

# Bridging Gaps in Pelvic Floor Care: Research, Education, and Connection to Occupational Therapy

**Doctoral Occupational Therapy Capstone Report** 

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OCTD 802: Capstone Scholarship
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December 3, 2025



# **Table of Contents**

Introduction to the Doctoral Capstone	6
Doctoral Capstone Title	6
Purpose of the Capstone Project	6
Theoretical Models	6
Content Area	7
Scholarship Type	7
Capstone Relationship to Mission and Philosophy	8
Xavier University Mission	8
Department of Occupational Therapy Mission	8
Department of Occupational Therapy Philosophy	8
Relationship	9
Capstone Development Part I	10
Capstone Site	10
Literature Review and Needs Assessment	10
Literature Review	10
Needs Assessment	10
Capstone Development Part II	10
Capstone Proposal	11
Capstone Goals and Objectives	11
Capstone Project Plan	11
Capstone Evaluation	11
Capstone Memorandum of Understanding	11
Capstone Implementation and Results	12
Activity 1	12
Description of the Participants	Error! Bookmark not defined.
Implementation/Methodology	Error! Bookmark not defined.
Results	Error! Bookmark not defined.
Activity 2	Error! Bookmark not defined.
Description of the Participants	Error! Bookmark not defined.
Implementation/Methodology	
Poculto	Errorl Bookmark not defined



Activity 3 Error! Bookmark not defined.
Description of the Participants Error! Bookmark not defined.
Implementation/Methodology Error! Bookmark not defined.
Results Error! Bookmark not defined.
Capstone Discussion24
Evaluation of the Captone Project (Activity 1) and Correlation with Literature Error! Bookmark not defined.
Recommendations for Practice, Policy, and/or Education Error! Bookmark not defined.
Evaluation of the Captone Project (Activity 2) and Correlation with Literature Error! Bookmark not defined.
Recommendations for Practice, Policy, and/or Education Error! Bookmark not defined.
Evaluation of the Captone Project (Activity 3) and Correlation with Literature Error! Bookmark not defined.
Recommendations for Practice, Policy, and/or Education Error! Bookmark not defined.
Reflection of the Capstone Error! Bookmark not defined.
Reflective Synthesis/ Creative Epilogue
Appendix A: Literature Table Error! Bookmark not defined.
Appendix B: Scoping Review48
Appendix C: IRB Application56
Appendix E: Capstone Goals and Objectives for a Capstone Project Table and a Capstone Experience Table57
Appendix F: Signed Memorandum of Understanding62
Appendix G: IRB Letter of Response63
Annendix H: Week-hy-Week Project Plan



# **Student Statement**

I hereby certify that the work presented in this doctoral capstone report is my own, has been conducted and prepared independently, and has not been submitted for any other degree or academic purpose. All sources of information, assistance, and contributions from others have been appropriately acknowledged. This document reflects my original scholarship and meets the requirements set forth by the Xavier University Doctor of Occupational Therapy Program.

Student Signature:	Date:			
Faculty Advisor Approval: I have reviewed this doctoral capstone report and affirm that it meets the scholarly and professional standards of the program.				
Advisor Signature: _	Date:			



#### **Abstract**

Context: Pelvic floor dysfunction (PFD) is increasingly recognized as an underdiagnosed health condition. Despite the high prevalence, many individuals do not receive appropriate screening and care to support pelvic wellness. Occupational therapy practitioners (OTPs) are increasingly positioned to address biopsychosocial impacts on pelvic health, yet patient education remains limited. This capstone project aims to strengthen OTP's contribution to pelvic floor therapy and decrease the gap by strengthening education, assessment practices, and resource availability for both practitioners and patients.

**Project Methods** This project includes (1) two surveys assessing the prevalence of self-reported PFDs by patients and provider perception, (2) development of a pelvic floor therapy resource guide, and (3) creation of a labor preparation guide for antenatal mothers.

**Results**: Surveys revealed an increased prevalence of PFDs among patients, despite 90% not receiving pelvic floor therapy. Symptom burden increased with age. Staff estimated an 11-31% prevalence of PFD in patients. The creation of the labor guide and the pelvic floor therapy resource guide provide additional support for both patients and staff.

**Limitations:** Small sample size, which may be due to voluntary nature of survey and the survey sign explicitly states, "Pelvic Health Survey," which could have led to self-selection among participants

**Significance of the Findings**: This project demonstrates the importance of improved education on pelvic wellness and knowledge of pelvic floor therapy. Increased access and knowledge will support patients in the long term and reduce future symptom burden.



# Introduction to the Doctoral Capstone

The doctoral capstone is a culminating project and experience for doctoral capstone students that occurs after all clinical and didactic courses are completed. The evidence-based project requires the student to relate theory to practice, synthesizing in-depth knowledge in a specific practice area. The experience provides an in-depth exposure to a concentration area. Throughout the project and experience, the student is mentored by the capstone site (recipient), the Xavier University Faculty Mentor, and the Doctoral Capstone Coordinator.

This capstone proposal section contains the capstone title, purpose, theoretical models used, content area, type of scholarship, and the relationship to the Xavier University Mission and the Department of Occupational Therapy Mission and Philosophy.

## **Doctoral Capstone Title**

Bridging Gaps in Pelvic Floor Care: Research, Education, and Connection to Occupational Therapy

#### Purpose of the Capstone Project

The primary purpose of the doctoral capstone is to create an in-depth project to allow students to integrate knowledge, skills, and evidence-based practice in a focused area of interest. Capstone provides students with the ability to contribute to the occupational therapy profession by furthering their knowledge within the occupational therapy field.

This specific doctoral capstone aims to identify the gap in early identification and management of pelvic floor disorders (PFD), emphasizing the role of pelvic floor occupational therapy in treating PFDs and to increase the awareness of pelvic floor therapy within the healthcare system. This will be done through providing resources for antenatal mothers, creating an educational resource guide for individuals learning about pelvic floor therapy, and through a survey assessing the prevalence and perceptions of women with PFDs within OB/GYN services. This doctoral capstone aims to support occupational therapy within a pelvic floor setting as well as seeking to enhance patient education, promote preventative care, and empower other practitioners to engage more confidently in conversations surrounding pelvic wellness.

# Theoretical Models

Below is a brief description of the conceptual or theoretical model(s) used to frame this capstone project and how it was applied.



#### Person-Environment- Occupation (PEO) Model

The theoretical model used to frame the doctoral capstone was the Person-Environment-Occupation (PEO) Model. This model specifically focuses on the dynamic interaction between a person and their environment, as well as the occupations they engage in. This model is relevant to pelvic floor occupational therapy because it considers how PFDs can impact an individual's ability to participate in meaningful, daily activities. This model guides the project by identifying barriers within the healthcare environment and emphasizing the importance of pelvic floor occupational therapy prior to giving birth. For example, by providing antenatal mothers with resources, this project aims to enable pregnant mothers to participate in more meaningful occupations during and after pregnancy. In addition, the survey data aimed to identify barriers and determine the importance of referring to pelvic floor therapy.

#### Content Area

The goal of the doctoral capstone is to provide students with in-depth exposure to one or more content areas. These include clinical skills, research skills, program development and assessment, policy development, advocacy, education, and leadership. Students select a primary and secondary content area.

#### **Advocacy**

The primary content area of this capstone was advocacy. This project focused on the accessibility of materials and on advocating for expanded access to pelvic floor therapy and increased knowledge about pelvic wellness. By creating clear, accessible, and evidence-based educational materials for both patients and practitioners, this project sought to reduce barriers often experienced when learning about pelvic health and accessing care. In addition, engaging with various interprofessional practitioners supported broader awareness and encouraged efforts to promote early, accessible, preventative care

# Research Skills

The secondary content area of this capstone was research skills. This project involved analyzing current evidence-based research and creating an IRB-approved study to better understand the knowledge gaps and needs in pelvic floor therapy. By synthesizing both qualitative and quantitative data throughout various aspects of the project, it aims to evaluate literature, identify patterns, and create meaningful, user-friendly materials.

# Scholarship Type

Student capstone projects are considered scholarly studies. The project represents one of the four types of scholarship: (1) scholarship of discovery, (2) scholarship of application, (3) scholarship of teaching and learning.



#### Scholarship of Discovery

The type of scholarship for this capstone is the scholarship of discovery. This form of scholarship focuses on gaining new knowledge and pursuing a deeper understanding within the field of occupational therapy. Through the development of an IRB-approved study, the creation of educational materials, and the identification of gaps in pelvic health care, this project contributes to clinical practice and aims to impact future research. By engaging in data collection, interpretation, and the dissemination of findings, this capstone aims to embody the values of discovery and advancing occupational therapy evidence-based research.

#### Capstone Relationship to Mission and Philosophy

The doctoral capstone is related to the Xavier University Mission and the Department of Occupational Therapy Mission and Philosophy.

#### **Xavier University Mission**

Xavier is a Jesuit Catholic university rooted in the liberal arts tradition. Our mission is to educate each student intellectually, morally and spiritually. We create learning opportunities through rigorous academic and professional programs integrated with co-curricular engagement. In an inclusive environment of open and free inquiry, we prepare students for a world that is increasingly diverse, complex and interdependent. Driven by our commitment to educating the whole person, promoting the common good, and serving others, the Xavier community challenges and supports all our members as we cultivate lives of reflection, compassion and informed action.

#### Department of Occupational Therapy Mission

Our Mission is to educate and prepare future occupational therapists who respond to the occupational needs of a diverse, complex, interdependent, and ever-changing global society. Xavier University OTD graduates will practice as ethical, competent, and caring professionals using critical, creative, and reflective thinking and habits of lifelong learning. As professionals, Xavier University graduates will balance autonomous and collaborative decision-making to successfully navigate a variety of inclusive delivery systems in traditional and emerging practice areas where they implement theory-driven and evidence-based practice. Xavier University graduates will be leaders who model and advocate for justice for persons, groups, and populations. To promote occupational participation and advance the profession, our graduates will utilize, produce, and disseminate scholarly works.

#### Department of Occupational Therapy Philosophy

# We believe:

- Humans are biopsychosocial beings who are transformed by participation in occupation.
- Participation in meaningful occupations shapes human lives and is intrinsically connected to one's health and well-being.
- As members of intra- and inter-professional teams, occupational therapists form a dynamic and collaborative relationship with people, populations, and communities to maximize occupational participation and realize occupational potential.
- Best practice in occupational therapy is client-centered, occupation-based, theory-driven, evidencebased, and grounded in sound ethical principles.
- Students learn best through independent exploration coupled with active engagement in authentic and learner-centered learning experiences and self-reflection.



### Relationship

Below is a description of the relationship between the doctoral capstone and the mission of the Xavier University and the mission and philosophy of the Department of Occupational Therapy meeting ACOTE standard D.1.3).

This project directly connects to the mission of both Xavier University and the Xavier University OTD Program. Xavier University's mission emphasizes inspiring individuals to serve others, contribute to the greater good, promote justice, and foster an open environment. This doctoral capstone aligns with these values by addressing an underserved area in occupational therapy and antenatal care: the early management and identification of PFDs before and after birth. By advocating for this awareness, education, and integration within the healthcare system, this project aims to embody Xavier University's commitment to promoting meaningful change. This change aims to benefit society and healthcare, especially for individuals who may lack access or resources to specialized care. In addition, this doctoral capstone aims to utilize the qualities of reflection, compassion, and informed action. This is seen through various projects and the advocacy for education and support within pelvic floor therapy.

The mission and philosophy of the Xavier University OTD program prepare occupational therapy practitioners to excel in leadership, advocacy, and client-centered practice. This project aims to reflect these goals by identifying gaps in antenatal care, which, in turn, uses the power of occupation to promote health, wellness, participation, and justice for all people. By advancing awareness and education in this field, this work aims to both enhance and reinforce Xavier University's OTD program's commitment to holistic care and empowerment through occupational therapy interventions. Creating a doctoral capstone focused on an emerging practice area promotes the value of lifelong learning and the importance of advocating and leading within the field of occupational therapy. This doctoral capstone aims to align with the Xavier University OTD Program mission by balancing autonomy and collaboration, while also focusing on the needs of a diverse, complex, interdependent community.



# Capstone Development Part I

Part I of the capstone development includes a literature review, site interview, and needs assessment. These form the foundation of the capstone project described in the following section of this proposal. This section provides documented evidence of ACOTE standard D.1.3, which states that "the doctoral capstone is an integral part of the program's curriculum design' and reflects the mission and philosophy of the program, contributes to the development of in-depth knowledge in a designated area of interest, and includes preparation consisting of a literature review and needs assessment" (ACOTE, 2023)

#### Capstone Site

The capstone site is the organization with which the student partners to complete the project and experience. The site is selected in collaboration with the student, doctoral capstone coordinator, and the faculty mentor.

The site for this capstone is specifically the outpatient center at the Joint and Spine Clinic, connected to the main hospital in is a not-for-profit hospital. The population served at is diverse, consisting of residents in Cincinnati, OH, and the Greater Cincinnati Area. It provides a range of services, including inpatient and outpatient care, as well as specialized care. Specifically, pelvic floor therapy is available in various outpatient clinics across both Kentucky and Ohio. The mission of

# Literature Review and Needs Assessment

#### Literature Review

The doctoral capstone literature review was conducted in OCTD 604 (See Appendix A: Literature Table), OCTD 633 (See Appendix B: Scoping Review), and OCTD 705 (See Appendix C: IRB Application Problem Statement).

# Needs Assessment

Needs Assessment for the doctoral capstone was completed in OCTD 604 in collaboration with the student, faculty mentor, and doctoral capstone coordinator and was used as the foundation for this doctoral capstone. The Needs Assessment contains parts: (1) review of the literature, (2) description of the problem, and (3) site interview. See Appendix D: Needs Assessment.

# Capstone Development Part II

The section contains the doctoral capstone proposal, including the goals and objectives, a week-by-week project plan, and a capstone evaluation plan. This section contains evidence that



the doctoral capstone was "designed through collaboration with the student, a faculty member in the occupational therapy educational program who holds a doctoral degree, and an individual with documented expertise in the content area of the capstone" (ACOTE D.1.1, 2023), contains "goals/objectives, and a plan to evaluate project outcomes" (ACOTE, D.1.3), and that the site mentor (content expert) was "informed of the plan for and purpose of the doctoral capstone" (ACOTE D.1.2).

# Capstone Proposal

#### Capstone Goals and Objectives

Goals and objectives are defined for both the capstone (1) project and (2) experience. The goals describe what students will learn or do, while the objectives define how this will be accomplished. Each goal and objective are listed with the proposed evidence of achievement. There is one table for the capstone project goals and objectives, and a separate table for the capstone experience. See Appendix E: Capstone Goals and Objectives for a Capstone Project Table and a Capstone Experience Table.

The doctoral capstone experience learning goals and objectives, as well as the project goals and objectives, were collaboratively developed by the student, faculty mentor, and doctoral capstone coordinator. All goals and objectives were reviewed with the site mentor. Evidence of this is provided in the site-mentor-signed Memorandum of Understanding, which includes the individual student goals and objectives. See Appendix F: Signed Memorandum of Understanding.

#### Capstone Project Plan

The capstone project plan consists of a Week-by-Week Project Plan and the procedures section of the IRB Application. Each was collaboratively developed by the student, faculty mentor, and doctoral capstone coordinator. See Appendix C: IRB Application and Appendix G: IRB Letter for the Response to the IRB Application. See Appendix H: Week-by-Week Table for the planned capstone activities by week.

#### Capstone Evaluation

The capstone evaluation is determined by assessing the student's ability to meet their capstone goals and objectives. The capstone evaluation is divided into two sections: (1) project and (2) experience, and is completed at mid-term (approximately week 7) and again at week 14 (final). The mid-term and final capstone evaluations are completed and maintained on EXXAT/Prism.

# Capstone Memorandum of Understanding

A capstone Memorandum of Understanding (MOU) is executed prior to the start of the doctoral capstone and contains the roles and responsibilities of all parties, plans for evaluation, mentoring and supervision (ACOTE, 2023, D.1.4). See Appendix F: Signed Memorandum of Understanding.



# Capstone Implementation and Results

This section contains a description of the capstone project implementation, results, summary, and reflection. This section is completed during OCTD 802: Capstone Scholarship.

Activity 1: Prevalence of Pelvic Floor Dysfunction Among Women Receiving Gynecological Services at The Christ Hospital Study

Activity 1 includes the development and implementation of two research studies. The first study (1) was designed to examine the prevalence of pelvic floor dysfunction (PFD) in patients, and the second (2) examined the provider's perceived prevalence of PFDs. Both surveys were conducted at three OB/GYN offices within the study was to identify potential gaps between patients' reported experiences of PFD and providers' perceptions. Due to the nature of the study and the involvement of human subjects, this portion of the project required IRB approval through the capstone site.

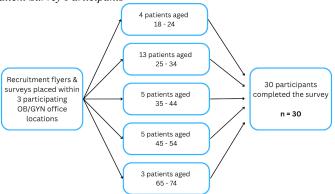
# Description of the Participants

There are two groups of participants within this activity: (1) Patient Survey Participants (PSP) and (2) Provider Survey Participants (ProSP).

#### Patient Survey Participants.

PSPs were recruited from three OB/GYN offices within Network: two offices at the main hospital building in Mt. Auburn and one office in Anderson Township. This population included adult individuals in various stages of reproductive health receiving care via routine appointments or prenatal care. Participants ranged in age from 18 to 74 years, and all identified as female. A total of 30 patients responded to the survey (see Figure 1: Patient Survey Participants).

**Figure 1**Patient Survey Participants



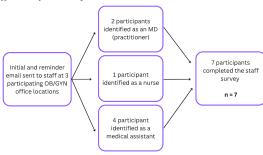
Participant	#
Age Range	
18-24	4
25-34	13
35-44	5
45-54	5
65-74	4
Total	30

Note. The following chart shows the age distribution of the patient survey sample.



Provider Survey Participants. The ProSP included staff from the same three participating OB/GYN offices. The participants in this study included physicians, nurses, and medical assistants. A total of 7 staff members participated in the staff survey (see Figure 2: Staff Survey Participants).

Figure 2
Staff Survey Participants



Participant Provider Type	
MD	2
Nurse	1
Medical assistant	4
Total	7

*Note.* The flow chart shows the distribution of the type of provider of the staff survey sample. *Implementation/Methodology* 

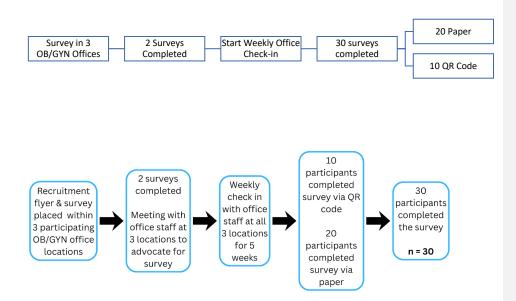
Two separate surveys were developed to address the primary research questions:

- What is the prevalence of unidentified pelvic floor dysfunction (PFD) in the current population of women who receive services at OB/GYN offices?
- What is the perception of staff regarding the prevalence of pelvic floor dysfunction (PFD) within patients who are receiving services at OB/GYN offices?

Patient Survey Methodology. The patient survey was placed into three participating OB/GYN offices within network. In each office, there was a recruitment flyer with a QR code for the online survey and a stack of paper copies for patients who preferred a paper copy (see Figure 3: Patient Survey Recruitment). The patient survey collected self-reported information regarding demographic information and 4 questions about pelvic health symptoms from the Pelvic Health Screening Tool by Pelvic Global. The goal of the patient survey was to understand the prevalence of PFD among patients and determine whether they were currently receiving pelvic floor therapy. The survey was conducted in each office for approximately five weeks.



Figure 3
Patient Survey Implementation

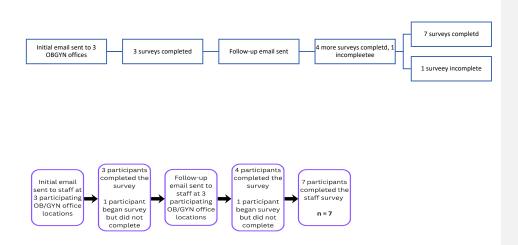


*Note.* The chart shows the recruitment and methodology of the patient survey. Surveys were conducted in the offices and were in place for 5 weeks.

Provider Survey Methodology. The staff survey was initially sent to the office manager, who forwarded the pre-written recruitment email to all practitioners, midwives, nurses, nurse practitioners, and medical assistants in each office. This survey reported perceptions of PFD prevalence, the time required to assess PFD, and the effectiveness of pelvic floor therapy. The office manager sent a pre-written reminder email approximately three weeks after the initial email to increase survey participation (see Figure 4: Staff Survey Recruitment).

**Figure 4**Staff Survey Implementation





Note. Flow chart shows the recruitment and methodology of the staff survey.

Both surveys were designed to be brief, accessible, and anonymous to maximize response rates and to reduce bias. Both surveys included multiple-choice and multiple-select questions, with the option to write in answers if participants desired.

# Modifications

IRB approval from both and Xavier University took approximately 5 weeks, limiting the time both the patient and staff surveys were active. This delay limited the recruitment and implementation of the OB/GYN Office patient survey. Therefore, there were decreased responses, along with fewer locations where both surveys could be conducted.

After the initial 2 weeks of the patient survey, 2 surveys were completed. The PI then met with the front desk staff to advocate for the study and discuss the benefit of each of the surveys in addition to requesting that the survey be pointed out as an option for patients upon their checkin to an appointment. After each meeting, participation in the surveys increased, resulting in more surveys being completed.

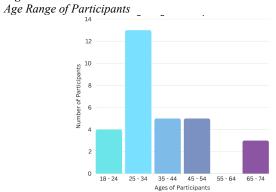
## Results

Patient Surveys. A total of 30 patient surveys (n = 30) were completed over 5 weeks across all three participating OB/GYN offices. All 30 participants screened positive for at least one pelvic floor dysfunction (PFD) based on their answers from the Pelvic Health Screening Tool by Pelvic Global. The sample displayed variability in age, with the largest portion of participants falling



within the age range of 25 to 34 (see Figure 5: Age Range of Participants). See appendix B and C for table of data.

Figure 5



Note. Graph shows the age distribution of the patient survey participants.

Of the participants who reported experiencing a PFD, 27 (90%) reported not receiving pelvic floor therapy or any related treatment. See Figure 6: Participants Receiving Pelvic Floor Therapy. Only 3 participants (10%) indicated they had pursued pelvic floor therapy or any specific intervention.

**Figure 6**Participants Receiving Pelvic Floor Therapy



*Note.* The chart shows the distribution of how many participants received pelvic floor therapy and that all participants had identified having at least 1 PFD.

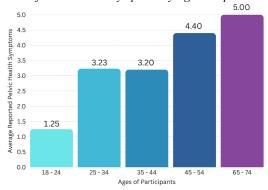


Participants endorsed a wide range of symptoms associated with PFD. In total, participants reported 49 symptoms across all four categories. Symptom burden varied by age group, with the 25 to 34 age group reporting the highest number of symptoms (n = 19) and the 18 to 24 age group reporting the lowest (n = 3). However, the 25-34 age group had the most participants. Across all participants, the most frequently reported symptoms were:

- Experiencing any leaking of urine (n = 5)
- Experiencing the sudden urinary urge that required finding a bathroom quickly (n = 4)
- Missing school, work, or social activities secondary to period pain (n = 3)

Younger participants ages 18 - 24 reported the fewest symptoms on average (1.25) compared to the oldest age group, which displayed the highest average symptom burden (5.00). Averages are displayed in Figure 7: Average Number of Pelvic Health Symptoms by Age Group.

Figure 7
Average Number of Pelvic Health Symptoms by Age Group
5.00



Note. Graph shows the average number of pelvic health symptoms presented for each age group.

The symptoms were grouped into broader pelvic health categories including:

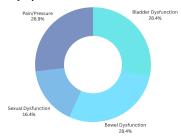
- Bladder-related symptoms (e.g. urgency, frequency, leakage)
- Bowel-related symptoms (e.g. constipation, fecal incontinence, pain)
- Sexual health symptoms (e.g. pain with intercourse, difficulty with genital arousal)
- Pelvic pain and pressure symptoms (e.g. prolapse symptoms, general pelvic pain, menstrual pain)

Within these categories, the highest number of symptom endorsements was in the bladder symptoms (n = 19) and bowel symptoms (n = 19) categories, and the category with the fewest endorsements was sexual health symptoms (n = 11) (see Figure 8: Total Patient Symptom Endorsement Breakdown). In addition, 72% of participants (n = 22) reported dysfunction in



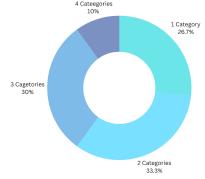
more than one category. See Figure 9: Percentage of Pelvic Health Categories Affected Among Participants.

Figure 8
Total Patient Symptom Endorsement Breakdown



*Note.* The chart shows the breakdown of how many symptoms were reported in each pelvic floor dysfunction category.

Figure 9
Percentage of Pelvic Health Categories Affected Among Participants



*Note.* Chart shows the breakdown of the symptoms and how many participants selected dysfunction in one or more pelvic floor dysfunction categories.

Staff Surveys. A total of 7 staff surveys were completed over the course of the 5 weeks, with 1 initial recruitment email and 1 follow-up recruitment email. Responses reflected a range of professional roles on the team, with the most common being medical assistant (n = 4), followed by MD (n = 2), and the least common being nurse (n = 1).

Providers estimated the portion of their patients presenting with PFD. Responses varied, but the overall range included estimating 11% to >31% of their patients experienced a PFD (see Figure 10: Staff perception of prevalence of Pelvic Floor Dysfunction).

Figure 10



Staff Perception of Prevalence of Pelvic Floor Dysfunction



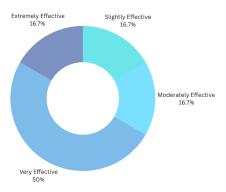
*Note.* The chart shows the breakdown of the staff's perception of the percentage of how many of their patients experience a PFD.

When asked "how do you screen patients for PFD", the most common answer was "Discussion/Verbal Questions". In this section of the survey, the primary respondents were nurses and MDs, as most medical assistants stated that this question did not apply to them. Both nurse and MDs include stating if a patient reports PDF, all 3 staff members (n = 3) stated they recommend pelvic floor therapy 75-100% of the time.

When asked "what practitioners can treat PFDs," 71% (n=5) responded to both physical and occupational therapists. When asked to rate effectiveness of pelvic floor therapy, most respondents rated pelvic floor therapy as "very effective" (n=3) but there was variability in responses (Figure 11: Staff Perceived Effectiveness of Pelvic Floor Therapy). For the patient facing practitioners, all providers stated pelvic floor therapy is effective, with two (n=2) stating it is very effective and one (n=1) stating it is extremely effective (Figure 12: Provider Perception on Effectiveness of Pelvic Floor Therapy). In addition, when asked the degree to which they agree having a pelvic floor therapist in the OB/GYN office would meet patient needs, 57% of the participants (n=4) selected agree (see Figure 13: Staff Agreement of Having an In-Office Pelvic Floor Therapist).

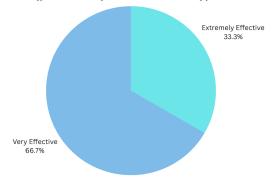
Figure 11
Staff Perceived Effectiveness of Pelvic Floor Therapy





Note. The chart shows the breakdown of the provider's perceived effectiveness of pelvic floor therapy.

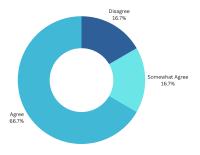
Figure 12
Provider Perception on Effectiveness of Pelvic Floor Therapy



*Note*. The chart shows the breakdown of the patient facing provider perception of the percentage of benefits of pelvic floor therapy. The providers included within this chart are MD and nurse.

Figure 13
Staff Agreement of Having an In-Office Pelvic Floor Therapist





*Note.* The chart shows the breakdown of the provider perception on whether it would be beneficial to have a pelvic floor therapist in the OBGYN offices.

# Activity 2: Basic Foundations of Pelvic Health Resource Guide

Activity 2 is a comprehensive resource guide providing introductory information on pelvic floor therapy and overall pelvic wellness. The guide consolidated educational materials, resources, anatomy images, key research findings, and videos to enhance professional competency in a specialized area of occupational therapy.

#### Description of the Participants

The resource guide is specifically tailored for occupational therapy students, physical therapy students, and practitioners seeking to deepen their foundational knowledge of pelvic floor therapy concepts. The guide aims to be accessible to individuals who want to learn more about pelvic wellness by providing a comprehensive document that can be referred to easily.

# Implementation/Methodology

The development of the resource guide involved gathering, reviewing, and synthesizing a wide range of educational materials related to pelvic health. In addition, resources were acquired while shadowing the capstone mentor and other pelvic health professionals. Each resource was reviewed for clarity and relevance to pelvic floor therapy and the current, up-to-date practice.

Information was then organized into clearly defined sections to facilitate navigation and application. The final guide included sections such as:

- Pelvic Floor Therapy Courses
- Free Pelvic Floor Resources
- Related Resources (links to resources related to topics within the pelvic wellness realm)
- Books & Podcasts
- Social Media Pages
- Videos & YouTube Channels
- Notable Research & Guidelines
- Pelvic Health & Related Conditions
- Anatomy Resources & Images



- Tools (identifying common tools utilized and discussed during pelvic floor therapy sessions)
- Pelvic Floor Therapists in Cincinnati (identifying some pelvic floor therapists and clinics within the Greater Cincinnati area that are great mentors and resources)
- Other Resources (including links to the cost-benefit of pelvic floor therapy, the Bristol Stool Chart, and a bladder journal)
- General Topics to Learn More About (a list of topics that would benefit from further selfdirected learning)

The guide was created in digital format to support future updates, ensure long-term relevance, and allow for broad dissemination among students, clinicians, and interested learners. Direct links were attached to various topics to support ease of use and to promote easy access during self-directed learning.

#### Results

The results of this activity include the completion of a comprehensive guide that individuals with diverse backgrounds can use to learn more about pelvic floor therapy and pelvic wellness. Upon completion, the guide was shared with the capstone site, where it is now available as an educational tool for future students completing experiential learning or fieldwork within a pelvic health setting. Overall, the final product not only increases awareness and accessibility of pelvic wellness information but also enables sustained use, ongoing knowledge dissemination, and long-term impact within pelvic health settings.

# Activity 3: Labor and Postpartum Pelvic Floor Therapy Guide for Unmedicated & Medicated Birth

# Description of the Participants

The target audience for the educational handouts consists primarily of pregnant individuals in their second and third trimesters, representing a wide range of ages, backgrounds, and prior exposure to childbirth education. This guide aims to provide these patients and their partner or support person with more information surrounding their bodies and empower them during their birthing experience.

# Implementation/Methodology

The updated labor guide and new visual handout were created based on evidence-based research, best practice guidelines, and input from pelvic floor therapists to ensure clinical accuracy, accessibility, and relevance. The content was reviewed and received input from multiple pelvic floor therapists, who provided additional insight into the informational gaps observed in practice and the most significant areas of need.



The feedback from the site mentor included various revisions to enhance clarity, update outdated material, and integrate new wording and recommendations. Formatting modifications were also made to improve readability and flow, making the handout easier for patients to read.

The creation of the visual handout involved a multidisciplinary approach with the capstone mentor and with the labor and delivery nurse manager. During the capstone experience, the nurse manager provided direct feedback on the various images and labor positions, offering guidance on the accuracy of depicted positions, the feasibility of different labor positions in accordance with hospital standards, and possible labor positions for both medicated and unmedicated births.

The final version of both handouts includes an updated resource guide and a newly developed visual handout featuring multiple photographs taken within an actual labor and delivery room at the updated handout includes various topics including education on the stations of labor, beneficial stretches, poses, and movements during each stage of labor, perineal massage, breathing techniques, epidural education, and additional birth-related resources. The new visual guide includes links to videos of birthing centers, photos of the birthing bed, and photos of positions during early labor, active labor, and the second stage of labor. Upon completion of the handouts, they were sent to the capstone site for approval to use them as official handouts.

#### **Modifications**

Initially, the plan included only updating the previously utilized handout. However, after multiple revisions and discussions, it was determined that it was best to create 2 separate handouts: one with visuals and one without. This was decided to avoid increasing the length of the updated handout due to printer limitations.

#### Results

The results of this activity include an updated labor guide and a finalized visual handout for use at during pelvic floor therapy sessions. Both resources provide evidence-based, patient-centered information on pelvic floor health, labor positions, perineal care, and techniques for support and comfort during labor. When used together, the handouts aim to provide clear, evidence-based resources to empower the pregnant patient and their support team during the birthing process, increasing their confidence and decreasing anxiety in labor.

The handouts were well received by the pelvic floor therapists who utilize them and expressed intentions to utilize the updated guide in addition to the visual guide during pelvic floor therapy sessions.



# Capstone Discussion

The discussion section interprets the results and explains their significance. This can include a connection to the broader context, an evaluation of significance, an acknowledgement of limitations, and a proposed future direction for research or unanswered questions.

Activity 1: Evaluation of the Prevalence of Pelvic Floor Dysfunction Among Women Receiving Gynecological Services at The Christ Hospital Study

**Patient Survey** 

#### Prevalence of Symptoms

The results of the patient survey revealed an increased burden caused by pelvic floor dysfunction (PFD) in participants aged 18 to 74. Within the study, all 30 participants screened positive for pelvic floor dysfunction; however, this result is not generalizable to the entire population within (see "Limitations" section) secondary to the voluntary nature of the study and the title highlighting the survey surrounding pelvic wellness. However, this finding strongly suggests that PFDs may be significantly underdiagnosed within the population.

### Lack of Identification of Symptoms

In addition, this finding suggests that many symptoms may go unaddressed during OB/GYN appointments, or participants may not have initially identified themselves as having PFD symptoms due to limited information and knowledge about pelvic health and wellness. Despite symptom presentation, 97% of patients stated they had not received pelvic floor therapy. This gap implies there may be barriers in place, such as limited screening practices, insufficient patient education, lack of bodily awareness, and lack of awareness surrounding available treatment options, such as pelvic floor therapy.

# Participant Age

The distribution across the lifespan displays how PFD may be impacting individuals differently. Younger participants (18 to 24) displayed less PFD on average, while older participants (65 to 74) displayed increased PFD on average. This pattern supports existing evidence that pelvic floor dysfunction tends to accumulate due to various factors such as menopause, childbirth, chronic straining, and age-related tissue change.

Results Supported by Evidence

These patterns of pelvic floor dysfunction can affect patients' overall health and well-being. Dysfunction of the pelvic floor can lead to various pelvic floor disorders (PFD) such as pelvic pain, urinary incontinence, pelvic organ prolapses, chronic pain, sexual dysfunction, and more (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021). These health conditions can negatively impact the occupational well-being of an individual, diminishing their quality of life (Akselrud & Vestal, 2021).

Staff Survey

**Underestimate Symptoms** 



The staff survey further highlights additional discrepancies between clinical expectations and patient experiences. Despite the small survey sample, providers estimated that 11-31% of patients were experiencing PFD, which is significantly lower than the 100% screening rate reported in the patient survey. This finding suggests that many symptoms may go unreported by patients and under-identified by providers.

Reasons for this discrepancy may be due to the private, sensitive nature of PFD symptoms, the societal stigma involved within women's health, limited appointment time, lack of routine screening tools, lack of education in pelvic assessments, or the additional misconception that urinary leakage is "normal" with age and often not with being reported. Historically, despite the high prevalence of pelvic floor dysfunction (PFD), women often go undiagnosed and untreated (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021). Support for Interventions

Nurses and MD practitioners stated they recommend pelvic floor therapy 75-100% of the time when symptoms are identified, indicating strong provider support for intervention, as well as that the stigma surrounding PDF may still be present in our current society.

#### **Patient Survey Limitations**

#### Survey Sample Size

The primary limitation of the patient portion of the study is its small sample size, which may be due to its voluntary nature. The limited number of participants affects the generalizability of the patient survey data.

#### Implications of a Voluntary Survey

In addition to the survey's voluntary nature, the survey sign explicitly states, "Pelvic Health Survey," which could have led to self-selection among participants due to the presence of PFD.

#### Survey Design

Participants were not required to complete each question. However, because there was no "none of the above" option, participants may have felt they needed to select at least one option. Despite the limitation, it is notable to consider that all participants reported pelvic floor dysfunctions, and 90% were not receiving pelvic floor therapy.

#### Self-Report

The self-report nature of the study is subject to difficulty in recalling experiences and bias. In addition, a strong stigma may remain surrounding the subject of pelvic floor and pelvic floor health, specifically due to the negative perceptions and embarrassment people may feel when discussing pelvic floor dysfunction. Due to the social stigma, there may have been a decrease in participation due to the potential of fear or feeling uncomfortable during the discussion surrounding pelvic floor symptoms.

# Staff Survey Limitations

# Sample Size

The primary limitation for the staff study remained the limited sample size, as well as the voluntary nature of the study. After the staff attended a meeting with the PI during which the study was explained, a follow-up email was sent to the staff to complete the survey. This research design may have resulted in fewer responses. If the staff had completed the survey



immediately after the PI staff meeting, there may have been more responses. Additionally, there were fewer results from nurses, practitioners (MD, DO), and physician' assistants. This may be due to the busy nature of the jobs and the greater involvement in hands-on patient care.

#### Recruitment

In addition to the study-specific limitations, the overall study was only placed within three locations within the network. Two of the offices were Mt. Auburn locations within the main hospital, and one was located within the Anderson Township outpatient office. Due to the demographics of each of these locations, there was a limit in the diversity of the populations involved in the study.

#### Recommendations for Practice, Policy, and/or Education

These findings support previous research that there is a substantial gap between the prevalence of pelvic floor dysfunction and the prevalence of pelvic floor dysfunction symptoms. The results emphasize the need for improved screening tools, a systematic procedure to bettere screen patients, better patient education, and increased access and integration of pelvic floor therapy services into general, routine OB/GYN care. This study not only supports the need for pelvic floor therapy but is a call to action for institution-wide changes aimed at reducing unmet needs and improving overall patient satisfaction and outcomes.

Based upon the outcomes, additional recommendations include more formally integrating pelvic floor therapy services within OB/GYN clinics, offices, and postpartum units. The integration of pelvic floor therapy can directly help reduce the time and burden on practitioners. Furthermore, pelvic health therapists can provide more education to patients about pelvic floor and PFD symptoms, specifically after labor and during menopause. Given the high prevalence of PFD, implementing early screening and assessment could significantly improve detection and reduce the long-term burden of symptoms. In addition, occupational therapists should expand patient education efforts to include more information on toileting (bowel and bladder) and sexual health across various settings. Promoting occupational therapy education can address this knowledge gap and provide additional treatment opportunities for occupational therapists.

## Activity 2: Evaluation of the Basic Foundations of Pelvic Health Resource Guide

The development of the comprehensive introduction to pelvic floor therapy guide aimed to provide an organized, accessible tool to support occupational therapists and other health professionals, offering a foundation for self-directed learning to enhance overall clinical skills in this area. By consolidating the resources, images, videos, and key research findings, the guide aims to be beneficial for all groups, from students to more knowledgeable therapists. The guide's accessibility allows both students and practitioners to find information in one place and use it as a quick, easy reference.

It is projected that the number of women within the United States with a pelvic floor dysfunction will increase from 28.1 million to 43.8 million in 2050, and an estimated 25% to 30% of women will have at least 1 pelvic floor disorder in their lifetime (Dieter et al., 2015; Kenne et al., 2022; Wu et al., 2009). This statistic alone supports the growing need for pelvic floor therapists. The guide aims to address a critical knowledge and support gap for pelvic floor therapists, particularly those with an occupational therapy background. Pelvic floor therapy remains an emerging practice area within occupational therapy, and there is still limited support for new practitioners who desire an occupational therapy lens for treatment. By providing clear,

Commented [MR1]: Fantastic point!



organized resources for individuals interested in pelvic floor therapy, the guide aims to facilitate knowledge translation and skill development within the field, making it easier for more individuals to enter pelvic floor therapy.

#### **Limitations**

Limitations include difficulty locating reliable, evidence-based resources due to the lack of research on women's health, pelvic health, and wellness. Additionally, since there are many techniques and benefits still being researched, it was more challenging to include only best practice interventions.

#### Recommendations for Practice, Policy, and/or Education

Due to the increasing number of patients with pelvic floor dysfunction and the increased demand for pelvic floor therapists, it would be beneficial to increase education surrounding pelvic floor therapy during occupational therapy school. Based on my observations, many occupational therapy practitioners have reported limited exposure to pelvic floor concepts during their education, which previously decreased their desire to specialize in pelvic floor therapy. Pelvic health intersects with occupational therapy in various aspects, including toileting, pain management, sexual health, and participation in daily routines. Integrating information regarding pelvic floor therapy would better prepare future practitioners to recognize, screen for, and intervene when patients are experiencing pelvic floor challenges.

# Activity 3: Evaluation of the Labor and Postpartum Pelvic Floor Therapy Guide for Unmedicated & Medicated Birth

The revision and the enhancement of the pelvic floor educational handout to reflect current practices ensured that pelvic floor therapists within are providing patients with accurate, relevant, and safe guidelines during labor. The addition of the visual guide further enhances the document's potential benefits by incorporating different patient learning styles and improving accessibility for patients who may benefit from visual reminders during labor. This handout will benefit both patients and pelvic floor therapists and will also promote interprofessional connection and communication with labor and birth professionals, such as nurses and OB/GYN practitioners.

Patients who are better informed about key concepts such as perineal massage, proper breathing during birth, and various labor positions can potentially increase both parental and fetal outcomes (Huang et al., 2019; Leutenegger et al., 2022; Yin et al., 2024). Education during the antenatal period plays a critical role in shaping the patient's feelings of preparedness and anxiety (Athinaidou et al., 2024). Specifically, it has been seen that just perineal massage prior to birth is associated with decreased trauma during birth, reducing perineal tears, decrease incidence of episiotomies, and promote increased healing following birth (Abdelhakim et al. 2020; Beckmann & Stock, 2013; Yin et al., 2024).

Beyond physical outcomes, providing additional education to pregnant patients and their birthing support team can reduce overall anxiety during labor and promote a less stressful birth environment (Athinaidou et al., 2024). A more informed and confident patient can communicate their needs and feel more confident during the labor and birthing experience. When patients feel more supported and knowledgeable, they are more likely to experience birth as an empowering event, rather than one characterized by fear.



#### **Limitations**

The limitations included time and resources available at the capstone site. Due to increased patient needs and low staffing, there was less time than expected to take the handout photos and create the visuals for the guide. In addition, there were limitations imposed by the larger entity, due to the inability to allocate resources to make more patient information available online.

# Recommendations for Practice, Policy, and/or Education

Occupational therapists can play a significant role in both labor preparation and supporting patients after giving birth. With a holistic, functional, and client-centered perspective, occupational therapists can address multiple physical, emotional, and occupational changes in both the antenatal and perinatal periods. After learning more about the birthing process and the postpartum experience, there are various areas where occupational therapy can play a role, such as patient education after birth, breathing during labor, returning to activities of daily living after a C-section, and more. Overall, as the profession of pelvic health and pelvic floor therapy expands, occupational therapists are well-equipped to advocate for their inclusion in interprofessional roles in both antenatal and perinatal care.

## Reflection of the Capstone

#### Did you learn what you planned to learn?

Throughout the capstone experience, I ultimately learned what I planned to learn. I began capstone with an open mind and a curiosity for pelvic floor therapy. Upon reflection on my capstone experience, I learned about pelvic floor therapy and various other topics involved in both pelvic floor therapy and occupational therapy. This experience challenged me and helped me build my confidence in engaging with patients and interprofessional staff. I am much more knowledgeable upon completing the capstone, eager to engage with patients and participate in occupational therapy treatment upon graduation.

# Which capstone activities helped you gain the most in-depth knowledge of the focus area?

Throughout my capstone, I was fortunate to observe my capstone mentor and multiple other pelvic floor therapists. I learned from 8 different pelvic floor therapists, both occupational therapists and physical therapists. This experience provided me with a deeper understanding of the pelvic floor and different perspectives on treating and educating patients. I learned the real importance of patient education and how it is truly a powerful tool during treatment, providing increased confidence and knowledge that enhance patients' skills at all stages and walks of life. In addition, it gave me a better perspective on the overlap between physical and occupational therapy, as well as the differences that make both professions unique and important to rehabilitation and patient care. Observations helped me gain a better understanding of how I want to be a practitioner in the future.

In addition to observation opportunities, my self-directed learning provided me with valuable experience outside the clinic and a great opportunity to supplement the knowledge I was gaining during my observations. I spent a lot of time researching various topics, listening to podcasts, reading books, watching videos, and more. This time outside of observation truly helped me learn more and gain a better understanding of the different interventions, as well as the reasoning behind various treatment methods. The creation of both the labor guide and the resource guide gave me the creative freedom to pause and learn, which was difficult to balance



during typical school semesters. Overall, I learned a variety of skills and knowledge through both observation and self-directed learning, which will assist me in my future practice.

#### Unanticipated learning?

Throughout my capstone experience, I experienced unanticipated learning. Due to my capstone mentor being based within a large hospital system, I was able to interact with various healthcare practitioners and experienced developing multiple interprofessional relationships. During my time on capstone, I interacted with multiple nurses, doctors, IRB directors, nurse managers, medical assistants, therapists, and receptionists. Each of these interactions helped me develop professional skills that I can apply in the future when working on a multidisciplinary team.

In addition, one of the areas where I learned a lot was advocating for myself and my learning while working on my project. Due to the nature of my project, it required self-initiation and multiple forms of communication to ensure it was progressing and running smoothly. Overall, I learned to be an advocate for both pelvic floor therapy and myself. There were multiple instances when I initially felt nervous and uncomfortable, which, in turn, helped me learn to better communicate and advocate for my own needs and those of my project.



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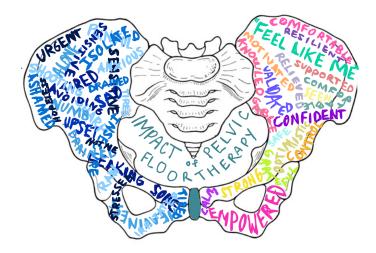


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# Reflective Synthesis/ Creative Epilogue

This section contains a reflection of the doctoral capstone, including both the capstone experience and project. Students create an individual reflective synthesis of the capstone in a format of their choice. This includes, but is not limited to narrative, video, website, artwork, poem, or song.



Above is a drawing/graphic I created to capture the different experiences I have had during my time observing pelvic floor therapy sessions. I was able to observe over 200 hours, and I witnessed various sessions where patients expressed and felt emotions ranging from anxiety to happiness. Pelvic floor therapy can truly impact an individual's life in various ways, and it can have a major impact on all aspects of life.

The drawing/visual I created contains various words within the image of a pelvis. On the left side is a jumble of words that I often would hear during the first evaluation sessions with patients who were just starting their pelvic floor therapy journey. Often these words were ones that described the negative impact of pelvic floor symptoms such as scared, uncomfortable, painful, tired, urgent, sore, and more. The drawing/creation of the words within the left side of the image aimed to look overwhelming and slightly chaotic, as often at the start of the pelvic floor therapy journey most patients were overwhelmed and expressed a multitude of impacts on their daily life. I got to see the societal stigma surrounding various aspects of the pelvic floor, and I witnessed many patients tearfully describing how the symptoms impact their daily life.

The right side of the pelvis contains words that I would often hear toward the end of the pelvic floor therapy journey or during discharge sessions. Often these words encompassed feeling more confident and people feeling more like themselves. The image aims to provide positive words as well as have more color for the increased opportunities upon the completion of



pelvic floor therapy. There were multiple instances where I saw patients cry happy tears, as they felt they got their life back and got to experience life where they were not stressed or impacted by their pelvic floor symptoms.

I feel very lucky to have experienced such a dynamic and complex but rewarding specialization of occupational therapy. It has been a great experience to witness patients' wins, both big and small. It has been a unique experience to see both ends of the spectrum, as I feel I was able to first-hand see the impact and benefit that pelvic floor therapy could have on an individual.



# Appendix A: Literature Review

It has been shown that approximately one in four women within the United States experience at least one PFD in their lifetime, with the numbers only increasing as women age (Kenne et al., 2022; Nygaard, 2008). It is projected that the number of women within the United States with PFDs will increase from 28.1 million to 43.8 million in 2015 (Wu et al., 2009). Despite the high prevalence of pelvic floor dysfunction (PFD), women often go undiagnosed and untreated (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021).

The pelvic floor is comprised of complex ligaments, tissues, and muscles that play a key role in bladder control, bowel control, stability, and sexual functioning (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021). Dysfunction of the pelvic floor can lead to various pelvic floor disorders (PFD) such as pelvic pain, urinary incontinency, pelvic organ prolapses, chronic pain, sexual dysfunction, and more (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021). These health conditions can negatively impact the occupational well-being of an individual, diminishing their quality of life (Akselrud & Vestal, 2021). PFDs are present across all ages and genders, but women are commonly experienced during pregnancy and childbirth due to anatomical changes (Akselrud & Vestal, 2021; Blacker et al., 2020; Curillo-Aguirre & Gea-Izquierdo, 2023).

Occupational therapy plays a unique role in addressing, managing, and treating pelvic floor health and dysfunction (Akselrud & Vestal, 2021). Occupational therapy practitioners are trained to view an individual holistically, including looking at the person's emotional, physical, social, and environmental factors (American Occupational Therapy Association, 2020). Occupational therapists have the unique ability to address PFDs through pain management, social isolation, incontinence, leakage, participation in daily activities, and addressing overall well-being (Akselrud & Vestal, 2021; Cunningham & Valasek, 2019; Giagio et al., 2022; Schmitz et al., 2023). Occupational therapists aim to assist clients in regaining function and control over their pelvic floor muscles, thus improving quality of life, and increasing participation in activities of daily living (Akselrud & Vestal, 2021; Blacker et al., 2020; Cunningham & Valasek, 2019). In addition, occupational therapists can address PFDs both before and after giving birth, assisting mothers in both preparation and rehabilitation (Khan, 2023). Occupational therapists have the unique ability to evaluate, provide intervention, and assess various activities of daily living of mothers and can assist in creating a personalized plan



to address the emotional, physical, and psychosocial demands of pregnancy, birth, and childcare (Khan, 2023).

This project aims to identify the gap in early identification and management of PFDs in antenatal care, emphasizing the role of pelvic floor occupational therapy in treating PFDs and to increase the awareness of pelvic floor occupational therapy within the healthcare system. The results of this survey aim to inform both the patients and healthcare providers about the increased need for screening for pelvic floor disorders. The investigator aims to answer the following questions through this research project: What is the prevalence of unidentified pelvic floor disorders in the current population of women who receive services at OB/GYN offices? What is the perception of staff regarding the prevalence of PFD within patients who are receiving services at OB/GYN offices?



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# Appendix B: Raw Patient Survey Data

Informe d Consent  I have read the consent information and agree to participe	Gende r  What is your gende r? - Select ed	Age Wh at is you r	Are you of Hispan ic, Latino, or Spanis	How would you describ e yoursel f? Please select	Education  What is the highest degree or level of school you have	Employm ent  What is your current employm	Income Informati on about income is very important to understa nd. Would you please give your best guess?Ple ase indicate the answer that includes your entire househol d income (in the previous year)	Marital Status What is your	Sexual Orientatio n  Which of the following best describes your	Pregna ncy Are you currentl	Have you recen tly	Previou s birth	Pelvic therapy  Are you currently being treated by a pelvic floor occupational or physical therapist?	Are you currently being treated by a pelvic floor occupational or physical	Q1  Check all that may apply for you related	Q2  Check all that may apply for	Q3  Check all that may apply for you related to SEXUAL	Check all that may apply for you related to feelings of
te in this study.	Choic e	age ? 25 - 34	h origin?	all that apply.	Associate degree (e.g. AA, AS)	Employe d full time (40 or more hours per week)	S60,000 to S69,999	marital status?  Single (never married)	orientatio n? Heterosex ual (straight)	pregna nt?	given birth?	given birth?	Selected Choice	therapist? - Other - Text	to your BLADDER:	you related to your BOWELS: Do you struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete emptying, or a pellet-like consistency)?, Have your bowel problems increased at times related to your menstrual cycle?	FUNCTIONIN G:	PAIN/PRESS URE:  Do you experience ongoing pain in your lower lower low back, genitals, and/or tailbone?,Ha ve you missed school, work, or social activities secondary to period pain?



l agree	Femal e	45 - 54	No	White	Bachelor' s degree (e.g. BA, BS)	Employe d part time (up to 39 hours per week)	\$80,000 to \$89,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	No	Yes	No	Do you experience any leaking of urine?, Do you experience sudden urinary urges that require finding a bathroom very quickly?, Do you feel like you have difficulty emptying your bladder?	Do you struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete emptying, or a pellet-like consistency)?	Do you have pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain with orgasm?	Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tallbone?,Do you have painful abdominal bloating?
l agree	Femal e	25 - 34	No	White	Master's degree (e.g. MA, MS, MEd)	Employe d full time (40 or more hours per week)	\$100,000 to \$149,999	Single (never married)	Bisexual	No	No	No	No		Do you	Do you have difficulty or inability to achieve orgasm, or does it feel different than "your normal"?	
l agree	Femal e	25 - 34	No	Asian	Bachelor' s degree (e.g. BA, BS,	Employe d full time (40 or more hours per week)	\$70,000 to \$79,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	Yes	No	No	No		struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete emptying, or a pellet-like consistency)?	Do you have pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain with orgasm?	Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tailbone?
l agree	Femal	65 - 74	No	White	Associate degree (e.g. AA, AS)	Retired	\$70,000 to \$79,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	No	Yes	Yes	Do you experience any leaking of urine?, Do you experience sudden urinary urges that require finding a bathroom very quickly?		Do you have pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain with orgasm?	Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tailbone?



Tagree e 34 No White MEd) week) or more hip (straight) No	pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain	Do you experience any leaking of	Do you ever feel like it's difficult to start a stream?,H ave your bladder problems increased at times related to your menstrual			Heterosex ual	Married, or in a domesti c partners	\$90,000 to	Homema	Bachelor' s degree (e.g. BA,		25 -	Femal	
Lagree e 34 No White BS   ker \$99,999 hip (straight) Yes No Yes No Occide   feces, or gas? with orgasm?	with orgasm?	Do you struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete	Do you ever feel like it's difficult to stream?,D o you feel like you have difficulty emptying your			Heterosex ual	Married, or in a domesti c partners	\$60,000 to	Employe d part time (up to 39 hours per	Bachelor' s degree (e.g. BA,	Black or African Americ	45 -	Femal	



Part																pellet-like consistency)?		
Femal   Secondary 1	l agree			Yes		college, no degree	ker	to	or in a domesti c partners hip	ual	No	No	Yes	No	experience sudden urinary urges that require finding a bathroom very quickly?, H ave your bladder problems increased at times related to your menstrual	Do you experience any leaking of	difficulty with genital arousal such as difficulty finding or maintaining erections, or changes to self-	feelings of "something stuck", "falling out", or pelvic heaviness in your vagina or rectum?,Hav e you missed school,
Do you experience expe	Lagree			No	or African Americ	degree (e.g. MA, MS,	time (40 or more hours per	to	domesti c partners	ual	No	No	Ves	No				social activities secondary to
		Femal e	35 - 44		White Black	Some college, no degree	Employe d full time (40 more hours per week) Employe	\$100,000 to \$149,999 \$60,000	Married, or in a domestic c partners hip Married,	Heterosex ual					experience sudden urinary urges that require finding a bathroom very quickly?,H ave your bladder problems increased at times related to your menstrual cycle? Do you feel	experience pain with bowel movements?, Do you experience sudden bowel urges that require finding a bathroom very quickly?, Have your bowel problems increased at times related to your menstrual cycle? Do you	pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain	
	I agree			No						Bisexual	Yes	No	Yes	No				



				Americ an	(e.g. AA, AS)	or more hours per week)		c partners hip						difficulty emptying your bladder?	or have other bowel complaints (difficulty having a BM, needing to strain, incomplete emptying, or a pellet-like consistency)?		abdominal bloating?
l agree	Femal e	45 - 54	Yes	White	Some college, no degree	Employe d part time (up to 39 hours per week)	\$50,000 to \$59,999	Divorced	Heterosex ual (straight)	No	No	Yes	No		Do you experience any leaking of feces, or gas?		Have you missed school, work, or social activities secondary to period pain?
lagree	Femal e	25-	No	Black or African Americ an	Associate degree (e.g. AA, AS)	Employe d full time (40 or more hours per week)  Employe d full time (40 or more hours per week)	\$60,000 to \$69,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	3-4 mont hs ago	No	No	Do you experience sudden urinary urges that require finding a bathroom very quickly?	Do you experience sudden bowel urges that require finding a bathroom very quickly?  Do you struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete	Do you have pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain with orgasm?,Do you have difficulty or inability to achieve orgasm, or does it feel different than "your normal"?,Do you have difficulty with genital arousal such as difficulty inding or	Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tailbone?  Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tailbone?  "something stuck", "falling out", or pelvic heaviness in your vagina or rectum?, Do you have feelings of "something stuck", or pelvic heaviness in your vagina or rectum?, Do you have
I agree	Femal e	25 - 34	No	White	equivale nt (e.g. GED)	or more hours per week)	\$30,000 to \$39,999	Single (never married)	Heterosex ual (straight)	No	No	Yes	No	bathroom very quickly?	emptying, or a pellet-like consistency)?	maintaining erections, or changes to	painful abdominal bloating?



																self- lubrication?	
l agree	Femal e	18 - 24	Yes	White	Doctorat e or professio nal degree (e.g. MD, DDS, PhD)	Student	Less than \$10,000	Single (never married)	Heterosex ual (straight)	No	No	No	No				Have you missed school, work, or social activities secondary to period pain?
l agree	Femal e	45 - 54	No	White	Bachelor' s degree (e.g. BA, BS)	Employe d part time (up to 39 hours per week)	\$150,000 or more	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	No	Yes	Yes	Do you experience any leaking of urine?	Do you experience pain with bowel movements?, Do you struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete emptying, or a pelite-like consistency)?	Do you have pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain with orgasm?	
lagree	Femal e	65 - 74	No	White	High school degree or equivale nt (e.g. GED)	Retired	\$50,000 to \$59,999	Widowe d	Heterosex ual (straight)	No	No	Yes	No	Do you experience any leaking of urine?, Do you vurine?, Do you experience sudden urine? urges that require inding a bathroom very quickly?, Do you typically urinate more than every 2 hours during the day, or twice or more at night?	Do you experience any leaking of feces, or gas?		Do you have feelings of "something stuck", "falling out", or pelvic heaviness in your vagina or rectum?
l agree	Femal e	25 - 34	No	Black or African Americ an	Bachelor' s degree (e.g. BA, BS)	Student	\$40,000 to \$49,999	Single (never married)	Homosex ual (gay)	No	No	Yes	No	Do you experience sudden urinary urges that require finding a			Have you missed school, work, or social activities



															bathroom very quickly?,H ave your bladder problems increased at times related to your menstrual cycle?			secondary to period pain?
l agree	Femal e	18 - 24	No	Asian	Some college, no degree High school degree	Student	\$10,000 to \$19,999	Single (never married)	Heterosex ual (straight)	No	No	No	No					Do you have painful abdominal bloating?
l agree	Femal e	18 - 24	No	Asian	or equivale nt (e.g. GED)	Student	\$10,000 to \$19,999	Single (never married)	Bisexual	No	No	No	No					Do you have painful abdominal bloating?
l agree	Femal e	35 - 44	No	White	Master's degree (e.g. MA, MS, MEd)	Employe d part time (up to 39 hours per week)	\$40,000 to \$49,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	Yes	No	Yes	No		Do you experience any leaking of urine?			
l agree	Femal e	25 - 34		Black or African Americ an	Some college, no degree	Homema ker	\$60,000 to \$69,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	3-4 mont hs ago	Yes	No				Do you have pain or discomfort with sex, such as external genital pain, deeper internal vaginal, anal, or abdominal pain, or pain with orgasm?	
Lagree	Femal e	25 - 34	Yes	Other	Bachelor' s degree (e.g. BA, BS)	Employe d part time (up to 39 hours per week)	\$40,000 to \$49,999	Separate d	Heterosex ual (straight)	No	3-4 mont hs	No	No		Do you ever feel like it's difficult to start a stream?		with Organii:	Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tailbone?
Lagree	Femal e	65 - 74	No	White	Bachelor' s degree (e.g. BA, BS)	Homema ker	Prefer not to answer	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	No	Yes	Other	Start using device (Perifit) to help train pelvic floor	Do you experience any leaking of urine?,Do you ever feel like it's difficult to start a stream?	Do you experience any leaking of feces, or gas?	Do you have difficulty or inability to achieve orgasm, or does it feel different than "your normal"?,Do you	Do you have feelings of "something stuck", "falling out", or pelvic heaviness in your vagina or rectum?



																experience persistent genital arousal or discomfort with arousal?	
l agree	Femal e	25 - 34	No	Black or African Americ an	Some college, no degree	Employe d full time (40 or more hours per week)	\$30,000 to \$39,999	Single (never married)	Heterosex ual (straight)	No	No	Yes	No		Do you struggle with constipation or have other bowel complaints (difficulty having a BM, needing to strain, incomplete emptying, or a pellet-like consistency)?, Have your bowel problems increased at times related to your menstrual cycle?		Do you experience ongoing pain in your lower abdomen, low back, genitals, and/or tailbone?,Ha ve you missed school, work, or social activities secondary to period pain?
l agree	Femal e	45 - 54	No	White	Some college, no degree	Employe d full time (40 or more hours per week)	\$90,000 to \$99,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	No	Yes	No	Do you experience any leaking of urine?,Do you typically urinate more than every 2 hours during the day, or twice or more at night?	Do you experience sudden bowel urges that require finding a bathroom very quickly?,Have your bowel problems increased at times related to your menstrual cycle?		
Lagree	Femal e	25 - 34	No	Black or African Americ an	Some college, no degree	Employe d full time (40 or more hours per week)	\$40,000 to \$49,999	Divorced	Heterosex ual (straight)	No	6-12 mont hs	No	No	Do you experience sudden urinary urges that require finding a bathroom very quickly?	Have your bowel problems increased at times related to your menstrual cycle?		
l agree	Femal e	35 - 44	No	White	Associate degree (e.g. AA, AS)	Employe d full time (40 or more hours per week)	\$40,000 to \$49,999	Married, or in a domesti c partners hip	Heterosex ual (straight)	No	No	Yes	No	Do you experience any leaking of urine?,Do you typically urinate			



														more than every 2 hours during the day, or twice or more at night?			
l agree	mal	18 - 24	No	Black or African Americ an	Some college, no degree	Student	\$20,000 to \$29,999	Single (never married)	Bisexual	No	No	No	No		Have your bowel problems increased at times related to your menstrual cycle?	Do you have painful abdominal bloating?	



# Appendix c: Raw Staff Survey Data

Informed Consent I have read the	Q1	Q2	Q3	Q4	Q5	Q6
consent information and agree to participate in this study.	What is your role on the OBGYN Team? - Selected Choice	What percentage of your patients have pelvic floor disorders?	Select all answers that apply. How do you screen for pelvic floor dysfunctions at your office/clinic? - Selected Choice	How comfortable are you with DIAGNOSING pelvic floor dysfunctions in your patients?	Do you have sufficient time to diagnose and treat pelvic floor dysfunctions at your office?	What type of therapist can provide pelvic health rehabilitation?
I agree	Medical Assistant	11-20%	Not applicable to me (this question does not apply to me)	Not at all comfortable	Never	Physical and Occupational Therapists
I agree	Nurse	Unknown	Discussion/Verbal Questions	Slightly comfortable	Sometimes	Physical Therapist
I agree						
I agree	MD	21-30%	Discussion/Verbal Questions	Very comfortable	Often	Physical and Occupational Therapists
I agree	Medical Assistant	11-20%	Not applicable to me (this question does not apply to me) Palpation of	Not at all comfortable	Sometimes	Physical and Occupational Therapists
I agree	Medical Assistant	> 31%	Muscles, Discussion/Verbal Questions	Not at all comfortable	Always	Physical Therapist
I agree	Medical Assistant	Unknown	Not applicable to me (this question does not apply to me)	Not at all comfortable	Never	Physical and Occupational Therapists
I agree			Palpation of			
I agree	MD	> 31%	Muscles, Discussion/Verbal Questions	Very comfortable	Sometimes	Physical and Occupational Therapists



### Appendix D: Needs Assessment

#### **Purpose**

The purpose of a doctoral capstone is to integrate and apply the skills and knowledge acquired throughout the occupational therapy doctoral program to a current focus within occupational therapy practice. This final project aims to allow occupational therapy doctoral students to bridge the gap between occupational therapy theory and practice, in addition to contributing the current body of knowledge within occupational therapy. This needs assessment is an essential part of the process, as it aims to identify gaps within current patient needs, occupational therapy practices, and determining the best places to improve overall outcomes. Within this needs assessment the reader will gain an increased understanding of the specific challenges occurring in patients with pelvic floor dysfunction through current research and statistics. This capstone aims to enhance the therapeutic process and improve the quality of life of individuals impacted by pelvic floor diagnoses.

#### Literature Review

Pelvic floor health is a crucial aspect of well-being, yet it is a commonly overlooked aspect of health, specifically in women. The pelvic floor is comprised of complex ligaments, tissues, and muscles that play a key role in various bodily functions and daily activities such as bladder control, bowel control, stability, and sexual functioning (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021). Dysfunction of the pelvic floor can lead to various pelvic floor disorders (PFD) such as pelvic pain, urinary incontinency, pelvic organ prolapses, chronic pain, sexual dysfunction, and more (Akselrud & Vestal, 2021; Blacker et al., 2020; Burkhart et al., 2021). These health conditions can directly impact the occupational well-being of an individual and can significantly impact their quality of life. Pelvic floor health plays a significant role in



physical well-being, in addition to social and physiological well-being. Often, the importance of the pelvic floor is not recognized until problems arise. PFDs are present across all ages and genders, but women are commonly impacted due to anatomical differences, pregnancy, and childbirth (Akselrud & Vestal, 2021; Blacker et al., 2020; Curillo-Aguirre & Gea-Izquierdo, 2023). However, many men can also experience PFDs after prostate surgery or due to chronic straining (Notenboom-Nas et al., 2022). PFDs can be severely debilitating for individuals; often individuals with PFDs report feelings of isolation, shame, anxiety, fear, and embarrassment due to their condition (Akselrud & Vestal, 2021; Schmitz et al., 2023).

Occupational therapy plays a unique role in addressing, managing, and treating pelvic floor health and dysfunction. Occupational therapy practitioners are trained to view an individual holistically, including looking at the person's emotional, physical, social, and environmental factors (American Occupational Therapy Association, 2020). Occupational therapists have the unique ability to determine how PFDs may be impacting participation in daily activities and their well-being (Akselrud & Vestal, 2021; Cunningham & Valasek, 2019; Giagio et al., 2022; Schmitz et al., 2023). Occupational therapy practitioners have the unique perspective addressing functional limitations and assessing the entire person. Occupational therapists aim to assist clients in regaining function and control over their pelvic floor muscles, thus improving quality of life, and increasing participation in activities of daily living (Akselrud & Vestal, 2021; Blacker et al., 2020; Cunningham & Valasek, 2019).

Approaches surrounding PFDs and occupational therapy include utilizing strategies such as manual therapy, lifestyle redesign and modifications, exercise, posturing, and facilitation of self-management strategies can improve client satisfaction and well-being in their daily life (Akselrud & Vestal, 2021; Blacker et al., 2020; Cunningham & Valasek, 2019; Curillo-Aguirre



& Gea-Izquierdo, 2023; Giagio et al., 2022). In addition, the increase of pelvic floor occupational therapists has been gaining recognition within occupational therapy curriculum, highlighting pelvic floor health as a key factor that plays a role in patient care (Akselrud & Vestal, 2021; Schmitz et al., 2023). Increased awareness to PFDs and pelvic floor health can increase future occupational therapists' skills and understanding of pelvic health in addition to enhancing patient care (Akselrud & Vestal, 2021; Schmitz et al., 2023).

#### **Population Analysis**

PFD impacts a significant portion of the population, specifically among women. It has been shown that approximately one in four women within the United States experience at least one PFD in their lifetime, with the numbers only increasing as women age (Kenne et al., 2022; Nygaard, 2008). It is projected that the number of women within the United States with PFDs will increase from 28.1 million to 43.8 million in 2015 (Wu et al., 2009). Primary risk factors for women include pregnancy, childbirth, and aging (Kenne et al., 2022). In an interview conducted with Lauren Hill, a pelvic floor occupational therapist at and current capstone mentor, she stated that the most common reasons she sees female patients include urinary leakage, pelvic prolapse, pelvic pain, menstrual dysfunction, pregnancy pain, childbirth preparation, menopause, and pain during sexual intercourse. Lauren stated she feels that is missing the population of antenatal women, as there is not a strong presence of pelvic floor therapists within obstetrician-gynecologist (OBGYN) offices to provide education and resources to women prior to giving birth. Antenatal care within the United States is behind countries such as France, where after giving birth women are automatically prescribed 10-20 sessions of pelvic floor therapy to assist in their healing (Pearson, 2017).



PFDs are often associated with women, especially after giving birth, but conditions impact both men and women across all stages of life. In the interview, Lauren stated currently that approximately one third of her patients are men and two thirds are women. Approximately 16% of men in the United States experience PFDs and it is an increasingly growing concern within male populations (Grimes & Stratton, 2021). Lauren stated the most common reasons she treats men is due to prostate cancer, testicular pain, pelvic pain, penile dysfunction, and erectile dysfunction. As PFDs are gaining more recognition in healthcare, it is important to consider a multitude of populations may be at risk for pelvic floor dysfunction including high impact sport athletes, individuals with neurological conditions, and children.

#### Justification

In conclusion, the underdiagnosis of PFDs can cause significant challenges to public health, especially within the populations of women who are pregnant and just gave birth. Despite the significance of PFDs, there is a clear lack of standardized screening and intervention protocols within pelvic floor occupational therapy. This capstone aims to address the gap in early identification and management of PFDs in antenatal care, emphasizing the role of pelvic floor occupational therapy in treating PFDs and to increase the awareness of pelvic floor occupational therapy within the healthcare system. By focusing on occupational therapy's role in preventative and supportive care, this capstone aims to improve outcomes and advocate for pelvic floor treatment and access to both men and women. It is clear pelvic floor occupational therapy improves health and well-being on a physical level as well as addressing the socioemotional elements of client care. By focusing on the needs of patients with PFD, occupational therapists can use a client-centered and holistic approach to enhance the lives of people with PFDs aiming



to regain independence, manage symptoms, and improve well-being (Akselrud & Vestal, 2021).



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## Appendix E: IRB Application

Note: The entire IRB application is located in OneDrive.



# Appendix F: Capstone Goals and Objectives for a Capstone Project Table and a Capstone Experience Table

### CAPSTONE GOALS (1) AND LEARNING OBJECTIVES (2):

Goal#	Project Goal	Activities	Proposed Timeline for Meeting Goal	Proposed Evidence of Achievement
1	Student will create and administer a survey to patients within OBGYN clinics to determine the prevalence of PFDs within women who receive care at the office.	<ol> <li>Student will complete a draft survey for FM and SM review.</li> <li>Student will submit for IRB approval.</li> <li>Student will create the survey on Qualtrics and share the survey to begin the data collection.</li> </ol>	1. By 8/25 2. By 8/25 3. By 9/22	IRB approval of Qualtrics Survey
2	Student will create and administer a survey to staff within OBGYN clinics to determine the perceptions of PFD prevalence within OBGYN offices.	<ol> <li>Student will complete a draft survey for FM and SM review.</li> <li>Student will submit for IRB approval.</li> <li>Student will create the survey on Qualtrics and share the survey to begin the data collection.</li> </ol>	4. By 8/25 5. By 8/25 6. By 9/22	IRB approval of Qualtrics Survey
3	Student will adapt a handout to provide antenatal mothers beneficial information supporting them prior to giving birth. This includes information such as birthing positions, educational materials, and additional resources.	<ol> <li>Student will collaborate with capstone mentor to determine the plan of action and format of the handout.</li> <li>Student will begin reformatting the handout and providing a format for the handout.</li> <li>Student will gather and create educational materials to be used for the handout.</li> <li>Student will complete the handout.</li> </ol>	1. By 9/8 2. By 9/15 3. By 11/3 4. By 11/17	Completed handout/educational document





Goal#	Learning Goal	Activities to Achieve (roal	osed Timeline Meeting Goal	Proposed Evidence of achieving Learning Goal
1	Practice: Demonstrate effective communication skills and work interprofessionally with those who receive and provide care/services		11/3 2. 11/3	1. Survey assessing both the staff and the patients. 2. Educational handout providing information to expecting mothers.
2	Ethics: Display positive interpersonal skills and insight into one's professional behaviors to accurately appraise one's professional disposition strengths and areas for improvement.	, ,	9/15 2. 11/17	<ol> <li>Approved IRB.</li> <li>Maintain monthly meetings with Dr. Marnie Renda and/or Lauren Hill to meet regarding progress throughout the project as evidenced by timesheet notes.</li> </ol>
3	Advocacy: Exhibit the ability to practice educative roles for consumers, peers, students, interprofessionals and others.		12/1 2. 11/17	<ol> <li>Presenting the findings within the capstone symposium and to members of the XUOT cohorts.</li> <li>Present findings to providing them with</li> </ol>



		disseminating the findings from the survey.	information surrounding the findings of the study.
4	Leadership: Develop essential knowledge and skills to contribute to the advancement of occupational therapy through scholarly activities.	Develop skills on PFD treatments and evaluations, especially within the antenatal population and OT-based treatments through the completion of observation and/or readings.      Develop skills for interacting with and assisting in treating antenatal women and women post-birth by using pelvic floor and occupational therapy-based education.	1. Collaborating with Lauren Hill and learning more about the treatments for general PFDs through observation and documented pelvic health treatment observations noted on timesheet 2. Assisting Lauren Hill in treatments to of antenatal women or women post-birth and documented pelvic health treatment observations noted on timesheet.
5	Scholarship: Apply a critical foundation of evidence based professional knowledge, skills, and attitudes.	<ol> <li>Disseminate DC information via a poster presentation, at the Xavier University Occupational Therapy Doctoral Capstone Defense.</li> <li>Critically analyze and apply evidence-based research on PFD prevalence/antenatal treatments into project planning and implementation throughout capstone.</li> <li>1. 12/1</li> <li>2. 9/1</li> </ol>	<ol> <li>Present at the capstone symposium.</li> <li>This is performed directly within the capstone symposium.</li> </ol>
6	Individual Student Learning Goal: Develop a partnership with local OBGYN practitioners to	Collaborate with local OBGYN office staff and practitioners to implement surveys/education for patient	Meet with office staff     weekly to provide     materials and



	lay the groundwork for future relationships amongst OTs/pelvic floor therapists and women's healthcare providers.	2.	completion and build a relationship with women's healthcare practitioners.  Share project results with offices and practitioners to describe the benefits to providing pelvic floor therapy prior to giving birth.			2.	maintain a positive relationship as noted on timesheet. Provide the results to interested parties within
7	Individual Student Learning Goal: Describe the impacts of pelvic floor dysfunction and current treatments on occupations that are being done.	2.	Observe outpatient OT to understand what they educate on and the impact of PFDs on occupations.  Observe different health care professionals and observe how they education and treat PFDs.		11/3 11/3	2.	performing occupational therapy treatment once weekly as noted on timesheet.
8	Individual Student Learning Goal: Strengthen knowledge and understanding in pelvic health and related topics by regularly engaging with current research and translating key findings into practical applications for occupational therapy practice.	3.		3.		3.	



# Appendix G: Signed Memorandum of Understanding

Note: The signed MOU is located in the OneDrive.



### Appendix H: IRB Letter of Response

- Informed Consent\_final\_IRB stamp 09-30-2025.pdf
- · Exempt Approval.pdf



#### Institutional Review Board FWA #00000702

#### Exempt Approval / Not Human Subjects Research (NHSR) Determination

Date: 09/30/2025 Carol Tierney, MD To: Principal Investigator

Steve Roberts IRB Chair

IRB#: #25-064

Prevalence of Pelvic Floor Dysfunction Among Women Receiving Gynecological Services at The Christ Hospital

The above referenced project has been verified by the Institutional Review Board as Exempt according to 45CFR46.101(b)(2): (2) Tests, Surveys, Interviews on 09/30/2025.

Informed Consent Word.docx Xavier - L. Mindrum Facility Agreement 9-2-25 provost signed - updated.pdf surveys and informed consent-updated.pdf recruitment methods-updated 2.pdf Permissions to utilize materials.pdf mindrum IRB updated.pdf

Waiver of Documentation of Informed Consent
The IRB waives the requirement of documentation of informed consent after determining that the research presents no more than minimal risk and involves procedures that do not require written consent when performed outside of a research setting (45 CFR 46.117(c)(1)(ii)).

Please note that changes to your protocol may affect its exempt status. Please contact the IRB to discuss any changes you may contemplate prior to initiation. Otherwise, no further review is necessary.

If you have any questions, please contact the IRB Office at irb\_office@thechristhospital.com.

Electronically Signed: Review completed in Mentor IRB by Steve Roberts, MD, IRB Chairman, on 09/30/2025 at 8:54 AM EDT.

Note: See OneDrive for Facility Agreement with and Xavier University and a screenshot of email showing Xavier IRB approval.



# Appendix I: Week-by-Week Project Plan

P= Project Goal L= Learning Goal

Week	Activities	Related Goal	Progress/Status at end of week
1 8/18	Orientation/Observation	P:	
2 8/25	Orientation/Observation  Meeting with Dr. Lauren Hill to discuss project, implementation, and handout  Visit offices and provide education on survey	P:  P1.1, P1.2, P1.3, P2.1, P2.2, P2.3, P3.1, P3.2, P3.3, P3.4 L:  L1.1, L2.1, L2.2, L5.2, L6.1	
3 9/1	Orientation/Observation  Observation with Dr. Lauren Hill  Visit offices and provide education on survey	L:  • L1.1, L2.1, L4.1, L4.2, L5.2, L6.1, L7.1	
4 9/8	Project Preparation  • Meet with Dr. Lauren Hill and come up with ideal format for handout	P:	



	<ul> <li>Observation with Dr. Lauren Hill</li> <li>Visit offices and provide education on survey</li> </ul>	<ul> <li>P1.3, P2.3, P3.2, P3.2, P3.4</li> <li>L:</li> <li>L1.1, L1.2, L2.1, L4.1, L4.2, L6.1, L7.1</li> </ul>
5 9/15	Project Preparation     Observation with Dr. Lauren Hill     Visit offices and provide education on survey     Prepare handout and surveys	P:
6 9/22	Project Implementation     Observation with Dr. Lauren Hill     Weekly meeting with OBGYN office     Open survey for everyone     Handout work     Observation of non-OT healthcare professional	P:
7 9/29	Project Implementation	P:



8 10/6	Project Implementation  Observation with Dr. Lauren Hill  Weekly meeting with OBGYN office  Survey monitoring  Handout work  Observation of non-OT healthcare professional	• L1.1, L1.2, L2.2, L4.1, L4.2, L6.1, L7.1  P: • P1.3, P2.3, P3.2, P3.3, P3.4  L: • L1.1, L1.2, L4.1, L4.2, L6.1, L7.1, L7.2	
9 10/13	Project Implementation      Observation with Dr. Lauren Hill     Weekly meeting with OBGYN office     Survey monitoring     Handout work	P:	
10 10/20	Project Implementation  Observation with Dr. Lauren Hill  Weekly meeting with OBGYN office  Survey monitoring  Handout work  Observation of non-OT healthcare professional	P:  • P1.3, P2.3, P3.2, P3.3, P3.4 L:  • L1.1, L1.2, L4.1, L4.2, L6.1, L7.1, L7.2	



11 10/27	Project Implementation     Observation with Dr. Lauren Hill     Weekly meeting with OBGYN office     Survey monitoring     Handout work	P:  P1.3, P2.3, P3.2, P3.3, P3.4  L:  L1.1, L1.2, L2.2, L4.1, L4.2, L6.1, L7.1
12 11/3	Project Implementation	P:      P1.3, P2.3,     P3.2, P3.3,     P3.4  L:      L1.1, L1.2,     L4.1, L4.2,     L6.1, L7.1,     L7.2
13 11/10	Data Analysis/ Results  ■ Analysis and results of survey ■ Finalizing handout	P:
14 11/17	Data Analysis/ Results / Discussion  Analysis and results of survey  Discission of results with Dr. Lauren Hill  Dissemination of results with	P:



15 11/24	Dissemination Video  ◆ Create video and slide show	L: • L3.1, L5.1	
16 12/1	Dissemination Capstone Symposium  • Presentation	L: • L3.1, L5.1	

