marital status, education level); clinical characteristics (stage at diagnosis, SBR grade); treatment modalities (type of surgery, chemotherapy, radiotherapy, hormone therapy); frequency of sexual intercourse and partner distress and perceived support.

Data were entered and analysed using standard statistical software. Descriptive statistics were used to summarise participant characteristics and sexual function outcomes. Continuous variables were expressed as means and standard deviations, while categorical variables were presented as frequencies and percentages. Bivariate analyses were performed using chi-square tests to assess associations between categorical variables and Student's t-test or ANOVA for comparisons of continuous variables where appropriate. Multivariable logistic regression was performed to identify factors independently associated with female sexual dysfunction. Variables with $p < 0.20$ in bivariate analysis were entered into the multivariable model. Results were reported as adjusted odds ratios with corresponding confidence intervals. Statistical significance was set at $p < 0.05$.

Ethical approval for the study was obtained from the appropriate institutional ethics committee prior to data collection. Administrative authorisation was granted by the hospital authorities of both study sites. All participants provided written informed consent before enrolment. Confidentiality and anonymity were strictly respected, and participation was voluntary, with the option to withdraw at any time without consequences for medical care.

Results

A total of 500 couples were approached for participation. Among them, 423 met the eligibility criteria, and 307 couples were finally included in the analysis after consent and data completeness verification. Participants were recruited from two referral hospitals, with 66.1% from Yaoundé General Hospital and 33.9% from Yaoundé Gynaeco-Obstetric and Paediatric Hospital.

The mean age of women was 45.2 ± 13.0 years, while partners had a mean age of 53.0 ± 14.0 years. Most women were married (66.4%), and the majority of both patients and partners had at least secondary education. Income levels were generally low, with three-quarters of women reporting a monthly income of ≤200,000 CFA francs. The mean parity was 2.76 ± 1.96, and 24.1% of women were menopausal. Relationship duration among partners averaged 16.5 ± 10.6 years. Additional socio-demographic and background characteristics are presented in Table 1.

The mean time since breast cancer diagnosis was 2.69 ± 2.13 years. Most cancers were diagnosed at stage II or III, with stage III representing nearly half of cases. Invasive ductal carcinoma was the predominant histological type, and SBR grade II was most frequent. Regarding treatment, nearly two-thirds of women were receiving chemotherapy and one quarter hormone therapy at the time of the study. Radical mastectomy was more common than conservative surgery. Detailed clinical and treatment characteristics are shown in Table 2.

Table 1. Socio-demographic and Background Characteristics of Patients and Partners (N = 307 couples)

Characteristic	Patients	Partners
Age, mean ± SD (years)	45.2 ± 13.0	53.0 ± 14.0
Married, n (%)	204 (66.4)	—
Secondary or tertiary education, n (%)	245 (79.8)	282 (91.9)
Income-generating activity, n (%)	226 (73.6)	280 (91.2)
Monthly income ≤200,000 CFA, n (%)	231 (75.3)	163 (53.1)
Relationship duration, mean ± SD (years)	—	16.5 ± 10.6
Parity, mean ± SD	2.76 ± 1.96	—
Menopausal, n (%)	74 (24.1)	—
Family history of breast cancer, n (%)	112 (36.5)	—

Table 2. Clinical and Treatment Characteristics of Patients (N = 307)

Variable	n (%) or Mean ± SD
Time since diagnosis (years), mean ± SD	2.69 ± 2.13
Stage II–III at diagnosis	232 (75.5)
Stage III	153 (49.8)
Invasive ductal carcinoma	268 (87.3)
SBR grade II	199 (64.8)
Radical mastectomy	97 (31.6)
Conservative surgery	11 (3.6)
Current chemotherapy	184 (59.9)
Current hormone therapy	77 (25.1)
Current radiotherapy	6 (2.0)

The mean total FSFI score was 23.25 ± 4.33. Overall, 72.3% of women met criteria for sexual dysfunction based on the FSFI cut-off score. The most affected domains were sexual desire, arousal, and pain, indicating that reduced libido and dyspareunia were the predominant sexual difficulties in this population. Summary FSFI results are presented in Table 3.

Table 3. Sexual Function Outcomes (FSFI) (N = 307)

Indicator	Result
Total FSFI score, mean ± SD	23.25 ± 4.33
Sexual dysfunction (FSFI ≤ 26.55), n (%)	222 (72.3)
No sexual dysfunction, n (%)	85 (27.7)

Most affected FSFI domains

Domain	Mean ± SD
Desire	3.41 ± 0.72
Arousal	3.47 ± 0.91
Pain	2.35 ± 1.21

In multivariable logistic regression analysis, several factors were independently associated with female sexual dysfunction. Advanced clinical stage, higher histological grade, current chemotherapy, and hormone therapy significantly increased the odds of sexual dysfunction. Conservative surgery was associated with a protective effect. Lower frequency of sexual intercourse and higher partner distress scores were also strongly associated with dysfunction. Full adjusted estimates are presented in Table 4.

Table 4. Independent Predictors of Female Sexual Dysfunction (Multivariable Logistic Regression)

Predictor	Adjusted OR	95% CI	p-value
Clinical stage at diagnosis	21.74	11.11 – 41.67	<0.001
SBR grade	2.42	1.53 – 3.82	0.0002
Current chemotherapy	10.99	6.02 – 20.00	<0.001
Current hormone therapy	2.17	1.27 – 3.85	0.0049
Conservative surgery	0.034	0.0043 – 0.27	0.0014
Frequency of intercourse	0.018	0.0066 – 0.048	<0.001
Partner distress score	3.58	2.66 – 4.83	<0.001
Age at menarche	0.81	0.66 – 0.998	0.0479

From the partner perspective, 63.2% reported a deterioration in relationship quality following breast cancer diagnosis. Sexual frequency was markedly reduced, with over two-thirds reporting intercourse fewer than three times per month. New intimacy or sexual complaints were reported by 67.1% of partners. Partner distress levels were substantial, with 61.6% reporting distress scores ≥5.

Important gaps in sexual health communication were identified. Most women (81.8%) had not discussed sexuality with a healthcare provider, although the majority expressed a desire for professional support and partner involvement in counselling. Nearly all partners reported needing information about sexuality after breast cancer, yet only a minority had received such information. Partner impact and counselling indicators are summarized in Table 5.

Table 5. Partner Impact, Sexual Changes and Counselling Needs (N = 307 couples)

Indicator	n (%) or Mean ± SD
Relationship quality decreased after diagnosis	194 (63.2)
Intercourse <3 times/month	209 (68.1)
New intimacy/sexual complaints	206 (67.1)
Partner distress score, mean ± SD	4.17 ± 2.89
Partner distress ≥5	189 (61.6)
Partners needing professional help	261 (85.0)
Patients did not discuss sexuality with provider	251 (81.8)
Patients wanting partner present in counselling	268 (87.3)
Partners needing sexuality information	288 (93.8)
Partners who received information	67 (21.8)

Discussion

Comparison with the literature (US, Europe, Africa)

This study conducted in two referral oncology centres in Yaoundé confirms that breast cancer is associated with substantial deterioration in female sexual health and important challenges in couple intimacy, consistent with findings from North America, Europe, and African settings. [8,9]. Nearly three-quarters of women experienced sexual dysfunction, highlighting sexual health as a major but often neglected outcome of breast cancer care [7,14]. This prevalence falls within the range reported internationally, particularly among women receiving systemic and endocrine therapies [9,15]. The most affected domains in our study—desire, pain, and arousal—are also those most frequently reported in other studies [9,15].

However, the experience and management of sexual dysfunction differ across health systems. In many high-income countries, survivors may benefit from structured survivorship programs and specialized sexual counselling services, whereas in many African contexts such services remain limited [7,10]. This gap may contribute to persistent unmet needs and reduced quality of life among survivors and their partners [5,7].

Available African data similarly report a strong negative impact of breast cancer on sexual function and satisfaction [3,4]. Cultural norms that discourage open discussion of sexuality may further increase distress and reduce help-seeking [10,16]. In our context, advanced-stage diagnosis and greater exposure to aggressive treatments likely contribute to the high burden observed [3,4].

Role of the partner

An important contribution of this study is the inclusion of the partner’s perspective, showing that sexual difficulties are also a couple-level issue [11,12]. Many partners reported reduced relationship quality and decreased sexual frequency, consistent with literature describing cancer as a shared relational stressor [11,12]. Partner distress was strongly associated with sexual difficulties [12,17].

Breast cancer often changes how sexuality is experienced within the relationship, shifting toward adaptive forms of intimacy [12,18]. Emotional closeness may persist despite reduced sexual activity but depends on communication and support [16,18]. Poor communication may generate additional relational strain [16,18].

Partners also play a practical role in sexual rehabilitation through reassurance and participation in counselling when available [11,19]. Evidence supports couple-based interventions after cancer [11,19]. These approaches are particularly relevant in culturally sensitive settings [16,18].

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Clinical implications

The high prevalence of dysfunction and unmet counselling need supports integrating sexual health into routine breast cancer care using a couple-centered approach [7,10]. Sexual counselling should begin early in the treatment pathway [7,19]. Clinicians can introduce the topic using simple screening questions [10]. Inviting partners to participate improves shared coping [11,12]. A practical model includes screening, basic counselling, and referral. [7,19] Even in resource-limited settings, progress can be achieved through provider training and patient education [7,14]. Sexual health should be considered a core component of survivorship care [5,7]

Limitations

Several limitations should be considered when interpreting these findings. Sexual function and distress were assessed using self-reported questionnaires, which may be affected by reporting bias in culturally sensitive domains. The cross-sectional design does not allow assessment of changes over time or causal relationships. In addition, given the sensitive nature of sexuality-related questions, social desirability bias may have influenced some responses.

The study was conducted in two referral hospitals, which may limit generalizability to other settings, particularly rural areas. Baseline pre-cancer sexual function was not measured and no control group was included, preventing direct estimation of the magnitude of change. Despite these limitations, the study provides important context-specific evidence on an understudied survivorship issue.

Perspectives

These findings support the development of a structured post-cancer sexual health education program adapted to the local context and involving partners whenever appropriate. Such programs should address treatment-related changes, symptom management, intimacy rebuilding, and couple communication. They should also provide clear guidance on when and where to seek professional support.

Integrating sexual health into survivorship programs could improve quality of life, relationship stability, and patient satisfaction with care. Future research should include longitudinal designs and intervention studies evaluating couple-based counselling and culturally adapted educational tools. The long-term goal is a more comprehensive model of breast cancer care that addresses survival, intimacy, and wellbeing together.

Conclusion

This study demonstrates that breast cancer has a substantial negative impact on female sexuality and couple intimacy, with a high prevalence of sexual dysfunction driven by disease severity and treatment factors, particularly chemotherapy, hormone therapy, and surgical management. Sexual difficulties extend beyond physical symptoms and affect emotional wellbeing, body image, and relationship dynamics. Importantly, the findings show that sexual health after breast cancer is a couple-centered issue, with many partners experiencing distress and relational changes. Despite this burden, sexuality is rarely discussed in routine oncology care, and major counselling gaps persist. Integrating sexual health and partner-inclusive counselling into breast cancer follow-up care is essential to improve long-term quality of life and survivorship outcomes.

Conflicts of interest: All authors declare that they have no conflicts of interest.

Authors' contributions: MNJA, MAS, and MTLW drafted the manuscript; MNJA, MAS, MTLW and MNUJ designed the study, MAS carried out the operational research; MBVS, EC, AOE and KNJD proofread the manuscript.

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