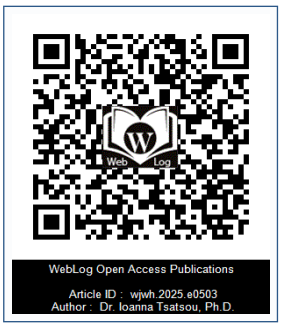
WebLog Journal of Women's Health

Review Article
Published: 05 May, 2025

A Focus on Sexual Arousal Disorders in Female Cancer Survivors

*Dr. Ioanna Tsatsou**

Cancer Nurse, Msc, PhD, Oncology-Hematology Department, Hellenic Airforce General Hospital, Athens, Greece



Abstract

Sexual arousal disorders are a significant issue for female cancer survivors, affecting their quality of life post-treatment. These disorders are under-researched, with gaps in effective management and communication between patients and healthcare providers. The aim of this review was to evaluate sexual arousal disorders in female cancer survivors, focusing on the prevalence, contributing factors, and interventions. Cancer treatments often lead to physical changes, such as vaginal dryness, reduced libido, and hormonal imbalances, that can impair sexual arousal. Additionally, psychological factors, including anxiety, body image issues, and emotional stress, play a critical role in exacerbating sexual dysfunction and sexual arousal disorder. Addressing sexual arousal disorders in female cancer patients requires a holistic approach that combines medical, psychological, and relational interventions. Mindfulness-based interventions and complementary and alternative medicine therapies have shown potential in addressing both the physical and emotional aspects of sexual dysfunction. These interventions help improve body awareness, reduce stress, and enhance emotional intimacy, contributing to improvements in sexual function. However, further research is needed to better understand the efficacy, safety, and long-term outcomes of these approaches. Clinicians should be aware of the prevalence and impact of sexual arousal disorders in female cancer patients and offer appropriate, personalized interventions to improve their sexual health and overall well-being.

Keywords: Sexual Arousal Disorders, Female Cancer Survivors, Sexual Dysfunction, Sexual Health, Cancer Treatment

OPEN ACCESS

Correspondence:
Dr. Ioanna Tsatsou, Cancer Nurse, Msc, PhD, Oncology-Hematology Department, Hellenic Airforce General Hospital, Athens, Greece, E-mail: itsatsou@uniwa.gr

Received Date: *27 Apr 2025*
Accepted Date: *02 May 2025*
Published Date: *05 May 2025*

Citation:
Ioanna Tsatsou. A Focus on Sexual Arousal Disorders in Female Cancer Survivors. WebLog J Women's Health. wjwh.2025.e0503. https://doi.org/10.5281/zenodo.15980620

Introduction

Sexual health is an essential component of overall well-being and quality of life. In female cancer survivors, sexual dysfunction is a common yet frequently overlooked outcome of cancer and its associated treatments. Among the various domains of sexual dysfunction, sexual arousal disorders (SAD) are particularly debilitating. They are characterized by the inability to attain or maintain sexual excitement, affecting both physiological (e.g., genital lubrication, swelling) and subjective (e.g., feelings of sexual excitement) aspects [1].

Cancer therapies, including surgery, chemotherapy, radiotherapy, and hormonal therapy, can disrupt physiological, hormonal, and psychological factors critical for normal sexual function [2]. As cancer survivorship rates have improved dramatically over the past decades, addressing quality-of-life issues such as sexual health has become a priority for comprehensive care [3].

Despite increasing awareness, sexual arousal disorders remain insufficiently studied, and many survivors report inadequate counseling regarding these issues during and after cancer treatment [4]. Understanding the prevalence, predictors, and potential treatments for sexual arousal disorders in women cancer survivors is critical for developing targeted interventions and improving survivorship care.

This study aimed to review the most recent literature investigating sexual arousal disorders among female cancer survivors. Specifically, to (1) assess the prevalence and risk factors associated with arousal dysfunction, (2) examine the impact of cancer treatment modalities, and (3) evaluate any interventions aimed at improving sexual arousal in this population.

Prevalence of Sexual Arousal Disorders in Female Cancer Patients

Sexual dysfunction in female cancer patients is widespread, and sexual arousal disorders are

among the most common complaints. Research has shown that sexual problems, including decreased libido, arousal disorders, pain during intercourse, and low satisfaction, are prevalent among women undergoing cancer treatment. According to studies, around 40% to 70% of women with cancer report experiencing sexual dysfunction during or after treatment, with arousal disorders being one of the most frequently identified issues [5-7].

The prevalence of sexual dysfunction can vary depending on the type of cancer, the stage of the disease, the type of treatment received, and the patient's age. For example, women with breast cancer, gynecologic cancers, and hematologic cancers often report significant sexual problems, with breast cancer survivors frequently experiencing vaginal dryness, painful intercourse, and low sexual desire. Similarly, women undergoing treatment for gynecological cancers such as ovarian or cervical cancer are at a higher risk of developing sexual dysfunction, particularly if surgery, chemotherapy, or radiation therapy affects the reproductive organs [5-7].

The specific percentages for sexual arousal disorders among women with cancer can vary depending on factors such as the type of cancer, the treatment modality, and the population being studied. However, several studies have provided estimates that highlight the frequency of sexual arousal issues among cancer patients [8]. For instance:

Breast Cancer: Studies suggest that between 30% and 60% of women with breast cancer experience some form of sexual dysfunction, including arousal disorders. Specifically, 40% to 50% report problems with sexual arousal, often due to hormonal changes, chemotherapy-induced menopause, or side effects of medications like tamoxifen [5,9].

Gynecological Cancers (e.g., ovarian, cervical, and endometrial cancers): These cancers are particularly linked to sexual arousal disorders, with figures ranging from 40% to 70% of patients reporting some sexual dysfunction. Among these, arousal disorders are often prominent, as treatments like surgery (e.g., hysterectomy) and radiation can directly affect the pelvic area, causing vaginal dryness and sensitivity loss [9, 10].

Hematological Cancers (e.g., leukemia, lymphoma): Studies of women with hematologic cancers often show that 50% to 70% experience sexual dysfunction, with many citing problems related to arousal. This can be due to chemotherapy-induced ovarian failure or the emotional stress of cancer diagnosis and treatment [10, 11].

In summary, while the overall prevalence of sexual dysfunction in women with cancer ranges widely (from 40% to 70% depending on the type of cancer), sexual arousal disorders are often reported by about 30% to 50% of women undergoing cancer treatment. The precise percentage can depend on the specific cohort and the methodology used in different studies, but the range remains substantial, emphasizing the need for effective assessment and intervention.

Predictors of Sexual Arousal Disorders in Female Cancer Patients

The development of sexual arousal disorders in female cancer patients is influenced by a range of factors, some of which are directly linked to the disease and treatment, while others stem from psychological, interpersonal, and emotional sources.

Age is a significant predictor of sexual dysfunction. As women age, hormonal changes, particularly the onset of menopause, can naturally lead to reduced sexual desire and arousal. In cancer patients, treatments that induce early menopause (such as chemotherapy) exacerbate these symptoms, leading to greater prevalence of sexual dysfunction [12].

Several types of cancer treatments have been shown to contribute to sexual arousal disorders. Chemotherapy can lead to ovarian dysfunction, menopause, vaginal dryness, and reduced blood flow to the genital area, all of which can negatively affect sexual arousal [13]. Radiation to the pelvic region, commonly used in the treatment of gynecologic cancers, can damage vaginal tissues, leading to vaginal dryness, atrophy, and reduced sensitivity, which can impair sexual arousal [14]. Also, surgical interventions, particularly those that involve the removal of reproductive organs such as a hysterectomy or mastectomy, can lead to physical changes in a woman's body that impact sexual arousal. The removal of the uterus, ovaries, or part of the vagina can directly affect sexual function [15]. Some hormonal treatments, such as tamoxifen or aromatase inhibitors used in breast cancer, block estrogen production, leading to symptoms similar to menopause, including reduced sexual desire and arousal [16].

Then, the psychological distress associated with a cancer diagnosis, such as depression, anxiety, and fear of death, can also contribute to sexual dysfunction. Psychological factors are often intertwined with physical ones, as emotional distress may reduce libido and arousal by decreasing a woman's overall well-being and self-esteem [17, 18]. Cancer treatment often leads to significant changes in a woman's body, which can affect her self-image and confidence. Women who undergo mastectomies or other surgeries may feel less feminine or sexually attractive, leading to diminished sexual desire and arousal. This body image disturbance can be particularly significant in women diagnosed with breast cancer, as breast appearance plays an important role in sexual identity [19, 20]. Finally, a woman's relationship with her partner can be an important predictor of sexual function. Partners who are supportive and understanding of the physical and emotional changes brought about by cancer treatment may help mitigate the negative impact on sexual function. Conversely, strained relationships or lack of sexual communication may worsen arousal disorders [21, 22].

Interventions for Sexual Arousal Disorders in Female Cancer Patients

Addressing sexual arousal disorders in female cancer patients requires a holistic approach that combines medical, psychological, and relational interventions [23].

Medical Interventions

Vaginal lubricants and moisturizers: For women experiencing vaginal dryness due to reduced estrogen levels, over-the-counter lubricants and vaginal moisturizers can help alleviate discomfort during sexual activity [24].

Estrogen Replacement Therapy (ERT): In some cases, hormone replacement therapy may be prescribed to alleviate symptoms of menopause caused by cancer treatment. However, this must be carefully considered, especially in breast cancer patients, due to potential risks of recurrence [25].

Testosterone therapy: Some women with low sexual desire may benefit from low-dose testosterone therapy. Testosterone therapy may be contemplated if alternative approaches prove ineffective; however, it is essential to discuss the associated risks and benefits with

the patient prior to prescribing [26].

Psychosocial Interventions

Counseling and therapy: Psychological support in the form of counseling or cognitive-behavioral therapy (CBT) can help women cope with the emotional and psychological aspects of cancer. Therapy can address issues related to body image, self-esteem, depression, and anxiety [27].

Sex therapy: Working with a sex therapist can help couples communicate openly about their sexual needs and desires. Sex therapy can provide strategies to overcome sexual dysfunction and improve sexual relationships [27].

Support groups: Participating in cancer support groups, especially those focused on sexual health, can provide women with the opportunity to share experiences and gain emotional support. These groups can also provide information on managing sexual dysfunction during and after treatment [27].

Mindfulness: Mindfulness is the practice of being fully present in the moment, paying attention to thoughts, feelings, and physical sensations without judgment. It has been shown to improve emotional regulation, reduce stress, and enhance overall well-being, [28] which are essential factors in addressing sexual arousal disorders. For female cancer patients, mindfulness can help manage the physical and emotional challenges related to sexual health. A recent systematic review highlighted that mindfulness-based interventions seem to enhance sexual function and overall quality of life for individuals who are early-stage and post-cancer survivors. Nevertheless, there were occasional discrepancies noted in the outcomes related to sexual desire, arousal, and orgasm. A prevailing gap exists in research regarding the efficacy of mindfulness-based interventions for enhancing sexual functioning in women diagnosed with cancer [29].

Complementary and Alternative Medicine (CAM)

CAM therapies are a broad range of practices that are used alongside or in place of conventional medical treatments. Numerous cancer patients seek complementary and alternative medicine (CAM) to manage the physical and emotional repercussions of cancer treatment, such as sexual dysfunction. While the effectiveness of CAM interventions can vary, there is growing evidence suggesting that certain therapies (physical exercise, acupuncture, herbal remedies, massage therapy, yoga and tai chi, aromatherapy, biofeedback) can help alleviate sexual arousal disorders in female cancer patients [30].

While many CAM therapies have shown promise in improving sexual arousal and overall sexual function, it is important for cancer patients to approach these treatments cautiously and under the guidance of a healthcare provider. Some CAM treatments may interfere with conventional cancer treatments, particularly herbal supplements, which can interact with chemotherapy, radiation, or hormonal therapy. Additionally, while some studies suggest benefits, the overall evidence for CAM interventions in sexual dysfunction related to cancer treatment is still evolving. Many studies have small sample sizes, and more robust clinical trials are needed to confirm the effectiveness of these interventions [31,32]

Recommended Future Directions

Future research on sexual arousal disorders in female cancer patients should prioritize several key areas to enhance understanding and treatment effectiveness. First, standardized and focused assessments specifically targeting sexual arousal dysfunction are needed, rather than grouping it with other general sexual function issues. Longitudinal studies are essential to track the long-term trajectories of sexual recovery or deterioration post-treatment, helping to identify key recovery windows and factors that influence sexual health over time.

On a clinical level, there is a need for trials investigating pharmacological and device-based interventions, to address the physiological aspects of arousal disorders. Finally, partner-inclusive interventions that address relationship dynamics and involve both partners in the treatment process could enhance the effectiveness of psychosocial interventions, improving overall sexual well-being. These areas of research will contribute to more comprehensive and effective strategies for managing sexual arousal disorders in cancer patients.

Conclusions

In conclusion, sexual arousal disorders are a significant issue for many women undergoing cancer treatment, with a considerable proportion of patients experiencing it during and after therapy. Sexual arousal disorders are a common yet underrecognized aspect of survivorship for women with cancer. The interplay between physiological changes due to treatment and psychological factors contributes significantly to the burden of dysfunction. While emerging psychosocial interventions offer hope, there remains a profound need for targeted therapies and comprehensive clinical approaches that prioritize sexual health in survivorship care plans. However, further research is needed to fully understand the efficacy and safety of these interventions, as well as to develop personalized treatment plans. It is crucial for healthcare providers to assess sexual health regularly and offer appropriate support to improve the quality of life for female cancer patients, addressing sexual dysfunction as a vital aspect of overall well-being.

References

1. Basson R. Human sex-response cycles. J Sex Marital Ther. 2001; 27(1):33-43. doi: 10.1080/00926230152035831.
2. Flynn KE, Reese JB, Jeffery DD, Abernethy AP. Sexual functioning along the cancer continuum: Focus group results from the Patient-Reported Outcomes Measurement Information System (PROMIS®). Psychooncology. 2010; 19(9): 994-1003.
3. Ganz PA. Survivorship: adult cancer survivors. Prim Care. 2009; 36(4): 721-741. doi: 10.1016/j.pop.2009.08.001.
4. Maiorino, M. I., Chiodini, P., Bellastella, G., Giugliano, D., & Esposito, K. (2016). Sexual dysfunction in women with cancer: a systematic review with meta-analysis of studies using the Female Sexual Function Index. Endocrine, 54, 329-341. doi: 10.1007/s12020-015-0812-6.
5. Valpey R, Kucherer S, Nguyen J. Sexual dysfunction in female cancer survivors: A narrative review. Gen Hosp Psychiatry. 2019 Sep-Oct; 60: 141-147.
6. Dizon DS, Suzin D, McIlvenna S. Sexual health as a survivorship issue for female cancer survivors. Oncologist. 2014 Feb; 19(2): 202-10. doi: 10.1634/theoncologist.2013-0302.
7. Esmat Hosseini S, Ilkhani M, Rohani C, Nikbakht Nasrabadi A, Ghanei Gheshlagh R, Moini A. Prevalence of sexual dysfunction in women with cancer: A systematic review and meta-analysis. Int J Reprod Biomed. 2022 Feb 18; 20(1): 1-12. doi: 10.18502/ijrm.v20i1.10403.
8. Sousa Rodrigues Guedes T, Barbosa Otoni Gonçalves Guedes M, de Castro Santana R, Costa da Silva JF, Almeida Gomes Dantas A, Ochandorena-Acha M, Terradas-Monllor M, Jerez-Roig J, Bezerra de Souza DL. Sexual

Dysfunction in Women with Cancer: A Systematic Review of Longitudinal Studies. Int J Environ Res Public Health. 2022 Sep 21; 19(19): 11921. doi: 10.3390/ijerph191911921.

9. Del Pup L, Villa P, Amar ID, Bottoni C, Scambia G. Approach to sexual dysfunction in women with cancer. Int J Gynecol Cancer. 2019 Mar; 29(3): 630-634. doi: 10.1136/ijgc-2018-000096.

10. Conroy R. Hematological Cancer Survivors May Experience Sexual Impairment. 2023. Cancer Network, NA-NA.

11. Durosier Mertilus DS, Rodriguez CS. Sexual dysfunction in lymphoma survivors: a scoping review. J Sex Med. 2025 Jan 3; 22(1): 69-92.

12. Wettergren L, Ljungman L, Micaux Obol C, Eriksson LE, Lampic C. Sexual dysfunction and fertility-related distress in young adults with cancer over 5 years following diagnosis: study protocol of the Fex-Can Cohort study. BMC Cancer. 2020 Aug 5; 20(1): 722.

13. Turan V, Oktay K. Sexual and fertility adverse effects associated with chemotherapy treatment in women. Expert Opin Drug Saf. 2014 Jun; 13(6): 775-83. doi: 10.1517/14740338.2014.915940.

14. Incrocci L, Jensen PT. Pelvic radiotherapy and sexual function in men and women. J Sex Med. 2013 Feb; 10 Suppl 1: 53-64. doi: 10.1111/jsm.12010.

15. Danesh M, Hamzehgardeshi Z, Moosazadeh M, Shabani-Asrami F. The Effect of Hysterectomy on Women's Sexual Function: a Narrative Review. Med Arch. 2015 Dec; 69(6): 387-92. doi: 10.5455/medarh.2015.69.387-392.

16. Goldfarb S. Endocrine therapy and its effect on sexual function. Am Soc Clin Oncol Educ Book. 2015: e575-81. doi: 10.14694/EdBook_AM.2015.35.e575.

17. Pumo V, Milone G, Iacono M, Giuliano SR, Di Mari A, Lopiano C, Bordonaro S, Tralongo P. Psychological and sexual disorders in long-term breast cancer survivors. Cancer Manag Res. 2012; 4: 61-5. doi: 10.2147/CMAR.S28547

18. Gilbert E, Ussher JM, Perz J. Sexuality after breast cancer: a review. Maturitas. 2010 Aug; 66(4): 397-407. doi: 10.1016/j.maturitas.2010.03.027.

19. Wilson CM, McGuire DB, Rodgers BL, Elswick RK Jr, Temkin SM. Body Image, Sexuality, and Sexual Functioning in Women With Gynecologic Cancer: An Integrative Review of the Literature and Implications for Research. Cancer Nurs. 2021 Sep-Oct 01; 44(5): E252-E286. doi: 10.1097/NCC.0000000000000818.

20. Lam WW, Li WW, Bonanno GA, Mancini AD, Chan M, Or A, Fielding R. Trajectories of body image and sexuality during the first year following diagnosis of breast cancer and their relationship to 6 years psychosocial outcomes. Breast Cancer Res Treat. 2012 Feb; 131(3): 957-67. doi: 10.1007/s10549-011-1798-2. Epub 2011 Oct 5.

21. Male DA, Fergus KD, Cullen K. Sexual identity after breast cancer: sexuality, body image, and relationship repercussions. Curr Opin Support Palliat Care. 2016 Mar; 10(1): 66-74. doi: 10.1097/SPC.0000000000000184.

22. Dinapoli L, Colloca G, Di Capua B, Valentini V. Psychological Aspects to Consider in Breast Cancer Diagnosis and Treatment. Curr Oncol Rep. 2021 Mar 11; 23(3): 38. doi: 10.1007/s11912-021-01049-3.

23. Seav SM, Dominick SA, Stepanyuk B, Gorman JR, Chingos DT, Ehren JL, Krychman ML, Su HI. Management of sexual dysfunction in breast cancer survivors: a systematic review. Womens Midlife Health. 2015 Nov 2; 1: 9. doi: 10.1186/s40695-015-0009-4.

24. Potter N, Panay N. Vaginal lubricants and moisturizers: a review into use, efficacy, and safety. Climacteric. 2021 Feb; 24(1): 19-24. doi: 10.1080/13697137.2020.1820478.

25. Warren MP, Shu AR, Dominguez JE. Menopause and Hormone Replacement. [Updated 2015 Feb 25]. In: Feingold KR, Ahmed SF, Anawalt B, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000.

26. Weiss RV, Hohl A, Athayde A, Pardini D, Gomes L, Oliveira M, Meirelles R, Clapauch R, Spritzer PM. Testosterone therapy for women with low sexual desire: a position statement from the Brazilian Society of Endocrinology and Metabolism. Arch Endocrinol Metab. 2019 Jul 18; 63(3): 190-198. doi: 10.20945/2359-3997000000152.

27. Brotto LA, Yule M, Breckon E. Psychological interventions for the sexual sequelae of cancer: a review of the literature. J Cancer Surviv. 2010 Dec; 4(4): 346-60. doi: 10.1007/s11764-010-0132-z.

28. Keng SL, Smoski MJ, Robins CJ. Effects of mindfulness on psychological health: a review of empirical studies. Clin Psychol Rev. 2011 Aug; 31(6): 1041-1056.

29. Banbury, S., Chandler, C., & Lusher, J. (2023). A systematic review exploring the effectiveness of mindfulness for sexual functioning in women with cancer. Psych, 5(1), 194-208.

30. Knecht K, Kinder D, Stockert A. Biologically-Based Complementary and Alternative Medicine (CAM) Use in Cancer Patients: The Good, the Bad, the Misunderstood. Front Nutr. 2020 Jan 24; 6: 196. doi: 10.3389/fnut.2019.00196. eCollection 2019.

31. Candy B, Jones L, Vickerstaff V, Tookman A, King M. Interventions for sexual dysfunction following treatments for cancer in women. Cochrane Database Syst Rev. 2016 Feb 2; 2(2): CD005540. doi: 10.1002/14651858.CD005540.pub3.

32. Ben-Arye E, Samuels N, Lavie O. Integrative Medicine for Female Patients with Gynecologic Cancer. J Altern Complement Med. 2018 Sep/Oct; 24(9-10): 881-889. doi: 10.1089/acm.2018.0163.