RESEARCH ARTICLE

Patient Awareness and Access to Pelvic Floor Dysfunction Physical Therapy: Challenging Trends to Adequate Patient Care

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1.0 Abstract

1.1 Background/Rationale

Pelvic floor dysfunction (PFD) can impact daily activities and quality of life, such as bladder and bowel incontinence, acute and chronic pelvic pain, and sexual dysfunction. Pelvic floor physical therapy (PFPT) addresses such dysfunction; however, lack of awareness or barriers to accessing PFPT may prevent or delay individuals from receiving these services. This study evaluated awareness of pelvic floor physical therapy among patients receiving general physical therapy services and examined medical services among patients who have received PFPT.

1.2 Methods/Methodology

This study was conducted from June 2016 – April 2017 at seven outpatient physical therapist (PT) clinics in Texas and Colorado. All participants (N=58) were sampled by convenience and referred for physical therapy services. Volunteers completed a confidential, 12-item survey, which ranked awareness and access to PFPT services. Questions included: satisfaction of care, wait time before seeking treatment, and delay of initiation of treatment. Completed surveys were grouped as to whether or not receiving PFPT services (n = 24) or non-PFPT services (n = 34). Chi square statistics were used to explore group comparisons between demographic variables including PFPT awareness and level of receipt of treatment ($p = 0.05$).

1.3 Results/Findings

A significant number of patients in the non-PFPT group, 79.4%, were more likely to report low awareness of PFPT, however 64.7% also reported recent PFD symptoms. In the PFPT group 54.17% indicated delay in seeking medical care despite having symptoms with 37.5% delayed receiving PFPT for 1-5 months. No significant relationship existed between patient demographics and level of awareness.

1.4 Conclusions/Implications

Although PFD is common in the general population, a lack of provider referrals prevents access to PFPT treatment. Limited patient knowledge about PFPT services are barriers to proper care. Physical therapy screening for PFD symptoms as part of the systems review in patients is needed. Further studies are needed to investigate physical therapist screenings for PFD, patient education, and patient/provider communication for ease of patient access and awareness.

Keywords: Pelvic floor dysfunction, Incontinence, Pelvic organ prolapse, Pelvic floor physical therapy

2.0 Introduction

The pelvic floor is a bowl-shaped group of muscles that acts as the support of the pelvis. The proper functioning of these muscles is essential for stability of the lumbar spine, pelvis, and hips; support of the pelvic organs; storage and evacuation of urine and feces; and sexual function.[1] Pelvic floor dysfunction (PFD) refers to several pelvic floor disorders that include stress urinary incontinence, urgency urinary incontinence, overactive bladder, pelvic organ prolapse, and fecal or anal incontinence.[2] Thus, PFD can considerably impair the quality of life of approximately one-third of adult women of all ages.[3] In addition, studies indicate that mental health disorders and sexual dysfunction are more common in women with bladder dysfunction.[4] Wu et al. (2014) utilized the National Health and Nutritional Examination Survey (NHANES) in their investigation of the prevalence and trends of symptomatic PFD in U.S. females. The research concluded that the prevalence rate of one or more pelvic floor disorders was 25%.[5] The number of individuals affected by urinary incontinence grew significantly with approximately 383 million reported in 2013 compared to an estimated 420 million women and 120 million men in 2018.[6] As the U.S. population ages, PFD is predicted to become even more common, particularly with fecal and urinary incontinence. Data from the U.S. Census Bureau and National Health Nutrition Examination survey have estimated that the incidence of females diagnosed with at least one pelvic floor disorder will essentially double by the year 2050 to 43.8 million.[7]

Unfortunately, a lack of awareness of pelvic floor dysfunction and available treatment options may prevent many people from seeking care. Additionally, a barrier to addressing pelvic floor dysfunction is patient reluctance to report problems to healthcare providers. In a population-based sample of females 40 years of age or older, the prevalence of urinary incontinence was 41%, but only 25% of the women with symptoms sought care, 23% received some intervention, and 12% received subspecialty treatment.[8] Furthermore, a community-based internet survey of women over 45 years of age indicated 19% reported accidental bowel leakage and only 29% of those had sought medical care.[9] Goldstick & Constantini (2013) performed a literature review on the subject of urinary incontinence during physical activity and sports. The study evidenced that urinary incontinence is frequent among this population and highly under-reported. Less than one-half of the women with incontinence reported the symptoms to a caregiver.[10] A lack of adequate education on the pelvic floor further impairs effective treatment of PFD. Dunivan et al (2014) recruited English and Spanish speaking women with pelvic organ prolapse from female urology and urogynecology clinics. Both groups felt ashamed of their diagnosis and were uncomfortable speaking with anyone about it, including providers. The primary conceptual reason was due to a lack of knowledge about the meaning of the diagnosis, symptoms, and available treatments.[11]

Pelvic floor physical therapy (PFPT), also referred to as pelvic floor muscle training, is a conservative treatment modality for PFD that is widely accepted with recent quality studies indicating significant clinical effects for improvement of symptoms.[12-15] PFPT has minimal risk and is an evidence-based treatment for many urogynecologic disorders, including overactive bladder, mixed urinary incontinence, stress urinary incontinence, defecatory dysfunction, symptomatic pelvic organ prolapse, pelvic floor myofascial pain, and painful bladder syndrome.[12, 16-18] PFPT

includes internal and external intervention with a trained physical therapist who teaches pelvic floor muscles strengthening, relaxation, and coordination exercises, as well as behavioral training intervention and home exercise program instruction.[12,19,20] Moreover, research supports that women are more likely to report improvement in symptoms when they are referred directly to supervised PFPT as opposed to performing recommended exercises without supervision.[14,15] Furthermore, studies support that PFPT contributes significantly to the multidisciplinary assessment and treatment of PFD due to its holistic approach.[21]

Overall, the literature suggests a lack of awareness and understanding of PFD that impairs access to effective medical care. There is a wide variety of reasons for this disparity in health care services, which most likely include lack of information, shame about discussing the symptoms, and poor communication between providers. Regrettably, research has indicated that PFPT is not offered or rarely suggested to postpartum women.[22-24] Understanding barriers to seeking care for pelvic floor dysfunction is essential for intervention and rehabilitation. Primary care providers (PCPs) may be partially responsible for the delay in patients seeking treatment for PFD. Jirschele et al (2015) studied physician barriers to urinary incontinence identification and treatment. Of the 78 physicians surveyed, most indicated that urinary incontinence was a common problem in their practices. Only 19% were very comfortable diagnosing urinary incontinence while 59% agreed that differentiating the different types of urinary incontinence was difficult. Sixty-nine percent believed that managing the diagnosis was difficult.[25] Furthermore, Dessie et al (2015) assessed prenatal counseling of obstetrical providers related to postpartum PFD at centers with integrated urogynecology services. Of those who answered the survey, 56.3% reported never discussing postpartum urinary incontinence and 73% never discussed postpartum fecal incontinence during prenatal counseling. Among the providers who reported not counseling female patients about PFD, the most common reasons cited were lack of time (39.9%) and the lack of sufficient information (30.1%).[26]

Therefore, important research questions exist about patient awareness and access of care for PFPT services, and the need for PFD screenings as part of physical therapy standard of care. Answers to these questions might enhance general physical therapy care to future studies and guide clinical practice. With this in mind, the objectives of this survey research were to assess awareness and access to physical therapy intervention as related to PFD.

3.0 Material and Methods

This project was approved by the Institutional Review Board (IRB) of Texas State University before beginning any study activities. The investigation was conducted from June 2016 – April 2017 at seven outpatient physical therapy clinics in central Texas and one in Denver, Colorado. Participants were recruited using convenience sampling and provided informed consent to be a part of the study by completing a 12-item survey during their clinic visit. Additionally, they were made aware of their ability to withdraw from participation at any time without change in the physical therapy intervention that was being received. Criteria for participation included the following: currently receiving either general physical therapy services (non-PFPT) or physical therapy services for PFD (PFPT); at least 18 years of age; and of any gender. Participants were excluded if cognitive or English literacy impairments

were observed or documented. Anonymity in survey completion and confidentiality in survey submission were maintained as directed by HIPAA guidelines.

The survey contained both closed- and open-ended questions developed to address awareness of physical therapy services specific to PFD as well as ease of access for obtaining PFPT services. No identifying information was collected from the participants during completion of the surveys other than general demographics such as age, education and gender. The survey boxes were then stored in a locked, secure location to further protect anonymity and not reviewed until completion of the research period.

Participants were divided into two groups depending upon their previous participation in PFPT services. Participants who were currently receiving or had received PFPT services within the past one year were categorized as the PFPT group. Individuals who were not currently receiving PFPT services or had not received PFPT services within the past year were categorized as the non-PFPT group.

4.0 Data Analysis:

Descriptive statistics were performed using SPSS Statistics for Windows version 25.0 (IBM Corporation) for demographic variables of interest including gender, age, ethnicity, educational level, and history of childbirth for both the PFPT and non-PFPT groups. Non-parametric statistical analysis methods were used to compare both ordinal and nominal data variables. The chi-square analysis was tabulated to explore possible group differences and relationships between each of the demographic variables using symmetric and asymmetric contingency tables. Therefore, frequency analysis methods were used to describe responses including level of awareness, satisfaction of care, wait time before seeking treatment for the symptoms, and delay of initiation of physical therapy intervention. Alpha level set at $p = 0.05$. Yates' correction factor was used as needed during post hoc analysis to adjust for small sample size.

5.0 Results

Fifty-eight surveys were collected from respondents 21-84 years of age who did or did not have personal experiences with PFPT services. Twenty-four or 41.04% of the participants were receiving or had received PFPT services while thirty-four or 58.6% were included in the non-PFPT group who received general outpatient physical therapy services and did not experience PFPT services (Figure 1).

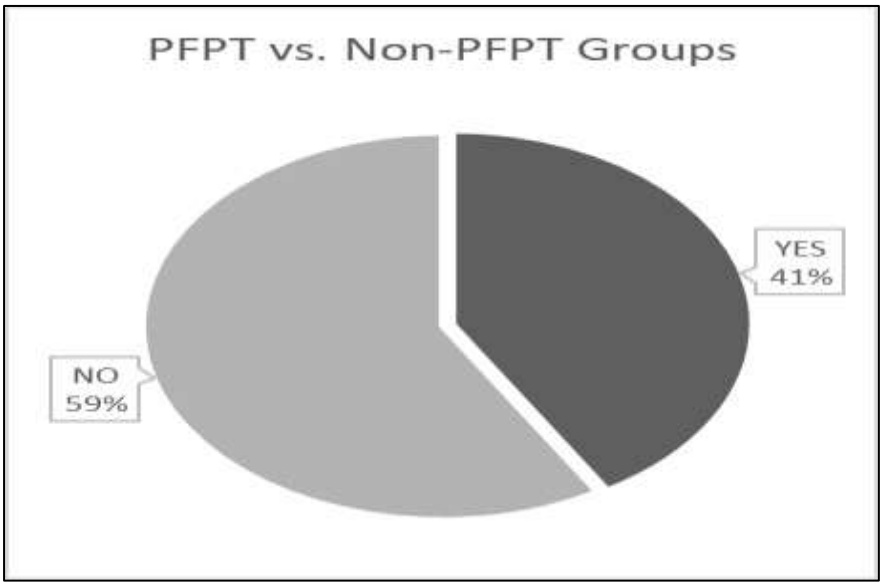

Figure 1: Overall Group Indentification. Out of 58 respondants, 24 (41%) had experience with physical therapy for pelvic floor dysfunction and 34 (59%) had not.

Demographic data collected for both groups included age, gender, history of childbirth, ethnicity, and level of education. Participants overall were mostly females and younger in the PFPT group compared to the non-PFPT group. While, participants were generally older and with higher education in the non-PFPT group compared to the PFPT group, age and education differences were not found to be significant ($\chi^2 = 3.8124$, $p= 0.051$) and ($\chi^2 = 4.025$, $p= 0.134$) respectively. However, there was a significant difference found between treatment groups for history of childbirth with 75% with a positive history in the PFPT group ($\chi^2 = 4.964$, $p = 0.026$). (Figures 2-5)

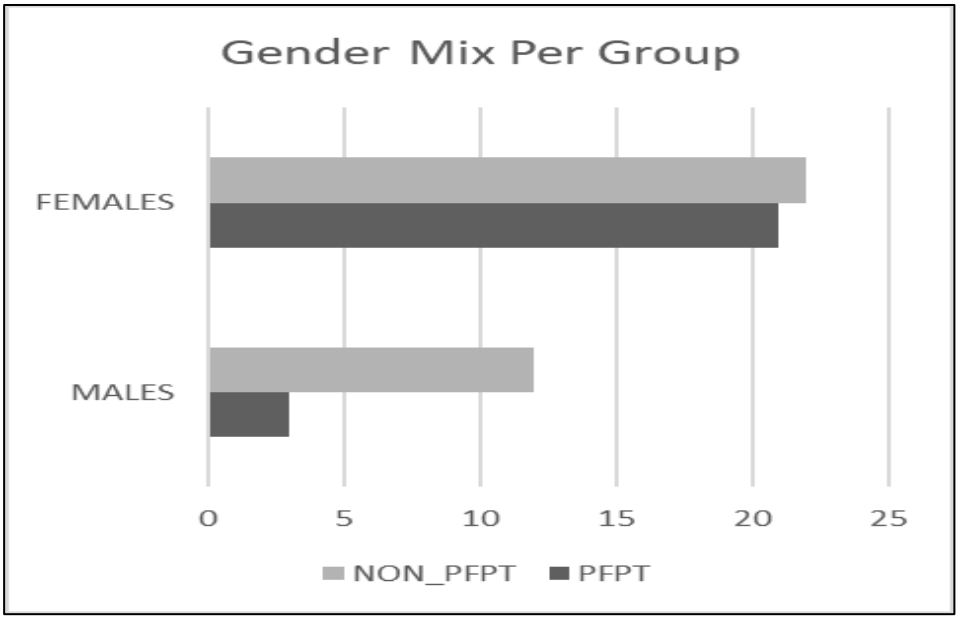

Figure 2: Gender Mix Per Group: Overall there were 43 (74%) female and 15 (26%) male respondants to the survey.

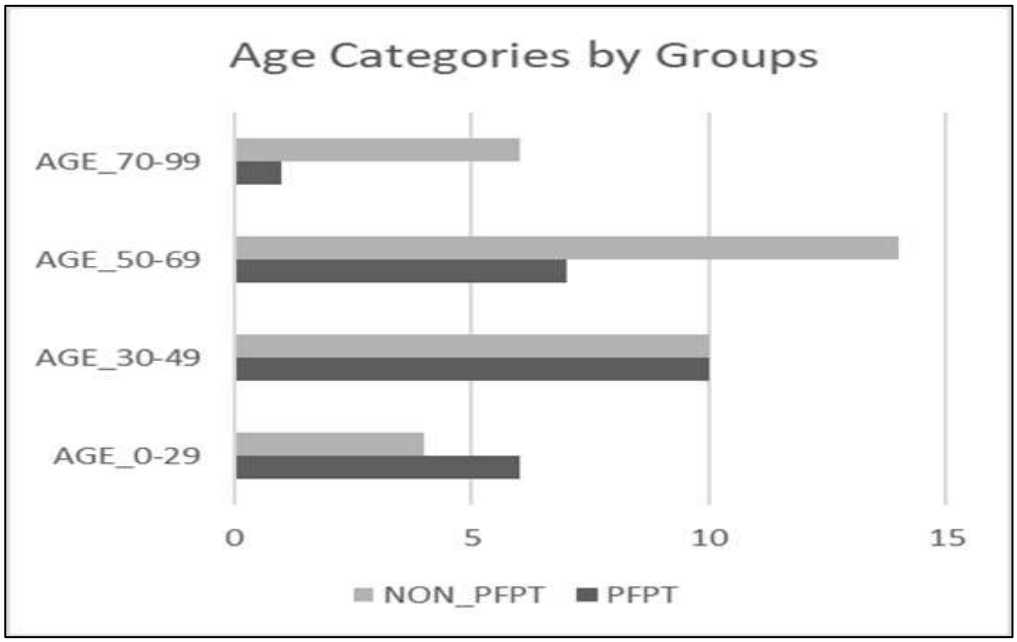

Figure 3: Age Group Categories as distributed by treatment groups. There was a significant group difference in age.

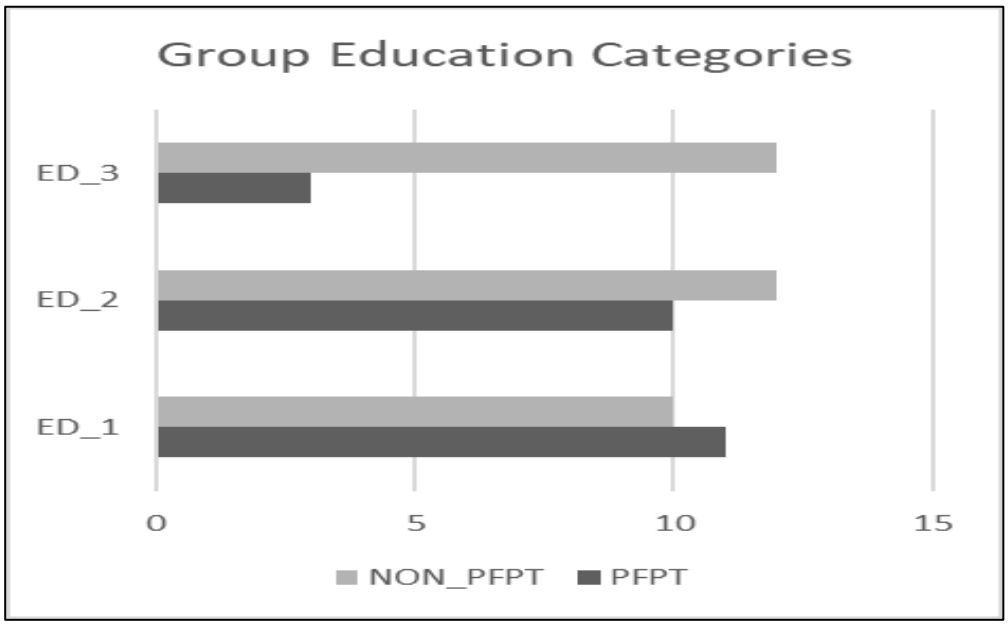

Figure 4: Education Categories by Group: There was not a significant group difference in education categories. ED_1 = Less than 4-year college; ED_2 = 4-year college ; ED_3 = Graduate/professional degree

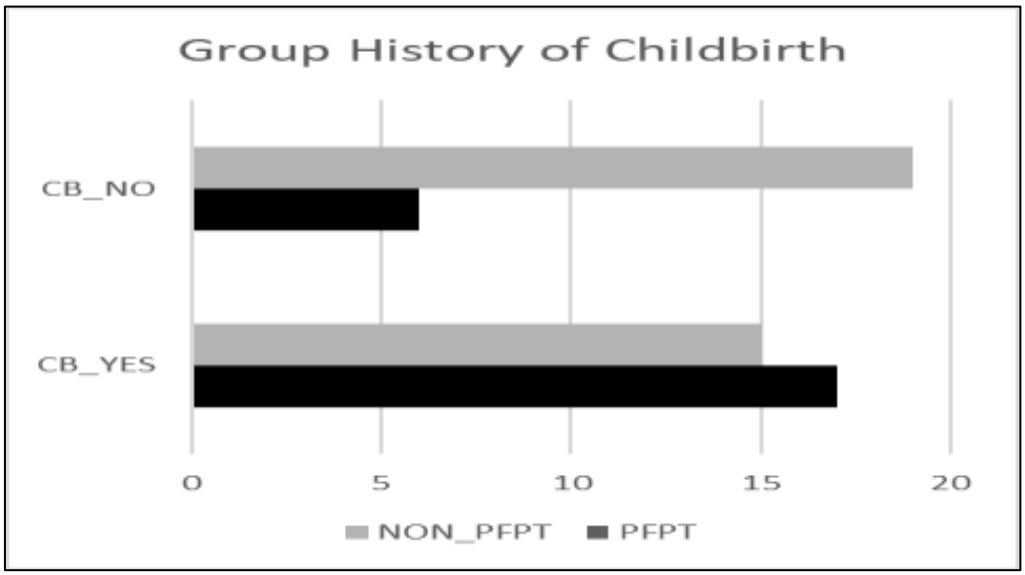

Figure 5: Childbirth History by Group. There was a significant group difference in history of childbirth with 75% of the PFPT with a positive history. CB_YES = had childbirth in history, CB_NO= did not have childbirth in history.

Of the 58 total respondents, twenty-four (41.4%) did receive PFPT services. It was therefore not surprising that most respondents in this group were aware that physical therapists can address PFD with the following results: 1/24 (4.2%) were not aware, 4/24 (16.7%) were slightly aware, and 19/24 (79.2%) were very aware. It was however surprising that a significant number in the non-PFPT group differed and were more likely to report limited awareness about physical therapist services to address PFD: 14/34 (41.0%) were not aware, 13/34 (38.2%) were slightly aware, and 7/34 (20.6%) were very aware ($\chi^2 = 20.454$, $p < 0.001$) (Figure 6).

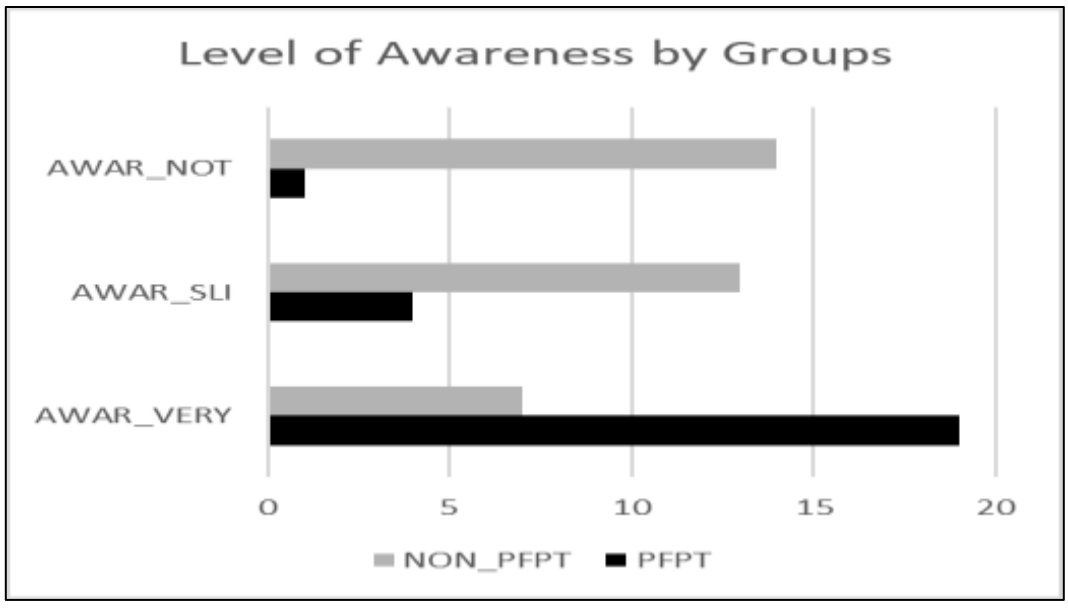

Figure 6: PFPT Awareness by Groups. It was surprising that a significant number (41%) in the Non-PFPT group were unaware of physical therapy services for PFD.

Although the majority of those in the PFPT group sought medical treatment within the first year of symptoms (57%) there were still some who waited over 6 years (13%). (Figure 7) Analysis of the data also suggested that most participants were delayed a few weeks or months after seeking medical treatment before meeting with a pelvic floor physical therapist. Although the majority of those in the PFPT group began treatment within 1 month (59%) there were still some who began treatment up to 5 months later (41%). (Figure 8)

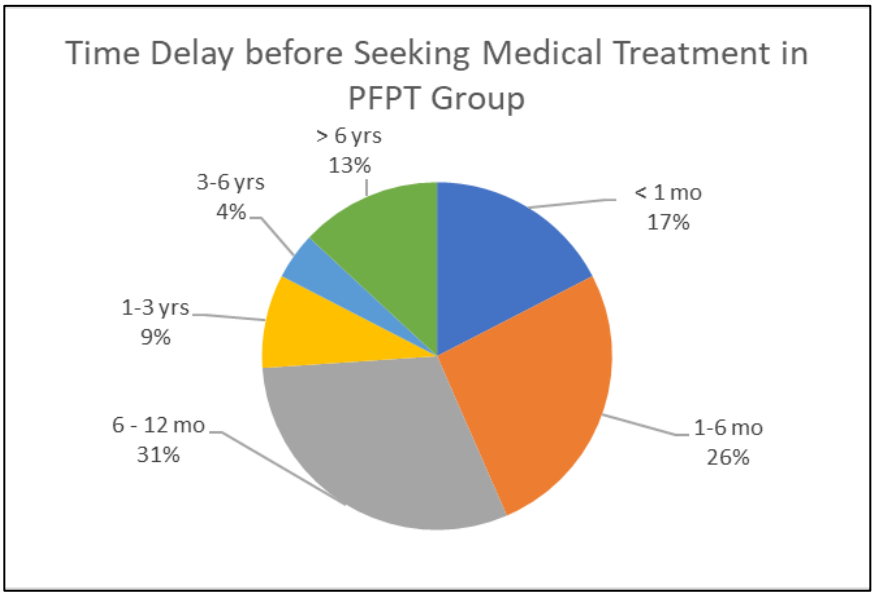

Figure 7: Time Delay before Seeking Medical Treatment in PFPT Group. Although the majority of those in the PFPT group sought medical treatment within the first year of symptoms (57%) there were still some who waited over 6 years (13%).

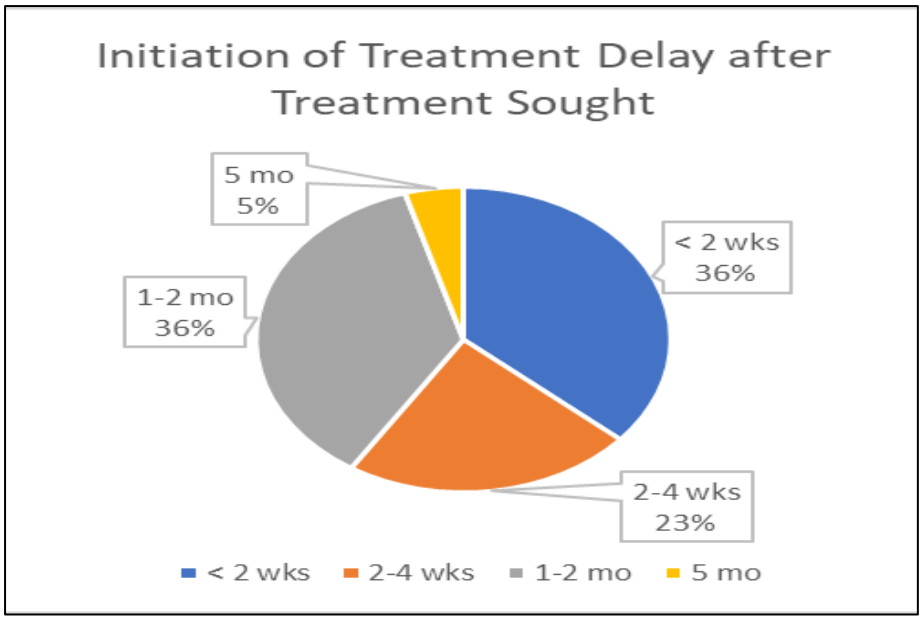

Figure 8: Initiation of Treatment Delay after Treatment Sought in PFPT Group. Although the majority of those in the PFPT group began treatment within 1 month (59%) there were still some who began treatment up to 5 months later (41%).

Data were assessed as to whether or not those in the non-PFPT group had experienced symptoms of potential PFD within the last year. Results suggested that a significant number, 22/34 (64.7%) had experienced symptoms whereas 12/34 (35.3%) had not experienced any symptoms (χ^2 = 8.213, p= 0.004). No significant correlation was found between the history of suggestive symptoms and awareness of PFPT as a potential treatment option (p = 0.074%). (Figure 9) However, respondents in the non-PFPT group who reported PFD symptoms indicated whether or not these symptoms limited their daily activities or quality of life. It was found that 23.34 (67%) either did not consider their symptoms limiting or did not rate the questions; however, 9/34 (25.6%) rated their symptoms as minimally limiting and 2/34 (5.9%) rated their symptoms as moderately limiting.

Last of all, it can be noted that the majority of those in the PFPT group indicated that they were very satisfied (14/24, 58.3%) with the response of the initial health care provider with whom they had discussed their PFD symptoms. While none of the responses suggested that participants were dissatisfied with the health care provider response, many were only somewhat satisfied (7/24, 29.2%) or neither satisfied nor dissatisfied (2/24, 8.3%).

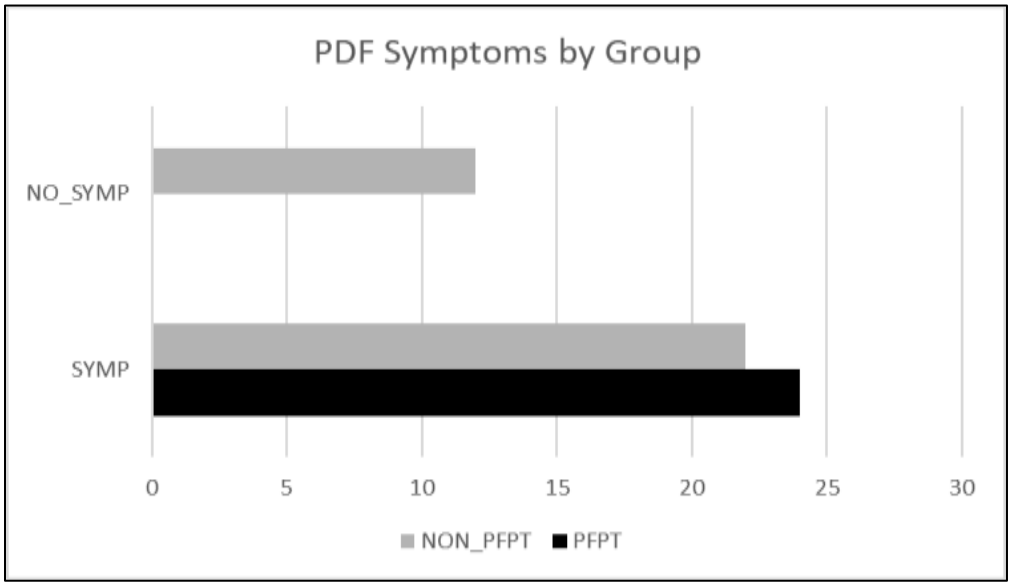

Figure 9: Pelvic Floor Dysfunction (PFD) Symptoms by Group. All respondants in the PFPT group were experienceing PDF symptioms however a significant number (64.7%) in the non-PFPT group were also experiencing symptoms.

6.0 Discussion

The results of our study indicate that a significant number of patients (79%) were unaware of pelvic floor dysfunction physical therapy (PFPT) services even though several suffered PFD symptoms (64.7%). Our findings are consistent with existing literature that indicates an overall lack of awareness about PFPT services including multiple barriers that delay the access of medical treatment, even though PFD is common in the general U.S. population.[8-11, 22-26] Preliminary results indicate the need for further study in several areas in support of patient care to address PFD including: effective strategies to help guide discussion of the pelvic floor with patients by health professionals; patient education of pelvic health and intervention options; clinical provider education about PFPT and efficient

referral methods; and awareness through community education. Additionally, current study results indicated that a noticeable number (20%) of patients who have participated in PFPT services may still not be aware of the full scope of PFPT services. This lack of knowledge may possibly create an additional barrier to future access of PFPT service for patients who may experience new or different PFD symptoms in the future. These suggested results are supported by studies that indicate that PFD education decreases the prevalence of PFD symptoms. Berzuk & Shay (2015) evaluated pelvic floor knowledge and the presence of PFD in women office workers. They concluded that low levels of PFD knowledge were associated with a higher prevalence of PFD and an increase in knowledge/awareness was significantly associated with an increase in quality of life and a decrease in PFD symptoms. [27] Both Geoffrion et al.(2009) and Tannenbaum et al.(2010) evidenced that education workshops successfully increase patient knowledge of PFD and attitude toward urinary incontinence. [28,29]

Furthermore, our study results also highlight important considerations for clinical practice overall. It is crucial for physical therapists to recognize a significant number (64%) of patients receiving general physical therapy services may be experiencing symptoms associated with PFD without reporting them. Moreover, patients may lack awareness regarding healthy versus impaired pelvic floor function, even in the presence of PFD symptoms. Therefore, it may be viewed as the physical therapist's responsibility to initiate these conversations; provide screening for PFD symptoms as part of each patient's systems review; and to educate patients about self-care and treatment options for PFD. These practice enhancements are reasonable considering that physical therapists are educated to be proficient in the evaluation and interventions for patients with PFD.[30-32] Additionally, the American Physical Therapy Association provides the Women's Health Educator Toolkit intended to provide a resource for graduate educators responsible for women's health content in a physical therapy program with scholarly resources provided. This toolkit is available as an open access document for all physical therapists.[33]

Although our research project provides valuable insight into an important practice area, we recognize that it does have limitations in generalizability due to the small sample size and restrictions in survey distribution to only a limited number of clinical sites. Additionally, approximately one-half of the participants receiving PFPT were recruited from a clinic receiving the majority of referrals from within the military system. Other limitations were related to the survey tool itself. The survey length and patient difficulty with interpreting the questions may have presented obstacles to thorough and accurate completion of the survey. Last of all, the survey was available in English only, thus excluding several potential participants who were primarily Spanish speaking.

7.0 Conclusions and Implications

Although pelvic floor dysfunction (PFD) is common in the general population, limited patient awareness or knowledge about pelvic floor dysfunction physical therapy services may present barriers to proper care. Additional considerations include lack of patient referrals and insufficient physical therapy screenings for PFD symptoms which should be part of the standard systems review. Further studies are needed to investigate physical therapist screening for PFD, patient education options, and patient/provider communication for ease of patient access and awareness.

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