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Original Research Article

Quality of life at initial presentation in patients with gynaecological malignancies: a cross-sectional study from a tertiary care centre in India

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ABSTRACT

Background: Gynaecological malignancies are associated with significant physical, psychological, social, and functional morbidity, often beginning at the time of diagnosis. Quality of life (QOL) assessment at baseline remains underexplored in the Indian setting. This study aimed to evaluate the quality of life of patients with gynaecological cancers at the time of initial presentation using the Functional Assessment of Cancer Therapy-General (FACT-G) questionnaire.

Methods: This cross-sectional observational study included 70 newly diagnosed, treatment-naïve patients with gynaecological malignancies presenting to a tertiary care hospital in North India. QOL was assessed using the interviewer-administered FACT-G questionnaire, comprising physical, social, emotional, and functional well-being domains. Descriptive statistical analysis was performed.

Results: Pain was the most frequently reported physical symptom, affecting 73% of patients. Emotional distress was highly prevalent, with 78% reporting sadness and fear of dying. Social well-being was compromised, with 88% reporting lack of closeness to friends and 70% dissatisfaction with sexual life. Overall, 76% of patients were dissatisfied with their current quality of life.

Conclusions: Quality of life was significantly impaired across multiple domains at the time of diagnosis of gynaecological cancers. Early identification of QOL deficits and integration of supportive and psychosocial care from the outset of cancer management are essential to improve patient-centered outcomes.

Keywords: Emotional distress, FACT-G, Gynaecological cancer, India, Quality of life

INTRODUCTION

Gynaecological cancers, including malignancies of the cervix, ovary, endometrium, vulva, and vagina, contribute substantially to cancer-related morbidity and mortality among women worldwide. According to GLOBOCAN 2020, gynaecological malignancies account for approximately 14-15% of all cancers in women, with a disproportionate burden in low- and middle-income countries.[1] In India, delayed diagnosis, limited access to comprehensive oncologic care, and sociocultural factors further exacerbate disease-related suffering.

Beyond survival, cancer profoundly affects quality of life (QOL), encompassing physical symptoms, emotional well-being, social relationships, sexual health, and functional capacity. The psychological impact of a cancer diagnosis itself may result in anxiety, depression, fear of death, and loss of perceived control, even before initiation of treatment. Studies suggest that 20-60% of cancer patients experience clinically significant distress, which may adversely influence treatment adherence, healthcare utilization, and overall outcomes.[2]

Gynaecological cancers uniquely affect aspects of femininity, body image, fertility, and sexual functioning. Treatments may be disfiguring and associated with long-term sequelae, further compromising QOL. Despite this, routine assessment of QOL at diagnosis is rarely incorporated into standard oncologic practice, particularly in resource-limited settings. Indian data focusing on baseline QOL in gynaecological cancer patients remain sparse, with most studies evaluating post-treatment outcomes.

The Functional Assessment of Cancer Therapy-General (FACT-G) questionnaire is a validated and widely used tool for assessing multidimensional QOL in cancer patients.[3] Evaluating baseline QOL using FACT-G may help identify vulnerable patients early and guide timely supportive interventions.

The present study was undertaken to assess the quality of life of patients with gynecological malignancies at the time of initial presentation to a tertiary care centre in India.

METHODS

This cross-sectional observational study was conducted in the Department of Obstetrics and Gynaecology at a tertiary care hospital of North India. The study was conducted over a period of 3 months in January 2024 to March 2024. Seventy consecutive patients with newly diagnosed gynaecological malignancies were enrolled. The study was approved by the Institutional Ethics Committee of the Hospital.

Women aged 18 years and above with a histopathologically confirmed diagnosis of gynaecological malignancy, including cancers of the cervix, ovary, endometrium, vulva, or vagina, were eligible for inclusion. Only newly diagnosed, treatment-naïve patients presenting for initial oncologic evaluation were enrolled. All participants provided written informed consent prior to inclusion in the study. Patients who had received any prior cancer-directed treatment were excluded from the study. Additionally, individuals with severe cognitive impairment or underlying psychiatric illness that could interfere with comprehension or reliable participation in the interview were not included. Critically ill patients who were unable to participate in the quality-of-life assessment at the time of presentation were also excluded.

Data collection tool

Quality of life was assessed using the Functional Assessment of Cancer Therapy-General (FACT-G) questionnaire. The instrument comprises 27 items across four domains: Physical Well-Being (PWB), Social/Family Well-Being (SWB), Emotional Well-Being (EWB), and Functional Well-Being (FWB). Each item is scored on a 5-point Likert scale, with higher scores indicating better QOL. The scores were computed following FACT-G guidelines, and various statistical measures, such as mean, median, and range, were used to analyze the data.

FACT-G has demonstrated high reliability, strong construct validity, and excellent sensitivity in distinguishing patients based on disease stage, performance status, and clinical condition. Importantly, it has also shown responsiveness to changes over time, allowing meaningful assessment of quality-of-life trajectories throughout the cancer continuum. Its brevity, ease of administration, and multidimensional framework make FACT-G particularly suitable for clinical and research settings, including resource-constrained environments. By capturing patient-perceived priorities across physical and psychosocial domains, FACT-G enables a holistic evaluation of quality of life and facilitates comparison across studies and populations. These attributes justified its use in the present study to assess baseline quality of life in patients with gynaecological malignancies.[4]

The questionnaire was administered in an interviewer-assisted format at the time of initial presentation, prior to initiation of any cancer-specific treatment.

Statistical analysis

Data were entered into Microsoft Excel and analyzed using SPSS version 25. Descriptive statistics were used. Continuous variables were expressed as mean ± standard deviation or median (range), while categorical variables were summarized as frequencies and percentages.

RESULTS

A total of 70 patients with newly diagnosed gynaecological malignancies were included in the study. The mean age of the participants was 52.4 years. Twenty-nine patients (41.4%) were younger than 50 years, while 41 patients (58.6%) were aged 50 years or above. The majority of patients were married (98.5%). Most patients were postmenopausal (88%). The sociodemographic characteristics are summarized in Table 1**.**

Ovarian cancer was the most common malignancy observed, accounting for 33 patients (47.1%), followed by cervical cancer in 28 patients (40%). Endometrial cancer was diagnosed in 8 patients (14.2%), while vulvar cancer constituted a small proportion, with one patient (1.4%). The distribution of cancer types is shown in Table 2. The majority of patients presented with locally advanced disease.

Quality of life assessment

Quality of life was assessed across the physical, social/family, emotional, and functional well-being domains using the Functional Assessment of Cancer

Therapy-General (FACT-G) questionnaire. The mean physical well-being score was 7.57 (median: 5). The social/family well-being domain demonstrated a mean score of 8, while emotional well-being had a relatively higher mean score of 9.35. The mean functional well-being score was 7.78.

The mean total FACT-G score was 32, with a median of 28 and a mode of 36, reflecting an overall compromised quality of life at the time of diagnosis. Domain-wise score distribution is presented in Table 3. Here, observed score ranges are presented alongside the theoretical maximum possible scores for each FACT-G domain.

Table 1: Demographic and clinical characteristics of study participants.

Variables	Number of cases (%)
Mean age (years)	52.4
<50	29 (41.4)
≥50	41 (58.6)
Marital status	
Married	69 (98.5)
Unmarried	1 (1.4)
Kuppuswamy scale	
Low	49 (70.0)
Middle	21 (30.0)
Education	
Literate	42 (60.0)
Illiterate	28 (40.0)
Residence	
Urban	32 (45.0)
Rural	38 (55.0)
Menopausal status	
Postmenopausal	62 (88.0)
Premenopausal	8 (12.0)
Parity	
Nulliparous	2 (2.8)
<3	28 (40.0)
≥3	40 (57.1)
Tobacco use	
Yes	25 (35.0)
No	45 (65.0)

Table 2: Distribution of cancer type.

Cancer type	Number (%)
Ca Cervix	28 (40)
Ca Ovary	33(47.1)
Ca Endometrium	8 (14.2)
Ca Vulva	1 (1.4)

Physical well-being

Pain was the most frequently reported physical symptom, affecting 51 patients (73%). Lack of energy was reported by 21 patients (30%). Other commonly reported physical complaints included nausea and sleep disturbances.

Table 3: Domain-wise score distribution (n=70).

	Score range	Mean	Median	Mode
Physical well being	2-20 (0-28)	7.57	5	2
Social/family well being	1-22 (0-28)	8	7	10
Emotional well being	3-18 (0-24)	9.35	10.5	14
Functional well being	2-21 (0-28)	7.78	7	12
Total	8-81 (0-108)	32	28	36

Social/family well-being

Impairment in social relationships was commonly reported. Sixty-two patients (88%) did not feel close to friends, and dissatisfaction with sexual life was reported by 49 patients (70%).

Emotional well-being

Emotional distress was prominent at the time of diagnosis. Fifty-five patients (78%) reported feeling sad and worried about dying. Feelings of nervousness and loss of hope were also frequently reported.

Functional well-being and overall quality of life

With regard to functional well-being, 48 patients (69%) reported sleeping well despite the presence of symptoms. Overall quality of life dissatisfaction was observed in 76% of patients, as detailed in Table 4.

Table 4: Overall quality of life dissatisfaction at initial presentation (n=70).

Overall QOL status	Number of patients (%)
Dissatisfied with current QOL	53 (76)
Satisfied with current QOL	17 (24)

Considerable variability was observed across all FACT-G domains, as reflected by wide score ranges. Among the four domains, physical and functional well-being demonstrated lower mean scores compared to emotional well-being.

DISCUSSION

Gynaecological cancers continue to pose a substantial global health burden, with over 1.4 million new cases and 680,000 deaths reported in 2022, and marked regional disparities in incidence and mortality, particularly affecting low- and middle-income countries.[5]

Quality of life in cancer patients has been assessed using various validated instruments, each addressing different dimensions of cancer-related morbidity. The Cancer Rehabilitation Evaluation System-Short Form (CARES-SF) is a comprehensive tool that evaluates physical, psychosocial, sexual, and marital functioning, while the Hospital Anxiety and Depression Scale (HADS) is widely used to screen for psychological distress, particularly symptoms of anxiety and depression, in oncology settings.[6,7] These instruments have been effectively employed in longitudinal studies to capture changes in quality of life and emotional well-being during and after cancer treatment.

Robust evidence from large pooled analyses has established baseline health-related quality of life as an independent prognostic factor for survival in cancer patients. Using the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORTC QLQ-C30), multiple domains including physical functioning, pain, appetite loss, global health status, and emotional functioning have been shown to significantly predict overall survival across diverse cancer types, independent of clinical and sociodemographic variables. The EORTC QLQ-C30 offers a standardized, internationally validated framework that captures both functional status and symptom burden, enabling meaningful prognostication and cross-study comparisons. These findings highlight that patient-reported outcomes are not merely reflective of well-being but carry prognostic significance, reinforcing the importance of early quality-of-life assessment and timely supportive interventions in comprehensive cancer care.[8]

In the present study, quality of life was assessed using the Functional Assessment of Cancer Therapy-General (FACT-G) questionnaire, a widely validated, cancer-specific instrument designed to capture multidimensional aspects of health-related quality of life. FACT-G evaluates physical, social/family, emotional, and functional well-being, providing a holistic assessment relevant across diverse cancer types and stages. Compared to symptom-specific or psychosocial screening tools, FACT-G offers the advantage of integrating both physical symptom burden and psychosocial functioning into a single, concise measure. Its robust psychometric properties, ease of administration, make it particularly suitable for assessing baseline quality of life at diagnosis even for gynaecological malignancies. Additionally, FACT-G allows meaningful comparison with existing national and international literature, thereby strengthening the external validity of the study findings.

The present study demonstrates that quality of life is significantly compromised across multiple domains among patients with gynaecological malignancies at the time of initial presentation. Notably, low scores in the physical and functional well-being domains, coupled with a high prevalence of emotional distress, highlight the substantial symptom burden and psychosocial impact experienced even before initiation of cancer-directed therapy.

Pain emerged as the most prevalent physical complaint, consistent with previous studies demonstrating high symptom burden at diagnosis. Emotional distress was particularly pronounced, with more than three-quarters of patients reporting sadness and fear of dying. Similar levels of psychological morbidity have been reported in studies by Mehnert et al emphasizing the universal nature of cancer-related distress.[2]

Longitudinal studies have shown that while quality of life may remain relatively preserved during chemotherapy, it significantly deteriorates in the months following treatment, particularly in the physical and sexual domains. Additionally, symptoms of anxiety and depression have been consistently associated with poorer quality of life across all time points.[9]

Previous studies have highlighted that sexual health remains an under-addressed aspect of care in gynaecologic cancer patients, with more than half of patients reporting no discussions regarding sexuality during their cancer journey. Patient discomfort and provider reliance on age as a surrogate for sexual health needs have been identified as major barriers, underscoring the need for proactive, patient-centered communication strategies.[10]

These findings are concordant with our observation of high levels of dissatisfaction with sexual life, emphasizing the need for routine assessment and timely discussion of sexual health as an integral component of gynaecologic cancer care. Cultural stigma, lack of open communication regarding sexual health, and altered body image may contribute to these findings in the Indian context. Gynaecological cancers uniquely threaten femininity and reproductive identity, amplifying psychosocial distress. Social well-being was also notably compromised.

Poor baseline QOL has been associated with reduced adherence to treatment, decreased healthcare utilization, and inferior outcomes. Early identification of QOL deficits allows targeted interventions, including pain management, psychological counselling, and social support, potentially improving both patient experience and clinical outcomes.

A meta-analysis of 78 studies demonstrated that psychological interventions significantly improve quality of life among cancer patients and survivors, with a moderate overall effect size. Benefits were particularly pronounced in patients undergoing active medical treatment or post-treatment adjustment, and interventions addressing depressive symptoms yielded greater quality-of-life gains, underscoring the importance of integrating structured psychological care into comprehensive cancer management.[11]

Indian studies have consistently demonstrated a high symptom burden and markedly impaired quality of life among cancer patients. In a large cross-sectional survey involving 768 Indian patients, over 80% were found to have low quality-of-life scores, with symptoms significantly influencing physical and psychosocial well-being, particularly in those with advanced-stage disease. These findings highlight the urgent need for symptom-directed and supportive interventions in the Indian cancer care setting.[12]

A recent systematic review of Indian studies using the World Health Organization Quality of Life (WHOQOL) framework further corroborated these findings, reporting predominantly low or below-average quality of life among cancer survivors. Pain, fatigue, emotional distress, impaired social relationships, and financial burden emerged as key determinants of poor quality of life, alongside demographic, disease-related, and social factors. The review emphasized the need for culturally tailored, standardized quality-of-life assessment and longitudinal research in the Indian context.[13]

Ovarian cancer is frequently diagnosed at an advanced stage, resulting in significantly compromised health-related quality of life (HRQOL) at presentation. Baseline HRQOL scores have demonstrated prognostic significance, with poorer physical functioning and greater symptom burden correlating with inferior progression-free and overall survival. Beyond informing treatment tolerance and therapeutic decision-making, HRQOL assessments serve as valuable stratification tools in clinical trial design and palliative care planning. Patient-reported outcomes consistently identify fatigue, pain, abdominal bloating, and sexual dysfunction as key contributors to impaired physical, emotional, social, and functional well-being throughout the disease trajectory. Importantly, while generic instruments such as FACT-G provide robust overall assessment, disease-specific tools like the Functional Assessment of Cancer Therapy-Ovarian (FACT-O) allow more nuanced evaluation of ovarian cancer–related symptoms and treatment effects, enhancing the clinical relevance of quality-of-life measurement in both research and practice.[14]

An Indian tertiary-care cross-sectional study assessed quality of life in 136 cervical cancer patients using the FACT-Cx questionnaire and demonstrated a moderate overall QoL, with relative preservation of social, family, and functional well-being. Physical well-being was significantly influenced by educational status and advanced tumour stage, highlighting the impact of sociodemographic factors and disease burden on QoL among Indian cervical cancer patients and underscoring the need for targeted counselling and supportive care interventions.[15]

Our findings of significantly compromised social and emotional well-being on the FACT-G scale are concordant with evidence from psychosocial oncology literature. Castro et al., in a cross-sectional study from Puerto Rico, demonstrated that cancer patients and survivors rated support networks and interactions with health professionals as the most important contributors to perceived quality of life, while emotional support needs remained substantial yet under-addressed. Notably, women assigned greater importance to health professional communication and informational support, reinforcing the relevance of patient provider interactions captured within the social and emotional domains of FACT-G. The high levels of social disconnection and emotional distress observed in our cohort further emphasize the need for structured psychosocial support pathways integrated into routine gynaecologic oncology care.[16]

The results of our study support routine incorporation of QOL assessment into initial cancer evaluation, particularly in high-burden, resource-limited settings. The study was limited by its single-centre design and relatively small sample size. The cross-sectional nature precluded longitudinal assessment of changes in QOL over time. Additionally, only patients who consented were included, introducing potential selection bias. This study provides valuable baseline QOL data in Indian patients with gynaecological cancers using a validated instrument. Unlike many studies focusing on post-treatment outcomes, it emphasizes QOL at diagnosis, a critical yet underexplored phase of cancer care.

CONCLUSION

Patients with gynaecological malignancies experience substantial impairment in quality of life across physical, emotional, social, and functional domains at the time of diagnosis. Early and systematic assessment of quality of life should therefore be integrated into routine oncologic care to enable timely identification of unmet needs. Multidisciplinary strategies focusing on symptom control, psychological support, sexual health, and patient empowerment are essential to improve holistic outcomes. Given the paucity of Indian data in this domain, the present study contributes valuable baseline evidence from a tertiary care setting; however, larger multicentric and longitudinal studies are warranted to better characterize quality-of-life trajectories and inform context-specific supportive care interventions in the Indian population.

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