

## Sexual Experience of Iranian Women with Cancer: A Qualitative Content Analysis

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### Abstract

**Background:** Cancer diagnosis and treatments cause sexual dysfunction in patients. Sexual function is one of the most important aspects of quality of life. However, in previous studies, qualitative methods have been less accentuated to explore in to the sexual experiences and feelings of cancer patients. The aim of the present study was to investigate the experiences of Iranian women affected with cancer about their sexual quality of life.

**Method:** A qualitative descriptive study with a conventional content analysis approach was performed on a targeted sample of 28 Iranian women with cancer from October 2018 to February 2020. Data were collected through face to face and in depth semi structured interviews until data saturation was attained.

**Results:** Data analysis revealed four themes and 11 categories. The emerged themes were entitled: “Changing sexual capacity”, “physical consequences”, “sexual self-sacrifice” and “Changing woman’s identity”.

**Conclusion:** Women with cancer experience many sexual problems such as reduced orgasm, lack of pleasure, and pain during sex. Due to the taboo of sexual issues, especially for women, many of them are embarrassed to ask their questions to the medical staff and for this reason, their problems will remain unresolved. The support of their spouses and the social can play an important role in facilitating coping. Health care providers have an important role in assessing and improving patients’ quality of life. It is recommended to adopt strategies for appropriate interventions, education and counseling to improve sexual quality of life in cancer patients.

**Keywords:** Sexuality, Qualitative research, Neoplasms, Iran, Women

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## Introduction

Despite significant advances in medical science, cancer remains one of the most important diseases of the present century and the second leading cause of death after cardiovascular disease,<sup>1</sup> affecting both the physical and mental aspects of human beings.<sup>2</sup> The number of new cases of the disease has increased to 15 million in 2020.<sup>3</sup> In spite of significant improvements in cancer treatment, patients experience emotional distress leading to complex processes that considerably affect the quality of life.<sup>2</sup> Because the cancer influences people in different ways, the affected patients encounter with numerous challenges in different aspects of their life.<sup>4</sup> Illness, anxiety, uncertainty about the future, fear of death, complications of treatment, decreased performance, mental imbalance, and sexual problems are some of the factors affecting the mental health of a cancer patient.<sup>5</sup>

The quality of sexual life has a special importance not only for healthy people but also even for cancer survivors. Cancer patients feel disrupted in their family life.<sup>6</sup>

Sexual desires are an important part of human life that play a critical role in their quality of life and health.<sup>7</sup> Sexual concepts and themes are strongly intertwined with culture and social schemas so that the sexual behaviors, beliefs and convictions of members of a society are influenced by the cultural structure and schemas of that society.<sup>8</sup> Furthermore, achieving sexual health requires ensuring the sexual rights of individuals.<sup>9</sup> In many cultures, the sexual taboo that women face leads to the negligence of their sexual health, especially women with incurable diseases such as cancer. Because women think that if they pay attention to their sexual issues due to their illness, they will be reprimanded by society and will have to hide their sexual desires in order to comply with social norms.<sup>10</sup> This group of women, despite their special health needs, face difficulties in receiving the services they need. On the other hand, understanding the sexual experiences of women with cancer can help policymakers and health care professionals provide appropriate, effective, and culture-based sexual health care

services.<sup>11</sup> Additionally, sexuality as a taboo issue should be considered in any social context.<sup>11, 12</sup> Qualitative approaches are the most appropriate approaches to explore people's perception of a certain phenomenon in a specific socio-cultural context.<sup>13</sup> The aim of the current study was to investigate Iranian women's experiences about the quality of sexual life using a qualitative approach.

## Materials and Methods

The present qualitative research was conducted by conventional content analysis approach.<sup>14</sup> In the conventional content analysis approach, categories and codes are derived directly from the text with an inductive approach.<sup>15</sup>

This study was approved by the Research Council and Ethics Committee of Shahid Beheshti University of Medical Sciences, Tehran, Iran and was registered in the National System of Ethics in Medical Research (ID number: IR.SBMU.PHARMACY.REC.1398.197). The participants were selected from cancerous women presenting to oncology departments affiliated with Shahid Beheshti medical school from October 2018 to February 2020. Inclusion criteria were as follows: patients with definitive diagnosis of any cancer, being aware of their diagnosis, satisfaction and intention to participate in the study, ability to communicate, without previous medical history of severe psychological disorders and with time scope of minimum one year after the first diagnosis. At any stage of the study, patients could leave the study at will.

Sampling was taking on goal oriented method. Whereas there are no criteria for the number of participants in qualitative studies prior to research, it continued as long as the saturation is obtained; that is to say, the phase in which the participants add no additional information to previous one.<sup>16</sup> All interviews were recorded with the informed and written consent of the patients. In qualitative health research, in-depth interviews are best for sensitive individuals<sup>17</sup> such as sexual quality. Data were collected through face-to-face in-depth semi-structured interviews in a private and calm place. Each interview started with open-end

**Table 1.** The demographic characteristics of the participants (n=28)

Variable	Category	N(%), Mean $\pm$ SD(range)
<b>Age(year), Mean <math>\pm</math> SD(range)</b>		42.79 $\pm$ 10.11 (24-60)
20-30		4 (14.3%)
31-40		9 (32.1%)
41-50		8 (28.6%)
51-60		7 (25.%)
<b>Educational status</b>		
PhD		2 (7.1%)
Master		4 (14.3%)
Bachelor		8 (28.6%)
Diploma and post-diploma		11 (39.3%)
High school and less		3 (10.7%)
<b>Occupational status</b>		
Employed		19 (67.9%)
Housewife		9 (32.1%)
<b>Marriage duration (year)</b>		17.93 $\pm$ 10.9(2-41)
1-10		7 (25%)
11-20		11 (39.3%)
21-30		6 (21.4%)
31-41		4 (14.3%)
<b>Time interval from the diagnosis to interview, (year)</b>		4.61 $\pm$ 5.38(1-23)
1-10		25 (89.3%)
11-23		3 (10.7%)
<b>Number of children</b>		
0		5 (17.9%)
1		6 (21.4%)
2		10 (35.7%)
3		5 (17.9%)
4		2 (7.1%)
<b>Type of treatment Surgery, radiotherapy and chemotherapy</b>		18 (64.3%)
Radiotherapy and chemotherapy		2 (7.1%)
Surgery and chemotherapy		4 (14.3%)
Chemotherapy		4 (14.3%)
<b>Metastases to other organs</b>		
Yes		11 (39.3%)
No		17 (60.7%)

questions such as “What comes to your mind when you hear the word QOL?”, “What negative effects left cancer on your quality of life?”, “How has the disease affected the quality of your sexual relationship with your partner?”, “What are your concerns about your sexual related quality of life after being aware of cancer diagnosis?”, “Has the quality of your sex changed by your diagnosis?”, During interviews, probing questions were also asked in order to further clarify participants’ views. Targeted sampling was performed in terms of age, education and different types of cancer with maximum diversity. All interviews were conducted after the principal

investigator who is a female PhD student in nursing. To conduct interviews and analyze data resulting from the notes were used during the interview. The average designated time for interviews was 55 to 95 minutes and were asked in Farsi language. In order to ensure the accuracy of the information transferred on paper, all the implemented information was reviewed, while listening to the interview file. First, after each interview, data were typed word by word on paper and frequently continued in order to obtain a broad understanding. Any ambiguity was clarified by telephone contact with the interviewee. Then, the whole context was classified into meaning

**Table 2.** The themes and main categories of the qualitative study themes

themes	Categories
<b>Changing sexual capacity</b>	Decreased sexual orgasm Decreased sexual desire Decreased sexual excitement Reduced frequency of sexual intercourse
<b>Physical consequences</b>	Decreased vaginal moisture Fatigue Physical symptoms
<b>Sexual self-sacrifice</b>	Task-oriented sexual activity Pretending to orgasm
<b>Changing woman's identity</b>	Disturbed body image Appearance dissatisfaction

units, these units were condensed, while retaining the original concept. Afterward, condensed meaning units were abstracted and coded. Finally, main categories were extracted based on the latent content in the text, similarities and dissimilarities of codes and through grouping subcategories. Data were analyzed simultaneously with data collection by using MAXQDA 10 applying Graneheim and Lundman (2004)<sup>14</sup> methods for typical qualitative content analysis.<sup>18</sup>

#### *Trustworthiness*

In order to achieve rigor, Guba and Lincoln criteria including credibility, dependability, confirmability and transferability were used.<sup>19, 20</sup> To obtain credibility from the selection of participants with maximum variety of experiences, sampling continued until the data reached saturation and the selection of the most appropriate meaning unit was considered in data analysis. Accordingly, the following methods are used to ensure the credibility of the data: members check by providing feedback to the participants in the study according to the findings and initial interpretations and checking the findings by experts.

The high diversity and range of variability in qualitative research can contribute to the transferability of findings.<sup>21</sup> Dependability was also upheld via peer checking and data were continuously evaluated. By complete explanation of the stages of research, including data collection, analysis and formation of topics and providing

quotes related to each category, an attempt was made to provide the possibility of auditing the research for the audience and readers. The achievements were also confirmed by presenting the work process to several participants.

## **Results**

Participants in the present research were 28 females with different type of cancers such as breast, leukemia, lymphoma, lung, liver, Hodgkin, uterus, ovary, cervical, head and neck, stomach, intestine, bladder, brain, tongue, colorectal and thyroid. The age range of patients was between 24 and 60. Demographic characteristics of the participants are illustrated in table 1.

The saturation point of this research occurred after 21 interviews, so in the last seven interviews, no new ideas or sub-topics have been obtained. All of the participants were interviewed once, except two cases that participated in a supplementary interview. None of the participants refused to participate in the study.

Four main themes and 11 categories emerging during data analysis. Themes included: "changing sexual capacity", "physical consequences", "sexual self-sacrifice", and "changing woman's identity" (Table 2).

#### *Changing sexual capacity*

Changing sexual capacity were grouped into four categories: decreased sexual orgasm, decreased sexual desire, decreased sexual

**Table 3.** Changing sexual capacity: some participant's narrative

I do not have any sexual inclination; I do not feel any pleasure, while doing engaged in sexual relationship; I seem to have lost my sense of pleasure (34 years old, ovarian cancer).
Sexual desire has decreased a lot; It seems that I no longer want to have sex; I have scant enjoyment (56 years old, breast cancer).
I do not enjoy as much as before; my pleasure has decreased; my pleasure is very different from before; it has decreased a lot (36 years old, tongue cancer).
Honestly, after the illness, my desire has diminished; I only do it for my husband, otherwise, I have no desire myself. (45 years old, colon cancer).
When we do that (sex), I do not get wet anymore; I do not get as excited as before (34 years old, ovarian cancer).
I am hardly aroused during sexual activity and I cannot hold the relationship (39 years old, head and neck).
We used to engage (sex). For example, 3 or 4 times a week, but now it is much less. Now it is once a month rarely (54 years old, bladder cancer).

excitement, and reduced frequency of sexual intercourse. Changes in sexual capacity in affected women had an almost constant pattern. Decreased quantity and quality of sexual intercourse is one of the cases that patients mentioned as one of the changes after treatment (Table 3).

#### *Physical consequences*

Almost all participants in the present study complained of physical effects that influenced their quality of sexual life. Weakness, fatigue, lethargy, pain during intercourse, and decreased genital moisture were common problems for participants (Table 4).

#### *Sexual self-sacrifice*

Women with cancer are sexually task-oriented and consider their husbands' sexual provision as an unconditional duty and failure to do so causes sexual infidelity. Meeting the sexual needs of the husband, as a religious obligation, prevented women from giving up sex as much as possible, even if it was not enjoyable. In this study, task-oriented sexual activity is performed by cancer patients and for each of them, can be cited possible reasons. Consideration is given by the patient for two main reasons: concern about the extramarital relationship of the spouse and fear of being rude and disrespectful of his needs. Participants stated that they do not enjoy sex many times and only engage in sex for the reasons given in the category of sexual self-sacrifice (Table 5).

#### *Changing woman's identity*

Following to cancer treatment, women experience a wide range of undesirable psychological reactions that not only negatively

affect their sexual function, but also their sexual identity or their sexual schema (mental representation of their sexual aspects). Most of them were concerned about their physical unattractiveness, physical deformity, visibility of the operated limb, and infertility and they considered these factors as reasons for losing their femininity (Table 6).

## **Discussion**

The findings of the current study challenged common views about the quality of sexual life of women suffering from cancer. It is important to diagnose and treat sexual problems in women diagnosed with cancer, if not addressed, may lead to disruption in sexual intimacy and emotional stress. In this way, it leaves negative impacts on survivals.<sup>22</sup> In the present study, patients' sexual problems were classified into four themes: changing sexual capacity, physical consequences, sexual self-sacrifice, and changing woman's identity. The present survey indicated that women diagnosed with cancer encounter various sexual problems in spite of ignorance of medical society towards their needs. The participant pointed out that the change in sexual desire and physical complications is their most important problems emanating from chemotherapy drugs leading to considerable reduction in sexual quality. Survey conducted by Falk et al., entitled "Sexual dysfunction in women with cancer" indicated the cancer and its treatment procedures had direct impact on sexual desire, orgasm, sexual function and pain during intercourse.<sup>23</sup> Another study

**Table 4.** Physical consequences: some participant's narrative

That slippery fluid does not secrete (out of the vagina) during intercourse. My vagina is completely dry, I am upset and it is sticky (38 years old, intestine cancer).
I get very tired, I feel like climbing a mountain and I have no energy, it is very low (during sex) (45 years old, liver cancer).
I have a lot of pain (during sex) I was in a lot of pain once, but I did not tell him anything, I endured everything with pain (34 years old, ovarian cancer).
I feel my skin (genital area) tight and thick, I always feel pimples. I feel bad, I think I got hives (42 years old, colorectal cancer).

found that the most common disorders in cancer patients included loss of libido (39%) followed by vaginal dryness (24%), pain during intercourse (9%), impaired excitement and pleasure (21%), and (15%) had difficulty reaching orgasm.<sup>24</sup>

Additionally, in the present study, vaginal dryness is one of the reasons for painful sexual intercourse in these women. Vaginal spasms and dryness can be due to the effects of chemotherapy drugs and their lack of sexual arousal. On the other hand, lack of irritability prevents the secretion of viscous vaginal fluid and consequently the relationship is painful. Among these groups of patients, constant mental preoccupation with the defect may cause low irritability or even lack of irritability. Frederickson and Robert point out that when people are distracted by their appearance, they cannot focus on their sexual pleasure and this factor negatively affects their sexual performance.<sup>25</sup> In this regard, the research of Holzner et al. revealed that cancer patients had sexual dysfunction.<sup>26</sup> Studies have shown that mastectomy and chemotherapy cause undesirable changes in mental image, low self-esteem and femininity, and sexual disorders, especially in young women.<sup>27, 28</sup> These patients develop premature menopause, resulting in reduction of estrogen, vaginal atrophy, and a decrease in androgen, leading to decreased libido and arousal.<sup>28</sup> In this regard, it can be referred to the research of Wang et al., expressing the themes of reducing the frequency of sexual intercourse, sexual reluctance, menopausal symptoms, changes in body image, the effect on marital relationships and misconceptions about sex.<sup>29</sup> Women delay in resuming sexual intercourse after cancer treatment, and experience a decrease in sexual arousal and sexual frequency after initiating

intercourse with their partner. It is worth mentioning that the resumption of sexual intercourse is affected by the mental and physical recovery of the woman, the importance of sexual intercourse for the couple and the fear of a negative reaction from the husband.<sup>30</sup> Female identity is another issue that is changing in the wake of cancer. Research has shown that women have a weaker body image after being diagnosed with cancer, as though they lost their femininity, become ugly due to hair loss and baldness, and feel anxious about their sexual attractiveness.

Infertility is another negative effect of cancer treatment in women that should be considered. Women experience a lot of stress in this regard, they feel lost and they feel that they are no longer a fertile woman.

The reason for such feeling emanating from social structure in which the female reproductive organ is considered as a symbol of motherhood, femininity and gender. The importance of the reproductive system can be traced back to historical biomedical currents, in which the uterus and other reproductive organs are considered as the sexual roots of femininity and lead to the connection of female identity and gender with fertility and anatomy.<sup>31</sup> Sexual self-sacrifice is another experience that participants have mentioned. In sexual considerations, one takes into the needs of the other party as a higher priority than one's own. In the present study, self-sacrifice is performed by cancer patients and for each of them, possible reasons can be mentioned. This consideration came to the focus of the patient for two main reasons: concern about the extramarital relationship of the spouse and fear of rejection. Participants have repeatedly stated that they do not enjoy sex and only accept sex for the reasons

**Table 5.** Sexual self-sacrifice: some participant's narrative

I did not say anything to her (husband), that is, I endured everything with pain, I was dying of pain (during sexual intercourse). Well, he is also a man; after all, they also have some needs. I can't neglect his needs and protests (60 years old, brain cancer).
I always did it mechanically (sex) in order to meet his sexual needs.
I do everything just out of duty and consider it is a religious obligation; otherwise, I do not willing to do it very much (sex) (38 years old, leukemia cancer).
You know, men are kind of very important to them (sex). Well, I am sick, I do it (sex) to keep my husband in my life. I am always afraid to be alone. Maybe I can maintain my husband with sex (25years old, lung cancer).
I do not like sex at all after the disease, the number (sex) has decreased a lot.
However, I enjoy compulsion for the sake of my husband. I feel great sorry for him (my wife) I cannot always moan. For the pleasure of my husband, I also indulge in pleasure(42 years old, colorectal cancer).
Once I felt the harsh pain (during sex) I still remember I was scared I was in terrible pain ,I did not want to think I am no longer the person before and I became weak I pretended to enjoy I wanted to show myself strong (36 years old, cervical cancer).

raised. Concerning a survey conducted about women with breast cancer in Bahrain, some patients said that despite their low sexual desire, they felt obligated to meet their husbands' sexual needs.<sup>32</sup>

In women with breast cancer, they consider themselves imperfect and unattractive due to breast loss as a symbol of femininity and are worried that their spouse will leave them because of the body changes.<sup>33</sup> A study by Kagawa et al. (2003) found that Asian women were more concerned about the family system, while European-American women were more concerned about sexual intimacy with their husbands.<sup>34</sup> It can be concluded that Iranian women consider sexual and intimate relations as one of the factors in maintaining the foundation of the family and meeting sexual needs of their spouses.

It can be concluded that biological and psychological factors, regardless of their role in reducing and degenerating sexual desire

independently, have a kind of interconnection and interrelationship with each other that sexual function even in cases in which biologically modifiable biological factors are undergoing lasting changes.

Therefore, on the basis of the results of the present study, creating appropriate infrastructure for sex education in women with cancer in the form of specialized training programs in accordance with the principles of education and ethics and established social norms, as well as allocating budget and experienced health care staff and providing all sexual health needs offered to these patients.

Sex is considered as taboo and is only limited to married couples; therefore, the single women were excluded from this scope of research due to social condition and this is one of the limitations of this study. Additionally, explaining the experiences of family and caregivers of cancer patients is suggested.

**Table 6.** Changing woman's identity: some participant's narrative

I am very embarrassed (during sex) I like our relationship to be done in the dark, so that he (wife) does not realize that I do not have breasts. I do not like my husband to touch my body at all. I feel like I lost my femininity (50 years old, breast cancer).
My skin color is very bad. My skin is very dark. All femininity is beautiful in appearance. I forgot myself at all, I can't reach my appearance. I have lost all household chores and children, I feel I am no longer a woman(48 years old, colon cancer).
After the illness, I am very worried that the drugs will affect my fertility or that I will not have any more children. I lost my femininity, I feel my desire has decreased, I am no longer a woman, and I have lost my womanhood. The whole existence of a woman is due to her fertility. If she does not have it, she is no longer a woman. I am very worried (36 years old, cervical cancer).

## Conclusion

At the present study, a lot of evidence about the effects of cancer experience on women's sexuality was examined both physically and psychologically. Treatment of cancer can lead to sexual problems, including decreased libido, lack of enjoyment and excitement, pain and decrease frequency of intercourse. Because of the taboo of sexuality (especially for women), especially in Eastern countries, women may be reluctant to raise questions from health professionals, which can be a significant barrier to obtaining information. However, despite the pain and lack of pleasure in a male-dominant and family centered culture, some women continue to have sex in order to preserve their husbands and do their religious duty.

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## Conflict of Interest

None declared.

## References

1. Sissung TM, Price DK, Del Re M, Ley AM, Giovannetti E, Figg WD, et al. Genetic variation: effect on prostate cancer. *Biochim Biophys Acta*. 2014;1846(2):446-56. doi: 10.1016/j.bbcan.2014.08.007.
2. Agboola SO, Ju W, Elfiky A, Kvedar JC, Jethwani K. The effect of technology-based interventions on pain, depression, and quality of life in patients with cancer: a systematic review of randomized controlled trials. *J Med Internet Res*. 2015;17(3):e65. doi: 10.2196/jmir.4009.
3. Abad M, Gangy R, Sharifian E, Nikdel R, Jafarzadeh M, Jafarzadeh F. Epidemiologic distribution of cancer in a 10-year study: Retrospective review of hospital records and pathology centers of North Khorasan Province from 2003 to 2012. [In Persian] *Journal of North Khorasan University of Medical Sciences (JNKUMS)*. 2015;6(4):689-96.
4. VanHoose L, Black LL, Doty K, Sabata D, Twumasi-Ankrah P, Taylor S, et al. An analysis of the distress thermometer problem list and distress in patients with cancer. *Support Care Cancer*. 2015;23(5):1225-32. doi: 10.1007/s00520-014-2471-1.
5. Giuliani M, Cosmi V, Pierleoni L, Recine A, Pieroni M, Ticino A, et al. Quality of life and sexual satisfaction in women suffering from endometriosis: An Italian preliminary study. *Sexologies*. 2016;25(1):e12-e19.
6. Anderson J, Blue R, Paladino A, Graff C, Eggly S, Martin M, et al. 008 A qualitative exploration of sexual quality of life, medication adherence, and patient-provider sexual communication among black breast cancer survivors with sexual trauma histories. *The Journal of Sexual Medicine*. 2020;17(7):S4. doi:10.1016/j.jsxm.2020.04.244.
7. Telli S, Gürkan A. Examination of sexual quality of life and dyadic adjustment among women with mastectomy. *Eur J Breast Health*. 2019;16(1):48-54. doi: 10.5152/ejbh.2019.4969.
8. Maasoumi R, Zarei F, Merghati-Khoei E, Lawson T, Emami-Razavi SH. Development of a sexual needs rehabilitation framework in women post-spinal cord injury: A study from Iran. *Arch Phys Med Rehabil*. 2018;99(3):548-54. doi: 10.1016/j.apmr.2017.08.477.
9. World Health Organization. Defining sexual health: Report of a technical consultation on sexual health 28-31 January 2002, Geneva: World Health Organization; 2006. Available from: [https://www.who.int/reproductivehealth/publications/sexual\\_health/defining\\_sh/en/](https://www.who.int/reproductivehealth/publications/sexual_health/defining_sh/en/)
10. Moghasemi S, Ozgoli G, Ahmadi F, Simbar M. Sexual experience of Iranian women in their middle life: A qualitative approach. *Int J Community Based Nurs Midwifery*. 2018;6(1):47-55.
11. Simon W, Gagnon, John H. Sexual conduct: The social sources of human sexuality, 2<sup>nd</sup> ed. British multinational publisher: Routledge; 2017. p.378.
12. World Health Organization. Defining sexual health: report of a technical consultation on sexual health, 28-31 January 2002, Geneva: World Health Organization; 2006. Available from: [https://www.who.int/reproductivehealth/publications/sexual\\_health/defining\\_sh/en/](https://www.who.int/reproductivehealth/publications/sexual_health/defining_sh/en/)
13. Zamanzadeh V, Rassouli M, Abbaszadeh A, Hamid Alavi-Majd, Ali-Reza Nikanfar, Farnaz Mirza-Ahmadi, et al. Spirituality in cancer care: a qualitative study. *Journal of Qualitative Research in Health Sciences (JQR)*. 2020; 2(4):366-78.
14. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105-12. doi: 10.1016/j.nedt.2003.10.001.
15. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;15(9):1277-88. doi: 10.1177/1049732305276687.
16. Kyngäs H. The application of content analysis in nursing science research. In: Kyngäs H, Mikkonen



- K, Kääriäinen M, editors. 1<sup>st</sup> ed. Springer International Publishing: Cham; 2019.p. 115.
17. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349-57. doi: 10.1093/intqhc/mzm042.
  18. Lindgren BM, Lundman B, Graneheim UH. Abstraction and interpretation during the qualitative content analysis process. *Int J Nurs Stud*. 2020;108:103632. doi: 10.1016/j.ijnurstu.2020.103632.
  19. Elo S, Kääriäinen M, Kanste O, Pölkki T, Utriainen K, Kyngäs H. Qualitative content analysis: A focus on trustworthiness. *SAGE Open*. 2014;4(1): 2158244014522633. doi:10.1177/2158244014522633.
  20. Guba EG, Lincoln YS. Competing paradigms in qualitative research. In Denzin NK, Lincoln YS, editors. *Handbook of qualitative research*. Washington: Sage Publications, Inc.; 1994.p.105-117.
  21. Hungler BP, Beck C, Polit D. *Essentials of nursing research: methods, appraisal, and utilization*. Lippincott: Raven; 1997.p.524.
  22. Maiorino MI, Chiadini P, Bellastella G, Giugliano D, Esposito K. Sexual dysfunction in women with cancer: a systematic review with meta-analysis of studies using the Female Sexual Function Index. *Endocrine*. 2016;54(2):329-41. doi: 10.1007/s12020-015-0812-6.
  23. Falk SJ, Dizon DS. Sexual dysfunction in women with cancer. *Fertil Steril*. 2013;100(4):916-21. doi: 10.1016/j.fertnstert.2013.08.018.
  24. Lewis PE, Sheng M, Rhodes MM, Jackson KE, Schover LR. Psychosocial concerns of young African American breast cancer survivors. *J Psychosoc Oncol*. 2012;30(2):168-84. doi: 10.1080/07347332.2011.651259.
  25. Fredrickson BL, Roberts TA. Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*. 1997;21(2):173-206. doi: 10.1111/j.1471-6402.1997.tb00108.x
  26. Holzner B, Kemmler G, Kopp M, Moschen R, Schweigkofler H, Dünser M, et al. Quality of life in breast cancer patients--not enough attention for long-term survivors? *Psychosomatics*. 2001;42(2):117-23. doi: 10.1176/appi.psy.42.2.117.
  27. Hannoun-Levi JM. Treatment of breast and uterus cancer: physiological and psychological impact on sexual function. [Article in French] *Cancer Radiother*. 2005;9(3):175-82. doi: 10.1016/j.canrad.2004.11.005.
  28. Onen Sertöz O, Elbi Mete H, Noyan A, Alper M, Kapkaç M. Effects of surgery type on body image, sexuality, self-esteem, and marital adjustment in breast cancer: a controlled study. [Article in Turkish] *Türk Psikiyatri Derg*. 2004;15(4):264-75.
  29. Wang F, Chen F, Huo X, Xu R, Wu L, Wang J, et al. A neglected issue on sexual well-being following breast cancer diagnosis and treatment among Chinese women. *PLoS One*. 2013;8(9):e74473. doi: 10.1371/journal.pone.0074473.
  30. Takahashi M, Kai I. Sexuality after breast cancer treatment: changes and coping strategies among Japanese survivors. *Soc Sci Med*. 2005;61(6):1278-90. doi: 10.1016/j.socscimed.2005.01.013.
  31. Gilbert E, Ussher JM, Perz J. Renegotiating sexuality and intimacy in the context of cancer: the experiences of carers. *Arch Sex Behav*. 2010;39(4):998-1009. doi: 10.1007/s10508-008-9416-z.
  32. Jassim GA, Whitford DL. Understanding the experiences and quality of life issues of Bahraini women with breast cancer. *Soc Sci Med*. 2014;107:189-95. doi: 10.1016/j.socscimed.2014.01.031.
  33. Yusuf A, Ab Hadi IS, Mahamood Z, Ahmad Z, Keng SL. Understanding the breast cancer experience: a qualitative study of Malaysian women. *Asian Pac J Cancer Prev*. 2013;14(6):3689-98. doi: 10.7314/apjcp.2013.14.6.3689.
  34. Kagawa-Singer M, Wellisch DK. Breast cancer patients' perceptions of their husbands' support in a cross-cultural context. *Psychooncology*. 2003;12(1):24-37. doi: 10.1002/pon.619.