THESIS

OCCUPATIONAL THERAPISTS' PERSPECTIVES ON THEIR UNIQUE ROLE IN PELVIC HEALTH

Submitted by

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ABSTRACT

OCCUPATIONAL THERAPISTS' PERSPECTIVES ON THEIR UNIQUE ROLE IN PELVIC HEALTH

Introduction: Pelvic floor dysfunction (PFD) may present as urinary/fecal incontinence, pelvic organ prolapse, and/or pelvic pain. These symptoms have been shown to cause disruption to individuals' activities of daily living and decrease quality of life. Conservative estimates indicate 28 million women are affected by PFD worldwide. The core of occupational therapy (OT) is to mitigate barriers to engagement in occupations of one's choosing, yet there is a gap in the literature detailing occupational therapy practitioners' (OTP) perspectives on their unique contributions in pelvic health.

Methods: This exploratory descriptive study utilized an online survey to purposively recruit OTPs and screen individuals for an interview. Inclusion criteria required that participants a) be a licensed or retired OTP, b) have at least one year experience as an OTP, and c) have any professional experience in pelvic health. One-on-one semi-structured interviews occurred on a virtual platform, were audio-recorded, and transcribed. Using Dedoose software, thematic inductive analysis was conducted.

Results: Thirty-one individuals completed the survey, 21 were eligible to participate, and 13 participated in an interview. It was found that OTPs believe they offer a unique contribution to the pelvic health field. Three primary qualitative themes were generated that elaborate on this belief: OTPs apply a psychosocial lens, the OT approach is comprehensive, and OTPs use

occupation-focused interventions when working with people with PFD (e.g., consider the influence of client mental health as client preferences, culture, and lifestyle).

Conclusion: This study identified the perceptions of OTPs regarding their unique approach to working with clients in pelvic health. Data suggests that OTPs complement the biomechanical focus of other pelvic health providers by recognizing the role of mental health and intervening to down-regulate the nervous system.

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Introduction

Pelvic floor dysfunction (PFD) affects all sexes and includes symptoms such as urinary incontinence, fecal incontinence, pelvic organ prolapse, pain with intercourse or erection, and chronic pelvic pain (Grimes, 2022). Symptoms of pelvic floor dysfunction have been shown to cause disruption to valued occupations and decrease quality of life (Bharucha, 2015b; Esparza, 2018). Although statistics on the number of impacted men are difficult to determine, research shows that worldwide, some 28 million women are affected by some form of PFD (Ciangola et al., 2014). The core of the occupational therapy (OT) profession is to mitigate barriers to engagement and participation in occupations of one's choosing (American Occupational Therapy Association (AOTA), 2020). Pelvic health is an emerging practice area for occupational therapy practitioners (OTPs) and there is a gap in the literature detailing their unique contributions in this field. This study seeks to explore the perspectives of OTPs on their unique role supporting individuals with their pelvic health needs in regard to their purposeful occupations.

Literature Review

Overview of the Pelvic Floor

The pelvic floor, sometimes referred to as the pelvic girdle or pelvic diaphragm, is a set of muscles, ligature, nerves, and endopelvic fascia that are enclosed within the pelvic cavity (Quaghebeur et al., 2021). The "bowl" that the pelvic floor muscles (PFM) create, regulates intraabdominal pressure (IAP), which is essential for support of the pelvic organs as well as to control retention and release of stool and urine (Eickmeyer, 2017). Additionally, the PFMs, cooperate with the transversus abdominus, diaphragm, and multifidus to provide trunk stability

(Arab et al., 2010). Finally, PFM contribute to the ability to have pain-free coitus for both women (Braekken et al., 2015) and men (Cohen et al., 2016).

Pelvic Floor Dysfunction

Dysfunction of the pelvic floor refers to symptoms as well as changes to the anatomy caused by increased or decreased tension in the PFMs (Grimes, 2022). No singular cause has been identified, but Hartmann and Sarton (2014) purport several explanations including dysfunctional biomechanics (hypermobility, sacroiliac joint dysfunction), imbalanced posture (scoliosis, pelvic tilt), injury to PFMs (childbirth, surgery), and inflammation (endometriosis, irritable bowel syndrome). With a worldwide rise in lifespan, the number of individuals experiencing symptoms is expected to nearly double over the next 30 years due to the link between age and PFD (Ciangola et al., 2014). Individuals with abnormal pelvic floor function may experience a variety of distressing symptoms including incontinence, pelvic organ prolapse, and pain.

Incontinence

There are three types of urinary incontinence: stress, urge, and mixed. Stress urinary incontinence can result from decreased coordination in the PFMs that are unable to provide anatomic support, resulting in leakage due to IAP from coughing, sneezing, or laughing (Neville, 2020). According to the Urology Care Foundation (2022), stress incontinence is most common among women and is estimated to affect 33% of females 60 years of age or older, increasing to 50% once they reach 65 years old. The Urology Care Foundation states that urge incontinence, or overactive bladder, is expressed as a sudden and strong urge to urinate and is estimated to affect 40% of women and 30% of men in the United States. Individuals with mixed incontinence experience symptoms of both stress and urge types (Urology Care Foundation, 2022). The combination of lower urinary tract symptoms including issues with storage (i.e., frequency,

nocturia, urge, stress, mixed), voiding (i.e., intermittency, slow stream, and straining), and post-micturition (i.e., incomplete emptying and post-micturition dribble) are highly common among men (62.5%) and women (66.6%) (Irwin et al., 2006). The Urology Care Foundation (2022) estimates that between 25-33% of U.S, men and women experience some form of urinary incontinence, with advanced age, number of vaginal deliveries, obesity, and diabetes mellitus increasing this risk (Markland et al., 2011; Stothers and Friedman, 2011).

Like urinary incontinence, the prevalence of fecal incontinence is difficult to determine because it is often underreported (Bharucha, 2015b). In a small study by Alsheik et al. (2012), 12% of individuals attending a routine gastroenterology office visit who were directly asked, confirmed the presence of fecal incontinence, or involuntary passing of stools. As individuals age the risk of PFD increases, it is estimated that the U.S. will see a 59% increase in fecal incontinence among women between 2010 and 2050 (Wu et al., 2009). Individuals who experience frequent diarrhea, are of older age, decreased physical activity, and higher number of comorbidities are at higher risk for developing fecal incontinence (Bharucha, 2015a; 2015b).

Pelvic Organ Prolapse

Insufficient organ support can provide pathways for partial to full eversion of the bladder, urethra, uterus, intestines, or rectum into the vagina (Grimes, 2022; Neville, 2020). For both males and females, rectal prolapse is also possible (Grimes, 2022). One study reported 40% of women ages 45-85 have experienced some degree of pelvic organ prolapse (Slieker-ten Hove et al., 2009). It is anticipated that the number of women in the U.S. experiencing pelvic organ prolapse will increase from 3.3 to 4.9 million by 2050 as the population continues to age (Wu et al., 2009). Among women, risk factors include vaginal delivery, number of births, advanced age, and elevated body mass index (Vergeldt et al., 2015).

Pain

Pelvic pain may appear as chronic discomfort (vulvodynia in females) or pain during sexual intimacy including erection, insertion, and ejaculation. It is estimated that chronic pelvic pain affects 2-16% of males (Krieger et al., 1999) and 5-16% of women worldwide (Ahangari, 2014). Etiology in has been difficult to understand given inconsistent definitions and assessments however, a connection has been made linking chronic pelvic pain to dysfunctional PFMs (Meister et al., 2019; Neville et al., 2012; Samplaski et al., 2012). Indeed, 88% of men with chronic pelvic pain were found to have pelvic floor tenderness (Zermann et al., 1999).

Male chronic pelvic pain is linked to painful orgasm and ejaculation (Aubin et al., 2008). In a study of 146 chronic pelvic pain syndrome patients with documented pelvic floor spasm, 56% had ejaculatory pain (Anderson et al., 2006). Women diagnosed with genito-pelvic pain/penetration disorder (includes vaginismus and dyspareunia) experience vaginal pain during intercourse or attempts at penetration (American Psychiatric Association, 2013) which could include tampons, fingers or speculums during gynecological exams, or the use of dilators or sexual toys. McEvoy et al. (2021) describe a variety of factors including shame, stigma, fear, and the method and country in which data collection takes place that make it difficult to accurately assess prevalence rates. For example, prevalence is higher in Eastern versus Western countries. Individuals may also fear disclosing sexual trauma, which is associated with vaginismus. Given these barriers, it is estimated that 3-68% of the female population struggle with painful sex (McEvoy et al., 2021).

Influence on Occupations and Quality of Life

Occupations are defined by the World Federation of Occupational Therapists (2012) as the “everyday activities that people do as individuals, in families, and with communities to

occupy time and bring meaning and purpose to life" (para. 2). Pelvic floor dysfunction causes serious disruption to one's participation in occupations such as social engagement, sexual expression, and employment. This decrease in participation threatens the very essence of who we are as humans and our satisfaction with life (Law, 2002).

The impacts of incontinence on social engagement are widespread with affected individuals feeling more depressed than their continent counterparts (Ko, 2005), at increased risk for anxiety (Cheng et al., 2022), and less likely to get out and exercise (Burkhart, 2021; Nygaard et al., 2005). The social stigma associated with incontinence leads to feelings of irritability, embarrassment, apathy, and a loss of self-esteem and self-respect (Esparza, 2018, Norton, 2004). Individuals with urinary incontinence, particularly males, often withdraw from family, friends, and caregivers (Bharucha, 2015b).

Symptoms of PFD can decrease sexual function and activity in both men and women (Burkhart, 2021; Smith et al., 2007). According to Verbeek and Hayward (2019), 50-83% of women with PFD experience reduced sexual experiences, which stem from concerns about the appearance of prolapsed organs, fear of incontinence, and painful intercourse (dyspareunia). Dysfunction of the pelvic floor in males is associated with ejaculatory, erection, orgasm issues (Pastore et al., 2012; Shoskes, 2012) and decreased desire and arousal for both sexes (Trinchieri et al., 2007; Verit and Verit, 2007). Sexual function is a key component of quality of life for nearly all men and women and has a negative impact on interpersonal relationships when dysfunction is present (Althof, 2006; Mulhall, 2008; Porst et al., 2007).

In a survey of 2,876 male and 2,820 female North American employees, overactive bladder caused significant issues with productivity and interfered with their daily work (Sexton et al., 2009). In fact, men with overactive bladder were 1.5 times less likely to be employed than

those with no/minimal symptoms (Coyne et al., 2012). Additionally, workplace disability due to depression, and restricted physical activity among U.S. women ages 54-65 increased with the presence of UI (Hung et al., 2014).

Current Treatment Options

In the current rehabilitation model, priority is given to those interventions which address the musculoskeletal system functioning. Part of a multidisciplinary team, physical therapists are commonly cited as the main provider of pelvic floor therapy (Arnouk et al., 2017; Dumoulin et al., 2016; Hartmann and Sarton, 2014; Lawson and Sacks, 2018) and they use a variety of techniques to rehabilitate PFD. For example, pelvic floor muscle training, sometimes combined with biofeedback, is used to help individuals to increase awareness, coordination, and strength of PFMs to better support the pelvic organs and control elimination (Quaghebeur et al., 2021). Manual muscle manipulation may be utilized to release tension points and relax muscles to reduce pain (Quaghebeur et al., 2021). Lifestyle and behavioral changes include includes weight loss (Hunskaar, 2008; Osborn et al., 2013), reduction of bladder-irritating liquids, and increase of fiber intake (Jundt et al., 2015). In cases where conservative treatment is unsuccessful, doctors may surgically insert mesh or those with a vagina can use a pessary to support the internal organs or reduce urine leakage (Jundt et al., 2015). In addition to these biomechanical considerations, what is the unique role of OTPs as a part of this multidisciplinary team? This question has barely been researched.

Occupational Therapy and Pelvic Floor Dysfunction

When working with clients, OTPs examine one's ability to do an activity and the level of identification and engagement with the activity, known respectively as performance and participation. When performance and participation in occupations is at risk or becomes limited

due to PFD, occupational therapy practitioners attempt to mitigate these barriers like anxiety, shame, problematic habits and routines, and pain by focusing on client-identified occupations (e.g., toileting, child care, running). Using a comprehensive and client-centered approach, OTPs consider the whole picture when addressing a client's needs. For example, intervention is guided by the preferences, values, cultural norms, and performance patterns of an individual as well as environmental factors like sufficient bathroom breaks, emotional support from family, and societal attitude. Additionally, occupations are observed to determine if adaptations need to be made to the activity itself, the environment, or the client themselves to increase performance and participation (eg: move shower items to accommodate for pain and decreased range of motion).

Like many other providers, OTPs address PFD through education, PFM exercises, electrical stimulation, myofascial release, biofeedback, and bladder diaries (Cunningham & Valasek, 2019; Scott et al., 2022). Even though occupations affected by PFD such as toileting, employment, sleep, physical and sexual activity, and dressing are within an OTP's domain (AOTA, 2020), there is a significant gap in the literature detailing approaches unique to OT clinicians. Nevertheless, the literature reveals a consensus that OTPs should be involved in the treatment of PFD. For example, Scott et al. (2022) notes that "occupational therapists have the knowledge to address pelvic pain in a holistic way by addressing the physical and psychosocial implications of PFD" (p. 2). Similarly, Burkhart et al. (2021) states that in addition to the traditional approach of musculoskeletal rehabilitation, the effect of PFD on daily life must be addressed and research and advocacy in the OT field is critical. Indeed, continence issues transcend physical components to include environmental contexts, clothing, care providers, and mental state (Promfret, 1999, as cited in Vickerman, 2007). From a survey of OTPs in the United Kingdom, Supyk and Vickerman (2004) concluded that, although not yet realized, OTPs have an important

role in addressing continence and that clinical research is needed to draw attention to the role of the OT in continence care.

Given the lack of attention to this topic and the fact that some of this empirical research is nearly 20 years old, non-peer reviewed sources were also examined, which illuminate the growing interest in OT's unique role in this field. For example, Sabel (2021) notes that in addition to addressing physical aspects through functional activities to support the entire body, OTPs also give attention to environmental, behavioral, and cognitive components of a client's situation. By taking into consideration what the client wants most from the session and understanding the link between their desired occupations and well-being, OTPs stand apart from other providers in this area (Baker and Washburn (2017). Lindsey Vestal, a pelvic health OT states in an interview (Akselrud, 2021) that:

> "OTPs typically focus on a function perspective, such as addressing the tasks, movements, and occupations that are affected by the symptoms. They determine how the symptoms are influencing life roles, emotional wellness, and quality of life. Pelvic health and mental health are inextricably linked. A biopsychosocial approach (one that addresses the physical, emotional, psychological, and social wellness) of an individual is such a holistic way to address pelvic floor function. It is one where the client feels seen and heard and we are their guide in their recovery. Pelvic health is much more complex than just the physical symptoms. As occupational therapy practitioners working in this area of practice it's important to view the client in a holistic manner, addressing both their physical and mental health as it is affected by pelvic floor dysfunction." (p. 12)

There is evidence of the involvement of OTPs in pelvic floor therapy and the belief that their role is beneficial. However, a clear description of OTPs' unique contributions to the pelvic health practice area is lacking.

Purpose of the Study

The purpose of this research is to explore occupational therapy practitioners' perspectives on the unique role they play as a pelvic health practitioner.

Research Question

1. What is the unique role that occupational therapists play in the field of pelvic health?

Methods

Study Design

This exploratory descriptive study (Colorafi, & Evans, 2016) included an online survey and one-on-one semi-structured interviews with OTPs. The study identified the OTP's professional experiences with pelvic health clients and their perception of the importance of OT in pelvic health.

Recruitment and Participants

Purposive sampling was used to recruit participants via virtual flyers posted on pelvic health and OT-focused social-media groups, direct emails to known OTPs working in pelvic health, and through snowball sampling. Additional participants were scouted through an internet search to increase diversity in the sample. The research and all materials were approved by the Institutional Review Board. Participants consented to be included in the study.

Data Collection and Management

Survey

We developed a 12-questsion survey (see Appendix A) to gather demographic (e.g., gender, degree, years of experience) and eligibility information. We tested the questions and responses with the study team and two other individuals. After making changes to improve the flow, we created the survey using Qualtrics. Surveys were collected between July 2022 and October 2022 and stored on a secure server. Thirty-one individuals completed the survey. Of those, 21 met eligibility and indicated an interest to complete a one-on-one semi-structured interview.

Interviews

Thirteen individuals consented to participate in one-on-one semi-structured interviews, which were conducted via a secure, virtual platform between August 2022 and November 2022 and lasted 30-45 minutes. Interviews were audio-recorded, transcribed verbatim using OtterAI, and reviewed for accuracy. Interview questions were developed by the team and JHF and ELF completed all interviews. Seventeen primary interview questions were developed by the team. Interview questions included "tell me about how you came to practice in pelvic health", "how do pelvic health occupational therapists compliment the work of other professions", and "what needs to happen in our industry for occupational therapists to better support the pelvic health needs of our communities" (see Appendix B).

Data Analysis

Quantitative Survey Data

Data were analyzed descriptively. We report the survey data for individuals who completed an interview. Confidentiality was maintained using pseudonyms.

Qualitative Interview Data

Data was analyzed by researchers JHF and ELF. Iterative data collection was used, with collection and analysis of data occurring simultaneously until saturation of codes was reached. Transcripts were reviewed along with audio recordings to ensure accuracy and familiarity with the data. Researchers independently conducted thematic inductive analysis (Braun & Clarke, 2006) using Dedoose software. Beginning with three initial transcripts, researchers used holistic, in vivo coding to discover codes. This method allows researchers to use the participant's exact words to create codes, staying close to the original meaning of the data and avoiding interpretation. The three transcripts were selected for their diversity of location, population, and

approaches. Researchers discussed disagreements between codes until a resolution was reached and if consensus was not achieved, the codes were reviewed by a third researcher (AAS). A codebook was developed from these discussions and was used by both researchers to code the remaining transcripts. Flexibility allowed for generating new codes that were then reviewed with the second coder, ELF. Final codes were reviewed and similar concepts were combined into categories. Categories were also reviewed and combined into themes based on their cohesiveness. Once themes were identified, they were sent to participants for member checking to determine their agreement with the findings. Seven participants responded with feedback. To facilitate validity, researchers used triangulation, seeking data from a variety of OTPs. An external audit was also conducted with a pelvic health OTP to provide feedback on terminology and cohesiveness of themes with current practice. Finally, peer scrutiny and frequent debriefing between the two researchers provided consistent feedback on the analysis of the data (Shenton, 2004).

Positionality Statement

Both researchers are in their second year of an MSOT program, have plans to address pelvic health with future clients, and have first-hand experience receiving pelvic floor therapy. JHF has spent time on discussion boards reading about this emerging practice area as well as interviewing pelvic health OTPs prior to this thesis project. Both researchers recognize the possible influence of their positionality and utilized reflective journaling to maintain awareness of these influences and biases (e.g., feelings that arose from data). Having been trained in the Biopsychosocial model, this researcher often used this lens throughout this research process.

Chapter 2- Manuscript

Introduction

The pelvic floor is a set of muscles, ligature, nerves, and endopelvic fascia that regulates intraabdominal pressure, supports the pelvic organs, controls the release of stool and urine (Eickmeyer, 2017), provides trunk stability (Arab et al., 2010), and contributes to the ability to have pain-free coitus (Braekken et al., 2015). Pelvic floor dysfunction (PFD) affects over 28 million women worldwide (Ciangola et al., 2014) and left unaddressed may disrupt meaningful occupations (i.e., activities of daily living) and decrease quality of life (Bharucha, 2015b; Esparza, 2018). In the current rehabilitation model, priority is given to interventions with a biomechanical focus. Practitioners such as physical therapists utilize pelvic floor muscle training, biofeedback, manual muscle manipulation (Quaghebeur et al., 2021); and doctors may even perform surgery (Jundt et al., 2015).

Contrastingly, when engagement in occupations is at risk or becomes limited due to PFD, occupational therapy practitioners (OTP) focus on client-identified occupations, or components thereof, to mitigate barriers like anxiety, shame, problematic habits and routines, and pain. Although limited, the literature reveals a consensus that OTPs should be involved in the treatment of PFD. For example, Scott et al. (2022) notes that "occupational therapists have the knowledge to address pelvic pain in a holistic way by addressing the physical and psychosocial implications of PFD" (p. 2). Indeed, continence issues transcend physical components to include environmental contexts, clothing, care providers, and mental state (Promfret, 1999, as cited in Vickerman, 2007), areas in which OTPs are experts. Toileting, employment, and sexual activity are all occupations affected by PFD and are directly noted in the Occupational Therapy Practice

Framework (American Occupational Therapy Association (AOTA), 2020) to be within an OTP's domain. However, there is a significant gap in the literature detailing approaches unique to OTPs. As a result, the purpose of this research study is to present findings from an exploratory descriptive study on what OTP's perspectives are on their unique role in working with clients with pelvic health needs. The research question for this study is: What is the unique role that occupational therapists play in the field of pelvic health?

Methods

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influences and biases (e.g., feelings that arose from data). Having been trained in the Biopsychosocial model, this researcher often used this lens throughout this research process.

Results

Thirteen OTPs were interviewed. Participant characteristics are detailed in Table 1. The majority (92%) of participants were women in the United States who had been practicing OT for over ten years; nearly half of the participants had more than five years' experience in pelvic health OT. Most participants provide therapy for women, but some also work with children and/or men, as identified in interviews. It was found that OTPs believe they offer a unique contribution to the pelvic health field. Three primary qualitative themes were generated that elaborate on this belief: OTPs apply a psychosocial lens, the OT approach is comprehensive, and OTPs use occupation-focused interventions when working with people with PFD (e.g., consider the influence of client mental health as client preferences, culture, and lifestyle). The relationship between codes, categories, and themes are presented in Tables 1, 2, and 3.

Table 1 Participant demographics

Demographic Information		**Number of Participants**
Gender	Female	12
	Male	1
Years of Experience in OT*	≤5	1
	6-10	3
	≥11	9
Years of Experience in Pelvic Health OT	≤5	7
	6-10	5
	≥11	1
Location of Practice	Australia	1
	Western United States	6
	Midwestern United States	2
	Eastern United States	4

*OT=occupational therapy

Theme 1: Occupational therapy practitioners apply a psychosocial lens

Participants highlighted the importance of considering psychological factors in understanding a client's experience with PFD, due to their perceived impact on ability to engage in therapy and occupations. Client experiences with other practitioners as well as their emotions surrounding their experiences with PFD were uncovered throughout the OT process. The OT approach of remaining client-centered, creating safety, and the entirety of their client further allowed for clients to reveal their experiences. OTPs reflected on factors including shame, mental health diagnoses, experiences of trauma, and stress, which informed their approach to care. Several participants (n = 8) believed that OTPs are unique in their consideration of mental health in the client's experience of PFD. For example, Jackie noted that OT was initially rooted in mental health and that this foundation sets OTPs apart from other pelvic health providers, "We're the experts of function, movement, the mental and spiritual parts of a human being […] and being able to hold space for those tough conversations and for that mental health piece**.**" Similarly, Gwen's colleagues recognize her skill set and refer complex clients with mental health needs to her, "they will send those people to me because they know that's kind of the strength of an OT." Kristin perceives a link between her client's emotional state and her their ability to benefit from therapy, "you have to do a lot of [nervous system] co-regulation before they walk through the door and you tell them to drop trowel and get on your table. Because if their nervous systems not in a good place, that the treatment outcomes are going to be dramatically shifted."

Trauma was described as arising from sexual or physical abuse, or significantly poor experiences with the medical model. All participants noted the importance of addressing trauma or being trained in trauma-informed care. Kristin described the impact of birthing trauma on mothers and their rehabilitation. She explained how women "put their needs on the backburner

entirely and they're not adequately healing, they're not rehabilitating. They accept this idea of a new norm, whether it's pain is my new norm, lack of function is my new norm, instability…".

Regarding mental health, shame, depression, stress, obsessive compulsive disorder, and eating disorders represent some of the client experiences described by OTPs. Nearly 70% of participants considered the intersection of mental health and symptoms of pelvic floor dysfunction when working with clients. For example, Camille described working with a client who, diagnosed with anxiety and obsessive-compulsive disorder, had difficulty progressing through recommendations for her urge incontinence due to inflexible thinking. Beth highlights the connection between stress and the pelvic floor, "Understanding things like polyvagal theory and how it helps, stress can affect the body and can directly affect the pelvic floor as well, is pretty essential." Some of these emotions were noted to have arisen from the dismissal from other pelvic health providers and/or a sense that the problem was them alone.

Table 2 Theme 1: "Occupational therapy practitioners apply a psychosocial lens" associated codes and categories

Categories	Occupational Therapy Approach	Client Experiences	Occupational Therapy Process

Codes	○ Mental health lens
	○ Comprehensive approach
	○ Occupation-focused
	○ Uniqueness of occupational therapy
			○ Evaluation
			○ Interventions:
			  ○ Adaptation
			  ○ Education
			  ○ Exercise-based
			  ○ Lifestyle modifications
			  ○ Manual therapy
			  ○ System regulation
			○ Outcomes

Theme 2: The occupational therapy approach is comprehensive

The comprehensive approach to care considers the entirety of the individual. Following the Occupational Therapy Practice Framework (AOTA, 2020), OTPs explore the domains of occupations, contexts, performance patterns and skills, and client factors in relation to pelvic health. A comprehensive approach was discussed by all but one of the participants:

> "Our approach is so holistic, it basically checks the boxes for a whole person so much better than just coming in and someone saying, 'I'm only going to take a look at the pelvis and the pelvic floor.' Because many times the real problem and what created this issue was not the pelvic floor itself, but something else." (Beth)

OTPs seek to understand which occupations are valuable to their client and how these occupations have changed due to PFD symptoms. For example, OTPs considered contextual factors such as the physical environment and the impact they have on one's ability to participate fully in occupations or engage in treatment. Tom stated, "If somebody has urge incontinence and they have to get up frequently at night and run to the bathroom, but there's obstacles between the bedroom and the bathroom and poor lighting, we know how to address that." Jackie describes how even the placement of furniture and the type of lighting can affect a client: "How am I going to organize myself, my session, and my environment to support the best flow of what I'm trying to teach this family? And also, is the child's nervous system going to be able to accept this?"

Additional consideration was given to the performance patterns and skills of each client, with routines, habits, roles, time management, or application of knowledge discussed by all but one participant. Additionally, client factors, such as spirituality, characteristics, beliefs, and physiological functioning of the body are incorporated into the OTP's approach. Jackie described this perfectly when she stated:

> "It's really looking at the domains [Occupational Therapy Practice Framework], the spirituality and the personality of the child, the actual essence of a person. What are they

into? What kind of lifestyle is it that the family is currently living or where do they want to be? And understanding what activities are important to them."

Gwen recalls the layers of concerns she had to consider when working with one particular young man, ultimately helping him reach success:

"He had ADHD and some executive function issues, very little routine to his day, and is having erectile concerns. […] He loves running, but he is not able to consistently do it because he doesn't have a routine. We talked about using a planner, having a daily routine, and then incorporating the strategies that would help compensate for some of the executive dysfunction that he's having to help him recall to do this stuff."

Table 3 Theme 2: "The occupational therapy approach is comprehensive: associated codes and categories

Categories	Occupational Therapy Approach	Occupational Therapy Process

Codes	○ Mental health lens
	○ Comprehensive approach
	○ Occupation-focused
	○ Uniqueness of occupational therapy
		○ Evaluation
		○ Interventions:
		  ○ Adaptation
		  ○ Education
		  ○ Exercise-based
		  ○ Lifestyle modifications
		  ○ Manual therapy
		  ○ System regulation
		○ Outcomes

Theme 3: Occupational therapy practitioners use interventions that are occupation-focused

We discovered that OTPs used several interventions with their clients experiencing PFD. For example, participants discussed using adaptation, education, exercise, lifestyle modifications, manual therapy, and system regulation. Among these intervention techniques, the common thread for all participants is that they focused interventions on occupation. OTPs view occupation as foundational to their practice, a lens through which they view every client and situation. The client-centered and comprehensive approach informs the OTP's selection of intervention, focusing on what occupations are important to the client and considering the

multitude of factors that may impact treatment success. Amy discussed the importance of tying intervention to meaningful activity:

> "I have clients as well that are like, 'I don't want to do exercise. Like, sure give me those stretches, but I'm going to do them for like 3 days and then just not.' […] And so thinking of the occupation as the means for addressing the pelvic floor dysfunction, and so if that's exercise great, we'll do stretches cause that's meaningful to you. But if that is actually going to break down therapeutic rapport and make them feel like a failure, and you know all of these things that we're going to like, honor and celebrate that they know that about themselves, and figure out ways to make meaningful for them."

Interventions such as yoga, breathwork, and mind-body connection which target nervous system regulation were also discussed. In addition to teaching these techniques in a therapeutic session, participants strive to help clients incorporate these techniques into their existing occupations and routines as well as to link them to meaningful occupations. For example, Tom stated,

> "If I can help the person breathe more efficiently, they have more energy to engage in their occupation. […] They can move better, there's less anxiety. […] If you're stressed and anxious, while I'm trying to teach you some new skills, if I'm not helping you quiet your mind so that you can pay attention, I'm not serving you well as an OT. […] So I'm always relating everything I do in pelvic health or anything back to function."

The occupation of health management was also linked to system downregulation. Beth describes the importance of reducing stress through mind-body connection, "[For] a lot of my pain patients, that's exactly what the problem is, is they just don't manage stress well. So just teaching that lifestyle management is important." Francesca provides space for her clients to communicate what activities resonate with them, allowing for greater mind-body connection. She stated,

> "We learn a lot about the difference between telling someone what to do and them coming up with the treatment plan for what's going to work how much more powerful that is. […] That's a really powerful way for them to be building that connection and that trust in their body."

Table 4 Theme 3: "Occupational therapy practitioners use interventions that are occupation-focused" associated codes and categories

Categories	Occupational Therapy Approach	Occupational Therapy Process

Codes	○ Mental health lens
	○ Comprehensive approach
	○ Occupation-focused
	○ Uniqueness of occupational therapy
		○ Evaluation
		○ Interventions:
		  ○ Adaptation
		  ○ Education
		  ○ Exercise-based
		  ○ Lifestyle modifications
		  ○ Manual therapy
		  ○ System regulation
		○ Outcomes

Discussion

This exploratory descriptive study is the first, to the best of our knowledge, to elucidate the perceptions of OTPs on their contributions to working with clients experiencing pelvic health dysfunction. We found that OTPs believe their treatment of PFD is unique from the approaches used by other established providers addressing this diagnosis. Specifically, our data suggests that OTPs complement the biomechanical focus of other pelvic health providers by recognizing and addressing the role of mental health and intervening to down-regulate the nervous system.

Participants in this study believe there may be a bidirectional relationship between mental health and PFD; PFD may be both an outcome of trauma and precursor to anxiety and depression. This relationship is reflected in the literature (Cheng et al., 2022; Chichowski et al., 2013). It further appears that OTPs believe that addressing psychosocial factors is important for treatment success. Khan et al. (2013) similarly describes the apparent need to incorporate mental health in the treatment of pelvic health patients with anxiety and depression. OTPs in the current study expressed that mental health and PFD are uniquely addressed by the comprehensive OT approach. Indeed, it appears there is little evidence pointing to the application of psychosocial

interventions in the current PFD rehabilitation model, often due to lack of training, time constraints, and confidence in the psychosocial perspective (Driver et al., 2017; Singla et al., 2015). The focus of OTPs on the psychosocial components of care is not surprising, as OT was founded in mental health and practitioners are trained in strategies to reduce the negative effects of mental health on occupations (Christiansen & Haertl, 2018). The incorporation of this psychosocial approach is a likely complement to the biomechanical approach used by many pelvic health practitioners. The social component of the psychosocial lens, which may include attitudes and beliefs of health care providers or the impact of PFD on relationships, was not discussed as in depth as the psychological component and represents a gap in our data.

In this study, OTPs described using interventions aimed at nervous system regulation to address the effects PFD, anxiety, and symptoms of trauma. This result is understandable, as research shows that OTPs successfully implement stress reduction techniques, such as mindfulness, yoga and breathwork in a variety of settings and across populations (Andrews et al., 2021; Craswell et al., 2021; Sarang et al., 2020; Stoller et al., 2012). Drawing on the Polyvagal Theory (Porges, 2011), consideration is given to creating a sense of safety, providing opportunity for the physiological and emotional responses to come under control. This can be accomplished through making deliberate choices regarding the physical environment of the treatment space, using therapeutic use of self techniques, and client-centeredness. Attending to the sympathetic nervous system is likely relevant to treatment outcomes. During therapeutic sessions, this may be especially important since the client often must allow the OTP to be in physical contact with intimate areas of the body and discuss private and sometimes traumatic experiences. It seems the key is to merge these nervous system regulation techniques into one's existing lifestyle or modify habits and routines to incorporate these new techniques. Integration of nervous system

regulation techniques into a client's daily routine seems natural because OTPs view the world through an occupation-centered lens (AOTA, 2020) which transcends populations and settings. OTPs center their focus on client-identified and meaningful occupations and then assist clients with the development or preservation of skills, address barriers to engagement in occupations, and understand the complex interaction between client factors, occupational requirements, and the environment (AOTA, 2020). Regulating the nervous system in an occupationally-centered manner may help with pelvic health treatment outcomes. One limitation to this study is the risk of self-selection bias, as OTPs self-identified and responded to requests for participation in this study. Although the sample was rather homogeneous with regard to the ratio of men and women, it does represent the greater OT community within the United States and saturation was reached. Future researchers may want to include geographically diverse voices. Additionally, including the lived experiences of clients who have received pelvic floor therapy from both OTPs and practitioners outside of OT may provide additional context to the unique OTP contribution. To gain a greater understanding of an OTPs role in pelvic health, future research may include an observational study.

Conclusion

This exploratory descriptive study identifies OTPs' perceptions on their unique skills and approaches to working with clients in pelvic health. We identified the factors that OTPs consider when working with pelvic health clients, the approach to care they utilize, and interventions used. Our data suggests that OTPs believe their contributions are unique yet complementary to existing pelvic health providers. Incorporating OTPs into multidisciplinary pelvic health teams may positively impact patient outcomes.

Chapter 3- Implications for Occupational Therapy

Pelvic health rehabilitation is currently mostly dominated by physical therapists (Arnouk et al., 2017; Dumoulin et al., 2016), however appears to be an emerging practice area for OTPs. Limited research demonstrating the OTP role is likely associated with the lack of representation of OTPs in this space. Therapists in this study identified the considerations that OTPs take when working with pelvic health clients, unique approaches to care, and interventions used. The data suggests that OTPs believe their contributions are unique yet complementary to existing pelvic health providers. This study was, to our knowledge, the first to explore the OTP perspective on what differentiates them from current pelvic health providers, providing a starting point for future research. Further research and advocacy are needed to illustrate the effectiveness of specific interventions that are unique to OTPs. With increased research and advocacy, individuals with pelvic health needs will have opportunities for more robust care, benefitting from a multidisciplinary approach.

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Appendix A

Survey Questions

1. Consent page
2. Name
3. Age
4. Gender
5. Title
6. Degree
7. Years of experience in occupational therapy
8. Years of experience in pelvic health occupational therapy
9. What are all the practice areas you work(ed) in
10. In what practice setting do/did you work
11. Location in which you practice
12. Please identify treatment or treatment modalities you use with your pelvic floor clients
13. If you are willing to participate in a 45 minute interview, please provide your phone number and/or email below
14. If you know of other pelvic health occupational therapists that would be willing to participate, please share the link below.

Appendix B

Interview Questions

1. Tell me about how/why you came to practice in pelvic health?
2. What education, if any, did you receive on pelvic health?
    a. What education/training do you think is essential?
3. What conditions do you usually see with your clients in the pelvic health setting?
4. I see from your survey questions you use XYZ modalities/ treatments, can you tell me how you use these in a typical session?
    a. Which do you feel have been the most successful for your clients?
    b. How do you address pelvic health issues with occupation-focused interventions?
    c. How do you keep your interventions client-centered?
5. In what ways does your approach differ from that of your colleagues? (any physicians/ PT's that you work with etc?)
    a. How does pelvic health OT compliment or enhance the work of other professions?
    b. How can other professions compliment/enhance/support OT for PH patients?
    c. How do you create relationships with other practitioners? (cold calling, referrals, lunch and learns etc?)
    d. How do clients find out about you?
    e. What has been the response of colleagues/other professionals about your role in pelvic health?
6. What would be the ideal setting for occupational therapists in pelvic health?
    a. Who do you imagine OT's partnering with to best serve patients/clients? (eg: OB, Urology, Gynecology, primary care)
7. What have been your clients' experiences in pelvic health treatment prior to coming to you?
8. What needs to happen in our industry for occupational therapists to better support the pelvic health needs of our communities?

List of Abbreviations

AOTA	American Occupational Therapy Association
OT	Occupational Therapy
OTP	Occupational Therapy Practitioner
PFD	Pelvic Floor Dysfunction