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# Sexual satisfaction of Indonesian women with breast cancer in Central Java, Indonesia



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### **ABSTRACT**

**Background:** The negative impact of breast cancer diagnosis on the sexuality of women patients is well-known. Sexual dissatisfaction arises from the disruption of physical appearance by the tumor or as a result of both operative or non-operative treatments. This study aimed to describe the perception of sexuality and its quality of breast cancer in Indonesian women. **Methods:** This descriptive study recruited women diagnosed with breast cancer that have undergone chemotherapy, radiotherapy, and surgery, either in singular, combination, or no treatment at all. The sexuality was assessed using the Indonesian version of the Sexual Satisfaction Questionnaire (SEXSAT-Q).

Results: A total of 113 female breast cancer patients ranging from 20 to 71 years old participated in the study. The majority of respondents were clinically diagnosed with stage II (36.2%) or higher (54.9%). Most patients underwent surgery (91.1%) and chemotherapy (85.8%). Before the diagnosis of cancer, the level of sexual satisfaction was good on average, which remained stagnant for 64 (56.6%) participants during cancer treatment. Significant anxiety and distress were reported by 35 patients (31.0%), depression by 21 patients (18.6%), and tiredness by 48 patients (42.5%).

**Conclusion:** The sexual satisfaction of women with breast cancer patients in our study group is average on general, prior or after cancer diagnosis. However, the treatment's negative psychological impact is quite profound, affecting almost half of the study participants.

**Keywords:** breast cancer, oncology, sexuality, sexual satisfaction.

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# **INTRODUCTION**

Breast cancer is a major cause of severe morbidity and mortality in women.1 Patients with breast cancer may lose a part or all breast tissue, extensive scarring, and the skin resulting in loss of breast or poor breast appearance. These conditions is distressing because it became the symbol of womanhood and sexuality. Mood changes following cancer treatment can also cause severe disability and emotional burden.<sup>2,3</sup> Recent trends revealed that more women are being diagnosed with an advanced stage disease at a younger age who are sexually more active than their older counterparts.4 Sexual satisfaction can be defined as a good state of physical, mental, and social well-being about onesexuality.

It requires a positive perception of body image and the possibility of having pleasurable sexual experiences, free of coercion and discrimination. The physical and emotional impact of breast cancer is apparent at the time of diagnosis, which usually worsened after receiving treatment.<sup>5</sup> Research that explores the impact of breast cancer on the sexuality of Southeast Asian women is minimal. To date, no study has described the sexuality of breast cancer patients in Indonesia. The Nation has the world's largest Muslim population that is generally conservative towards sexual topics, especially females, who usually refrain from discussing the sexual topic.<sup>6</sup> This situation creates challenges for healthcare workers to identify and manage the issue. This study

aimed to evaluate the perception of sexuality and sexual satisfaction among Indonesian women with breast cancer in Central Java, Indonesia.

# **METHODS**

# Questionnaire

This descriptive research utilized an established questionnaire, the Sexual Satisfaction Questionnaire (SEXSAT-Q), to evaluate breast cancer patients' sexuality and sexual life quality. The SEXSAT-Q comprised of 17 questions that evaluate sexuality in a cancer patient in 6 different dimensions: sexual satisfaction (question number 1, 10, and 14), sex drive (question number 11, 12, and 13), body image (question number 7, 8, and 9), psychological coping (question number

Table 1. Sociodemographics of study participants

Sociodemographics	n (%)
Total participants	131 (100)
Age *	49.1 (20–71)
Climacteric stage	
Premenopausal	13 (11.5)
Perimenopause	89 (78.8)
Menopause	2 (1.8)
Nationality	
Indonesian	131 (100)
Ethnicity	
Javanese	111 (98.2)
Chinese	2 (1.8)
Education level	
Illiterate	2 (1.8)
Elementary school	37 (32.7)
Junior high school	29 (25.7)
Senior high school	21 (18.6)
Graduate	22 (19.5)
Post-graduate	2 (1.8)
Marital status	
Married	108 (95.6)
Unmarried	4 (3.5)
Divorced	1 (0.9)
Length of marriage	
< 10 years	7 (6.2)
10-30	69 (61.1)
>30 years	33 (29.2)
Contraceptive use	
Yes	5 (4.4)
Number of house occupants	
1-5	97 (85.8)
>5	16 (14.2)
Monthly income †	
Below average	78 (69.0)
Average	34 (30.1)
Above average	1 (0.9)

<sup>\*</sup> Data presented as mean, median, and minimum-maximum respectively

2, 3, and 6), sexual discomfort (question number 4 and 5), and reconstruction (question number 15, 16, and 17). The questionnaire was translated into Indonesian by two different researchers, and a third reviewer selected the best-corrected version (Table 3).

### **Study Participants and Data Collection**

The study participants were female breast cancer patients with a histopathological confirmation. By convenience sampling, the respondents were approached face-to-face by the researcher while waiting in the outpatient clinic prior, undergoing, or post-treatment (chemotherapy, radiotherapy, surgery, and hormonal therapy) in Dr.

Kariadi General Hospital, Semarang, Indonesia. One female medical doctor unaffiliated with our institution carried out the data collection from 6 July 2020 until 17 July 2020. Before filling out the questionnaire all participants were assured of their anonymity, and their responses will not affect the medical service they receive. After informed consent, each respondent was given an unlimited amount of time to finish the questionnaire. The data collector's standard approach would be first explaining the goal of the research, which was purely for academic reasons. The researcher was allowed to guide the respondent to fill out the questionnaire when requested. Family members were allowed to assist participants who were unable to read or write. However, the participants were encouraged to avoid being influenced by a family member or other participants. Patients who refused to participate were considered to be clinically unfit or failed to answer the questionnaire completely were excluded.

Ethical clearance was granted by the Hospital Research Ethics Committee (No. 543/EC/KEPK-RSDK/2020). Data were analyzed using Microsoft Excel for Mac 2011 Version 14.4.1 (Microsoft Corporation, Washington, United States). Data presented as total number (n) and percentage (%) unless stated otherwise.

### **RESULTS**

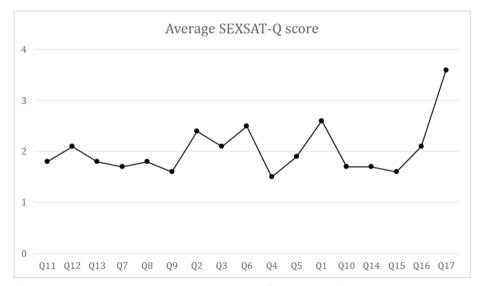
# Sociodemographic and clinical characteristics

The average age of 113 participants was 40,1 years with a range of 20 to 71 years. The significant majority were married (n=108, 95.6%) Javanese (n=111, 98.2%) women from below-average household income (n=78, 69.0%). The number of participants diagnosed with stage I (n=8, 7.1%), stage II (n=41, 36.2%), stage III (n=28, n=24.8), and stage IV (n=34, n=28)30.1%). A significant majority of them have undergone surgery (n=103, 91,2%), chemotherapy (n=97, 85.8%) either for neoadjuvant or main therapy. Detailed participants' sociodemographic clinical profile is presented in Table 1 and Table 2.

<sup>†</sup> Below average: <3 million Indonesian Rupiah (IDR), average 3-15 million IDR, above average >15 million IDR

Table 2. Clinical profile of study participants

Clinical profile			n (%)
Clinical stage			
Benign			2 (1.8)
Malignant		Stage I	8 (7.1)
		Stage II	41 (36.2)
		Stage III	28 (24.8)
		Stage IV	34 (30.1)
Chemotherapy	Yes (n=97)	< 5 times	20 (17.7)
		5-20 times	65 (57.5)
		> 20 times	12 (10.6)
	No		16 (14.2)
Radiotherapy	Yes (n=30)	< 5 times	0 (0)
		5-20 times	5 (4.4)
		> 20 times	25 (22.1)
	No		83 (73.5)
Hormonal	Yes		71(62.8)
	No		42 (37.2)
Surgery	Yes (n=103)	BCS	8 (7.0)
		Mastectomy	95 (84.1)
	No		10 (0.9)



**Figure 1.** Average SEXSAT-Q score. Scoring of SEXSAT-Q from 0 to 4. For question number 1, 10, 14, 15, 16, and 17, the higher the score, the higher the satisfaction. Vice versa for the rest of the questions.

# Perception of sexuality and sexual satisfaction.

The general sexual satisfaction before the diagnosis of cancer was good on average, with only six patients (5.4%) reported to be unsatisfied with their sex life. The majority reported their level of satisfaction remain stagnant during cancer treatment

(n=64, 56.6%). In terms of sex drive, 18 patients (15.9%) reported their sex life to be pushed into the disease's background, and 23 patients (20.4%) experienced a significant reduction of sexual drive. Major depreciation of body image was reported by 11 patients (9.7%) after undergoing cancer treatment. Significant anxiety

and distress were reported by 35 patients (31.0%), depression by 21 patients (18.6%), and tiredness by 48 patients (42.5%). Seven patients (6.2%) reported sexual discomfort related to foreplay, and 17 patients (15.0%) experienced dyspareunia owing to vaginal dryness. Four out of 7 patients (57.1%) who underwent breast-conserving surgery (BCS) experienced improvements in their sexual relations, and the majority of them were satisfied with the outcome of the surgery. The SEXSAT-Q questions and the participants' responses are tabulated (Table 3), and the average score of each dimension is presented in Figure 1.

#### **DISCUSSION**

The majority of participants in this study possess a minimal level of formal education. The level of education should theoretically reduce breast cancer incidence, with highly educated women are more likely to be aware of cancer and performed self-breast examination. However, a recent meta-analysis identified that women with a higher education level had a significantly higher risk of developing breast cancer (relative risk 1.22, 95% CI), which may be associated with alcohol use, age of parity, and menopause.8 Most breast cancer women will encounter some surgery in combination with radiation therapy, chemotherapy, or both. The surgery takes place as the first part of the therapy plan with the primary goal to remove the tumor and accurately define the stage of the disease.9 Information regarding the impact of breast cancer on women in South-East Asia is limited. This study evaluates the impact of breast cancer and its treatment on the patients' sexual life and identifies critical factors that contribute to dissatisfaction using SEXSAT-Q assessment.

The impact of a cancer diagnosis on the individual's personal, family, social, and professional life is profound. Alteration in one's sexual life is maybe one of the most challenging problems. Sexual dysfunction is common in breast cancer patients, particularly among women patients. Wang et al. described 15%-64% of women with breast cancer experience symptoms of sexual dysfunction. Sexual dysfunction is a sexual problem that leads to personal distress or interpersonal

Table 3. Participant responses to the SEXSAT-Q

	Questions	No, not at all (0)	To some degree (1)	A little but not to a great degree (2)	To quite a degree (3)	Yes, very much (4)
1.	Before the diagnosis of my disease my sexual relations were satisfactory	3 (2.7)	3 (2.7)	50 (44.2)	39 (34.5)	18 (15.9)
2.	Since I was diagnosed, I've been feeling distressed and anxious	12 (10.6)	26 (23.0)	20 (17.7)	20 (17.7)	35 (31.0)
3.	Since I started treatment I've felt sad and depressed	16 (14.2)	26 (23.0)	25 (22.1)	25 (22.1)	21 (18.6)
4.	I'm scared that during foreplay, my partner's caresses and embraces might hurt me	24 (21.2)	28 (24.8)	48 (42.5)	6 (5.3)	7 (6.2)
5.	Sexual relations are uncomfortable and/or painful owing to vaginal dryness	19 (16.8)	18 (15.9)	51 (45.1)	8 (7.1)	17 (15.0)
6.	I feel more tired and don't feel like doing as many things as I did before I was ill	13 (11.5)	21 (18.6)	18 (15.9)	13 (11.5)	48 (42.5)
7.	The changes I've experienced during treatment make me embarrassed to show my body	31 (27.4)	14 (12.4)	37 (32.7)	20 (17.7)	11 (9.7)
8.	Since I started the treatment I have trouble looking in the mirror and accepting how I am now	29 (25.7)	14 (12.4)	30 (26.5)	29 (25.7)	11 (9.7)
9.	I think the treatment has significantly worsened my body image	32 (28.3)	19 (16.8)	31 (27.4)	21 (18.6)	10 (8.8)
10.	My sexual relations were/are satisfactory during the treatment of my disease	25 (22.1)	6 (5.3)	64 (56.6)	15 (13.3)	3 (2.7)
11.	My sex life has been pushed into the background because of my disease	20 (17.7)	20 (17.7)	52 (46.0)	3 (2.7)	18 (15.9)
12.	My sex drive has decreased since I was diagnosed with my disease	10 (8.8)	24 (21.2)	51 (45.1)	5 (4.4)	23 (20.4)
13.	Since I was diagnosed with my disease, I have more trouble reaching orgasm	19 (16.8)	13 (11.5)	61 (54.0)	7 (6.2)	13 (11.5)
14.	At the moment my sexual relations are satisfactory	24 (21.2)	11 (9.7)	64 (56.6)	6 (5.3)	8 (7.1)
15.	The breast reconstruction surgery has improved my sexual relations*	0 (0.0)	4 (57.1)	2 (28.6)	1 (14.3)	0 (0.0)
16.	I am satisfied with the outcome of the reconstructive surgery*	0 (0.0)	0 (0.0)	6 (85.7)	1 (14.3)	0 (0.0)
17.	I trust and hope that the breast reconstruction surgery improves my sexual relations*	0 (0.0)	0 (0.0)	0 (0.0)	3 (42.9)	4 (57.1)

Dimensions: sexual satisfaction (question 1, 10, and 14), sex drive (question 11, 12, and 13), body image (question 7, 8, and 9), psychological coping (question 2, 3, and 6), sexual discomfort (question 4 and 5), reconstruction (question 15, 16, and 17)

difficulty. The problems include the sexual response cycle (lack of sexual desire, impaired arousal, inability to achieve orgasm), sexual pain, and a general decrease in sexual satisfaction.12 A study in Tunisia showed a decrease in the sense of sexual attractiveness in 80% of breast cancer patients and the frequency of sexual intercourse in 53% of sexually active patients after cancer. Takashi et al. reported 60% of 85 respondents who had an active sexual relationship with their partner before surgery experienced a decrease in the frequency of sex compared

with before surgery, whereas 16 of them had no sexual desire problem. This finding indicates various sexual problems in breast cancer patients following the treatment, including possible factors relating to their partners.13

<sup>\*</sup>questions applied to patients who underwent breast conserving surgery (n=7)

Compared to their healthy counterparts, women with breast cancer considered sex life less important while significantly less satisfied with their sex life. Personal misconceptions about doing sex with their partner worsened this negative condition.14 This is also related to the patients' self-confidence in terms of their body image. Women diagnosed with breast cancer may possess low self-esteem because of the changes in body image disruption caused by disease and therapy.15 Self-confidence has been identified as an important predictor of quality of life. According to the Global Survey of Sexual Attitudes and Behaviors (GSSAB), 80% of women in East Asia tend to desist from talking about their sexual problems versus 50-63% in Non-Ease Asia countries. Therefore, healthcare professionals' psycho-social support is essential before and/or directly after medical intervention for every patient with breast cancer. 16 This study describes the perceptions of sexual satisfaction among Indonesian women with breast cancer in Central Java. There are some limitations to this study. First, this is a qualitative descriptive study. Therefore a correlation between patients' sociodemographic, clinical staging, and sexual satisfaction cannot be made. Second, this study used a questionnaire as a method to obtain information on behavioral changes that might lead to selfreported bias.

# **CONCLUSION**

The sexual satisfaction of women with breast cancer patients in our study group is average in general, before or after cancer diagnosis. However, the treatment's negative psychological impact is quite profound, affecting almost half of the study participants.

# **DISCLOSURE**

The author reports no conflict of interest in this work.

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### **AUTHOR CONTRIBUTIONS**

All authors contributed to data analysis, drafting and revising the article, gave final approval of the version to be published, and agreed to account for all aspects of the work.

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