

Pelvic Floor Training and Quality of Life After Prostatectomy: A Scoping Review**

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ABSTRACT

Objective: To map the health-related quality of life of men undergoing prostatectomy who perform pelvic floor muscle training. **Method:** A scoping review conducted according to JBI and Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines, registered with the Open Science Framework (OSF), with systematic searches in PubMed, Embase, Scopus, Cochrane Library, Web of Science, LILACS, and the JBI repository, as well as grey literature. Studies were included, without restriction on design or language, that assessed quality of life using validated instruments. **Results:** Seventeen studies published between 2008 and 2024 were included. Training, when applied pre- and/or postoperatively, showed benefits in the recovery of urinary continence, sexual function, and mental health, resulting in improved quality of life, especially when initiated early. The most frequently used assessment instruments were the International Consultation on Incontinence Questionnaire – Short Form, King's Health Questionnaire, Incontinence Impact Questionnaire, Expanded Prostate Cancer Index Composite for Clinical Practice, and Incontinence Quality of Life Instrument. **Conclusion:** Training appears to be a promising intervention to mitigate the adverse effects of prostatectomy on quality of life, although methodological standardization and the development of consistent protocols are needed to ensure reproducibility and enhance clinical applicability.

DESCRIPTORS: Prostatectomy. Prostatic neoplasms. Men. Pelvic floor disorders. Enterostomal therapy.

Treinamento do assoalho pélvico e qualidade de vida pós-prostatectomia: revisão de escopo**

RESUMO

Objetivo: Mapear a qualidade de vida relacionada à saúde de homens submetidos à prostatectomia que realizam treinamento dos músculos do assoalho pélvico. **Método:** Revisão de escopo conduzida segundo as diretrizes do JBI e do Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR), registrada na Open Science Framework (OSF), com buscas sistemáticas nas bases PubMed, Embase, Scopus, Cochrane Library, Web of Science, LILACS e no repositório JBI, além de literatura cinzenta. Incluíram-se estudos, sem restrição de desenho ou idioma, que avaliaram a qualidade de

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vida com instrumentos validados. **Resultados:** Incluíram-se 17 estudos publicados entre 2008 e 2024. O treinamento, quando aplicado no pré e/ou pós-operatório, mostrou benefícios na recuperação da continência urinária, da função sexual e da saúde mental, refletindo-se na melhora da qualidade de vida, especialmente quando iniciado precocemente. Os instrumentos mais utilizados foram *International Consultation on Incontinence Questionnaire – Short Form*, *International Consultation on Incontinence Questionnaire – Male Lower Urinary Tract Symptoms*, *Incontinence Impact Questionnaire* e *Incontinence Quality of Life Instrument*. **Conclusão:** O treinamento configura-se como intervenção promissora para mitigar os efeitos adversos da prostatectomia na qualidade de vida, sendo necessária a padronização metodológica e o desenvolvimento de protocolos consistentes que permitam a reprodutibilidade e ampliem a aplicabilidade clínica.

DESCRITORES: Prostatectomia. Neoplasias da Próstata. Homens. Distúrbios do assoalho pélvico. Estomaterapia.

Entrenamiento del suelo pélvico y calidad de vida después de la prostatectomía: una revisión de alcance**

RESUMEN

Objetivo: Mapear la calidad de vida relacionada con la salud de los hombres sometidos a prostatectomía que realizan entrenamiento de los músculos del suelo pélvico. **Método:** Revisión de alcance realizada según las directrices del JBI y de Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR), registrada en Open Science Framework (OSF), con búsquedas sistemáticas en PubMed, Scopus, Cochrane Library, Web of Science, LILACS y el repositorio JBI, además de literatura gris. Se incluyeron estudios, sin restricción de diseño o idioma, que evaluaron la calidad de vida mediante instrumentos validados. **Resultados:** Se incluyeron 17 estudios publicados entre 2008 y 2024. El entrenamiento, cuando se aplicó en el período preoperatorio y/o postoperatorio, mostró beneficios en la recuperación de la continencia urinaria, la función sexual y la salud mental, lo que se reflejó en una mejora de la calidad de vida, especialmente cuando se inició de forma temprana. Los instrumentos más utilizados para la evaluación fueron *International Consultation on Incontinence Questionnaire – Short Form*, *King's Health Questionnaire*, *Incontinence Impact Questionnaire*, *Expanded Prostate Cancer Index Composite for Clinical Practice* e *Incontinence Quality of Life Instrument*. **Conclusión:** El entrenamiento se presenta como una intervención prometedora para mitigar los efectos adversos de la prostatectomía sobre la calidad de vida, siendo necesaria la estandarización metodológica y el desarrollo de protocolos consistentes que permitan la reproducibilidad y amplíen la aplicabilidad clínica.

DESCRIPTORES: Prostatectomía. Neoplasias de la próstata. Hombres. Trastornos del suelo pélvico. Estomaterapia.

INTRODUCTION

Prostate cancer is the second most common malignancy and the fifth leading cause of cancer-related death among men, with estimates of 1.46 million new cases and 396,000 deaths in 2022. Projections indicate that, by 2040, these figures may reach 2.4 million cases and 712,000 deaths, driven primarily by population aging. Although incidence is higher in high-income countries, the highest mortality rates are concentrated in sub-Saharan Africa, Latin America, and the Caribbean¹.

The progression of prostate cancer may be slow or rapid, requiring continuous surveillance and timely detection to ensure better therapeutic outcomes. Factors such as advanced age, African ancestry, family history of prostate cancer, genetic predisposition, obesity, pro-inflammatory dietary patterns, and smoking are among the most widely discussed risk factors. In advanced stages, the disease may manifest with signs and symptoms such as urinary obstruction, urinary frequency, dysuria, and nocturia; however, in most early cases, it remains asymptomatic².

Treatment for prostate cancer is individualized and may involve conservative or non-conservative approaches, determined according to disease stage, oncological risk, and patient characteristics³. Among surgical interventions, radical prostatectomy (complete removal of the prostate gland and, generally, the seminal vesicles) remains the standard treatment for selected cases of localized intermediate- or high-risk disease, offering curative potential, although it is associated with adverse effects such as urinary incontinence (UI) and erectile dysfunction⁴.

These adverse effects directly affect health-related quality of life (HRQoL), a concept that encompasses the physical, emotional, social, and functional dimensions of an individual's health experience, reflecting both functional capacity and perceived well-being. In men undergoing prostatectomy, loss of urinary continence and sexual function frequently results in social isolation, low self-esteem, anxiety, and depression, making HRQoL an important indicator for evaluating therapeutic outcomes⁵.

In this context, the pelvic floor plays a fundamental role in supporting the pelvic organs and maintaining urinary and anal continence. Pelvic floor muscle training (PFMT) is a structured program of repeated voluntary contractions of the pelvic floor muscles, taught and supervised by a healthcare professional, and may be performed with or without additional resources, such as biofeedback or electrical stimulation, with the aim of strengthening these muscles, improving coordination, and increasing muscular endurance. When combined with behavioral guidance, PFMT has the potential to reduce symptoms and contribute to improving the HRQoL of patients undergoing radical prostatectomy⁶.

Evidence indicates that PFMT is effective in reducing UI and improving physical parameters in men undergoing radical prostatectomy. However, gaps remain regarding its overall impact on HRQoL. Although some studies include HRQoL measures, the results are heterogeneous and do not always parallel functional improvements. Moreover, psychosocial and emotional aspects are assessed less frequently and with less standardization, making it difficult to achieve an integrated understanding of the patient's experience⁷.

From this perspective, mapping the available evidence on PFMT and quality of life in men who have undergone prostatectomy is essential to guide interventions in clinical practice, support decision-making processes, inform the development of public health policies, and provide patients and their families with realistic, evidence-based information about the rehabilitation process.

OBJECTIVES

Map the health-related quality of life of men who have undergone prostatectomy and perform pelvic floor muscle training.

METHODS

Study Design

This scoping review was conducted in accordance with the criteria proposed by JBI⁸ and followed the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR)⁹ for reporting. The review was prospectively registered with the Open Science Framework (OSF): <https://doi.org/10.17605/OSF.IO/96BAJ>.

Inclusion Criteria

All studies, regardless of methodological design, publication date, or language, that addressed the variables of the PCC acronym—Population (P), Concept (C), and Context (C)¹⁰—were included, namely:

- a) P: Men who have undergone prostatectomy:

Studies that addressed men who underwent prostatectomy surgery, with no age restrictions.

b) C: Health-related quality of life:

Assessments of health-related quality of life validated using an assessment instrument.

c) C: Pelvic floor muscle training:

Studies that addressed pelvic floor muscle training as a conservative treatment method before, during, or after the surgical procedure.

Exclusion Criteria

Studies in which participants underwent another type of treatment concomitantly with PFMT, without a comparison of differences in effect, as well as studies that did not include any type of quality-of-life measurement instrument, were excluded.

Search Strategy

The literature search was systematically conducted in the following databases⁸: MEDLINE (PubMed), Embase (Excerpta Medica dataBASE), Cochrane Library, Web of Science (WoS), Scopus, LILACS (Latin American and Caribbean Literature in Health Sciences), and the JBI Evidence Synthesis electronic repository.

For this purpose, an initial limited search was conducted using the main descriptors of the PCC acronym in two databases (MEDLINE/PubMed and LILACS), with the aim of analyzing the words contained in the titles and abstracts of the retrieved articles, as well as the indexing of terms used to describe the articles.

Subsequently, searches were developed using the retrieved words together with the main subject descriptors (PCC) obtained from controlled vocabularies (MeSH, DeCS, Emtree, and CINAHL indexes), which were combined with the Boolean operators “AND” and “OR” to develop the final search strategy.

For this purpose, the following search strategy was used: (“Men”) AND (“Prostatectomy”) AND (“Quality of Life”) AND (“Pelvic floor muscle training”). The relevant articles identified were selected and analyzed by title, abstract, and indexed terms to identify key terms that could be included in the search strategy.

In addition, the available gray literature⁸ on the health-related quality of life of men who have undergone prostatectomy and perform PFMT was searched, with secondary searches conducted in other sources, including Google Scholar, European Society for Medical Oncology (ESMO), American Society of Clinical Oncology (ASCO), National Cancer Institute (INCA Brazil), OpenGrey, Medscape Nurses, ProQuest, and Consensus (AI). Thus, the reference lists of the included primary studies were also manually screened. The search strategy is summarized in Table 1, and the detailed search strategy is available in the repository at the following link: https://drive.google.com/drive/folders/1CgB2RXBLc0HSGsfwAxiMvE9mCEHwNZIy?usp=drive_link.

Selection of Evidence Sources

For the management of the evidence sources, Rayyan Systems Inc. software (RAYYAN) was used. Initially, all identified articles were imported into the RAYYAN software, where duplicates were automatically removed. Before initiating the review, the percentage of agreement between the two reviewers regarding study selection was assessed. A sample of 25 articles/titles was selected for analysis; these achieved an agreement percentage in accordance with JBI recommendations⁸. Two independent researchers analyzed the sample to identify potentially eligible articles, and any uncertainty regarding the inclusion of a study was resolved by a third reviewer. The screening process was initiated only when agreement reached 75% or higher.

Table 1. Search strategies and corresponding databases used for the scoping review. Fortaleza (CE), Brazil, 2026.

	Search Strategy
<i>MEDLINE (via PubMed)</i>	(Men[MeSH Terms]) AND (Prostatectomies[MeSH Terms])) OR (Prostatectomy, Retropubic[Title/Abstract])) OR (Prostatectomies, Retropubic[Title/Abstract])) OR (Retropubic Prostatectomies[Title/Abstract])) OR (Retropubic Prostatectomy[Title/Abstract])) OR (Prostatectomy, Suprapubic[Title/Abstract])) OR (Prostatectomies, Suprapubic[Title/Abstract])) OR (Suprapubic Prostatectomies[Title/Abstract])) OR (Suprapubic Prostatectomy[Title/Abstract])) AND (((((Quality of Life[MeSH Terms]) OR (Life Quality[Title/Abstract])) OR (Health-Related Quality Of Life[Title/Abstract])) OR (Health Related Quality Of Life[Title/Abstract])) OR (HRQOL[Title/Abstract])) AND (Pelvic floor muscle training[Title/Abstract]))
<i>Web of Science</i>	TS=(Men) AND ((((((TS=(Prostatectomies)) OR TS=(Prostatectomy, Retropubic)) OR TS=(Prostatectomies, Retropubic)) OR TS=(Retropubic Prostatectomies)) OR TS=(Retropubic Prostatectomy)) OR TS=(Prostatectomy, Suprapubic)) OR TS=(Prostatectomies, Suprapubic)) OR TS=(Suprapubic Prostatectomies)) OR TS=(Suprapubic Prostatectomy) AND (((((TS=(Quality of Life)) OR TS=(Life Quality)) OR TS=(Health-Related Quality Of Life)) OR TS=(Health Related Quality Of Life)) OR TS=(HRQOL) AND TS=(Pelvic floor muscle training))
<i>Cochrane Library</i>	("prostatectomies":ti,ab,kw OR (Prostatectom*, Retropubic):ti,ab,kw OR (Retropubic Prostatectom*):ti,ab,kw OR (Prostatectom*, Suprapubic):ti,ab,kw OR (Suprapubic Prostatectom*):ti,ab,kw AND (Quality of Life):ti,ab,kw OR (Life Quality):ti,ab,kw OR (Health-Related Quality Of Life):ti,ab,kw OR (Health Related Quality Of Life):ti,ab,kw OR (HRQOL):ti,ab,kw AND (Pelvic floor muscle training):ti,ab,kw (Word variations have been searched) AND ("MEN"):ti,ab,kw (Word variations have been searched)
<i>JBI Evidence Synthesis</i>	"Men" AND "Prostatectomy" AND "Quality of Life" AND "Pelvic floor muscle training"
<i>Scopus</i>	ALL (men) AND ALL (prostatectomies) AND ALL ("Quality of Life") AND ALL ("Pelvic floor muscle training")
<i>Embase</i>	('males':ab,ti OR 'man':ab,ti OR 'men':ab,ti OR 'male':ab,ti) AND ('prostate adenectomy':ab,ti OR 'prostate excision':ab,ti OR 'prostate extirpation':ab,ti OR 'prostate gland excision':ab,ti OR 'prostate removal':ab,ti OR 'prostate resection':ab,ti OR 'prostatic adenectomy':ab,ti OR 'prostatectomy':ab,ti) AND ('health related quality of life':ab,ti OR 'hrql':ab,ti OR 'life quality' OR 'quality of life':ab,ti) AND ('kegel exercise':ab,ti OR 'kegel exercises':ab,ti OR 'pelvic floor exercise':ab,ti OR 'pelvic floor exercises':ab,ti OR 'pelvic floor muscle exercise':ab,ti OR 'pelvic floor muscle exercises':ab,ti OR 'pelvic floor training':ab,ti OR 'pelvic muscle exercise':ab,ti OR 'pelvic muscle exercises':ab,ti OR 'pelvic muscle training':ab,ti OR 'pelvic floor muscle training':ab,ti)
<i>LILACS</i>	(men) AND (prostatectomies) AND ("Quality of Life") AND ("Pelvic floor muscle training")

Source: Prepared by the authors, 2026.

In the second stage, titles and abstracts were independently screened by two reviewers based on the prespecified inclusion criteria. Any disagreements were resolved by a third reviewer. Finally, the full texts of the articles were reviewed. A narrative description of the entire selection process was provided, as well as the flowchart described in PRISMA 2020¹¹.

Data Extraction

To extract the data, the JBI model⁸ was used and adapted, following the recommendations for a pilot test involving at least two members of the review team.

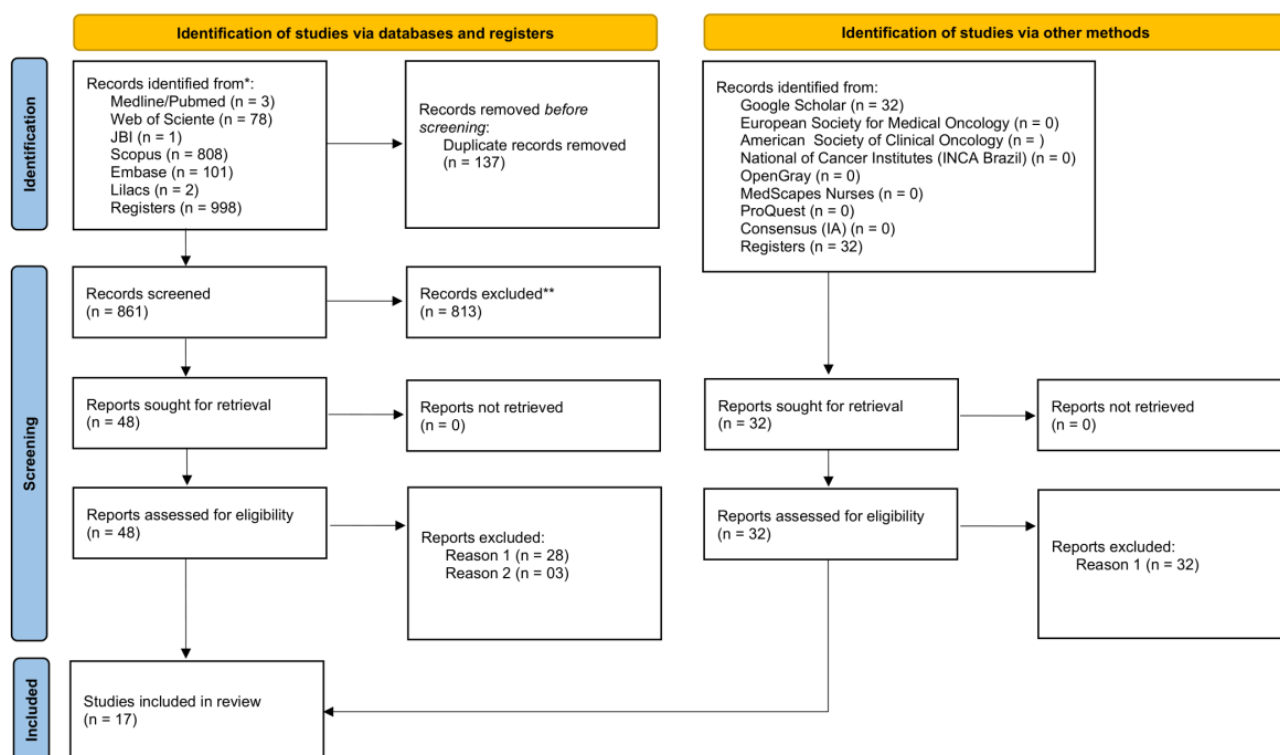
After the studies to be included had been selected, a table was developed to identify and characterize them, containing the following information: author(s), year of publication, country/origin, objectives/purpose, methodology, quality-of-life instrument, and main results.

Data Analysis and Presentation

The quantitative data were tabulated and presented in graphs and tables with the main findings.

RESULTS

Seventeen studies published between 2008 and 2024 were included in this review (Figure 1)¹¹, all of which were published as full-text articles.



Source: Page et al.¹¹

Figure 1. Flowchart of the study selection process. Fortaleza (CE), Brazil, 2026.

Chart 1 provides an overview of the objectives, methods used, and main findings of the included studies. The studies were listed in chronological order to demonstrate the evolution of research on quality of life and PFMT in men who have undergone prostatectomy. Most studies had urinary incontinence as the main outcome (82.4%; $n = 14$), whereas the others focused on erectile dysfunction, urinary symptoms after transurethral resection of the prostate, and HRQoL in isolation.

The most prevalent study designs were randomized controlled trials (70.6%, $n = 12$)^{12-17,19-24}. The studies reported significant impacts of urinary incontinence on participants' quality of life, ranging from high severity during the first months after prostatectomy, followed by progressive improvement 12 months after surgery, with no substantial differences between the intervention and control groups after this period.

Among the main variables analyzed in the studies included in this review, the following were identified: quality of life (100%, $n = 17$), urinary symptoms and continence, demographic factors, sexual function (11.8%, $n = 2$), and mental health (11.8%, $n = 2$). Quality-of-life-related variables were assessed using validated instruments, such as the International Consultation on Incontinence Questionnaire—Short Form (ICIQ-SF), King's Health Questionnaire (KHQ), Incontinence Impact Questionnaire (IIQ), Expanded Prostate Cancer Index Composite for Clinical Practice (EPIC-CP), Incontinence Quality of Life Instrument (I-QOL), University of California, Los Angeles – Prostate Cancer Index (UCLA-PCI), International Consultation on Incontinence Questionnaire—Male Lower Urinary Tract Symptoms (ICIQ-MLUTS), Expanded Prostate Cancer Index Composite-26 (EPIC-26), Functional Assessment of Cancer Therapy – Prostate (FACT-P), Short Form (SF)-12, Male Urinary Symptom Impact Questionnaire (MUSIQ), and Short Form (SF)-36® Health Survey¹²⁻²⁸.

The ICIQ-SF was one of the most frequently used questionnaires, appearing in 29.4% ($n = 5$)^{12,15,17,19,26} of the studies. It is a brief and straightforward instrument comprising four questions that assess the frequency, severity, and consequences of UI, in addition to eight items addressing the causes and circumstances associated with UI as reported by the patient. Originally developed in English, the instrument was adapted and validated for Portuguese in 2004, demonstrating excellent psychometric properties and a Cronbach's α coefficient of 0.88, indicating high reliability.

Chart 1. Authors, objectives, quality-of-life instruments, and main findings of the included studies. Fortaleza (CE), Brazil, 2026.

Code	Objectives	Method and instrument	Main results
26.	Evaluate the effect of PFMT on stress urinary incontinence after prostatectomy.	Systematic review with meta-analysis of 11 RCTs involving 828 patients. Pad test and ICIQ-SF.	PFMT significantly improved stress urinary incontinence, with a reduction in the ICIQ-SF score.
27.	Evaluate the effectiveness of an online post-prostatectomy pelvic floor therapy program.	Prospective study involving 21 men. ICIQ-MLUTS and IIQ-7.	Significant improvement in UI and QoL at 6 months after prostatectomy.
12.	Evaluate the effect of a perioperative pelvic floor muscle training program on UI symptoms and QoL in patients after radical prostatectomy.	Parallel randomized controlled trial (RCT) involving 60 patients. ICIQ-SF and ICIQ-MLUTS.	After 3 months, ICIQ-SF scores and urinary symptom scores (frequency, nocturia, and incontinence) were significantly lower in the pelvic floor muscle training group ($p<0.001$). QoL was significantly better in the intervention group ($p<0.001$).
28.	Evaluate the effect of transperineal ultrasound (TPUS)-guided PFMT on persistent UI after robot-assisted radical prostatectomy (RARP).	Prospective interventional study involving 24 patients. I-QOL.	UI-related QoL (I-QOL) improved significantly.
13.	Investigate the effects of initiating preoperative biofeedback on UI and QoL in patients undergoing RP, particularly during the postoperative period, when incontinence is more prevalent.	RCT involving 250 patients. ICIQ-MLUTS.	QoL in patients in the intervention group was significantly higher at 1 day, 1 week, 1 month, and 3 months after surgery compared with the control group ($p<0.05$). No significant differences between the groups were observed 6 months after surgery.
14.	Evaluate the impact of PFMT on the treatment of stress urinary incontinence (SUI) in men after RP.	RCT involving 37 men. EPIC-26.	The experimental group showed significant improvement in all QoL domains (EPIC-26) and a reduction in depressive symptoms (BDI-II).
15.	Evaluate the effects of pelvic floor muscle exercises on UI and QoL in patients after prostatectomy.	RCT involving 60 men. ICIQ-UI SF and I-QOL.	UI was significantly reduced in the intervention group, which also showed significant improvement in QoL, particularly in the psychological, social, and behavioral dimensions, compared with the control group over the months following surgery.
16.	Investigate the effects of PFMT on post-prostatectomy erectile dysfunction.	RCT involving 97 men. EPIC-CP and IIEF-5.	Improvement in erectile function and sexual QoL, particularly during the first few weeks.
25.	Review the effectiveness of pelvic floor muscle training (PFMT) for post-prostatectomy urinary incontinence (UI).	Systematic review of 8 studies involving 1,078 patients. HRQoL, UCLA-PCI, SF-12, and ICSmaleSF.	Pelvic floor muscle training improves urinary incontinence and quality of life (QoL).
17.	Evaluate the effects of a perioperative PFMT program, compared with usual care, on the early recovery of UI and erectile function after RP.	RCT involving 31 men. ICIQ-SF and IIEF-5.	There was no significant difference in QoL between the control and intervention groups.
18.	Evaluate the effects of modified pelvic floor exercises on UI and depression.	Pre-experimental study involving 43 patients. IIQ, Chinese version.	Significant improvements in incontinence, impact on daily life, and anxiety/depression.
19.	Determine the effect of pelvic floor muscle exercise training (PFMT/Kegel), administered to patients scheduled for robot-assisted RP, on postoperative incontinence problems.	RCT involving 60 patients. ICIQ-SF.	ICIQ-SF scores decreased significantly over time in the experimental group, indicating improvement.
20.	Develop a progressive rehabilitation program for post-prostatectomy UI.	RCT involving 66 patients. FACT-P, UI-4 Test, and Sandvik Scale.	Significant improvements in UI and QoL.
21.	Evaluate the effects of pelvic floor exercises in patients after transurethral prostate surgery.	RCT involving 66 patients. SF-36 and IPSS.	Improvements in QoL and maximum urinary flow rate.

It continues...

Table 1. Continuation.

Code	Objectives	Method and instrument	Main results
22.	Evaluate whether preoperative pelvic floor training accelerates the recovery of urinary continence.	RCT involving 180 men. KHQ and IPSS.	There was no significant difference in the duration of UI between the groups; however, there was a positive impact on QoL.
23.	Evaluate the effect of professionally guided postoperative PFMT on health-related quality of life (HRQoL) parameters in patients undergoing RP.	RCT involving 85 men. HRQoL and UCLA-PCI.	There were no significant differences between the groups in any HRQoL domain.
24.	Examine the effects of postoperative PFMT on the severity of lower urinary tract symptoms (LUTS), the distress caused by these symptoms, and HRQoL at 3, 6, and 12 months after RP.	RCT involving 126 men. MUSIQ and MUDI.	There was a significant difference in QoL: the intervention group showed continuous improvement, whereas the control group showed worsening at the last assessment point (12 months), indicating a possible long-term benefit of systematic PFMT.

HRQoL: Health-Related Quality of Life; UCLA-PCI: University of California, Los Angeles – Prostate Cancer Index; SF-12: 12-Item Short Form Health Survey; ICSmaleSF: International Continence Society Male Short Form; ICIQ-SF: International Consultation on Incontinence Questionnaire – Short Form; ICIQ-MLUTS: International Consultation on Incontinence Questionnaire – Male Lower Urinary Tract Symptoms; ICIQ-UI SF: International Consultation on Incontinence Questionnaire – Urinary Incontinence Short Form; RP: Radical Prostatectomy; QoL: Quality of Life; UI: Urinary Incontinence; IIQ-7: Incontinence Impact Questionnaire – Short Form; PFMT: Pelvic Floor Muscle Training; TPUS: Transperineal Ultrasound; RARP: Robot-Assisted Radical Prostatectomy; I-QOL: Incontinence Quality of Life Questionnaire; RCT: Randomized Controlled Trial; EPIC-26: Expanded Prostate Cancer Index Composite – 26-item version; BDI-II: Beck Depression Inventory – Second Edition; EPIC-CP: Expanded Prostate Cancer Index Composite for Clinical Practice; IIEF-5: International Index of Erectile Function – 5; IIQ: Incontinence Impact Questionnaire; FACT-P: Functional Assessment of Cancer Therapy – Prostate; UI-4: Urinary Incontinence 4-Item Scale; KHQ: King's Health Questionnaire; IPSS: International Prostate Symptom Score; SUL: Stress Urinary Incontinence; LUTS: Lower Urinary Tract Symptoms; MUSIQ: Male Urinary Symptom and Impact Questionnaire; MUDI: Male Urinary Distress Inventory.e.
Source: Prepared by the authors, 2026.

The total score is calculated by summing the responses to questions 3, 4, and 5, with scores ranging from 0 to 21. The higher the score, the greater the impairment in quality of life. The impact on quality of life is categorized as follows: no impact (0 points), mild (1–3 points), moderate (4–6 points), severe (7–9 points), and very severe (10 points or higher).

The King's Health Questionnaire (KHQ), applied in 5.9% (n = 1) of the studies, contains 21 questions divided into eight domains: general health perception, impact of urinary incontinence, limitations in daily activities, physical and social limitations, personal relationships, emotional aspects, sleep, and mood. It also includes a specific scale for urinary symptoms. Responses are rated using a Likert scale, with four options in most cases, except for general health perception (five options) and personal relationships (including a “not applicable” option). Scores are calculated by domain, ranging from 0 to 100, with higher scores indicating a greater impact on quality of life in the domain assessed²².

Regarding variables related to urinary continence and lower urinary tract symptoms, these were assessed using the International Prostate Symptom Score (IPSS), UI-4 Test, Expanded Prostate Cancer Index Composite-26 (EPIC-26), and Male Urogenital Distress Inventory (MUDI), which included urinary frequency, nocturia, types and episodes of UI, as well as the time required to regain continence after prostatectomy^{14,20,21,22,24}.

Sexual function was assessed using questionnaires such as the International Index of Erectile Function (IIEF-5), which measures erectile dysfunction and its impact on participants' sexual lives^{16,17}.

Mental health was assessed in some studies using the Hospital Anxiety and Depression Scale (HADS) and the Beck Depression Inventory—Second Edition (BDI-II), evaluating the presence of depressive and anxiety symptoms in patients with UI after prostatectomy^{14,18}.

The studies included in this review indicated a significant decline in quality of life during the first months after surgery among patients in the control group, followed by progressive improvement¹⁸. However, when undergoing PFMT, participants experienced positive effects on quality of life and mental health, achieved urinary continence in a shorter period, and showed improvement in erectile dysfunction^{16,18}.

DISCUSSION

The findings of this review reinforced the relevance of UI to men's quality of life and health, particularly among patients undergoing radical prostatectomy. Post-prostatectomy UI is associated with physical, emotional, and social impacts, affecting patients' self-esteem, interpersonal relationships, and overall well-being¹². This finding underscores the need to consider not only clinical outcomes but also psychosocial aspects in the care of these patients.

In this context, urological interventions and treatments play a crucial role in post-prostatectomy rehabilitation. Thus, pelvic floor muscle training demonstrates benefits in restoring urinary continence and consequently improving quality of life^{12,27}. Despite favorable evidence, the results varied across studies, suggesting that the effectiveness of this intervention may depend on factors such as patient adherence, treatment intensity and duration, as well as individual characteristics. Patients who underwent PFMT achieved better outcomes when training was initiated early in the postoperative period²², reinforcing the importance of preventive strategies in the management of pelvic floor dysfunction.

The heterogeneity of the methods used across the studies highlights the importance of methodological rigor and clinical assessment in building more robust evidence. The included studies used different designs, such as randomized controlled trials^{12-17,19-24}, prospective studies^{27,28}, and systematic reviews^{25,26}, in addition to validated questionnaires for assessing quality of life, such as the ICIQ-SF, KHQ, IIQ, and EPIC-CP^{12,16,18,22}. However, variability in analytical methods and the lack of standardization in outcome definitions hinder direct comparison of results and the extrapolation of conclusions to different populations.

Therefore, future studies should focus on standardizing clinical assessments and developing protocols based on randomized controlled trials to ensure greater reproducibility of findings. In addition, the adoption of a multidisciplinary model integrating multiprofessional approaches may be essential for improving clinical outcomes and the quality of life of patients with post-prostatectomy UI.

Study Limitations

This study has some relevant limitations. First, significant heterogeneity was observed among PFMT protocols, varying in terms of the timing of initiation, duration, frequency, and associated strategies, which makes direct comparison of the findings difficult. In addition, the included studies used different validated instruments to assess quality of life, such as the ICIQ-SF, KHQ, IIQ, EPIC-CP, and I-QOL, which compromises the uniformity of the measures and limits the comparability of the results.

Recommendations

In light of the identified limitations, future studies should develop and validate standardized PFMT protocols following prostatectomy, specifying the timing of initiation, frequency, duration, intensity, and adjunctive resources used, to enable greater comparability and reproducibility. In addition, the use of standardized and internationally validated instruments specifically designed to assess quality of life in men undergoing prostatectomy is recommended to reduce methodological variability and facilitate more consistent comparative analyses.

CONCLUSION

Although most studies have demonstrated progressive improvement over time, pelvic floor muscle training showed important benefits in the recovery of urinary continence and in reducing the negative effects of urinary incontinence on quality of life. However, variability in methods and the lack of standardization in clinical assessments highlight the need for further studies to establish more consistent protocols and rigorous methodologies to ensure the reproducibility of findings and broaden the applicability of the results. Multidisciplinary care integrating different approaches may be a crucial strategy for improving clinical outcomes and patients' quality of life, representing a promising direction for future research and clinical practice.

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