

# Effect of Integrated Palliative Care on Outcomes of Patients with Gynecologic Cancer

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## ABSTRACT

**Background:** Palliative care nurses typically need to balance symptoms and pain relief. Making the patient as comfortable as possible is the primary responsibility of nurses. Furthermore, they provide essential emotional support to patients and their families, while also educating them on effective symptom-management strategies, including techniques to alleviate anxiety and manage treatment-related side effects. The early involvement of palliative care provides comprehensive care, improving patient outcomes, notably in symptom management, quality of life, and family satisfaction. **Objectives:** The aim of the study was to evaluate the process of integrated palliative care and its effect on the health of patients with gynecologic cancer. **Methods:** A quasi-experimental (pre–posttest) design was used. The study was conducted on 70 patients with gynecologic cancer at the Women Health Hospital's gynecologic oncology unit at Assiut University. Two tools were used for data collection: a structured interview and the EORTC-C30 questionnaire, which included 30 items assessing health-related quality of life (Global health status / QoL), functioning scale (cancer patients' role, cognitive, physical, social, and emotional), and symptoms scale. **Results:** A significant increase in the score of the functioning scale, a decrease in the symptom scale score, and better health-related QoL during the follow-up was observed. **Conclusion:** The health status of gynecological cancer patients improved after providing palliative care. **Recommendations:** All patients with gynecologic cancer should receive palliative care beginning with their diagnosis.

**Keywords:** *Gynecologic Oncology; Palliative Care; Patients' Outcomes*

## INTRODUCTION

Palliative care nurses work with patients and families who are facing terminal illness as part of an interdisciplinary team. They often coordinate care in consultation with patients, their caregivers, healthcare providers, and other members of the healthcare team. As a result, palliative nursing is a specialized field of nursing practice that continues to develop alongside the art and science of nursing and palliative care (Sułkowska *et al.*, 2024). Palliative care nurses provide compassionate care for terminally ill patients as well as those recovering from serious illnesses. They focus on promoting an environment that supports pain management and overall well-being, often working closely with patients' families and support networks (Phillips *et al.*, 2025).

Oncology nurses play a crucial role in facilitating the development of early palliative care due to their close relationships with patients and their position between patients and oncologists. Expanding access to early palliative care can be achieved by providing all nurses with appropriate palliative care training and enabling them to engage in proactive, collaborative communication with patients and the healthcare team (Pointon *et al.*, 2024). The World Health Organization defines palliative care as “an approach that improves the quality of life of patients and their families facing life-threatening illness through the prevention and relief of suffering, achieved by early identification, comprehensive assessment, and management of pain and other physical, psychosocial, and spiritual problems” (Silva Reis *et al.*, 2025). Gynecologic cancer refers to any cancer that occurs in the female reproductive organs. The five main types include cervical, ovarian, uterine, vaginal, and vulvar cancers. Fallopian tube cancer is considered a sixth type, although it is relatively rare (Parkash *et al.*, 2023).

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Health status refers to the impact of illness on a patient's functioning as perceived and reported by the patient. It can be more specifically defined as the range of disease manifestations in an individual, including symptoms, functional limitations, and overall quality of life (Asal *et al.*, 2026). To enhance the health status of patients with gynecologic cancer, interventions should focus on a holistic care approach. This includes implementing psychosocial support programs, integrating palliative care services early in treatment plans, and offering survivorship programs after treatment. Moreover, adopting a multidisciplinary approach involving oncologists, nurses, psychologists, and social workers can effectively address the diverse needs of these patients (Swarnakar & Yadav, 2025).

Patients with gynecologic cancer who receive treatments such as surgery, chemotherapy, and radiation often face numerous challenges, including physical and psychological symptoms, as well as poor prognosis during the course of their disease. These challenges can interfere with treatment adherence and may negatively affect the quality of life of patients with gynecologic cancer and that of their families (Melo *et al.*, 2025). In this context, there is growing interest in palliative care, which offers a comprehensive approach for patients with gynecologic cancer (Altarawneh *et al.*, 2023).

Palliative care interventions have been demonstrated to effectively mitigate the physical symptoms commonly experienced by patients with gynecologic cancer. Pain management strategies, fatigue-reduction techniques, and nausea control measures are integral components of palliative care that contribute to improving patients' overall health status. Furthermore, the psychosocial support provided through palliative care services helps address psychological distress and enhances patients' emotional well-being (Wang *et al.*, 2025).

## Research Gap

There is a notable lack of studies focusing specifically on patients with gynecologic cancer that evaluate the integration of palliative care alongside standard oncologic treatment. Additionally, limited research has examined longitudinal changes in health outcomes across multiple time points (e.g., baseline, 2 months, and 4 months). Moreover, there is a scarcity of evidence from developing countries, where access to palliative care and healthcare systems varies considerably.

## Significance of the Study

The present study addresses these gaps by evaluating the effect of integrated palliative care on multiple patient outcomes among patients with gynecologic cancer using a prospective, repeated-measures design. By examining changes across multiple time points, this study provides a more dynamic understanding of patient improvement patterns. Furthermore, generating evidence from a resource-limited setting provides valuable information about the feasibility and effectiveness of integrating palliative care into routine oncology practice.

Recent studies have demonstrated the positive outcomes associated with incorporating early palliative care into the treatment plans of patients with gynecologic cancer. Interventions such as early integration of palliative care teams, advance care planning, and interdisciplinary communication have been linked to improved symptom management and enhanced quality of life (Adamidis *et al.*, 2024). In addition, early palliative care has been associated with reduced healthcare resource utilization at the end of life. It can be provided alongside curative or life-prolonging treatments, as well as during end-of-life care (Karhausen, 2025).

The incorporation of palliative care into routine gynecologic cancer treatment has been associated with lower healthcare costs, reduced symptom burden, and improved quality of life for patients. However, the claim of enhanced cure rates should be interpreted cautiously, as palliative care primarily focuses on symptom management and quality of life rather than curative outcomes (Persenaire *et al.*, 2023), and it is important to note that while some patients may experience improved overall well-being, this does not necessarily translate to increased cure rates. A limited number of studies have evaluated the impact of palliative care on patients with gynecologic cancer, which prompted the authors to conduct this study.

## Study Aim

To evaluate the impact of integrated palliative care that affected the health outcomes of patients with gynecologic cancer, improving their quality of life.

## Research Hypotheses

**H1:** Implementation of integrated palliative care is expected to improve the patient's outcomes among patients with gynecologic cancer.

**H2:** Implementation of integrated palliative care improves the health status of gynecologic oncology patients.

## METHODOLOGY

### Technical Design

**Study Design:** This study used a quasi-experimental (pre–posttest) design. This design was applied to assess the effect of an intervention by measuring outcomes before and after implementation, with repeated measures collected over time (e.g., every 2 months) (Flanagan & Beck, 2024).

**Setting:** The study was conducted at the Gynecologic Oncology Unit of the Women's Health Hospital for inpatients at Assiut University. The unit consists of five rooms, including an examination room, a pre-operative room, a postoperative room, the director's room, and a nursing station. This unit provides a comprehensive approach to the diagnosis and surgical management of both malignant and benign conditions of the female reproductive system.

### Sample Size

A convenience sampling technique was used in this study. The sample size was calculated using G\*Power software (version 3.1.9.7) based on Cohen's effect size of 0.5, as recommended by expert opinion. With a statistical power of 0.80 ( $1-\beta$  error probability) and a significance level of 0.05 ( $\alpha$  error probability), the required sample size was 69 participants. To account for potential dropouts and increase study reliability, the sample size was increased to 70 patients with gynecologic cancer.

### Inclusion Criteria

The patients diagnosed with gynecologic cancer who were older than eighteen years of age, who were able to communicate effectively, and who provided informed consent to participate in the study were included.

**Tools:** In this study, the researcher collected data using two tools.

**Tool I:** Structured interview questionnaire

This tool included demographic data, medical history of any diseases, family history, menstrual history, obstetrical history, gynecological history, current cancer-related information, therapeutic status, and the reason for palliative care referral.

**Tool II:** (EORTC QLQ-C30 questionnaire) (Harris *et al.*, 2025)

The purpose of this questionnaire was to evaluate health-related quality of life, including global health status/QoL and functional scales, as well as symptom scales such as fatigue, nausea, vomiting, pain, dyspnea, insomnia, loss of appetite, diarrhea, constipation, and financial difficulties.

### Scoring system

All scales of measurement have scores that range from 0 to 100. A higher score on the global health status/quality of life (QOL) scale indicates better overall QOL, while higher scores on functional scales reflect enhanced or healthier levels of functioning. In contrast, higher scores on symptom scales or individual items denote greater symptom burden or severity of problems. After applying the linear transformation as stipulated by EORTC (European Organization for Research and Treatment of Cancer), the scores are adjusted accordingly.

### Linear Transformation

Functional scales: S

Symptom scales/items and global health status/QoL:  $S = \{(RS - 1)/\text{range}\} \times 100$

Range is the difference between the highest and the lowest possible value of RS (Row score).

### **Operational Design**

It was presented in two stages of pilot research and fieldwork.

### **Pilot Study**

A pilot study was conducted in May 2023 to determine the time required for data collection and to test the feasibility and applicability of the tools. It included 10 patients, representing 10% of the total sample. The tools were reviewed by experts in medicine and nursing for content validity.

### **Fieldwork**

Data collection was conducted for 12 months, starting on May 1<sup>st</sup>, 2023, and ending on April 30<sup>th</sup>, 2024. The study was done in three stages: before the intervention, during the intervention, and after the intervention.

### **Pre-intervention Phase**

Patients diagnosed with gynecologic cancer in the oncology unit at Women's Health Hospital were interviewed in their rooms by the researcher, who explained the aim of the study. Patients who agreed to participate were informed that participation was entirely voluntary. They were also provided with explanations regarding the study's purpose, the intended use of the results, and the assurance that confidentiality and anonymity would be maintained.

### **Intervention Phase**

Each participant was interviewed for approximately 15–25 minutes to complete the study tools. In more than 65% of cases, the questionnaire was read aloud by the researchers to patients and their families due to literacy challenges. Responses were recorded by marking the appropriate answers to identify the presence of symptoms, problems, or concerns, followed by referral to specialists when necessary.

### **Referral**

After identifying symptoms and issues, patients were referred by the researcher to specialists for symptom control, pain management, psychotherapy, and physiotherapy, in consultation with the on-duty physician.

### **Follow up**

The researchers conducted follow-up evaluations for all patients at 2, 4, and 6 months after referral. If a patient was admitted to the oncology unit, the researcher met them directly; otherwise, follow-up was conducted via telephone using the EORTC QLQ-C30 questionnaire as a post-test measure.

### **Administrative Design**

The study was conducted after obtaining approval from the Research Ethics Committee of the Faculty of Nursing, Assiut University, as well as approval from the Dean of the Faculty. Formal permission was also obtained from the Director of Women's Health Hospital. Written informed consent was obtained from all participating patients, with assurance of confidentiality. Participants had the right to withdraw from the study at any time.

### **Statistical Design**

Data were verified, coded by the researcher, and analyzed using IBM-SPSS 24.0. Descriptive statistics: Means, standard deviations, medians, ranges, frequency, and percentages were calculated. A test of normality, Shapiro-Wilk/Kolmogorov–Smirnov, was used to test the normality of continuous variables. For continuous variables comprising more than two categories, repeated measures analysis of variance (RM-ANOVA) was employed to assess mean differences among normally distributed data with repeated observations. Post hoc pairwise comparisons between the two study groups were conducted using Bonferroni-adjusted corrections. Statistical significance was established at a  $p$ -value of  $<0.05$ .

### **Ethical Considerations**

The research idea was approved by the Research Ethics Committee, Faculty of Nursing, Assiut University, Egypt, with reference number 1120230611, on 30<sup>th</sup> April, 2023.

Participants were not exposed to any risks during the course of the study. The study complied with accepted ethical standards for clinical research. After explaining the nature and aim of the study, informed consent was obtained from the patients or their legal guardians. Anonymity and confidentiality were ensured. Participants had the right to withdraw from the study at any time without providing any justification. The privacy of the study participants was strictly maintained during data collection.

**RESULTS**

**Table 1: Distribution of Participants with Gynecologic Cancer Based on Demographic Characteristics (n = 70)**

Variable	Category	Value
Age/years	Mean ± SD	51.83 ± 14.63
	Median (Range)	51 (22 – 78)
Age Groups	20 - 39 years	14 (20%)
	40 – 60 years	36 (51.4%)
	> 60 years	20 (28.6%)
Occupation	Housewife	67 (95.7%)
	Employed	3 (4.3%)
Residence	Urban	3 (4.3%)
	Rural	67 (95.7%)
Level of Education	Illiterate	47 (67.1%)
	Read/Write	9 (12.9%)
	Primary/Elementary	10 (14.3%)
	Secondary	3 (4.3%)
	University	1 (1.4%)
Marital Status	Single	14 (20%)
	Married	33 (47.1%)
	Divorced	6 (8.6%)
	Widow	17 (24.3%)

Table 1 shows the demographics of the participants who were studied. It shows that 51.4% of them were in the age range of 40 and 60, with a mean age of 51.83±14.63. Furthermore, 95.7% were housewives and lived in rural areas (95.7%). According to their educational level, 67.1% were illiterate, and about 47.1% of them were married.

**Table 2: Impact of Integrated Palliative Care on the Health-related Quality of Life (Global Health Status/QoL) Across the Study Groups**

Variable	Category	n = 70
Cancer Type	Uterine	24 (34.3%)
	Ovarian	33 (47.1%)
	Vaginal	1 (2.9%)
	Cervical	10(14.3%)
	Valvular	2 (2.9%)
Stage	Stage-I	24 (34.3%)
	Stage-II	23 (23.9%)
	Stage-III	13 (18.6%)
	Stage-IV	10 (14.3%)
Therapeutic Status	At Diagnosis	9 (12.9%)
	Under Treatment	38 (54.3%)
	< 5 years post-TTT	20 (28.6%)
	≥ 5 years post-TTT	3 (4.3%)
Palliative Treatment	Pain Management	22 (31.4%)
	Psychotherapy	6 (8.6%)
	Physiotherapy	21 (30%)
	Symptom Control	65 (92.9%)

Table 2 depicts the current cancer data, which illustrates that 47.1% of patients suffer from ovarian cancer, 34.3% of them were in stage I, and 54.3% are under treatment.

**Table 3: Impact of Integrated Palliative Care on the Health-Related Quality of Life (Global Health Status/QOL)**

	Mean ± SD	CI 95%	P-value	F value	df	Effect Size (η <sup>2</sup> )
Baseline	34.10 ± 26.7	34.10(40.35-27.85)	<0.001	103.864	3	0.619
2-months	45.25 ± 24.38	45.25(50.96-39.54)				
4-months	65.76 ± 20.1	65.76(70.47-61.05)				
6-months	78.46 ± 17.23	78.46(82.49-74.43)				

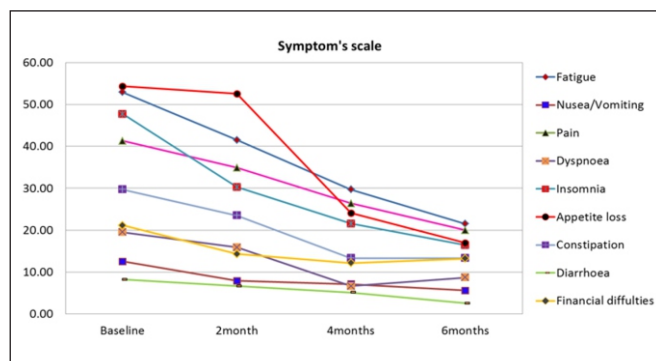
Repeated measures ANOVA were employed to examine mean differences over time between groups

Table 3 shows a highly significant difference in health-related quality of life scores at baseline, 2 months, 4 months, and 6 months of follow-up ( $P < 0.001$ ). The mean score of quality of life increased progressively compared with the baseline during the follow-up period. The effect size was very large ( $\eta^2 = 0.619$ ), indicating a strong intervention effect.

**Table 4: Impact of Integrated Palliative Care on Functioning scale of EORTC-30**

Functioning Subscales	Mean SD	CI 95%	P-value	F value	df	Effect size (η <sup>2</sup> )
<b>Physical Functioning</b>						
Baseline	46.05 ± 30.3	46.05 (38.96-53.14)	< 0.001	36.121	3	0.361
2-months	55.07 ± 28.7	55.07 (48.36- 61.78)				
4-months	68.82 ± 29.06	68.82 (62.03-75.61)				
6-months	78.35 ± 26.08	78.35 (72.25-84.45)				
<b>Role Functioning</b>						
Baseline	29.48 ± 28.8	29.48 (22.75-36.21)	< 0.001	15.20	3	0.192
2-months	42.82 ± 33.9	42.82 (34.90- 50.74)				
4-months	61.02 ± 32.9	61.02 (53.33-68.71)				
6-months	69.48 ± 30.4	69.48 (62.37-76.59)				
<b>Emotional Functioning</b>						
Baseline	13.84 ± 24.4	13.84 (8.13-19.55)	< 0.001	8.11	3	0.112
2-months	13.58 ± 19.3	13.58 (9.07- 18.09)				
4-months	28.46 ± 26.3	28.46 (22.32- 34.60)				
6-months	34.61 ± 27.7	34.61 (28.13- 41.09)				
<b>Cognitive Functioning</b>						
Baseline	12.52 ± 19.3	12.52 (8.01- 17.03)	0.580	0.656	3	0.010
2-months	9.23 ± 17.4	9.23 (5.16-13.30)				
4-months	12.05 ± 22.3	12.05 (6.83-17.27)				
6-months	7.17 ± 17.1	7.17 (3.17-11.17)				
<b>Social Functioning</b>						
Baseline	24.61 ± 27.8	24.61 (18.11, 31.11)	< 0.001	15.20	3	0.205
2-months	30.51 ± 26.2	30.51 (24.39, 36.63)				
4-months	46.41 ± 26.5	46.41 (40.22, 52.60)				
6-months	54.35 ± 29.7	54.35 (47.41, 61.29)				

Table 4 demonstrated a significant difference in the increase of scores for social, emotional, role, and physical functioning ( $P < 0.001$ ) at the four time points. No significant difference was found in the decrease in the mean score of the cognitive functioning subscale at the time point.



**Figure 1: Impact of Integrated Palliative Care on Symptom Scale Items of the EORTC QLQ-C30**

Figure 1 illustrates a statistically significant decrease in symptom burden scores for fatigue, pain, dyspnea, loss of appetite, insomnia, and constipation across the four time points ( $p < 0.001$ ,  $p = 0.021$ ,  $p < 0.001$ ,  $p < 0.001$ , and  $p < 0.005$ , respectively).

## DISCUSSION

Nurses have been at the forefront of initiatives aimed at expanding and implementing oncology and palliative care programs. Fifty years ago, most cancer analyses supposed a terrible prognosis, excessive symptom burden, and sickness uncertainty. Currently most cancer care is superior and consists of palliative care along with revolutionary treatments and symptom management. Specialty-educated oncology and palliative care nurses are important in sickness and symptom management, psychosocial and religious aid, and enhancing care planning (Alsuliman *et al.*, 2024).

Palliative care is distinguished from other medical specialties by its core philosophy of care delivery; an interdisciplinary team collaborates to provide care driven by the concerns and needs of the patient and family. “Family,” as defined by both the patient and the staff, may encompass friends in addition to relatives. Referral for palliative care often faces a significant load of symptoms that impact the standard of living for people with advanced gynecologic cancers (Ibrahim *et al.*, 2024). The current study demonstrated a significant improvement in health-related quality of life (global health status/QoL) at 2, 4, and 6 months compared with baseline. Significant increases were also observed in global health status/QoL and in several functional domains, including physical role, emotional, and social functioning. However, cognitive functioning did not show a statistically significant change over time.

The current findings are also in line with Barbu *et al.* (2025), who implemented their study to evaluate the quality of life in cervical cancer patients treated with radiotherapy in Poland and showed that health-related QoL scores increased directly after treatment, 5–6 months later, when compared to pre-treatment levels. The reason for this consistency is to utilize the same tool and the same timing for follow-up. The current results are online with Wang and Ding (2025). The study evaluated the quality of life, problems, and requirements of disease-free breast cancer survivors 5 years after diagnosis in Germany and showed that global QoL was impaired during cancer therapy but improved after the end of chemotherapy and/or radiotherapy. This finding supports the application of palliative care to patients with gynecologic cancer.

The current results are inconsistent with DSilva *et al.* (2023), that investigated change in quality of life scores for patients with gynecological cancer who underwent radical radiotherapy. They compared scores before treatment and up to three years after treatment, also determining how long-term side effects affected their quality of life. They found that radiotherapy treatment for gynecological cancer has a detrimental impact on QoL, which stands for quality of life. This discrepancy may stem from the fact that the study focused on radiation, a treatment that had long-term detrimental effects on the illness.

Xu and their colleagues reported similar findings in their study conducted in China, examining changes in patients' quality of life during the first, second, and third months post-surgery (Xu *et al.*, 2025). They observed significant differences in patients' bodily pain, general health, mental health, physical functioning, emotional role, physical role, social functioning, and vitality across these time points. Specifically, overall quality of life scores were significantly higher in the second and third months compared to the first month ( $p < 0.05$ ).

Regarding functioning subscales, significant improvements were observed in physical, role, emotional, and social functioning domains. Physical functioning showed the greatest improvement ( $\eta^2 = 0.361$ ), which may be attributed to enhanced symptom management, improved patient education, and adherence to care plans. This finding is consistent with recent studies emphasizing that structured supportive care interventions significantly improved physical well-being among patients with chronic and oncologic conditions (MacMartin *et al.*, 2025).

Similarly, role functioning improved significantly over time, indicating that patients regained their ability to perform daily activities and responsibilities. This improvement may be explained by better physical status combined with psychological adaptation. These findings are supported by studies highlighting that early supportive and palliative care interventions enhance patients' independence and role performance (Bakitas *et al.*, 2025).

Emotional functioning demonstrated delayed improvement, with minimal change initially followed by significant progress at later follow-ups. This pattern is supported by recent longitudinal studies, which found that psychological outcomes—such as depression and emotional distress—require longer periods to improve and are strongly influenced by the quality of palliative care services (Kang *et al.*, 2025). Similarly, Argyriou *et al.* (2024) noted that cognitive changes in cancer patients may persist despite improvements in physical and emotional well-being, suggesting a dissociation between global QoL recovery and cognitive outcomes. Therefore, the lack of significant improvement in cognitive functioning in the current study may reflect the need for specific cognitive rehabilitation strategies. These results are in line with Osei *et al.* (2023), who conducted their research to assess a structured support intervention program, symptoms, and life quality (QoL) among 61 consecutive cancer patients with different tumor diagnoses in America, noting that QoL, as well as physical and psychological function scores, enhanced three months post follow-up.

In contrast, the present findings are inconsistent with those reported by Wang and Ding (2025), who demonstrated that physical, emotional, social, and role functioning among patients undergoing cancer treatment were initially lower than those of healthy reference populations but showed substantial improvement over time. However, cognitive functioning and sleep disturbances remained significantly impaired even at the five-year follow-up. The observed discrepancy in findings may be attributed to differences in cultural context and the relatively large sample size ( $n = 190$ ).

The current study showed a decrease in the symptoms subscale score (fatigue, nausea and vomiting, pain, dyspnea, insomnia, appetite loss, constipation, diarrhea, and financial difficulties), which decreased at 2, 4, and 6 months compared to the baseline score. On the same line, Sutradhar *et al.* (2026) researchers evaluated the effects of age, symptoms, illness characteristics, and treatment on overall quality of life (QoL) and described the pattern of QoL over time. They discovered that overall QoL improved following treatment completion.

The current findings are consistent with Alnajjar *et al.* (2025), who investigated the impact of palliative care on symptom management among Jordanian patients with advanced cancer receiving outpatient treatment. Their study demonstrated that palliative care significantly alleviated a wide range of symptoms, including fatigue, pain, nausea, sadness, anxiety, drowsiness, dyspnea, loss of appetite, sleep disturbances, and overall distress. This similarity may be partially attributed to cultural factors in Arab societies, where family support, collective caregiving, and traditional practices play a critical role in patient care, enhancing the effectiveness of palliative interventions, which may lead to improved symptom management and quality of life for patients receiving such care.

The present results are inconsistent with DSilva *et al.* (2023), who indicated that elevated scores on the symptom scales of the EORTC QLQ-C30 represent a significant level of symptom experience and, consequently, a low QoL. A rise in scores over time signifies a decline in QoL. Right after treatment, symptom scores for fatigue, nausea, appetite loss, and diarrhea were all considerably greater than those recorded during the pre-treatment evaluation. During the 6 weeks following radiotherapy, symptom scores for fatigue and diarrhea remained notably elevated compared to pre-treatment evaluations. This phenomenon may be attributed to the complexity of treatment, which can persist over an extended period in patients.

This finding disagreed with Lee *et al.* (2022), who evaluated patients receiving chemotherapy for newly diagnosed ovarian cancer in terms of their quality of life and symptom distress and found that the patients reported a higher QoL score at baseline (T1) compared to chemotherapy in the fifth cycle (T5). This difference may be explained by the fact that the study focused on ovarian cancer, whereas the current study encompasses various types of gynecological cancer.

In the current study, for palliative care referrals, nearly two-thirds of patients require symptom management. More than a third require pain management, less than one-tenth need psychotherapy treatment referral, and a third require physiotherapy. This result aligned with Kamel *et al.* (2025) conducted a study to evaluate the quality of life of gynecological cancer patients treated at the Women's Health Hospital, Assiut University, Egypt, as well as their palliative care needs. Their findings indicated that over one-quarter of

patients required pain management, fewer than one-tenth needed referral for psychotherapy, more than one-sixth required physiotherapy referral, and over two-fifths required symptom control. These findings are comparable to the present study, likely due to the similar clinical setting and hospital context.

This result is consistent with Brenne *et al.* (2024), who demonstrated that only around one-fourth of patients require pain management, less than one-sixth require psychotherapy, and less than one-fourth require physiotherapy. The sample size and cancer type are the same, which accounts for this similarity. Recent evidence emphasizes early integration of palliative care, innovative care delivery models, and improved symptom management to enhance patient-centered outcomes in gynecologic oncology (Pietras *et al.*, 2026).

### **Limitations**

The majority of the healthcare team demonstrated insufficient knowledge regarding palliative care, which hindered their ability to provide adequate support to patients in need of such services. Additionally, referral of non-admitted patients to specialist physicians was challenging, as many patients resided in geographically distant areas, which further complicated the healthcare team's ability to provide adequate palliative care due to limited access to specialists.

### **Future Scope**

Future studies must be conducted on larger, multicenter randomized controlled trials to establish strong causal evidence regarding the effectiveness of integrated palliative care in gynecologic oncology. Long-term follow-up studies must be advocated to explore sustained outcomes, particularly in cognitive functioning and psychosocial domains, and to evaluate the impact of culturally relevant palliative care interventions.

### **CONCLUSION**

According to the findings of the present study, it was determined that the health status of gynecologic cancer patients improved after providing palliative care. A significant increase in the score of the functioning scale (physical, cognitive, emotional, and social) decreased the symptom score and improved health related QoL. Palliative care in this context involves earlier integration with cancer-directed therapies, enhanced symptom management techniques, and a greater focus on survivorship care and support.

### **Recommendations**

Palliative care should be implemented for patients with gynecologic cancer immediately from the time of diagnosis. Furthermore, structured educational programs should be developed and implemented to enhance awareness of palliative care among nurses, patients, and their families through various communication platforms. In addition, healthcare professionals should undergo targeted training and workshops on palliative care practices to improve the health status and overall quality of life of patients with gynecologic cancer.

### **CRedit Authorship Contribution Statement**

S.H.K: Data collection and manuscript writing. N.T.A: supervision and final revision of manuscript. H.A.E.A: Data analysis and reviewing. A.F.A: Data collection and assistance in data analysis.

### **AI Assistance Declaration**

The authors declare that no generative artificial intelligence tools were used in writing the manuscript. The authors have thoroughly reviewed, edited and verified the final manuscript. The authors take full responsibility for the originality, accuracy and integrity of the submitted manuscript.

### **Conflict of Interest**

There are no conflicting interests, according to the authors.

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