Occupational Therapy in Pelvic Health: A Case of Chronic Constipation

Kenzi Kuemper, OTD, OTR/L, PCES; and
Tania L. Shearon, DHSc, OTR/L, CHT, C-IAYT

Chronic constipation can be described as infrequent, difficult, or painful bowel movements (BMs) that require excessive straining, involve incomplete emptying, and/or require enemas or laxatives to help pass the BM, that lasts beyond 1 month (Scott et al., 2021; Triadafilopoulos et al., 2024). Chronic constipation is a common gastrointestinal complaint and one of the most frequent reasons people are referred to a gastroenterology office (Avanaki et al., 2023; Shah et al., 2023; Triadafilopoulos et al., 2024). It is important to differentiate the cause of chronic constipation because obstruction syndrome, present in half of constipated patients, is often a result of pelvic floor dysfunction (O'Donnell & Haviland, 2024). Pelvic floor dysfunction, when it impairs relaxation during defecation, is known as pelvic floor dyssynergia or anismus, and may manifest as obstructed defecation syndrome (Kaplan & Simianu, 2021; Perek, & Ergün, 2021). These terms sometimes overlap with descriptors like spastic pelvic floor or descending perineal syndrome. Patients with functional outlet obstruction disorders are unable to relax the necessary muscles of the pelvic floor in order to defecate without excessive straining or feelings of incomplete emptying. According to Perek and Ergün (2021), hypertonicity of the puborectalis (PR) muscle of the pelvic floor paradoxically contracts the anorectal angle, thus blocking effective elimination.

Normal functioning of the large intestine includes involuntary internal peristaltic contractions followed by internal anal sphincter (IAS) relaxation, resulting in the collection of feces within the rectum. The external anal sphincter (EAS) contracts during this process in order to block the full exit of fecal material from the body until voluntary defecation. Once the individual decides it is the appropriate time to respond to the urge, they relax the EAS and the puborectalis muscle of the pelvic floor in order to release their fecal matter into the appropriate facilities (Perek, & Ergün, 2021). Patients with chronic constipation as a result of pelvic floor muscle dysfunction cannot relax the necessary pelvic floor muscles during defecation. The continued contraction of these muscles not only blocks straightening of the anorectal angle during evacuation, but works to push feces back up into the rectum (Perek, & Ergün, 2021; Shah et al., 2023).

Occupational therapy practitioners (OTPs) are trained to address issues with occupational performance in ADLs including toileting (American Occupational Therapy Association [AOTA], 2020). The *Occupational Therapy Practice Framework:*

Domain & Process (4th edition) describes the ADL of toileting to include maintenance of intentional control of bowel movements and urination (AOTA 2020). Pelvic floor therapy can work to improve bowel and bladder control thus illustrating OTPs roll within this practice area. OTPs role in pelvic health is considered an emerging area of practice and at this time, AOTA does not have an official position statement regarding OTPs providing direct pelvic floor therapy. The AOTA website provides information on women's health on their practice resource page stating that OTPs can address the underlying body structures and functions to improve ADL performance (AOTA, 2025). The Occupational Therapy Association of California (OTAC) paved the way by issuing a pelvic health position statement (OTAC 2024). OTAC clarifies that OTPs with advanced training are able to perform both external and internal assessment and treatment of pelvic floor disorders to achieve goals of improved occupational performance.

OTPs who have completed advanced continuing education courses can become pelvic floor OTs (PFOTs). PFOTs us a holistic approach when evaluating and treating patients with pelvic floor dysfunction with the goal of improved quality of life. Treatment can include any combination of remediation, adaptation, and behavioral techniques designed to improve functioning in the ADLs of toileting. PFOTs learn how to utilize advanced evidence-based assessments such as internal and external examination of the pelvic floor and use of electromyography biofeedback (Blacker 2020). Pelvic floor therapy interventions include neuromuscular re-education, manual techniques, therapeutic exercise, biofeedback, tactile feedback, and education on coordinating abdominal muscles and pelvic floor muscles during defecation. Avanaki et al. (2023) studied the response to biofeedback therapy in patients with pelvic floor dyssynergia and found it effective in reducing the symptoms of constipation and improving patients' quality of life scores. It is important to emphasize that OTPs practicing in the area of women's health focus on functional ability as they develop each patient's unique occupational profile. They collaborate with their patients to plan interventions and provide education that help them create habits and routines that work to promote occupational engagement as symptoms improve. According to Akselrud and Vestal (2021), OTPs working in the area of pelvic health incorporate their mental health perspective and 'function first' viewpoint to create a plan to work on client-centered goals addressing daily life limitations and issues.

Case example

The patient is a 77-year-old retired female referred by her gastroenterologist to outpatient occupational therapy for pelvic floor therapy

services with a primary complaint of chronic idiopathic constipation. At the time of her evaluation, she had been utilizing several over the counter supplements to assist with bowel motility; however even when utilizing these supplements, she still never felt as though she was fully emptying her bowels. She reported excessive straining to pass BMs as well as instances of five- to six-day periods without having a single BM. Prior to seeking pelvic floor occupational therapy services, the patient had computed tomography (CT) imaging that revealed significant stool burden throughout her entire colon. The patient's past medical history included multiple laparotomies for bowel obstruction, and three hospital admissions for bowel obstructions that were resolved with surgical intervention. In addition, she had surgeries for a Cesarean section delivery, hysterectomy, and four back surgeries. Lastly, she underwent a right total knee arthroscopy (TKA) in 2022 that has continued to be bothersome, limiting her range of motion in that leg and hip. The PFOT inquired about current medications such as pain meds that can contribute to constipation; the patient denied use of any medication for pain. She reported receiving education on dietary modifications to improve gut motility but these changes have not reduced her chronic constipation.

While the PFOT established the patient's occupational profile, the patient shared that she had been dealing with the issue of chronic constipation for nearly 10 years and it was severely impacting her daily routines, participation in the ADL of sexual activity, and engagement in social activities. She completed the Pelvic Floor Distress Inventory (PFDI-20), a commonly used patient-reported outcome measure that is valid and reliable (de Arruda et al. 2022). The PFDI-20 revealed urinary urgency and frequency symptoms as well as chronic constipation symptoms that disrupted daily occupations. With informed consent, the patient underwent an intra-rectal examination to help the PFOT identify what type of dysfunction was occurring within the pelvic floor. The PFOT noted moderate levels of intra-rectal muscle tension around the EAS and moderate hypertonicity of the puborectalis muscle with impaired strength, endurance, and neuromuscular control of the region. When cued to bear down as though passing a bowel movement, she instead exhibited a dyssynergic bowel reflex in which the muscles contracted in an "up and in" squeezing action, which would inhibit the proper passing of BMs. During this internal examination, the patient was cued to perform rectal closure through the cue "stop the flow of gas"; the PFOT rated the patient's overall pelvic floor strength for posterior pelvic floor muscle activation at 2/5 muscle grade.

Further objective assessments included hip active range of motion (AROM) and lower extremity manual muscle testing (MMT). It was

identified that she had limitations in both hips for internal and external rotation AROM and strength, which are often correlated with pelvic floor dysfunction. Lastly, the PFOT assessed the patient's breathing patterns. Proper breathing techniques are vital to pelvic floor coordination and overall function with daily life activities (Park & Han, 2015). Assessing breathing techniques in patients with pelvic floor dysfunction is vital to their long-term success. Upon evaluation, the patient demonstrated poor lateral rib mobility with her breath; moderate fascial tension in the abdominal region; and limited integration of the diaphragm, core, and pelvic floor. It was also noted that she had moderate abdominal scarring leading to fascial restrictions from previous surgeries that could be further impacting her bowel motility. Following the evaluation, the PFOT guided her in creating occupation-based goals. Her therapeutic goals were to improve bowel regularity and function for improved ADL's and social occupations, (i.e. The patient will score in the mild symptom range on the PFDI-20 allowing her to resume participation in the ADL of sexual activity).

Based on this evaluation, the PFOT recommended skilled occupational therapy services to treat the patient's pelvic floor dysfunction, LE motion restrictions, and impaired breathing patterns which were contributing to her chronic constipation. As part of her intervention plan, the PFOT treated body structures and function using manual therapy techniques, visceral mobilizations, and progressive therapeutic exercise. Neuromuscular re-education and biofeedback allowed the patient to relax her pelvic musculature as well as coordinate the abdominal activation and proper breathing techniques needed to facilitate a bowel movement.

The PFOT recommended the use of a posture modification device such as a stool during defecation. The patient received education about how raising the knees above the hips while seated on the toilet simulates a squatting position. Rectal emptying is facilitated in this squatting position due to relaxation of the puborectalis muscle and straightening of the anorectal angle (Modi et al., 2019). With this adaptation to her toileting, the patient experienced reduced straining reported feeling that she was having a more complete bowel movement. The patient's intervention plan is summarized in Table 1.

Upon discharge, the patient reported her "bowels have been moving great" and she was able to maintain, for the most part, "daily bowel movements even while on vacation cruise for the last 2 weeks." She stated she was "feeling so much better" and was "happy with the huge improvements." Additionally, she reported full compliance with her daily home program which included abdominal diaphragmatic breathing, therapeutic exercises listed above, and use of a stool

under her feet when defecating. She stated her bowel movements have been regular and well formed with a normal sense of urgency when she has been practicing her therapy techniques in combination with taking just one prescription maintenance constipation medication. See Table 2 for discharge outcomes.

Discussion

The patient in this case example exhibited improvements in all measured outcomes. Her decreased score on the Self-reported Pelvic Floor Distress Inventory (PFDI-20) indicated a change from moderately distressing symptoms to mildly distressing symptoms. This was affirmed by her ability to resume occupations such as sexual activity, attending church services, and resuming events and games at her local senior center. At discharge, she felt confident in her ability to maintain gains in hip motion, pelvic floor muscle strength and coordination, and incorporation of abdominal diaphragmatic breathing during both defecation and functional mobility.

OTPs with advanced training in pelvic floor therapy learn evaluation techniques and interventions necessary to treat pelvic floor dysfunction that can lead to chronic constipation. With a focus on function, PFOTs can utilize specialized treatments in conjunction with behavioral interventions to retrain a patient's pelvic floor muscles. With coordination of pelvic floor muscle action and abdominal diaphragmatic breathing, patients can work to resolve obstructed defecation and resume valued occupations hindered by the symptoms felt during constipation without invasive tests and medical interventions.

The above case report not only exemplifies the distinct value of PFOT for treating chronic constipation but also reinforces the need for education of primary care and specialty physicians on the efficacy of conservative therapy for pelvic floor disorders. PFOTs can work to advance awareness of OT interventions to improve pelvic health at the population level. Increased public awareness of conservative interventions for chronic constipation and the role of OT in pelvic health will have a twofold effect. Patients suffering from constipation will be more likely to seek referral for treatment of pelvic floor disorders, and primary care and specialty physicians will increase referrals to PFOT for the care of their patients.

References

Akselrud, R., & Vestal, L. (2021). The role of occupational therapists in pelvic health: An interview with Lindsey Vestal. *SIS Quarterly Practice Connections, 6*(3), 12–14.

American Occupational Therapy Association. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy,*

74(Suppl. 2), 7412410010. https://doi.org/10.5014/ajot.2020.74S2001

American Occupational Therapy Association. (2025). *Women's health*. https://www.aota.org/practice/clinical-topics/womens-health

Avanaki, F. A., Rafiee, S., Varpaei, H. A., Taher, M., Aletaha, N., & Allameh, F. (2023). Biofeedback treatment can improve clinical condition and quality of life in patients with pelvic floor dyssynergy with irritable bowel syndrome: A prospective cohort study. *Middle East Journal of Digestive Diseases*, *15*(1), 45–52. https://doi.org/10.34172/mejdd.2023.319

Blacker, J., Mathias, K., Lee, T., Peek, H., & Podvey, M. (2020). Occupational therapy's role in the treatment of pelvic organ prolapse. *SIS Quarterly Practice Connections, 5*(4), 27–29. https://www.aota.org/publications/sis-quarterly/rehabilitation-disability-sis/rdsis-11-20

de Arruda, G. T., de Andrade, D. F., & Virtuoso, J. F. (2022). Internal structure and classification of pelvic floor dysfunction distress by PFDI-20 total score. *Journal of Patient-Reported Outcomes*, *6*(1). https://doi.org/10.1186/s41687-022-00459-6

Kaplan, J. A., & Simianu, V. V. (2021). Pelvic Floor Nonrelaxation: Approach to Evaluation and Treatment. *Clinics in Colon and Rectal Surgery, 34(1)*, 49–55. https://doi.org/10.1055/s-0040-1714286

Modi, R. M., Pinkhas, D., Hinton, A., Groce, R., Meyer, M. M., Balasubramanian, G., Levine, E., & Stanich, P. P. (2019). Implementation of a Defecation Posture Modification Device: Impact on Bowel Movement Patterns in Healthy Subjects. *Journal of Clinical Gastroenterology, 53(3)*, 216–219. https://doi.org/10.1097/MCG.0000000000001143

Occupational Therapy Association of California. (2024, March). OTAC Position Statement: Pelvic Health. https://www.otaconline.org/application/files/6717/1277/2864/Position_Statement_-_Pelvic_Health_03.2024.pdf

O'Donnell. M. T., & Haviland, S. M. (2024). Functional Constipation and Obstructed Defecation. *Surgical Clinics of North America, 104(3)*, 565–578. https://doi.org/10.1016/j.suc.2023.11.007

Park, H., & Han, D. (2015). The effect of the correlation between the contraction of the pelvic floor muscles and diaphragmatic motion during breathing. *Journal of*

Physical Therapy Science, *27*(7), 2113–2115. https://doi.org/10.1589/jpts.27.2113

Perek, A., & Ergün, S. (2021). Obstructed Defecation Syndrome. *Turkish Journal of Colorectal Disease, 31(2)*, 188–198. https://doi.org/10.4274/tjcd.galenos.2020.2020-12-1

Scott, S. M., Simrén, M., Farmer, A. D., Dinning, P. G., Carrington, E. V., Benninga, M. A., … Corsetti, M. (2021). Chronic constipation in adults: Contemporary perspectives and clinical challenges. 1: Epidemiology, diagnosis, clinical associations, pathophysiology and investigation. *Neurogastroenterology & Motility*, *33*(6), 1–21. https://doi.org/10.1111/nmo.14050

Shah, E. D., Pelletier, E. A., Greeley, C., Sieglinger, E. E., Sanchez, J. D., Northam, K. A., … Chey, W. D. (2023). Utility of anorectal testing to predict outcomes with pelvic floor physical therapy in chronic constipation: Pragmatic trial. *Clinical Gastroenterology and Hepatology, 21,* 1070–1081. https://doi.org/10.1016/j.cgh.2022.05.014

Triadafilopoulos, G., Neshatian, L., & Lee, M. (2024). High Prevalence of Anorectal Dysfunction in Ambulatory Patients with Chronic Constipation, Regardless of Colon Transit Time. *Digestive Diseases and Sciences, 69(1)*, 180–188. https://doi.org/10.1007/s10620-023-08072-3

Kenzi Kuemper, OTD, OTR/L, PCES, is a recent graduate of A.T. Still University's doctorate program. She now is an Occupational Therapist working as a pelvic health specialist in Spokane Washington for Lake City Physical Therapy. She can be reached at kkuemper8@gmail.com.

Tania L. Shearon, DHSc, OTR/L, CHT, C-IAYT, is an Assistant Professor and Director of Curriculum in the Occupational Therapy Department of A.T. Still University, in Mesa AZ. She can be reached at: taniashearon@atsu.edu.

Table 1. Intervention Plan

CPT Code	Intervention
CPT Code: 97110-Therapeutic exercise	- Seated on swiss ball: pelvic circles, lateral pelvic tilts and anterior-posterior pelvic tilts - Quadruped timed transverse abdominis (TRA) engagement with exhale - Cat- cow with TRA engagement upon exhale - Side-lying hip abductions with timed TRA engagement with exhale - Side-lying clamshells with timed TRA engagement with exhale - Side-lying reverse clamshells with timed TRA engagement with exhale - Quadruped hip internal rotation with TheraBand at ankles for resistance
CPT Code: 97530- Therapeutic activities	- Patient education on bowel hygiene, ideal bowel routines, and proper breathing techniques for BM's - Breath control with movement, lifting, and simulated homemaking tasks such as sweeping
CPT Code: 97140-Manual therapy techniques	- Visceral mobilizations; myofascial release through abdominopelvic regions - Psoas muscle release - Cupping to abdominal scar tissues - Releases performed at pyloric, ileocecal, duodenojejunal junction, and rectal valve followed with traditional bowel massage - Internal pelvic floor release using trigger point release techniques along hypertonic mm.
CPT Code: 97112-Neuromuscular re-education	- 360 diaphragmatic breathing - Timed TRA activation with core engagement - Retraining pelvic floor lengthening, down regulation, and core-pelvic floor integration, (use of Power plate vibration, Swiss ball).
CPT Code: 97535- ADL retraining	- Proper defecation techniques including use of a stool to elevate feet and proper postures for defecation including wide knees with a forward lean

Table 2. Discharge Outcomes

	Initial evaluation			Discharge		
Hip Active Range of Motion		Right	Left		Right	Left
	Internal Rotation:	23°	24°	Internal Rotation:	35°	35°
	External rotation:	30°	33°	External rotation:	45°	45°
Manual muscle testing	Hip IR:	4-/5	4-/5	Hip IR:	4+/5	4-/+5
	Hip ER:	4-/5	4-/5	Hip ER:	4-/5	4+/5
Self-reported Pelvic Floor Distress Inventory (PFDI-20) Score Classifications: Mild (1—15 points) Moderate (16—34) Severe (35—40)	23.8- Indicates moderately distressing symptoms for both constipation and urinary urgency and frequency			5.5- Mildly distressing symptoms		
Breathing techniques	Poor lateral rib mobility, moderate diaphragmatic fascial tension, and limited diaphragm, core, and pelvic floor muscle integration			Good lateral rib mobility and good abdominal diaphragmatic breathing		
Pelvic floor rectal assessment	Pelvic floor muscle strength: 2/5 Mm grade			WNL posterior pelvic floor muscle strength		
	Intra-rectal tension at EAS and puborectalis dyssynergic bowel reflex			Normal bowel reflex, proper lengthening		
Palpation	Moderate abdominal fascial and visceral tension, restrictions, and scar tissue adhesions			Mild scar tissue restrictions		