

# Pelvic Floor Rehabilitation in Cancer Population: An Incomplete Cohort

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Poster by: **Anumol Thomas DNP FNP-C CCRN FNP**

## ABSTRACT

Pelvic floor dysfunction and its associated symptoms are a common clinical challenge in the cancer population. Despite the noninvasive nature of pelvic floor rehabilitation (PFR) for this condition and the promising clinical results observed with its use, PFR appears to be an underused therapy

## INTRODUCTION

The pelvic floor consists of a complex arrangement of muscles and ligamentous attachments that create a diaphragm from the pubis to the sacrum/coccyx and ischial tuberosities. The pelvic floor provides structural support of the pelvic organs, including bladder, urethra, prostate, vagina, uterus, anus, and rectum, along with indirect support of the intra-abdominal contents. Functionally, the pelvic floor contributes to the control and intentional evacuation of urine and feces, sexual arousal functions, and orgasm.

## METHODS

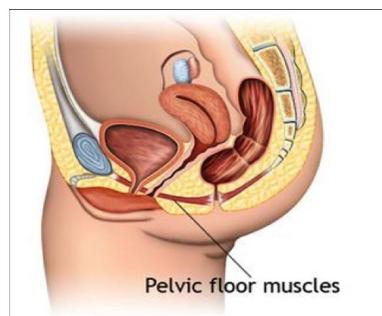
**Study Setting and Population**  
 Our study was performed at an academic comprehensive cancer care center where longitudinal data are regularly collected from patients during cancer treatment. The study population was selected from an electronic database of patients whose progress was monitored in our Pain Medicine Department

## METHODS

Our Institutional Review Board approved the study (IRB protocol #2021-0508). Patients' chief complaint on presentation was pelvic pain, and the evaluation included a complete medical history and physical examination. The physical exam did not include a digital vaginal or rectal evaluation.

## Selection of Cases

We identified participants by searching the billing codes in our Pain Medicine clinic database for chronic pelvic pain and pelvic floor dysfunction between January 1, 2018, and January 1, 2022. We used search terms under D-9 and ICD-10 codes.



## RESULTS

### Demographics

49 patients included in the study. The mean age was 51 years, with a range of 23 to 79 years. Among study patients, 86% were female and 14% were male. The most common cancer diagnoses were colorectal (20 patients, 41%) and gynecological (11 patients, 22%). The remaining patients had various nonsolid tumors of the pelvic area. A total of 71% of the patients had undergone surgery, 69% had received chemotherapy, 63% had had radiation therapy, and only 8% had undergone hormonal therapy.

### Patient demographics and treatment information (N = 49)

| Variable         | Category          | Count | (%)  |
|------------------|-------------------|-------|------|
| Age (years)      | <60               | 34    | 69   |
|                  | >60               | 15    | 31   |
| Gender           | Female            | 42    | 86   |
|                  | Male              | 7     | 14   |
| Cancer diagnosis | Vulval            | 5     | 10.2 |
|                  | Breast            | 10    | 20.8 |
|                  | Leukemia          | 2     | 4.1  |
|                  | Cervix            | 2     | 4.1  |
|                  | Colorectal        | 20    | 40.8 |
|                  | Endometrial       | 1     | 2.0  |
|                  | Lymphoma          | 3     | 6.1  |
|                  | Mandible          | 1     | 2.0  |
|                  | Melanoma          | 1     | 2.0  |
|                  | Ovary             | 3     | 6.1  |
| Sarcoma          | 1                 | 2.0   |      |
| Therapy          | Surgery           | 35    | 71.4 |
|                  | Chemotherapy      | 34    | 69.4 |
|                  | Radiation therapy | 31    | 63.3 |
|                  | Hormone therapy   | 4     | 8.2  |



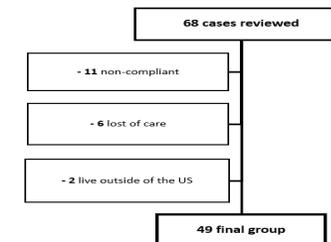
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## RESULTS

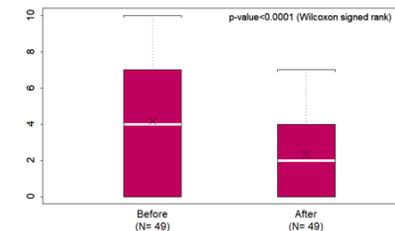
Our study showed that PFR can effectively decrease self-reported pain levels for patients with active cancer. Pelvic pain and the broad spectrum of complaints associated with pelvic floor dysfunction are believed to alter the visceral-somatic convergence. In the oncologic population, radiation therapy, surgery, hormone therapy, and even cancer itself can result in acute and chronic pelvic pain. Obstetric surgery may lead to muscular pain with hypertonicity of the pelvic floor in these cases, hypertonicity of the musculature manifests as severe pain, typically with poor response to conventional opiate analgesics.

## CONCLUSIONS

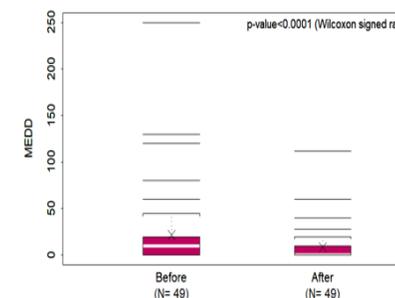
Pelvic floor rehabilitation is an effective tool for treating the pain associated with pelvic floor dysfunction and its related symptoms in cancer patients. This conservative approach can contribute to reducing pain and lowering the use of opiate analgesics.



### Pain score



### MEDD



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