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Impact of gynaecological cancer and its treatment on female sexual function: A cross-sectional study

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Abstract
Background: Gynecological malignancies and their treatments have a profound impact on women's physical, psychological, and sexual health. Sexual dysfunction is an under-reported yet essential survivorship concern in women treated for gynecological malignancies.
Objectives: To assess the prevalence and pattern of sexual dysfunction among women with gynaecological cancers and to evaluate the association between treatment-related factors and female sexual function.
Materials and Methods: This cross-sectional study was carried out in the Department of Obstetrics and Gynecology at Gandhi Medical College and Hamidia Hospital in Bhopal. Female sexual function was measured using the Female Sexual Function Index (FSFI). Data on sexual desire, arousal, lubrication, orgasm, satisfaction, and pain were analyzed. Statistical associations were assessed using appropriate methods, and p-values < 0.05 were considered significant.
Results: A substantial frequency of sexual dysfunction was found among study participants. Reduced sexual satisfaction and genito-pelvic pain were the most commonly affected domains, followed by arousal and lubrication disorders. Women undergoing multimodal treatment had considerably worse sexual function scores than that receiving single-modality therapy. Treatment-related factors had a statistically significant relationship with sexual dysfunction.
Conclusion: Sexual dysfunction is common among women with gynaecological malignancies, especially after rigorous treatment regimens. Routine sexual health assessments and the incorporation of sexual counseling into cancer care are critical for improving survivors' quality of life.

Keywords: Gynaecological cancer, sexual dysfunction, female sexual function index, quality of life, cancer survivorship

Introduction
Gynaecological cancers are a major global health burden for women, accounting for a sizable share of female cancer-related morbidity and mortality. According to recent global cancer estimates, malignancies of the cervix, ovary, and endometrium collectively contribute significantly to the global cancer burden, particularly in low and middle-income countries [1]. Improvements in screening, diagnosis, and multimodal treatment have led in improved survival rates; however, long-term survivorship concerns affecting quality of life are receiving more attention [2]. Sexual health is an important aspect of total well-being, yet it is often disregarded in oncology care. Female sexual dysfunction includes problems of sexual desire, arousal, lubrication, orgasm, satisfaction, and pain, which can have a substantial impact on emotional health and intimate relationships [3]. Women with gynaecological cancers are particularly vulnerable to sexual dysfunction as a result of disease-related and treatment-induced alterations to reproductive and sexual organs [4].Cancer treatments such as surgery, chemotherapy, and radiotherapy can have a negative impact on female sexual function due to anatomical disruption, hormonal imbalance, neurovascular damage, and treatment-induced exhaustion [5]. Surgical procedures such as hysterectomy and extensive pelvic surgery can affect body image and sexual identity, whereas pelvic radiotherapy can cause vaginal dryness, fibrosis, and dyspareunia, resulting in long-term sexual issues [6]. Despite the significant prevalence of sexual dysfunction, communication about sexual health is still limited between patients and healthcare providers. Many women are hesitant to discuss sexual difficulties because of sociocultural stigma, shame, or the belief that sexual health is secondary to cancer survival [7]. Furthermore, physicians' lack of training and time restrictions lead to sexual difficulties being overlooked and under-managed in cancer care [8]. Validated and reliable instruments are required for the systematic assessment of sexual dysfunction.

The Female Sexual Function Index (FSFI) is a multidimensional questionnaire that assesses six aspects of female sexual function. It has been widely verified in both general and cancer populations [9]. However, there is inadequate data from Indian tertiary care settings on the assessment of sexual dysfunction using standardized instruments among women with gynaecological malignancies, emphasizing the need for the current study [10].

Materials and Methods

A hospital-based cross-sectional study was conducted in the Department of Obstetrics and Gynecology at Gandhi Medical College and Hamidia Hospital, Bhopal. The study was carried out over a period of 18 months, from May 2023 to October 2024, after obtaining approval from the Institutional Ethics Committee. Written informed consent was obtained from all participants prior to enrolment.

Inclusion Criteria

Women aged ≥ 18 years with a histopathologically confirmed diagnosis of gynaecological malignancy, including cervical, ovarian, endometrial, vulvar cancers, or gestational trophoblastic neoplasia, were included in the study. Eligible participants comprised women who were under evaluation for treatment, currently undergoing treatment, or had completed treatment in the form of surgery, chemotherapy, radiotherapy, or a combination of these modalities. Only women who were sexually active prior to the diagnosis and willing to participate with written informed consent were enrolled.

Exclusion Criteria

Women were excluded if they had a history of severe psychiatric illness impairing comprehension or ability to respond, critical illness or poor general condition at the time of assessment, known pre-existing sexual dysfunction prior to cancer diagnosis, or a history of pelvic surgery or radiotherapy for non-gynaecological indications. Women who were unwilling to participate in the study were also excluded.

Data Collection Tool

Sexual function was assessed using the Female Sexual Function Index (FSFI), a validated multidimensional self-report questionnaire consisting of 19 items assessing six domains of female sexual function: desire, arousal, lubrication, orgasm, satisfaction, and pain. Each domain score was calculated according to standard scoring guidelines, and a total FSFI score was derived by summing domain scores. Sexual dysfunction was defined using established FSFI cut-off values.

Sociodemographic and clinical details, including age, type of gynaecological cancer, stage of disease, and treatment modality, were recorded using a structured proforma.

Variables Analysed

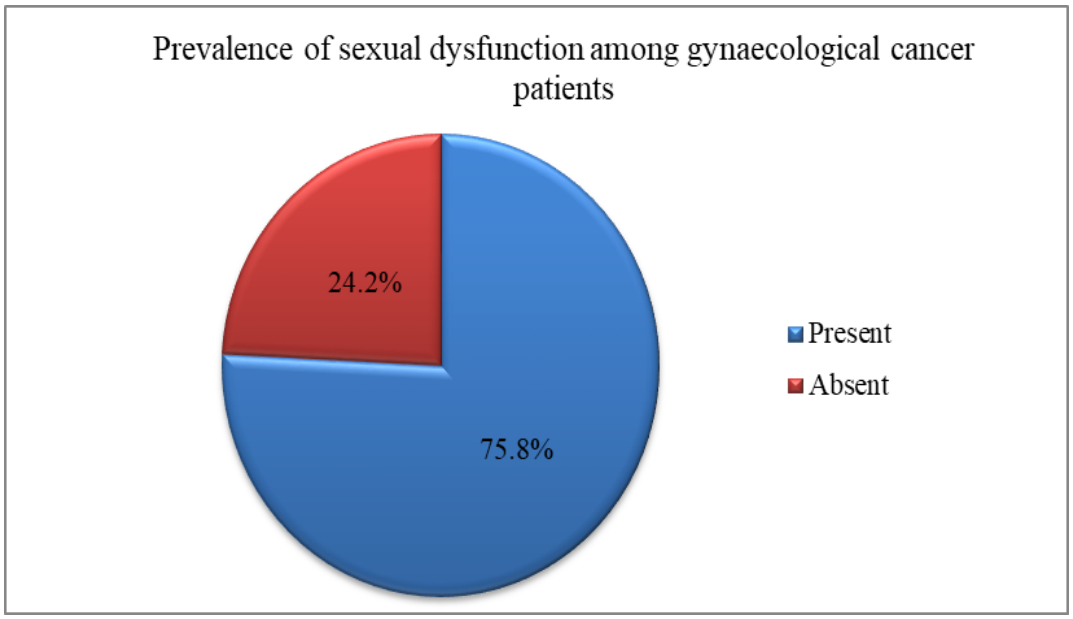
The variables analysed in the study included the prevalence of overall sexual dysfunction, the domain-wise distribution of sexual dysfunction, and the association between the type of gynaecological cancer and sexual dysfunction. In addition, the relationship between treatment modality and the presence of sexual dysfunction was evaluated.

Statistical Analysis

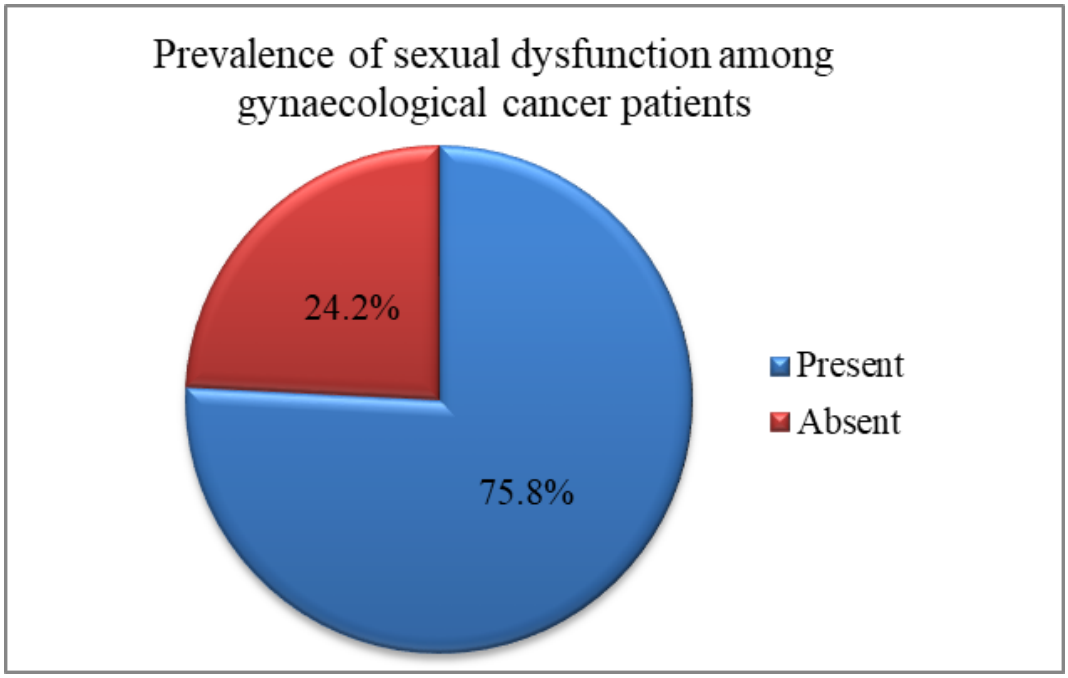
Data were entered into Microsoft Excel and analysed using the Statistical Package for the Social Sciences (SPSS) software (IBM Corp., Armonk, NY). Categorical variables were expressed as frequencies and percentages, while continuous variables were summarized as mean ± standard deviation or median with interquartile range. Associations were assessed using the Chi-square test or Fisher's exact test, as appropriate. A p-value < 0.05 was considered statistically significant.

Results

A total of 91 patients participated in the study and completed the questionnaires.A high overall prevalence of sexual dysfunction among women with gynaecological cancers, indicating that the majority of study participants were affected (graph 1).Sexual dysfunction was observed across all gynaecological cancer types, with a higher proportion among cervical cancer patients, while it remained prevalent among ovarian, endometrial, vulvar cancers, and gestational trophoblastic neoplasia, highlighting its widespread occurrence across malignancies (Graph 2).



Graph 1: Overall prevalence of sexual dysfunction among study participant



Graph 2: Distribution of sexual dysfunction across different gynaecological cancer types

All major domains of female sexual function were affected, indicating that sexual dysfunction was not limited to a single aspect of sexual health. The findings demonstrate that impairment across multiple domains is common among gynaecological cancer survivors, reflecting a broad impact on sexual functioning irrespective of cancer type (Table 1).

Table 1: Prevalence of sexual dysfunction domain wise among gynecological cancer patients

Variable	N	%
Hypoactive Sexual Desire Disorder	33	36.30%
Female Arousal Disorder	43	47.30%
Disorder of Lubrication	42	46.20%
Female Orgasmic Disorder	35	38.50%
Sexual Dissatisfaction	53	58.30%
Genito-Pelvic Pain/Penetration Disorder	51	56.10%
Sexual Dysfunction	69	75.80%

Multiple domains of dysfunction frequently co-existed within the same individual, highlighting overlap rather than isolated dysfunctions. Although cervical cancer patients showed higher absolute frequencies, overlapping domain involvement was also evident among ovarian and endometrial cancer survivors, while fewer cases in vulvar cancer and gestational trophoblastic neoplasia reflect smaller subgroup sizes (Table 2).

Table 2: Distribution of types of sexual dysfunction by gynecological cancer type

TypeofSexual Dysfunction	Cervical	Ovarian	Endometrial	Vulval	GTN
Desire	17	7	8	0	1
Arousal	20	10	10	1	2
Lubrication	26	7	9	0	0
Orgasm	20	7	7	0	1
Dissatisfaction	29	10	11	2	1
Pain	30	6	13	2	0

A statistically significant association was observed between the type of gynaecological cancer and the presence of sexual dysfunction (P=0.007). Sexual dysfunction was more frequently observed among women with cervical cancer compared to other gynaecological malignancies, although it was present across all cancer types (Table 3). A significant association was also noted between FIGO stage and sexual dysfunction (P=0.0179), with increasing disease stage showing a higher burden of sexual health impairment (table 4). Furthermore, treatment modality demonstrated a statistically significant association with sexual dysfunction (P=0.0439). Women receiving combined treatment modalities exhibited a higher occurrence of sexual dysfunction compared to those treated with a single modality or those under evaluation (Table 5).

Overall, these findings indicate that sexual dysfunction among women with gynaecological cancers is significantly associated with cancer type particularly cervical cancer as well as disease stage and treatment modality, highlighting the multifactorial nature of sexual health impairment in this population.

Table 3: Association between types of cancer and sexual dysfunction

Cancer Type	Sexual Dysfunction Present	Sexual Dysfunction Absent	Total
Cervical	34	2	36
Ovarian	17	12	29
Endometrial	15	5	20
Vulval	2	1	3
Gestational Trophoblastic Neoplasia	1	2	3
P-Value: 0.0072			

Table 4: Association between FIGO Staging and Sexual Dysfunction in gynecological cancer patients

Cancer Staging	Sexual Dysfunction Present	Sexual Dysfunction Absent	Total
FIGO Stage 1	41	21	62
FIGO Stage 2	18	1	19
FIGO Stage 3	6	0	6
FIGO Stage 4	4	0	4
P-Value: 0.0179			

Table 5: Association between treatment type and sexual dysfunction in gynecological cancer patients

Type of Treatment	Sexual Dysfunction Present	Sexual Dysfunction Absent	Total
Surgery Only	32	16	48
Surgery and Chemotherapy	9	1	10
Surgery and Radiotherapy	7	0	7
Chemotherapy and Radiotherapy	9	0	9
Chemotherapy Only	1	2	3
Under Evaluation	11	3	14
P-Value: 0.0439			

Discussion

Sexual dysfunction is an important survivorship issue in women treated for gynecological cancers, although it is often overlooked in routine therapeutic treatment. In the current study, 75.8% of participants experienced total sexual dysfunction, showing a significant burden of sexual health issues after diagnosis and therapy. Previous studies have indicated similar prevalence percentages, with sexual dysfunction affecting nearly two-thirds to four-fifths of gynaecological cancer survivors [11-13]. According to domain-wise analysis, the most commonly reported difficulties were sexual dissatisfaction (58.3%) and genito-pelvic pain/penetration disorder (56.1%), followed by arousal and lubrication disorders. These findings are similar to previous research, which found dyspareunia, vaginal dryness, and decreased sexual pleasure as the most common long-term outcomes of pelvic cancer treatment [14, 15]. Pelvic radiation and extensive pelvic surgery can cause vaginal fibrosis, decreased elasticity, and neurovascular injury, all of which contribute to pain and a diminished sexual response [16]. A statistically significant link was found between the kind of gynaecological cancer and sexual dysfunction (P=0.0072), with cervical cancer patients having the highest frequency across most areas. This finding is consistent with prior research showing that cervical cancer survivors had higher sexual morbidity as a result of intensive treatment techniques including radical hysterectomy and pelvic radiotherapy [11, 17]. In contrast, ovarian and endometrial cancer patients had a lower prevalence, presumably due to differences in treatment intensity and radiation exposure. The current study found a significant relationship between FIGO stage and sexual dysfunction (P=0.0179). Women with advanced-stage disease were more likely to have sexual dysfunction, possibly due to the need for more extensive and multimodal therapy. Previous studies have found similar relationships, indicating that illness severity and cumulative treatment toxicity have a negative impact on sexual health outcomes [18, 19]. Treatment modality was strongly linked with sexual dysfunction (P=0.0439), with a higher prevalence found in women who received combined treatment modalities, notably surgery with radiotherapy or chemo-radiation. Multimodal treatment has been demonstrated to have additive negative consequences on sexual function, such as hormonal disruption, nerve damage, early menopause, and chronic exhaustion [13, 16, 20]. These findings highlight the importance of anticipatory counseling for sexual adverse effects prior to starting medication. Despite the significant prevalence of sexual dysfunction and discomfort, sexual health is not properly addressed in gynaecological oncology therapy. According to studies, both patients and healthcare providers experience hurdles when discussing sexual concerns, such as embarrassment, social constraints, and a lack of training [22]. The routine use of validated tools like the FSFI, together with the integration of sexual counseling and rehabilitation services, has the potential to greatly improve the quality of life for gynaecological cancer survivors.

Conclusion

Sexual dysfunction is a prevalent and clinically significant condition in women with gynaecological malignancies, affecting more than three-quarters of patients in the current study. Multiple aspects of sexual function were impaired, particularly sexual dissatisfaction and genito-pelvic discomfort, indicating a significant negative impact on quality of life. Sexual dysfunction was significantly associated with cancer type, FIGO stage, and treatment mode, with a higher prevalence shown in cervical cancer, advanced-stage disease, and women receiving multimodal treatment. These data demonstrate the combined effects of illness severity and vigorous therapeutic approaches on female sexual health. Despite its high frequency, sexual dysfunction is not properly treated in standard gynaecological oncology care. Routine sexual health screening and the incorporation of counseling and supportive interventions are critical for improving survivorship care and general well-being in women treated for gynaecological malignancies.

Conflict of Interest
Not available

Financial Support
Not available

References

1. Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, *et al*. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide. CA Cancer J Clin. 2021;71(3):209-249.
2. Greimel E, Nordin A, Lanceley A, Creutzberg CL, Franse VDPLV, Radisic VB, *et al*. Quality of life and sexuality in long-term survivors of gynecological cancer. Int J Gynecol Cancer. 2014;24(3):422-430.
3. Kingsberg SA, Woodard T. Female sexual dysfunction: Focus on low desire. Mayo Clin Proc. 2015;90(4):493-505.
4. Lindau ST, Abramsohn EM, Matthews AC. Aging, sexuality, and cancer survivorship. JAMA. 2014;312(3):255-264.
5. Bober SL, Varela VS. Sexuality in adult cancer survivors: Challenges and interventions. J Clin Oncol. 2012;30(30):3712-3719.
6. Bakker RM, Kenter GG, Creutzberg CL, Schutter EM, Nijman HW, Osterbeeck CA, *et al*. Sexual distress and dysfunction after pelvic radiotherapy for gynecologic cancer. Int J Gynecol Cancer. 2017;27(1):164-172.
7. Flynn KE, Reese JB, Jeffery DD, Abernethy AP, Sigurdardottir ST, Bruner DW, *et al*. Patient experiences with communication about sexual health during cancer care. J Clin Oncol. 2012;30(20):2600-2606.
8. Hordern AJ, Street AF. Communicating about patient sexuality and intimacy after cancer. Eur J Cancer Care (Engl). 2007;16(2):93-101.
9. Rosen R, Brown C, Heiman J, Leiblum S, Meston C, Shabsigh R, *et al*. The Female Sexual Function Index (FSFI): A multidimensional self-report instrument. J Sex Marital Ther. 2000;26(2):191-208.
10. Reese JB, Sorice K, Beach MC, Tulsky JA, Lanzkron S, Geller G. Patient-provider communication about sexual concerns in cancer survivors. Psychooncology. 2017;26(9):1239-1245.
11. Jensen PT, Groenvold M, Klee MC, Thranov I, Petersen MA, Machin D. Early-stage cervical carcinoma, radical hysterectomy, and sexual function. Cancer. 2003;97(3):645-653.
12. Taylor CCL, Engquist BK, Shinn EH, Bodurka DC. Predictors of sexual functioning in ovarian cancer patients. J Clin Oncol. 2004;22(5):881-889.
13. Abbott-Anderson K, Kwekkeboom KL. A systematic review of sexual concerns reported by gynecological cancer survivors. Gynecol Oncol. 2012;124(3):477-489.
14. Pieterse QD, Maas CP, ter Kuile MM, Lowik M, van Eijkeren MA, Trimbos JB, *et al*. Anatomic and functional changes after radical hysterectomy and pelvic radiotherapy: Impact on female sexual function. Int J Gynecol Cancer. 2006;16(3):1216-1223.
15. Donovan KA, Thompson LM, Jacobsen PB. Pain, depression, and sexual dysfunction in gynecologic cancer survivors. J Pain Symptom Manage. 2014;47(2):381-389.
16. Kirchheiner K, Nout RA, Pepl CA, Seliger PE, Sturdza AE, Dimopoulos J, *et al*. Health-related quality of life and sexual function after pelvic radiotherapy for gynecological cancer. Radiother Oncol. 2016;119(1):146-153.
17. Carter J, Sonoda Y, Baser RE, Li Y, Chi DS, Barakat RR, *et al*. A randomized trial of a psychosocial intervention for sexual dysfunction in women treated for gynecologic cancer. Gynecol Oncol. 2015;137(3):393-399.
18. Thompson S, Shear MK, Richardson P, Moskowitz J. Sexual function and quality of life in women treated for gynecologic cancer. Psychooncology. 2012;21(6):647-654.
19. Avis NE, Crawford S, Manuel J. Quality of life among younger women with gynecologic cancers. Cancer. 2005;104(4):899-907.
20. Brotto LA, Yule M, Breckon E. Psychological interventions for sexual dysfunction in cancer survivors. Curr Sex Health Rep. 2010;2(3):102-111.
21. Carter J, Goldfrank D, Schover LR. Simple strategies for vaginal health promotion in cancer survivors. J Sex Med. 2011;8(2):549-559.
22. Ussher JM, Perz J, Gilbert E. Information needs associated with changes to sexual well-being after breast and gynecological cancer treatment. J Sex Res. 2013;50(5):507-518.

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