

# Patients' Self-Reported Outcomes after Engagement in a Women's Integrative Pelvic Health Program

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## Abstract

Chronic pelvic pain is a common condition seen in medicine. Research has looked into risk factors, medical and surgical outcomes, and impact on quality of life. However, there is a gap when looking at integrative, holistic treatment programs. This study seeks to examine patients' beliefs about their condition after engagement in an integrative pelvic health program. Using a six month time frame, patients were sent a survey examining four aspects that the program seeks to address. The goal of this study is to have patients' perspectives drive the creation or modification of pelvic pain treatment plans.

## Introduction

This aim of this retrospective cohort analysis is to evaluate subjective, patient-reported outcomes of an integrative, interdisciplinary pelvic health program in a public health institution. Integrative medicine embodies, "a reaffirmation of the importance of the therapeutic relationship, a focus on the whole person and lifestyle—not just the physical body, a renewed attention to healing, and a willingness to use all appropriate therapeutic approaches whether they originate in conventional or alternative medicine." An interdisciplinary approach occurs when multiple healthcare teams come together as a unified and cohesive care team, whereas multi-disciplinary also involves providers in different disciplines, but they instead approach the patient from their own specific lens.

The Women's Integrative Pelvic Health program (WIPHP) at Denver Health (DH) utilizes an integrative, interdisciplinary model to address all areas that influence pelvic pain and other comorbid disorders. The program provides services that address all facets of life affected by this complex set of conditions. Clinically, common themes are observed in this patient population. There are in addition to pelvic pain; psychological, interpersonal, and economic effects. We believe a comprehensive integrative and integrated approach leads to better outcomes overall for the individual and may also result in net savings to the healthcare system at large. There is strong evidence to support the extensive effects of chronic or persistent pelvic pain (CPP) on a person's life, and the current evidence shows benefit when this model is used for other chronic pain conditions.

Back in 1996, Mathias investigated costs related to pelvic pain in women and found that average yearly costs of outpatient care in the US for CPP is about \$881.5 million per year. Additionally, 15% of respondents reported lost paid time from work due to their condition, and 45% reported reduced work productivity. With such massive expenditures related to CPP, it is important to understand what the patients find the most helpful, and what leads to better outcomes. Implementing integrated programs for pain management has been shown to improve perceived quality of life. A study looking at low back pain treated with cognitive-behavioral therapy and mindfulness-based stress reduction found significant cost savings as well as significant gains in quality adjusted life years. A study looking at the implementation of integrative medicine therapy for reducing pain in hospitalized patients found that pain level and cost was significantly reduced. We sought to determine if patients who participated in the WIPHP feel their condition have improved, how their pain and pain management has changed, if they feel adequately educated about CPP, as well as their overall satisfaction with the integrative program.

An RCT found that women with CPP that were treated with an "integrated approach" reported significantly improved pelvic pain in 3 out of 4 domains after 1 year when compared to a group who was treated with initial laparoscopy and subsequent psychological therapy[v]. A 2010 program looked at an inter-disciplinary approach to chronic pain and found that after completion of an 8-week program, pain, depression and anxiety levels were all reduced. Evidence supports that participating in more comprehensive and coordinated treatment programs improves outcomes when compared to solely surgical or pharmacological management.

The evidence supports that inter-disciplinary and diverse approaches to treating chronic pain are more-effective. We hope that this study will provide insight into the feelings and outcomes of patient with CPP, and inspire the creation of more integrative pelvic health programs in order to more effectively treat this widespread issue, and lead to improved satisfaction and quality of life for our patients.

## Methodology

### Primary outcome measures

The average of all included patients' subjective satisfaction with the integrative pelvic health program, their perceived level of education received in the program about their condition, pain management skills, and finally the changes in their quality of life. These will all be reported as an average of all patients' scores on a scale of 1-7.

### Study Design and Research Methods

This is a retrospective cohort of all patients referred to the program from January 1 -June 30, 2019 that had >3 visits. A message will be sent to all patients selected via twilio redcap. There will be an attached survey with one free response, a multiple selection box question, and twelve 7-point scale questions.

The survey assesses 4 different domains: program satisfaction (4 questions), education (2 questions), quality of life (4 questions), and pain management (2 questions). There are 4 sets of questions that are meant to control for internal validity by framing a "positive" question, and then a "negative" question. These sets are asking the same general question, but will yield different answers when consistent. The survey can be found below.

After questionnaires are returned, the scores will be entered into an excel spreadsheet that does not include any identifying patient information, and is stored in Denver Health's secure drive.

Patients that do not return the survey will be contacted via phone and confirmed with 2 patient identifiers to preserve confidentiality, and have the option of completing the survey over the phone with a project investigator. Data achieved this way will be entered in the same document. There will be no compensation provided to participants.

### Population Enrolled

All participants are women that have been referred to and participated in the Denver Health Women's Integrative Pelvic Health Program. In order to assess program outcomes more accurately, we will exclude any patients that did not complete >3 visits. Due to the longitudinal nature of the program, we believe patients with less engagement will not be able to respond confidently to our questionnaire. Age groups with less individuals include late adolescence (18-24) and post-menopausal (56+). Most participants have come from reproductive years (25-45) and peri-menopausal (46-55).

The majority of patients self-identify as white/Caucasian and Hispanic, and much smaller proportions identify as black/African American, Asian and "other". Patients have both public and private insurance as well as some "assistance" or "discount" program enrollment. Unfortunately, patients who are un-insured are not included in this study.

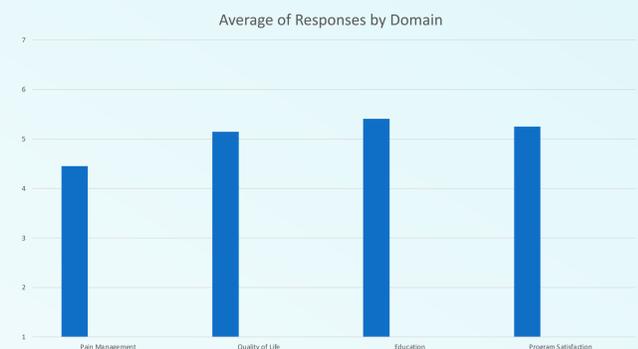
### Data Analysis Plan

All data will be stored on an excel document with randomly assigned ID numbers and no PHI. Each row will represent a participant, and each column will represent a question. Questions 2, 4, 5, 6, 8,10,11, & 12 will be scored 1-7 based on the response selected. Questions 3, 7, 9, and 13 will be reverse scored, by subtracting the patient's response from 8 (for example, if a patient selected 1-completely disagree, they're reverse score would be 8-1, or 7). After all items for all participants have been scored, we will calculate the average score for each question by taking the sum of all scores for that question, and divide it by the number of participants. Once this has been completed for every question, we will calculate the average score for each domain.

This will give us average scores on a scale 1-7, for all four domains.

## Results

Responses from this preliminary data show patients report that the program improved their education about chronic pelvic pain at the highest rate, followed by overall satisfaction with the program, and then their reported improvement in quality of life. Improvement in pain management was endorsed at the lower rate.



## Limitations & Conclusion

The major limitation of this study is that the outcome measures were selected based on perceived goals of the program, but are not comprehensive, and they are entirely subjective. Additionally, current response rate is 7% which poses major problems about the representation of the study population. Finally, the question of how changes of opioid usage reflect success in a chronic pain program are much more complex than can be examined with one survey question.

Conclusions will be discussed once results are finalized. Current response rate of 7% and n=21 is not adequate for full discussion and conclusions.

## Materials

Question 1 is a multiple selection check box question. Questions 14 is free response. All other questions are on a scale of 1-7, 1= completely disagree, 7=completely agree

- 1.) What aspects of the program did you partake in?
- 2.) I have fewer days of pain on average now compared to before the program.
- 3.) Compared to before the program, I often struggle to do things I enjoy.
- 4.) My pain doesn't keep me from doing things I enjoy as much now compared to before the program.
- 5.) I understand the reasons behind my pelvic pain better than before the program.
- 6.) I feel like my life is meaningful.
- 7.) I often find myself struggling to find meaning in life.
- 8.) The integrative/multi-modal approach helped me attain my goals.
- 9.) Having to see different types of healthcare providers in the program did not improve my care.
- 10.) I take less opioids for my pain now than before the program.
- 11.) I felt heard and respected during the program.
- 12.) I would recommend this program to a friend or family member experiencing pelvic pain.
- 13.) This program did not provide education about chronic pelvic pain.
- 14.) Please feel free to share any thoughts, feedback, or concerns you have about the Women's Integrative Pelvic Health Program.