



## Evaluation of the Sexuality of Congolese Women Followed for Cancer

Roland Bertile Banga-Mouss<sup>1\*</sup>, Brice Aymard Nkoua Epala<sup>3</sup>, Gickelle Bintséné Mpika<sup>4</sup>, Yanick Dimi Nyanga<sup>1</sup> and Judith Nsonde Malanda<sup>2</sup>

<sup>1</sup>Department of Urology-Andrology, Brazzaville University Hospital, Republic of the Congo

<sup>2</sup>Medical Oncology Department, Brazzaville University Hospital, Republic of the Congo

<sup>3</sup>Radiotherapy Department, Brazzaville University Hospital, Republic of the Congo

<sup>4</sup>Department of Gynecology, Brazzaville University Hospital, Republic of the Congo

\*Corresponding Author: Roland Bertile Banga-Mouss, Department of Urology-Andrology, Brazzaville University Hospital, Republic of the Congo.

Received: September 08, 2023

Published: November 13, 2023

© All rights are reserved by Roland Bertile Banga-Mouss, et al.

### Abstract

**Introduction:** The impact of cancer disease and its treatment on sexual health and intimate life is often underestimated or underestimated by health care personnel. The objective of the present study was to assess the sexual function of women followed for cancer in the department of medical oncology, urology and radiotherapy.

**Patients and Methods:** Descriptive cross-sectional study with prospective data collection in a hospital setting of women followed for cancer. The study population consisted of women over 17 years of age, followed for more than one month, with a good general condition and a stable relationship with a male partner for at least 4 weeks. The variables studied were the age, level of education, topography of the cancer, treatments received and sexual function of the patients.

**Results:** A total of 187 patients were interviewed, 102 patients (54.5%) were included in the study. The median age was 41.5 years (18 and 65 years). The overall frequency of sexual disorders was 97.06%. Patients had decreased sexual desire in 78.3% of cases, sexual arousal in 78.3% of cases, dyspareunia in 66.7% of cases, insufficient lubrication (78.3%), difficulty reaching orgasm (95.7%) and a reduction in the frequency of sexual intercourse (73.5%).

**Conclusion:** The frequency of sexual disorders in patients followed for cancer is high. Discussing sexuality with patients makes it possible to assess the degree of demand and to consider a therapeutic approach or supportive care.

**Keywords:** Evaluation; Sexuality; Congolese Woman; Cancer

### Introduction

Sexuality is a difficult area to access, which touches on what the individual carries within him most intimate and most identity, an area often forbidden to speak, which does not easily allow the expression of the complaint [1]. Although optional and non-vital, sex life is a relevant parameter that is integral to a woman's well-being and quality of life at any age [2]. It represents a motor of personal and relational life and a foundation of identity [2,3]. Sexual health disorders in women are multifactorial [4,5]. Cancer and its treatments are one of the factors that negatively impact the inti-

mate lives of patients and their partners, with a significant impact on sexual health and fertility [6]. These impacts of cancer and its treatment on sexual health and intimate life are often underestimated or underestimated by medical oncologists [7-9] as it is a taboo subject next to the severity of the cancer. The objective of the present study was to evaluate the sexual health of women treated for cancer in the medical oncology, urology, gynecology and radiotherapy departments of the University Hospital of Brazzaville with a literature review.

## Patients and Methods

This was a cross-sectional study with prospective data collection in a hospital setting. The study took place in the medical oncology, urology, gynaecology and radiotherapy departments over a period of 6 months (March 1<sup>st</sup> August 31, 2018). The population in our study consisted of women over the age of 17, followed for cancer, consenting to be part of the study, with a WHO status performance of less than two. Women should have a stable relationship with a male partner at the time of the survey for at least four weeks before the start of the study. We excluded from the study patients with terminal cancer disease, those with impaired consciousness and who had a sexual disorder before cancer diagnosis. Patients who had been in the oncology ward for less than a month were not included. The variables studied were age, level of education, topography of cancer with histological evidence, treatments received and sexual function of patients. Sexual function was assessed based on the Female Sexual Function Index (FSFI) [10,11]. The short version with 6 items [12-16] was adopted to facilitate patient interviews because of its simplicity and timeliness compared to the original version [17]. It is a version containing 6 of the original 19 items including one element from each of the six domains of the original version (FSFI-19): desire, arousal, lubrication, orgasm, satisfaction and pain. Desire and satisfaction items are rated on a scale of 1 to 5, and other items are rated on a scale of 0 to 5. The individual scores obtained for each item have been calculated separately and are presented as averages. Higher scores indicate better function and a domain score of zero indicates no sexual activity in the past month. Total scores range from 2 to 30. The cut-off value of 19 has been used to identify women with impaired sexual function [12]. Women who scored below 19 were classified as having sexual dysfunction [12].

### Data collection

Data were collected, using a survey sheet, during an interview with the patient. It contained a questionnaire focusing on socio-demographic aspects, on the place of the patient's sexuality before the cancer disease and on the sexuality of the last four weeks preceding the survey. The translated version of the IFSF questionnaires into French was given to patients with the survey sheet. Oral interpretation into one of the country's two other national languages (Lingala or Kikongo) was given during the interview to women who had a low level of understanding of the French language.

The Épi info version 7 software was used for the creation of the database. The different tables were generated from the Microsoft Office Excel software version 2016. The statistical analysis included a descriptive phase of the study population and sexual disorders. Quantitative variables were expressed as a median and its quartiles.

### Ethical Consideration

This work was conducted as part of scientific research. As a result, it has been approved by the Health Science Research Ethics Board (CERSSA). Approval from the hospital's ethics review committee was sought prior to data collection. The informed consent of all women was obtained verbally. It has been carefully explained that the anonymity of patients will be respected.

### Limitations and constraints of the study

The study that focused on a sensitive subject, that of sexuality, may have been subject to a number of recruitment biases because the patients who agreed to answer the questionnaire were those for whom talking about sexuality is not a problem. The others, on the other hand, for whom sexuality remains a taboo, refused to answer it, thus constituting a selection bias. Reluctance and difficulty in providing information about personal sexual practice to an unknown person could influence accurate answers.

## Results

We interviewed 187 patients followed for cancer, of whom 102 patients (54.5%) were included in the study. The median age of included patients was 41.5 years with extremes of 18 and 65 years. The sociodemographic characteristics of patients are reported in Table 1. Among the patients included in the study, 24.5% of them living in a couple reported having no more than two sexual intercourse per month since the onset of the disease. Patients excluded from the study (n = 85 or 45.4%) were excluded for the following reasons: refusal to participate in the survey (n = 34; 18.2%), shame to talk about sexuality because it was taboo (n = 9 patients; 4.81%), absence of sexual activity in the 4 weeks prior to the study (n = 42, or 22.5%). The reasons reported by patients as the cause of absence of sexual activity in the month prior to the survey were pre-menopausal sexual dysfunction, lack of sexual or sexually inactive partner. Not all of the patients interviewed had ever discussed sexuality with the health care staff. They were unaware of the impact of cancer and the treatments they received on sexual health.

	n	%
Age		
[18-24ans]	4	3,9
[25-34ans]	18	17,6
[35-44ans]	37	36,3
[45-65ans]	43	42,2
Menopause	26	25,5
HTA	25	24,5
Diabetes	19	18,6
Tobacco	6	5,9
Marital status		
Bachelor (1)	11	10,8
In a relationship with Bride	31	30,4
Educational level Primaire	60	58,8
Secondary	14	13,7
Superior	68	66,7
Religion	20	19,6
Catholic	42	41,2
Protestant	48	47
Muslim	2	2,0
Others (2)	10	9,8

**Table 1:** Distribution by socio-demographic characteristics.

(1): singles and widows

(2): Others: atheist, traditional beliefs, Buddhism.

Topographie cancers femmes	N	%
Gyneco-mammary *	63	61,76
Urinary	6	5,88
Digestives	21	20,60
Respiratory tract and ENT	8	7,84
Others **	4	3,92
Total	102	100%

**Table 2:** Cancer topography.

\*: cancer gynécologique (24,46%) et cancer du sein (37,30%)

\*\*: soft tissue, melanoma, Hematopoietic.

Treatment received	N	%
None	14	13,7
Chemotherapy	17	16,7
Surgery - chemotherapy	43	42,2
Chemo-radiotherapy	3	2,9
Surgery	18	17,6
Surgery - chemotherapy	1	1
Hormone therapy	6	5,9
Total	102	100%

**Table 3:** Distribution of patients by treatment received.

Ninety-nine patients (97.06%) followed for cancer had a sexual disorder according to the thresholds defined above. Table 4 reports the evaluation of the sexualité des patients according to the index of female sexual function (FRI), by items, before and after the cancer disease.

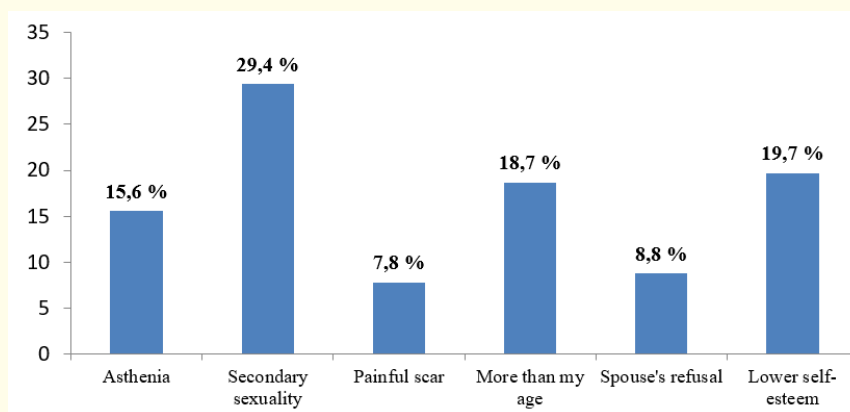
The total score before the disease was between 16 and 27, with an average of  $23.74 \pm 2.09$ . At the time of the survey, the total score ranged from 2 to 19.58 with an average of  $5.00 \pm 1.34$ . Three patients (2.94%) had a total IFSF score greater than or equal to 19 during the survey.

	Avant		Après	
	Average	Ecart-type	Average	Ecart-type
Desire	3,78	1,79	1,33	0,65
Excitation	3,74	1,78	0,84	0,51
Lubrification	3,74	1,77	0,54	0,67
Orgasm	3,82	1,73	0,70	0,75
Satisfaction	3,78	1,83	0,78	0,97
Pain	3,85	1,75	1,54	0,80
Score total	23,74	2,09	5,00	1,34

**Table 4:** Item-based assessment of sexual function and total IFSF score before and after cancer disease. (p = 0,041).

Eighty-three percent of patients reported being dissatisfied with their sex life in general and 76.43% felt they were unable to satisfy their partner sexually.

Patients experienced decreased sexual desire in 78.3% of cases, decreased sexual arousal in 78.3% of cases, difficulty reaching orgasm (95.7%), insufficient lubrication (78.3%), dyspareunia in 66.7% of cases and decreased frequency of sexual intercourse (73.5%). Patients with cervical cancer also reported genital bleeding-like disorders during and outside of sex. Figure 1 reports the factors cited by patients as the cause of sexual disorders.



**Figure 1:** Patients' perceptions of the sexual disorders observed.

## Discussion

This study provides valuable insights into how oncology caregivers can identify patients with a particular need for sexual information. The cross-sectional nature of this study was beneficial in terms of its speed and ease in collecting data and ensuring optimal quality in the acquisition of results. The study was conducted in urban areas in the Medical Oncology and Radiotherapy departments of our country. This centre, which receives patients from all regions of the country, allowed us to carry out this study, which aimed to evaluate the sexuality of women with cancer. The results of our survey confirm the impact of cancer and its treatments on the decline in self-esteem and female sexual function on the 6 items. During the survey, patients followed for less than a month were not included because we considered that at this time the level of anxiety was assumed to be very high. It is therefore important to take into account the moment to discuss with the patient about her sexuality [2], wait until she is in a sufficiently receptive period to broach the subject [18].

### Socio-demographic characteristics

Classically cancer was the prerogative of the elderly, today we are witnessing more and more a rejuvenation of the population with cancer. Our study reports a predominantly young population with 57.8% of patients under 45 years of age and 82.3% under 60 years of age. The patients were in an age range where the sexual lives of a majority of them and their households were active [2]. Patients living in couples accounted for 89.2% of cases. Our data

are consistent with sociodemographic characteristics reported by similar studies [19,20]. The high prevalence of breast and cervical cancer in young subjects in our country [21] had a significant impact on the population of our study. The patients had, in the majority of cases (86.3%), a level of education that allowed a good understanding of the questionnaires, thus guaranteeing the quality of personal answers in private. The interpretation of the questionnaires created reluctance and difficulties to provide information about personal sexual practice to an unknown person.

### Sexual function and cancer disease

Consistent with the results of previous authors' studies [19,22], our investigation identified a high rate of sexual dysfunction (97%) in patients followed for cancer. Twenty-two point five percent of patients reported having had only one sexual activity in the four weeks prior to the survey, certifying the negative and persistent impact of cancer on the sexual behavior of patients and their partners. Reasons such as scar pain, dyspareunia, physical asthenia, lack of desire, low self-esteem because their body has changed, refusal by the spouse, can be overcome during a couple interview by a psychologist or sexologist [23]. Many patients report a feeling of embarrassment that prevents discussing the subject of sexuality with the therapist [24], as the oncologist is not always perceived by the patient as the best interlocutor to discuss the subject of sexuality [2]. Sometimes the taboo surrounding the subject of sexuality is stronger for the doctor than for his patient. Sexuality often takes a back seat, so priority is given to explaining different treatments

[9]. As curing cancer is the priority, the sexual consequences of cancers and their treatments have so far appeared to be a «price to pay» for survival [2]. This sentiment is often shared by many patients, couples, and caregivers [25-27]. It is therefore advisable to encourage breaking silence and taboos, because this price is paid every day in terms of emotional, emotional, relational or social life, and is at the origin of feelings of loneliness and exclusion [2]. One study reports that most practitioners recognize that the lack of communication on the subject is caused by reasons such as lack of request by the patient, difficulties in communicating on the subject, practical constraints, and lack of intimacy with the patient [19]. In a process of resolution of sexual disorders, the practitioner has the task of taking into account the previous sexual activity, because dysfunctions can be related to aging [28], cardiovascular diseases, addictions, a precarious psychological state during cancer, previous treatment, the stage of the disease and also the sexual health of the partner [9]. Sexual disorders vary depending on the location of the disease and the treatments undergone [9].

### Cases of gynecological-mammary cancers

Cancers involving the sexual organs significantly increased the prevalence of sexual dysfunction in our study population (61.8%). This is linked to the increased incidence of breast and cervical cancers in young patients who still have an active sex life and a desire for motherhood. Our study and those of previous authors report the alterations in the quality of sexual life induced by cancer treatments, namely decreased sexual desire, decreased arousal, vaginal dryness with dyspareunia, difficulty reaching orgasm, dissatisfaction with sexual life [25,29,30]. The cessation of hormonal function, in premenopausal women, induced by anticancer treatment (surgery, radiotherapy, hormone therapy, chemotherapy), body changes induced by scars, fatigue, psychosocial impact of the disease influence the quality of life and sexuality [9,31]. Other consequences of cancer treatments, such as alopecia, weight gain [32], oedema, muscle pain, neuropathy of the extremities, also contribute to the deterioration of sexuality [33]. These sexual disorders may persist for a shorter or longer period after the end of systemic treatment [34,35]. Depression is especially important for younger women [9,36], its onset increases morbidity. It is often linked to the feeling of loss of femininity, aggravated by that of the loss of the possibility of giving birth and is even observed when the patient has been well informed of its potential occurrence. Many young women retain hope for a long time that the effects of treatments on sexuality and fertility will reverse, and moral suffering may be increased when this hope fades [37]. In gynecological cancers, the proximity of the organ of copulation and the site of the tumor means that the sequelae of treatments (radiotherapy, surgery, chemotherapy) are responsible for dyspareunia, bleeding, refusal of sexual intercourse [38-40]. In addition to being a sexual entity, the

uterus is still considered the symbol of femininity and motherhood [41] perceived not only by women but also by society. The disability of this organ, whatever the reason, means «being an incomplete woman» especially among the youngest. The sequelae reported after pelvic irradiation are frequently a narrowing or shortening of the size of the vagina (with painful or impossible intromission) [42], a decrease in clitoral erectility, bleeding caused by intercourse, and an increased risk of genitourinary infections induced by vaginal dryness. The same is true for breast cancer patients in whom sexual desire is strongly affected after treatment and may experience fatigue, loss of nipple sensitivity, vaginal dryness and scarring [43].

### Cancers from other sites

The impact of cancer on sexual function was remarkable in all patients regardless of site. The announcement of the cancer disease generates psychological repercussions with significant repercussions on sexual function [41,44] regardless of the site of the disease. This certifies that sexual problems are not caused by the cancer itself, but by the combination of several factors such as depression, anxiety, relationship conflicts, loss of self-esteem [45] and toxicities of cancer treatment [46]. The psychological damage causes patients to consider sexuality as secondary, the predominant concerns being their state of health, hence the decrease in the desire for sexual activity [44] thus giving rise to a feeling of guilt mixed with fear, insecurity both on life expectancy and on long-term adverse effects [45]. The physical sequelae induced by cancer treatment, such as pain, aesthetic damage and asthenia, are often responsible for a decrease in self-esteem, depression and the refusal of the sexual act by the spouse. Patients with an ostomy, in digestive cancers, have a modified perception of their body image resulting in fostering relational and intimate isolation [9].

### Life with cancer in the family and society

Any attack on sexual health necessarily affects the intimate and relational life of the sick subject, as well as the couple, because a particularity of sexuality and its disorders is to be most often experienced and suffered in pairs [2]. In the often depersonalizing context of illness, sexuality can become a means of affirming femininity when other expressions of gender identity have been undermined [2,25,27]. The sexuality of the male partner must be taken into account as it can be disrupted by clinical and psychological factors [9]. More often than not, partners feel unable to really see the depth of these challenges and feel helpless in the help they can provide to their partner [47]. If the entourage can show great patience during the therapeutic phase of care, the end of treatment is often associated for all with the resumption of a normal life. Prolonged fatigue is poorly understood, as is difficulty regaining joy



and desire for life [48]. This prevailing feeling of guilt, self-blame, reciprocal distancing from the partner can lead to the degradation or even separation of the couple [49]. Finally, it is not uncommon to observe family pressures that lead to consider that a woman unfit for procreation is no longer desirable, or even that she no longer has her place in the family [9]. In fact, recovery and, a fortiori, maintaining a sex life is a way to regain and maintain a sense of normalcy when many other acts of daily life are affected by cancer [2,25]. As with work, the resumption of a sexual life promotes a boost of confidence through the return to an «everyday life» [25] which helps to preserve or regain a sense of belonging to life when cancer radically transforms landmarks and certainties [2].

### Conclusion

Cancer remains a major public health problem despite the many therapeutic advances made in recent years. This study shows that the frequency of sexual disorders in cancer patients is high. Cancer and its treatments induce psychological distress in patients, which has an impact on sexual desire and self-image. Whatever the type of cancer, it is important to advise caregivers to discuss sexuality with the patient very early in order to assess the degree of demand and to consider, if necessary, care with a psycho-oncologist and a sexologist.

### Bibliography

1. Patrice Lopès et François-Xavier Poudat. "Manuel de sexologie". Elsevier Paris Masson 2ème édition, (2014).
2. P Bondil and D Habold. "Cancers et sexualité : les médecins ne doivent plus faire l'impasse". *La Lettre du Cancérologue XXI.3* (2012): 165-170.
3. Bajos N and Bozon M. "Enquête sur la sexualité en France : pratiques, genre et santé". Paris : La Découverte, (2008).
4. Iva Milić Vranješ, et al. "FEMALE SEXUAL FUNCTION OF HEALTHY WOMEN IN EASTERN CROATIA". *Acta Clinica Croatica* 58 (2019): 647-54.
5. Thomas HN and Thurston RC. "A biopsychosocial approach to women's sexual function and dysfunction at midlife: A narrative review". *Maturitas* 87 (2016): 49-60.
6. Ferlay J, et al. "Cancer incidence and mortality worldwide: Sources, methods and major patterns in GLOBOCAN 2012". *Journal of Cancer* 136.5 (2015): 359-386.
7. Katz A. "The sounds of silence: sexuality information for cancer patients". *Journal of Clinical Oncology* 23 (2005): 238-241.
8. Habold D, et al. "Cancers de l'homme et retour à la sexualité". *La Lettre du Cancérologue* 29 (2010): 170-179.
9. de la Rochefordière. "Cancer et troubles sexuels chez la femme". *La Lettre du Cancérologue XXV.4* (2016): 190-195.
10. R Rosen, et al. "The Female Sexual Function Index (FSFI) : A Multidimensional Self-Report Instrument for the Assessment of Female Sexual Function". *Journal of Sex and Marital Therapy* 26 (2000): 191-208.
11. M Wiegel, et al. "The Female Sexual Function Index (FSFI): cross-validation and development of clinical cutoff scores". *Journal of Sex and Marital Therapy* 31 (2005): 1-20.
12. Isidori AM, et al. "Development and validation of a 6-item version of the Female Sexual Function Index (FSFI) as a diagnostic tool for female sexual dysfunction". *Journal of Sexual Medicine* 7 (2010): 1139-1146.
13. Carpenter JS, et al. "Female Sexual Function Index short version: a MsFLASH item response analysis". *Archives of Sexual Behavior* 45.8 (2016): 1897-1905.
14. Lee Y, et al. "Development and validation of the Korean version of the Female Sexual Function Index-6 (FSFI-6 K)". *Yonsei Medical Journal* 55.5 (2014): 1442-1446.
15. Dall'Agno ML, et al. "Validation of the Six-item Female Sexual Function Index in middle-aged Brazilian women". *Open Access Revista Brasileira de Ginecologia e Obstetrícia* 41.7 (2019): 432-439.
16. Pimenta F, et al. "Preliminary validating analysis of the Portuguese language 6-item Female Sexual Function Index (FSFI-6)". *Maturitas* 100 (2017): 143-144.
17. Chedraui P, et al. "Assessment of sexual function of mid-aged Ecuadorian women with the 6-item Female Sexual Function Index". *Maturitas* 71 (2012): 407-412.
18. Lemaire B Alexandre. "Évolution de la personne porteuse d'une pathologie chronique et conséquences sur la sexualité". *Sexologies* 15.2 (2006): 108-115.
19. H Errihani, et al. "Impact du cancer sur la sexualité : qu'en est-il du patient marocain?" *Sexologies* 19.2 (2010): 127-132.
20. Carlsen K, et al. "Are cancer survivors at an increased risk for divorce? A Danish cohort study". *European journal of cancer (Oxford, England : 1990)* 43 (2007): 2093-2099.
21. Nsonde Malanda J, et al. "Douze années de fonctionnement du registre des cancers de Brazzaville". *Bulletin du cancer* 100.2 (2013): 135-139.

22. Gershenson DM., *et al.* "Reproductive and sexual function after platinum-based chemotherapy in long-term ovarian germ cell tumor survivors; A gynecologic oncology group study". *Journal of Clinical Oncology* 25 (2007): 2792-2797.
23. Greer A Raggio., *et al.* "Prevalence and correlates of sexual morbidity in long-term breast cancer survivors". *Psychology of Health* 29.6 (2014): 632-650.
24. Traa MJ., *et al.* "The sexual health care needs after colorectal cancer: the view of patients, partners, and health care professionals". *Support Care Cancer* 22.3 (2014): 763-772.
25. Préau M., *et al.* "Les difficultés sexuelles à la suite de la maladie et des traitements". In : Le Corroller-Soriano AG, Malavolti L, Mermilliod C. La vie deux ans après le diagnostic de cancer. Paris : La Documentation Française (2008): 299-310.
26. Sadosky R., *et al.* "Cancer and sexual problems". *Journal of Sexual Medicine* 7 (2010): 349-373.
27. Park ER., *et al.* "Sexual health communication during cancer care: barriers and recommendations". *Cancer* 15 (2009): 74-77.
28. Nunns D., *et al.* "The morbidity of surgery and adjuvant radiotherapy in the management of endometrial carcinoma". *The International Journal of Gynecological Cancer* 10.3 (2000): 233-238.
29. Castelo ARP., *et al.* "The impact of breast cancer on female sexuality: an integrative literature review". *Global Journal of Health Science* 9.5 (2017): 180.
30. Shandiz FH., *et al.* "Investigating sexual function and affecting factors in women with breast cancer in Iran". *Asian Pacific Journal of Cancer Prevention* 17.7 (2016): 3583-3586.
31. Panjari M., *et al.* "Sexual function after breast cancer". *Journal of Sexual Medicine* 8.1 (2011): 294-302.
32. Berglund G., *et al.* "Effect of endocrine treatment on sexuality in premenopausal breast cancer patients: a prospective randomized study". *Journal of Clinical Oncology* 19.11 (2001): 2788-2796.
33. Sheppard LA and Ely S. "Breast cancer and sexuality". *Breast Journal* 14.2 (2008): 176-181.
34. Dorval M., *et al.* "Longterm quality of life after breast cancer: comparison of 8-year survivors with population controls". *Journal of Clinical Oncology* 16.2 (1998): 487-494.
35. Malinowszky KM., *et al.* "Quality of life and sexual function after high-dose or conventional chemotherapy for high-risk breast cancer". *British Journal of Cancer* 95.12 (2006): 1626-31.
36. White ID., *et al.* "Assessment of treatment-induced female sexual morbidity in oncology: is this a part of routine medical follow-up after radical pelvic radiotherapy?" *British Journal of Cancer* 105.7 (2011): 903-910.
37. Alexander S., *et al.* "A comparison of the characteristics of disease-free breast cancer survivors with or without cancer-related fatigue syndrome". *European Journal of Cancer* 45.3 (2009): 384-392.
38. Afiyanti Y., *et al.* "Evaluating sexual nursing care intervention for reducing sexual dysfunction in Indonesian cervical cancer survivors". *Asia-Pacific Journal of Oncology Nursing* 3.3 (2016): 266-278.
39. Chow KM., *et al.* "Sexual functioning of gynecological cancer patients: A literature review". *World Journal of Oncology Research* 14 (2014): 5-12.
40. Hautamaki Lammien K., *et al.* "Identifying cancer patients with greater need for information about sexual issues". *European Journal of Oncology Nursing* 17.1 (2013): 9-15.
41. Meltem Demirgoz Bal., *et al.* "Sexual Health in Patients with Gynecological Cancer: A Qualitative Study". *Sex Disability* 31 (2013): 83-92.
42. Bergmark K., *et al.* "Vaginal changes and sexuality in women with a history of cervical cancer". *The New England Journal of Medicine* 340.18 (1999): 1383-1389.
43. Chang YC., *et al.* "Changes in sexual life experienced by women in Taiwan after receiving treatment for breast cancer". *International Journal of Qualitative Studies on Health and Well-being* 14 (2019): 1.
44. Valdivieso M., *et al.* "Cancer Survivors in the United States: A Review of the Literature and a Call to Action". *International Journal of Medical Sciences* 9.2 (2012): 163-173.
45. Brédart A., *et al.* "Breast cancer survivors' perceived medical communication competence and satisfaction with care at the end of treatment". *Psychooncology* 24.12 (2015): 1670-1678.
46. Brédart A., *et al.* "Difficultés sexuelles après le traitement d'un cancer du sein non métastatique : résultats d'une étude exploratoire". *La Lettre du Cancérologue* 28 (2009): 392-395.
47. Auchincloss SS. "After treatment, psychosocial issues in gynecologic cancer survivorship". *Cancer* 76 (1995): 2117-2124.

48. Fobair P and Spiegel D. "Concerns about sexuality after breast cancer". *Cancer* 15.1 (2009): 19-26.
49. Juraskova I, et al. "Post-treatment sexual adjustment following cervical and endometrial cancer: a qualitative insight". *Psycho-oncology* 12.3 (2003): 267-279.