

Health-Related Quality of Life in Women With Gynecological Cancer: An Overview of Systematic Reviews

Qualidade de Vida Relacionada à Saúde em Mulheres com Câncer Ginecológico: Uma Overview de Revisões Sistemáticas
Calidad de Vida Relacionada Con la Salud en Mujeres con Câncer Ginecológico: Uma Overview de Revisiones Sistemáticas

RESUMO

Objetivo: Sintetizar evidências de revisões sistemáticas sobre fatores associados à redução da qualidade de vida relacionada à saúde em mulheres com câncer ginecológico e identificar as principais escalas utilizadas. **Métodos:** Overview de revisões sistemáticas, conforme o Cochrane Handbook e o PRISMA-P, registrado no Open Science Framework (10.17605/OSF.IO/5PA9J). Incluíram-se revisões de ensaios clínicos randomizados e/ou coortes com mulheres ≥ 18 anos, sem restrição de idioma ou período. As buscas foram realizadas em Cochrane Library, PubMed/MEDLINE, Embase, LILACS, BDENF, Google Scholar e ProQuest. **Resultados:** Foram incluídas 13 revisões sistemáticas. As intervenções mais frequentes foram psicoeducativas, exercícios físicos, mudanças no estilo de vida e acompanhamento multiprofissional. Intervenções para disfunções do assoalho pélvico, como exercícios de Kegel, fisioterapia pélvica e biofeedback, mostraram benefícios na função urinária e sexual. Os desfechos incluíram melhora da função sexual, redução de ansiedade e depressão, alívio da dor pélvica e impacto positivo na QVRS. As escalas mais utilizadas foram EORTC QLQ-C30 e QLQ-CX24, seguidas por FACT e SF-36. Observou-se piora inicial da QVRS após o tratamento, com recuperação progressiva após 12 meses. **Conclusão:** Intervenções multiprofissionais, especialmente psicoeducativas, exercícios físicos e terapias do assoalho pélvico, contribuem para a melhora da QVRS em mulheres com câncer ginecológico.

DESCRIPTORIOS: Qualidade de Vida Relacionada a Saúde; Oncologia; Ginecologia; Indicadores de Qualidade de Vida; Impacto da Doença na Qualidade de Vida.

ABSTRACT

Objective: To synthesize evidence from systematic reviews on factors associated with reduced health-related quality of life in women with gynecological cancer and to identify the main scales used. **Methods:** Overview of systematic reviews, according to the Cochrane Handbook and PRISMA-P, registered in the Open Science Framework (10.17605/OSF.IO/5PA9J). Reviews of randomized clinical trials and/or cohorts with women ≥ 18 years of age were included, without language or period restrictions. Searches were conducted in Cochrane Library, PubMed/MEDLINE, Embase, LILACS, BDENF, Google Scholar, and ProQuest. **Results:** Thirteen systematic reviews were included. The most frequent interventions were psychoeducational, physical exercise, lifestyle changes, and multidisciplinary follow-up. Interventions for pelvic floor dysfunction, such as Kegel exercises, pelvic physiotherapy, and biofeedback, showed benefits in urinary and sexual function. Outcomes included improved sexual function, reduced anxiety and depression, relief from pelvic pain, and a positive impact on HRQoL. The most frequently used scales were EORTC QLQ-C30 and QLQ-CX24, followed by FACT and SF-36. An initial worsening of HRQoL was observed after treatment, with progressive recovery after 12 months. **Conclusion:** Multiprofessional interventions, especially psychoeducational interventions, physical exercises, and pelvic floor therapies, contribute to improved HRQoL in women with gynecological cancer.

DESCRIPTORS: Health-Related Quality of Life; Oncology; Gynecology; Quality of Life Indicators; Impact of Disease on Quality of Life.

RESUMEN

Objetivo: Sintetizar la evidencia de revisiones sistemáticas sobre los factores asociados con la reducción de la calidad de vida relacionada con la salud en mujeres con cáncer ginecológico e identificar las principales escalas utilizadas. **Métodos:** Revisión de revisiones sistemáticas, según el Manual Cochrane y PRISMA-P, registradas en

el Open Science Framework (10.17605/OSF.IO/5PA9J). Se incluyeron revisiones de ensayos clínicos aleatorizados y/o cohortes con mujeres ≥ 18 años de edad, sin restricciones de idioma o período. Se realizaron búsquedas en Cochrane Library, PubMed/MEDLINE, Embase, LILACS, BDNF, Google Scholar y ProQuest. **Resultados:** Se incluyeron trece revisiones sistemáticas. Las intervenciones más frecuentes fueron psicoeducativas, ejercicio físico, cambios en el estilo de vida y seguimiento multidisciplinario. Las intervenciones para la disfunción del suelo pélvico, como los ejercicios de Kegel, la fisioterapia pélvica y el biofeedback, mostraron beneficios en la función urinaria y sexual. Los resultados incluyeron una mejor función sexual, reducción de la ansiedad y la depresión, alivio del dolor pélvico y un impacto positivo en la CVRS. Las escalas más utilizadas fueron EORTC QLQ-C30 y QLQ-CX24, seguidas de FACT y SF-36. Se observó un empeoramiento inicial de la CVRS tras el tratamiento, con una recuperación progresiva a los 12 meses. **Conclusión:** Las intervenciones multiprofesionales, especialmente las psicoeducativas, el ejercicio físico y las terapias del suelo pélvico, contribuyen a mejorar la CVRS en mujeres con cáncer ginecológico.

DESCRIPTORES: Calidad de vida relacionada con la salud; Oncología; Ginecología; Indicadores de calidad de vida; Impacto de la enfermedad en la calidad de vida.

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INTRODUCTION

Cancer is a chronic disease that directly impacts quality of life (QOL), causing limitations and repercussions on the biological, psychological, and social aspects of an individual's life.

In 2020, approximately 19.3 million new cases of the disease were recorded, along with approximately 10 million deaths from this cause⁽¹⁾. In Brazil, data from the National Cancer Institute (INCA) indicate that, in 2018, the incidence of gynecological

cancers was approximately 16,298 cases, with a mortality rate of around 8,000 women. Among these, cervical cancer was the most common, followed by endometrial and ovarian cancers⁽²⁾.

The choice of treatment and the patients' prognosis continue to be strong-

ly influenced by the stage of the disease. Thus, the earlier the diagnosis, the greater the chances of cure. However, health-related quality of life (HRQoL) is linked not only to the stage at diagnosis but also to the duration and type of treatment, therapeutic options, and the patient's socioeconomic profile. Consequently, late diagnosis tends to significantly compromise quality of life⁽³⁾.

With advances in cancer treatments, many women with gynecological cancer are cured, while others are now considered survivors of the disease. Given the growing number of survivors, attention to HRQoL becomes essential for promoting comprehensive and humanized care^(3,4,5).

The World Health Organization defines quality of life as an individual's perception of their place in life within the context of the cultural and value systems in which they live, and in relation to their goals, expectations, standards, and concerns⁽⁶⁾. Based on this concept, the assessment of QoL can be considered a relevant indicator of health outcomes^(3,4).

The objective of this study was to synthesize evidence from systematic reviews on the factors contributing to reduced health-related quality of life in women with gynecological cancer, aiming to inform care practices focused on functional improvement and well-being in these patients' daily lives, as well as to survey the main quality of life assessment scales used for these women.

METHOD

Study Design

This is an overview of Systematic Reviews (SRs) conducted in accordance with the recommendations of the Cochrane Handbook. The overview aims to compile and synthesize evidence from multiple systematic reviews and address the effects of more than one intervention on the same health problem. The steps were: formulation of the re-

search question, definition of inclusion criteria, identification and selection of SRs, data extraction, assessment of the quality and risk of bias of the included SRs, and analysis and presentation of the results⁽⁷⁾.

This systematic review overview included only clinical trials and prospective cohorts. There were no restrictions regarding location, language, or the time period in which the articles were published; furthermore, it was pre-

pared in accordance with the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P).

It was then submitted to the Open Science Framework under the domain 10.17605/OSF.IO/5PA9J. Table 1 presents the PICOS mnemonic used to formulate the guiding question.

Table 1 – Summary of the use of the PICOS mnemonic

PICOS mnemonic	Representation in the study
P – Population	Women over 18 years of age with gynecological cancer, at any stage following surgical, chemotherapy, or radiation therapy
I – Intervention	Systematic reviews that include cohort studies and/or randomized clinical trials of interventions used with the intention of improving health-related quality of life in women with gynecological cancer, such as pharmacotherapy, exercise therapy, psychological therapies, musculoskeletal manipulation, pelvic physical therapy, nursing/medical consultations, and cognitive-behavioral therapy
C – Comparison	Studies comparing intervention A versus intervention B, intervention versus a control group or placebo, combined interventions A + B versus placebo, or cohort studies tracking interventions previously performed in clinical practice and follow-up
O – Outcome	Primary outcome: improvement in quality of life Secondary outcome: influence of symptoms on sexual and psychosocial function
S – Study / Types of study	Systematic reviews of interventions with or without cohort studies

Source: Author (2025).

Thus, the guiding question was: “What evidence exists in systematic reviews of interventions—with or without cohort studies—regarding quality of life and the quality-of-life scales used in women who are survivors of gynecological cancer?”

Eligibility criteria

The following criteria were applied: systematic reviews with no restrictions on time period or language, involving women aged 18 years or older diagnosed with gynecological cancer regardless of stage, addressing any interventions aimed at improving quality of life. Systematic reviews

must present complete reports of randomized clinical trials or cohort studies that objectively assess health-related quality of life in women with gynecological cancer at any stage following surgical, chemotherapy, or radiation therapy.

Reviews that included subjects younger than 18 years of age were excluded. In addition, studies were excluded if they did not provide access to the full-text article and those that associated gynecological cancer with other comorbidities that significantly impair quality of life, such as transplants, critically ill patients, and other diseases whose primary and immediate outcome is end-of-life.

Search strategy and information sources

Systematic reviews were identified using a comprehensive approach⁽⁸⁾, conducted in the following electronic databases: Cochrane Library, PubMed via MEDLINE, Embase, Latin American and Caribbean Health Sciences Literature (LILACS), Nursing Database (BDENF) via the Virtual Health Library, Google Scholar, and ProQuest Dissertations and Theses.

The search strategy was developed by the researchers in the selected da-

tabases, adapted for each chosen database by applying their specific descriptors and conducting a preliminary sensitivity test. The search terms used were those from the Health Sciences Descriptors/Medical Subject Headings and ENTRY Terms, as shown in Table 2. There were no restrictions on publication date or language in the search. Thus, the Boolean operators AND and OR were applied to the selected combinations. Consequently, the search strategies are described in Table 2 below.

title, a third reviewer was consulted to make the selection decision.

Systematic reviews deemed eligible for inclusion were assessed for methodological quality using a generic tool by Law et al., (2011)⁽⁹⁾. This tool evaluates quantitative and qualitative reviews based on principles common to accepted quality assessment tools. It contains 13 topics related to the review method, and each question is answered as “yes,” “no,” or “not applicable.”

To generate the score, each item was scored, and the scores for those marked “not applicable” were excluded. If the score is greater than 70%, the study is of good quality; if the score is between 50% and 70%, the study is of moderate quality; if the score is less than 50%, the study is of low quality. Two reviewers worked in pairs and independently completed the assessment in duplicate.

Analysis of Results

Data collection was guided by a previously published form containing: authors/year, sample, objective/intervention, results, and conclusion. Thus, the data were organized and digitized into spreadsheets in Microsoft Excel 2017. Descriptive statistics and frequency analysis of the data were performed. Bias risk assessments were not repeated or updated, and the assessment contained in the included systematic reviews was reported⁽¹⁰⁾.

RESULTS

The search strategies retrieved a total of 402 publications in the searched databases in July 2024. Among these, 13 systematic reviews met the inclusion criteria, comprising 81 randomized clinical trials, 18 case-control studies, and 55 cohort studies, involving a total of 16,561 participants. Figure 1 below illustrates the selection process according to the PRISMA-P protocol.

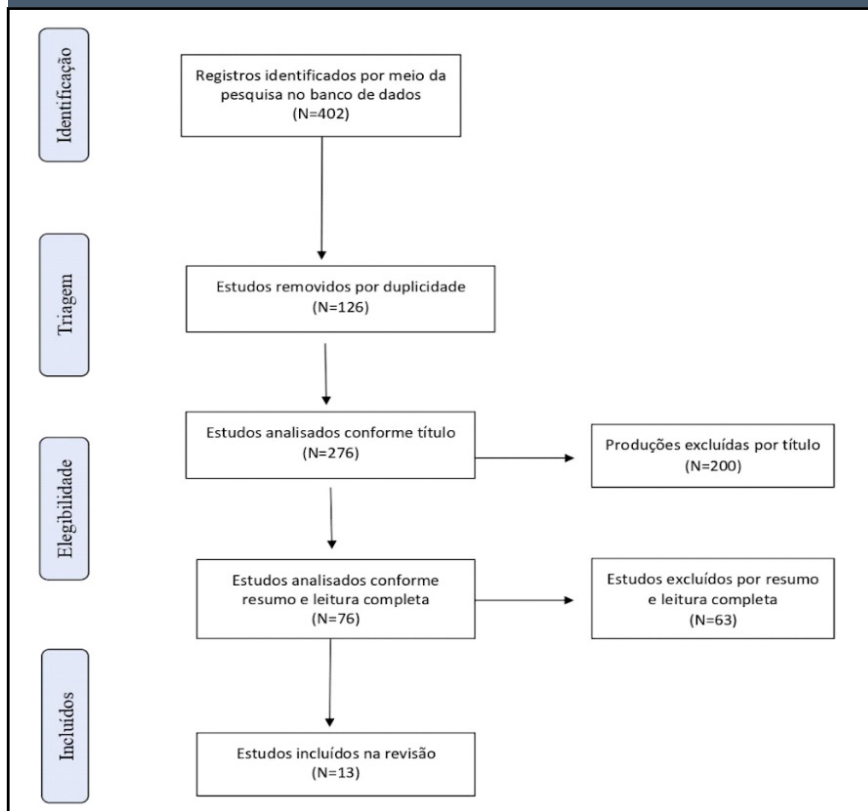
Quadro 2 – Estratégia de busca	
Databases and strategy	Records found
Embase # 1 ('quality of life'/exp OR 'quality of life' OR 'health-related quality of life'/exp OR 'health-related quality of life' OR 'indicators of quality of life' OR 'sickness impact profile'/exp OR 'sickness impact profile' OR 'impact of the disease on quality of life') AND ('genital neoplasms, female'/exp OR 'genital neoplasms, female' OR 'gynecological cancer'/exp OR 'gynecological cancer' OR 'gynecological neoplasms') # 1 AND 2 systematic review]/lim # 1 AND 2 AND 3 [female]/lim	231 results
Cochrane Reviews ("Quality of life" OR "Health-Related Quality of Life" OR "Indicators of Quality of Life" OR "Sickness Impact Profile" OR "Impact of the Disease on Quality of Life") AND ("Genital Neoplasms, Female" OR "Gynecological Cancer" OR "Gynecological Neoplasms")	48 results
PubMed/MEDLINE ("Quality of life" OR "Health-Related Quality of Life" OR "Indicators of Quality of Life" OR "Sickness Impact Profile" OR "Impact of the Disease on Quality of Life") AND ("Genital Neoplasms, Female" OR "Gynecological Cancer" OR "Gynecological Neoplasms") Filtro aplicado: Systematic Review	53 results
Biblioteca Virtual de Saúde ("Qualidade de vida" OR "Qualidade de vida relacionada à saúde" OR "Indicadores de qualidade de vida" OR "Perfil de Impacto da Doença" OR "Impacto da Doença na Qualidade de Vida") AND ("Neoplasias genitais femininas" OR "Câncer Ginecológico" OR "Neoplasias Ginecológicas"). Filtro aplicado: Revisão sistemática # MEDLINE (68) # LILACS (2)	70 results
Total	402 results

Source: Author (2024)

Study selection

The identified publications were imported into the reference management software Mendeley Desktop 1.19.8, thereby allowing duplicate entries to be removed. The results were then imported into Rayyan software (Qatar Computing Research Institute, Doha, Qa-

tar), which enabled blinding between reviewers and improved data selection. Thus, two reviewers, blinded to each other's judgments, classified the studies based on title and abstract for inclusion or exclusion. The full text of the included abstracts was retrieved and considered for the review. In cases of disagreement regarding the abstract, full text, or

Figure 1 – Article selection process according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines.

Source: Author (2024).

Analysis of the data reveals that the years with the highest number of publications were 2021 ($n = 3 / 23.08\%$) and 2022 ($n = 3 / 23.08\%$). Next came 2015 ($n = 2 / 15.38\%$). Other years, such as 2005 ($n = 1 / 7.69\%$), 2008 ($n = 1 / 7.69\%$), 2016 ($n = 1 / 7.69\%$), 2019 ($n = 1 / 7.69\%$), and 2024 ($n = 1 / 7.69\%$). This demonstrates that 2021 and 2022 were the most productive years in terms of publications, while the other years had a smaller and more uniform contribution.

Of the 13 studies analyzed, 9 (69.23%) included RCTs⁽¹¹⁻¹⁹⁾, 3 (23.08%) included only cohort studies, and only one (7.69%) included a case-control study. Only one study included both case-control and cohort studies simultaneously.

The central themes of the 13 reviews were varied. Three reviews, SR 1

(11), SR 11⁽¹⁷⁾, and SR 12⁽¹⁸⁾ addressed psychoeducational interventions with significant improvement in symptoms related to sexual function, anxiety, and depression. Furthermore, SR 1⁽¹¹⁾ noted that nurses are the primary professionals who carry out continuous interventions, beginning in the preoperative period and continuing into the postoperative period, yielding more favorable outcomes.

RS 1⁽¹¹⁾, RS 3⁽²⁰⁾, and RS 5⁽¹²⁾ addressed women with ovarian, endometrial, and cervical cancer, particularly those who had completed primary treatment. Quality of life was the most frequently assessed outcome in the included studies. SR 1⁽¹¹⁾ investigated the effects of psychoeducational interventions on this outcome, while SR 2⁽²¹⁾ compared the overall efficacy of the interventions analyzed in different contexts. SR 4⁽¹³⁾ sought to iden-

tify statistically significant changes in quality of life while also assessing the methodological quality of the studies. SR 13⁽¹⁹⁾, on the other hand, examined the overall impact of treatments on quality of life, with special attention to the instruments used for measurement.

Changes in sexual and urogynecological functions were also a focus of investigation. SR 3⁽²⁰⁾ compared the prevalence of pelvic and sexual disorders before and after treatment, contributing to the understanding of the adverse effects of certain interventions.

RS 9⁽²²⁾ expanded on this analysis by investigating the association between pelvic abdominal pain (PAP) and female sexual dysfunction (FSD), indicating a possible overlap of symptoms between the conditions.

Pain, especially pelvic abdominal pain, was directly analyzed in RS 7⁽²³⁾, which compared its occurrence and clinical significance. SR 9⁽²²⁾, as mentioned, also included this symptom in its analysis, broadening the understanding of APD in conjunction with sexual disorders.

Physical and therapeutic exercise was addressed in three reviews. SR 8 specifically evaluated the effects of therapeutic exercise in women with ovarian cancer, considering both physical and emotional benefits. RS 10⁽¹⁶⁾ expanded this discussion by analyzing the impact of physical exercise-based interventions in general. Meanwhile, RS 5⁽¹²⁾, although it focused on BMI and quality of life, also suggests indirect implications related to lifestyle and physical activity.

In the reviews RS 7⁽²³⁾ and RS 9⁽²²⁾, there was no exact age restriction; only an indication that the participants were female, regardless of age group, provided they had a confirmed diagnosis of gynecological cancer, including ovarian, uterine, vaginal, vulvar, cervical, placental, and fallopian tube cancers. Furthermore, it is noted that

none of the reviews addressed hypogonadism or metabolic disorders as the direct cause of reduced quality of life.

Other studies, such as SR 2⁽²¹⁾, SR 5⁽¹²⁾, SR 8⁽¹⁵⁾, and SR 10⁽¹⁶⁾, addressed lifestyle changes and their implications for improving quality of life. In parallel, the study in RS 5⁽¹²⁾ evaluated not only improvements in quality of life but also reductions in body mass index (BMI) and its association with sexual function in gynecological cancer survivors, demonstrating that women with lower BMIs have fewer sexual/vaginal problems.

In all studies addressing lifestyle changes, such as physical activity and diet, favorable results were obtained with the intervention^(11,15,16,21). Regarding the prevalence of urinary and

fecal incontinence, it is noted that it is influenced by varying economic and health conditions across different countries; however, global female sexual dysfunction does not show a significant association with country of origin^(11,13,22).

Two other reviews, RS 4⁽¹³⁾ and RS 13⁽¹⁹⁾, evaluated potential quality-of-life scales as assessment/measurement tools to gauge the impact of treatment for any gynecological cancer.

The primary scale used, as agreed upon by both studies, was the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORTC QLQ-QC30), followed by the Functional Assessment of Cancer Therapy

(FACT), the Medical Outcome Study Short Form-36 (SF-36), and the EORTC Cervical Cancer Module (EORTC QLQ-CX24).

“Overall health status” worsened at 1, 3, and 6 months post-surgery compared to pre-surgery and began to improve at 12 months post-surgery^(11,13,19). The results showed that patients’ overall health status scores fluctuated. Given that the findings pertain only to cisgender women, this publication will focus solely on this population; it is not recommended to extrapolate the results of this study to the transgender population due to a lack of evidence and hormonal and surgical factors that may influence the outcome. Table 3 below summarizes the data described in the review.

Table 3 – Summary table presenting an overview of the findings, including the objective, study population, results, and a brief conclusion.

Citation / Study	Sample / Country	Objective/Intervention	Population	Results	Conclusion
Chow et al., 2016 (RS 1) ⁽¹¹⁾	ECR: 11 População total: 975 País: China	Objective: To identify the effectiveness of psychoeducational interventions in improving sexual functioning, psychological outcomes, and quality of life in patients with gynecological cancer. Additionally, to identify how effective the various components, formats, providers, timing, and duration of psychoeducational interventions are in improving these outcomes. Intervention: Comparison of the effects of psychoeducational interventions on improving quality of life.	Cisgender women over 18 years old, without specification of cancer type and/or treatment. Cisgender women over 18 years old with endometrial cancer with completed primary treatment.	A total of 6 RCTs addressed this topic. Among the studies, 4 demonstrated the effectiveness of psychoeducational interventions in improving sexual function. Some studies addressed psychological issues, involving symptoms of depression and anxiety. Regarding depressive effects, psychoeducational interventions had a significant improvement effect. Nurses were the main professionals responsible for delivering the interventions. Additionally, interventions initiated before treatment and continued after discharge showed more favorable overall outcomes.	Psychoeducational interventions reduce levels of depressive symptoms in patients with gynecological cancer.
Smits et al., 2015 (RS 2) ⁽²¹⁾	ECR: 8 População total: 413 País: Inglaterra	Objective: To evaluate the effectiveness of lifestyle interventions in improving the quality of life of ovarian and endometrial cancer survivors. Intervention: Comparison among studies regarding the effectiveness of interventions	Women over 18 years old with ovarian cancer with completed primary treatment.	After lifestyle changes, control groups showed improvement in sleep quality and weight loss. However, there was no improvement in depressive symptoms. Regarding endometrial cancer, performing physical exercise for 6 months significantly improved quality of life and cardiorespiratory fitness. In ovarian cancer, performing physical exercise for 8 weeks combined with health education improved quality of life (in physical, psychological, and functional aspects) and cardiopulmonary capacity.	Lifestyle interventions improve quality of life and symptoms in survivors of ovarian and endometrial cancer.

Pizzoferrato et al., 2021 (RS 3) ⁽¹¹⁸⁾	Estudo de caso-control: 18 Coorte: 3 População total: 3.360 País: França	Objective: To describe the prevalence of pelvic and sexual disorders in women with ovarian cancer (OC) before and after treatment. Intervention: To compare the prevalence of pelvic and sexual disorders before and after treatment.	Cisgender women, without defined age, with ovarian cancer and with development of pelvic floor dysfunction.	The prevalence of pelvic organ prolapse was 16.7% preoperatively and similar to the general population. The prevalence of fecal incontinence among ovarian cancer patients was 4% preoperatively and 16% postoperatively. Most women were sexually active after surgical treatment, with dyspareunia and reduced vaginal lubrication among the main symptoms. They also reported decreased libido and lower sexual scores.	Pelvic floor disorders are common in women with ovarian cancer, especially urinary incontinence and sexual dysfunction. The symptom most associated with changes in sexual activity is lack of vaginal lubrication.
Ma et al., 2021 (RS 4) ⁽¹¹³⁾	ECR: 1 Estudo de Coorte: 8 População total: 1476 País: China	Objective: To evaluate postoperative quality of life (QoL) in patients with gynecological malignancies through meta-analysis to establish how global health status, functional scales, and symptom scales change over time, and to organize follow-up programs addressing multidimensional aspects of QoL in the gynecological cancer population. Intervention: To identify the statistical significance of QoL changes across studies and analyze their quality.	Cisgender women over 18 years old in postoperative period for ovarian, endometrial, vulvar, or any other type of gynecological cancer.	The nerve-sparing laparoscopic technique demonstrated significant functional advantages, promoting earlier recovery of intestinal and urinary function, without increasing the risk of surgical complications or blood loss. The main disadvantage observed was increased surgical time. In oncological and safety terms, there was no disadvantage compared to the conventional technique.	There is insufficient evidence regarding quality of life (QoL) outcomes in gynecological cancer patients who have undergone surgery. Recovery time varied across different QoL dimensions.
Smits et al., 2015 (RS 5) ⁽¹¹²⁾	Coorte: 4 População total: 1362 País: Inglaterra	Objective: To evaluate the association between body mass index (BMI) and quality of life (QoL) in endometrial cancer survivors; the association between BMI and anxiety and depression; and the association between BMI and sexual function in these survivors. Intervention: To compare BMI and QoL data.	Cisgender women over 18 years old with endometrial cancer and completed treatment.	Women with higher BMI had fewer sexual/vaginal problems. However, sexual interest, sexual activity, and sexual pleasure were not associated with BMI.	QoL outcomes worsen as BMI increases, with obesity being one of the main associated factors. Future interventions should focus on improving QoL in these patients.
Chua et al., 2022 (RS 6) ⁽¹¹⁵⁾	ECR: 1 Coorte: 8 População total: 1.173 País: Filipinas	Objective: To synthesize data published from 2010 to 2020 on quality of life (QoL) and long-term toxicity among survivors of locally advanced cervical cancer (LACC) treated with definitive concurrent chemoradiotherapy (CCRT), and to review clinical outcomes determining QoL. Intervention: Data analysis on QoL in patients with LACC treated with CCRT.	Cisgender women over 18 years old with cervical cancer and treated with chemoradiotherapy.	Symptoms such as peripheral neuropathy, diarrhea, bladder dysfunction, menopausal symptoms, dyspareunia, and vaginal shortening were reported in four different studies, demonstrating a decrease in quality of life. There was a long-term decline in social and sexual functions. Fecal incontinence was mild and rarely debilitating, occurring in 36% of cases. Lower urinary tract dysfunction affected 60% of cases, with an overall prevalence of 77.1%. The most persistent symptoms were fatigue and reduced well-being.	Advances in CCRT have improved survival and control of locally advanced cervical cancer (LACC). Overall QoL improves in the first year, but gastrointestinal, genitourinary, sexual, and psychosocial symptoms persist in the long term.

<p>Oplawski et al., 2022 (RS 7) ⁽²³⁾</p>	<p>Coorte: 16 População total: Não relatado País: Polônia</p>	<p>Objective: To analyze the occurrence of pelvic floor dysfunction (PFD) at diagnosis and at each stage of endometrial cancer treatment. Intervention: To compare PFD data and evaluate its significance.</p>	<p>Cisgender women, without defined age, with endometrial cancer and pelvic floor dysfunction, with or without therapeutic intervention.</p>	<p>Urinary incontinence was present in more than half of the women, becoming more evident especially in older individuals. The type of surgery had a direct impact on complications, with nerve-sparing techniques being recommended. Chemotherapy proved effective in improving survival in gynecological cancer patients; however, it carries a risk of urinary tract disorders. Urogynecological treatment is poorly described in studies, indicating the need for further research.</p>	<p>Pelvic floor disorders are common in endometrial cancer. Therefore, the multidisciplinary team should be attentive to possible complications, especially urogenital ones.</p>
<p>Jiménez et al., 2021 (RS 8) ⁽¹⁵⁾</p>	<p>ECR: 5 Revisões sistemáticas: 3 Coorte: 2 População total: 371 País: Espanha</p>	<p>Objective: To determine the influence of therapeutic exercise on survival and quality of life in women with ovarian cancer (OC). Intervention: To analyze therapeutic exercise in OC.</p>	<p>Cisgender women, without defined age, with ovarian cancer with or without therapeutic intervention.</p>	<p>Regular physical activity reduces symptoms such as fatigue, depressive symptoms, and sleep disturbances. It may also reduce lymphedema. Physical exercise can help prevent ovarian cancer, although data related to survival are insufficient.</p>	<p>Therapeutic exercise contributes to quality of life and survival in women with ovarian cancer, significantly reducing symptoms. Physical activity should be individualized and adapted according to the stage of treatment.</p>
<p>Shan et al., 2022 (RS 9) ⁽²²⁾</p>	<p>Coorte: 14 População total: 2200 País: China</p>	<p>Objective: To investigate the prevalence of PFD and female sexual dysfunction (FSD) in post-treatment cervical cancer (CC) patients. Intervention: To analyze data on the occurrence of PFD and FSD.</p>	<p>Cisgender women, without defined age, with cervical cancer and pelvic floor dysfunction.</p>	<p>Urinary incontinence (UI) and fecal incontinence (FI) were analyzed according to countries. The prevalence of UI in China was 45.4%, while in other countries it was 30.9%. The prevalence of FI in China was 6.0%, and in the Netherlands it was 13.9%.</p>	<p>The study indicated a high prevalence of pelvic floor dysfunction (PFD) and female sexual dysfunction (FSD) in women with cervical cancer. Thus, health-care professionals should be aware of these complications and encourage rehabilitation treatments, which may directly impact quality of life.</p>
<p>Maqbali et al., 2019 (RS 10) ⁽¹⁶⁾</p>	<p>ECR: 5 População total: 209 País: Inglaterra</p>	<p>Objective: To evaluate the effectiveness of exercise in reducing fatigue in women with gynecological cancer and to establish the parameters investigated to date. Intervention: To evaluate physical exercise data.</p>	<p>Cisgender women over 18 years old with confirmed diagnosis of gynecological cancer, including ovarian, uterine, cervical, vaginal, vulvar, fallopian tube, and placental cancers.</p>	<p>Fatigue was measured using QLACS subscales, and a significant improvement at six months was found ($p = 0.017$). The study concluded that home-based exercise was beneficial for both obese and non-obese endometrial cancer survivors. Improvements were observed in physical activity levels, lower and upper body strength, balance, sleep quality, mental function, functional well-being, emotional well-being, physical well-being, and overall quality of life.</p>	<p>Exercise interventions can significantly reduce fatigue in patients with gynecological cancer.</p>

Yen et al., 2024 (RS 11) ⁽¹⁷⁾	ECR: 9 População total: 623 País: Singapura	Objective: To synthesize the effectiveness of digital psychosocial interventions on anxiety, depression, distress symptoms, and poor health-related quality of life among patients with gynecological cancer, and to identify essential characteristics of these interventions. Intervention: To analyze digital psychosocial interventions.	Cisgender women over 18 years old, without specification of cancer type and/or treatment.	Psychological distress in patients with gynecological cancer was significantly reduced ($p = 0.0007$) with digital psychosocial interventions. Additionally, depression was significantly reduced ($Z = 2.10, p = 0.04$). However, data regarding anxiety symptoms did not show statistically significant reductions.	Digital psychosocial interventions resulted in a reduction in psychological distress and a slight reduction in depression among patients with gynecological cancer. However, these interventions did not reduce anxiety or improve HRQoL.
Hersch et al., 2008 (RS 12) ⁽¹⁸⁾	ECR: 20 Estudo de coorte: 2 População total: 1926 País: Austrália	Objective: To provide a comprehensive summary of evidence on the effectiveness of psychosocial interventions in women with gynecological cancer. Intervention: Analysis of psychosocial interventions.	Cisgender women over 18 years old with gynecological cancer, including ovarian, uterine, cervical, vaginal, or vulvar cancer, without specification of treatment.	Counseling reduced symptoms of depression and anxiety in two RCTs. There was also evidence of benefit related to sexual functioning. However, no improvements were observed in self-esteem or body image. Evidence regarding physical function was inconsistent, with only one study reporting benefits from the intervention.	There is evidence supporting the effectiveness of psychosocial interventions in women with gynecological cancer, particularly in reducing depression, anxiety, and physical symptoms, as well as improving sexual life.
Jones et al., 2005 (RS 13) ⁽¹⁹⁾	ECR: 5 Estudo de coorte: 14 População total: 2.473 País: Inglaterra	Objective: To identify studies that used health-related quality of life (HRQoL) measurement instruments to assess the impact of treatment for any gynecological cancer, the instruments used, and the impact of treatments on women's health status. Intervention: To analyze the impact of treatment on quality of life and the measurement instruments.	Cisgender women over 18 years old with any type of gynecological cancer and/or treatment.	Curative chemotherapy generally reduces HRQoL compared to women who did not undergo this type of treatment. Thus, it has a direct emotional and functional impact, which worsens with a higher number of treatment cycles. However, symptoms may vary depending on the type and duration of chemotherapy. Adjuvant chemotherapy tends to improve HRQoL, especially with paclitaxel and carboplatin. Additionally, social and emotional functioning also improved.	Curative chemotherapy is necessary in the treatment of gynecological cancer; however, it is directly associated with lower HRQoL. Adjuvant, neoadjuvant, and palliative chemotherapy are associated with increased HRQoL.

Source: Author (2025). Legend: PPD – Pelvic floor dysfunction. FSD – Female sexual dysfunction. CC – Cervical cancer. HRQoL – Health-related quality of life.

Regarding the assessment of methodological quality, a higher number of articles were found to be of good quality ($N = 12, 92.3\%$), followed by those of moderate quality ($N =$

$1, 7.7\%$). No articles found in this review were considered to be of low quality. The findings are described in Table 4 below.

Table 4 – Assessment of the methodological quality of systematic reviews according to the instrument by Law et al. (2011)

	RS1	RS2	RS3	RS4	RS5	RS6	RS7	RS8	RS9	RS10	RS11	RS12	RS13
1	S	S	S	S	S	S	S	S	S	S	S	S	S
2	S	S	S	S	S	S	S	S	S	S	S	S	S
3	S	S	S	S	S	S	S	S	S	S	S	S	S
4	N	N	S	N	N	N	N	N	N	N	N	N	S
5	S	S	S	S	S	S	S	S	S	S	S	S	S
6	S	S	S	S	N	S	S	S	S	S	S	S	S
7	N	N	N	N	N	N	N	N	S	N	N	N	N
8	S	S	S	S	S	S	S	S	S	S	S	S	S
9	S	S	S	S	S	S	S	S	S	S	S	S	S
10	S	S	S	S	S	S	S	S	S	S	S	S	S
11	S	S	N	S	N	N	S	S	S	N	N	N	N
12	S	S	S	S	S	S	S	S	S	S	S	S	S
Score / %	10/12 83%	10/12 83%	10/12 83%	10/12 83%	8/12 66%	9/12 75%	10/12 83%	10/12 83%	11/12 91%	9/12 75%	9/12 75%	9/12 75%	10/12 83%

Source: Adapted from Law et al., (2011)⁽¹⁰⁾. Legend: 1 = Study objective; 2 = Relevant context; 3 = Sample description; 4 = Justification for sample size; 5 = Reliability and validity of outcome measures; 6 = Description of the intervention; 7 = Contamination and co-intervention; 8 = Statistical significance; 9 = Appropriate analyses; 10 = Clinical-epidemiological significance; 11 = Reported dropouts; 12 = Appropriate conclusions. Green: Yes. Red: No. Yellow: Not applicable. Study rating: ≥70%: Good quality; ≥50% to <70%: Moderate quality; <50%: Low quality.

DISCUSSION

Quality of life scales

Cancer treatment has two main goals: to cure the disease and, when a cure is not feasible, to prolong life while maintaining quality of life for as long as possible. Survival rates, toxicity, tumor response, and physical functioning have traditionally been used to assess the efficacy of cancer therapies. However, in recent years, there has been a significant increase in the focus on assessing QoL as part

of clinical management and clinical trials. The U.S. National Cancer Institute recommends assessing QoL in all clinical trials, and the Food and Drug Administration considers this assessment a criterion for the approval of new anticancer drugs. Thus, the assessment of QoL is widely recognized as a primary outcome in clinical trials, especially in palliative care^(3,24–28).

One reason for the importance of measuring QoL in oncology is that, despite improvements in survival rates, the physical and psychosocial effects of treatment persist, and it is necessary to address the signs and symptoms associated with treatment and post-treatment to improve quality of life⁽¹⁹⁾. Surgery, organ loss, and scarring have a negative impact on psychophysical identity, causing anxiety and altering body image and sexual function. The long-term side effects of radiation therapy and chemotherapy are numerous and well-document-

ed, including loss of ovarian function, nausea, vomiting, fatigue, and alopecia with chemotherapy, and depression, nausea, vomiting, fatigue, skin changes, vaginal atrophy, and diarrhea following radiation therapy⁽²⁹⁾.

HRQoL is a multidimensional and dynamic concept that encompasses physical, social, and psychological aspects associated with a specific disease or its treatment. Information on HRQoL is generally collected through questionnaires designed to provide data from patients' perspectives on their health⁽³⁰⁾.

Reliable assessment of HRQoL in oncology depends on the types of questionnaires chosen and the psychometric properties of the instruments—that is, the tests used to construct and evaluate the questionnaire. Although many such tests are available, it is widely accepted that a well-validated questionnaire must, above all, demonstrate reliability, va-

lidity, and sensitivity to change^(15,19,29).

Questionnaires designed specifically for patients with a particular disease should be more responsive or sensitive to changes in health status, as they contain items relevant to specific patient groups. For these reasons, it is ideal to use both a generic and a disease-specific questionnaire when measuring health status, so that comparisons can be made at the generic level and specifically for the disease in question^(13,16,19,31,32).

Although physical function and toxicity are related, using instruments that measure only these areas represents only a small part of the assessment of quality of life and does not provide a comprehensive evaluation of treatment outcomes on the patient's health status. Currently, many of the most widely used and well-validated questionnaires, such as the FACT^(34,35) and the EORTC instruments⁽³²⁾, include domains in these areas, as well as additional modules specific to local pathologies, such as ovarian cancer, and specific conditions, such as pain, which can be used according to clinical assessment needs^(19,30).

Good management for cancer survivors should not be limited to clinical care alone but should also include improved QoL^(21,36,37). In patients who have undergone surgery, digital psychosocial interventions show potential to reduce psychological distress and, to a lesser extent, symptoms of depression in patients with gynecologic cancer. Although they have not demonstrated a significant impact on anxiety or quality of life, these strategies represent a viable alternative for emotional support, especially because they offer flexibility, accessibility, and anonymity. The use of digital resources can facilitate continuous psychological follow-up, overcome geographical barriers, and optimize comprehensive care during cancer treatment^(17,18).

For the EORTC QLQ-C30

questionnaire, only a few functions and symptoms began to improve 1 month after surgery, while more dimensions showed improvement 12 months post-surgery. Domains including "Emotional Functioning," "Social Functioning," "Constipation," and "Financial Difficulties" began to improve 1 month after surgery, and "Insomnia" began to improve 3 months postoperatively. Some domains, such as "Role Functioning," "Cognitive Functioning," "Pain," and "Loss of Appetite," began to improve at 6 months. However, other dimensions did not begin to improve until 12 months post-surgery, including "Overall Health Status," "Physical Functioning," "Fatigue,"

"Nausea and Vomiting," "Dyspnea," and "Diarrhea"^(11,13) and may be related to ongoing chemotherapy and/or radiation therapy.

Pelvic floor dysfunction and sexual function after treatment for gynecologic cancer

Although this review focuses on overall quality of life, pelvic floor dysfunction was one of our main findings; therefore, understanding the main treatments proposed for this condition is crucial in the process of improving these women's health-related quality of life. Surgery remains an effective way to treat gynecological malignancies, but it results in many adverse effects, particularly regarding the impact of the disease and its treatment on the patient's physical and occupational functions, psychological state, and social well-being, which may, in turn, influence treatment decisions^(20,22,38).

PAD appears to be common in women with gynecological cancer, particularly ovarian cancer, with a higher prevalence of urinary incontinence and sexual dysfunction compared to bowel dysfunction. However, interpreting the results of various studies is difficult due to the great

heterogeneity in the populations and tools used^(15, 20, 23).

PPD following gynecological cancer treatment is often addressed only superficially in the literature. However, PPD following cancer treatment is one of the main reasons for the reduced quality of life in patients and therefore deserves adequate attention. Quality of life is negatively affected by pelvic floor dysfunction, such as dysuria, overactive bladder, stress urinary incontinence, mixed forms of incontinence, urinary retention or urge incontinence, prolapse or descent of the reproductive organs, and fecal incontinence^(15, 20, 38, 40).

Patients previously treated with chemotherapy and radiotherapy had symptoms related to PPD, in terms of pelvic organ prolapse and urinary changes; however, following surgical cancer treatment, there were initial improvements in pelvic floor function in both groups. Women in the LPT group had a lower pelvic floor function score on the PFDI-20 scale, but the difference between HAT and LPT was not statistically significant. Thus, despite the small sample size, it is indicated that genitourinary symptoms did not differ between the two types of surgery⁽⁴⁰⁾.

CONCLUSION

Quality of life in women with gynecologic cancer is influenced by multiple physical, emotional, and social factors. Despite advances in minimally invasive techniques, many still face pelvic floor dysfunction, sexual changes, and significant psychosocial impacts. Psychoeducational interventions, lifestyle changes, and physical activities have shown positive effects, but long-term complications, such as urinary incontinence, remain common. This reinforces the importance of strategies focused on prevention and comprehensive care.

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