**Occupational Therapy’s Role in Bowel and Bladder Symptom Management in Multiple Sclerosis**

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**Purpose**

Describe occupational therapy (OT) intervention strategies for management of bladder and bowel dysfunction in patients with Multiple Sclerosis (MS), and provide descriptive case studies with clinical outcomes to demonstrate how some of these strategies can be applied clinically.

**Background**

Bladder symptoms are reported by 80% of individuals living with MS, and approximately 50% of the MS population report bowel symptoms.1 Evidence demonstrates a significant correlation between urinary symptoms and longer disease duration, increased physical disability, and reduced quality of life. Bowel dysfunction can lead to decreased quality of life and social isolation. Evidence has shown that early recognition and treatment of bowel and bladder dysfunction may reduce the severity of symptom progression and improve health-related quality of life.2,3,4

Occupational therapists (OTs) address toileting and toiletting hygiene in clinical treatment as a component of a person’s Activities of Daily Living (ADLs). This includes positioning, care for continence needs, completion of instrumental control of urination and bowel movements, and use of equipment/agents for bladder control.1 OT interventions that can be utilized to address this ADL include adaptive equipment training, pelvic floor training, relaxation techniques, bladder retraining, habit and routine management, and positioning.

**Methods**

Outcome measures were collected at time of evaluation and at the last follow-up visit. Clinical measures used were:

- Multiple Sclerosis Quality of Life Inventory (MSQLI): battery of ten scales such as the Modified Fatigue Impact Scale (MFIS), Bladder Control Scale (BCLS), Bowel Control Scale (BCWS), Sexual Satisfaction Scale (SSS), and more.1
- RAND Short Form-36 Health Survey (SF-36): quality of life inventory with nine subscales measuring physical, emotional, and social health.4
- Canadian Occupational Performance Measure (COPM): valid and reliable; patients identify areas of functional difficulties and self-rate their performance and satisfaction with those activities.1

**Case Studies**

**Case Study One**

**BACKGROUND:**

- Pt is a 71 y/o female w/MS, spinal stenosis and depression
- Pt-complains of urinary urgency, frequency, and incontinence, and constipation
- Decreased community participation and social isolation, increased falls risk, and decreased sleep quality

**INTERVENTIONS:**

- Adaptive equipment to manage incontinence
- Eating and hydration routine modifications to reduce intake of irritants and diuretics
- Relaxation techniques to reduce sympathetic activation and risk of incontinence
- Fluid titration to reduce impact on community participation and sleep quality
- Bladder retraining including timed voiding and bladder diary analysis
- Positioning during toileting ADL routines

**POST-INTERVENTION OUTCOMES:**

- Increased self-efficacy with symptom management
- Increased community integration and social participation
- Improved quality of life and emotional well being

**COPM scores range from 1-10, with higher scores indicating better perceived performance or satisfaction. A 2-point change is considered clinically significant.8 Higher scores in the MSQLI subscales indicate more impact or impairment in daily life.9 RAND SF-36 subscales range 0-100, with higher scores indicating better quality of life in that area.4**

**Case Study Two**

**BACKGROUND:**

- Pt is a 65 y/o female w/MS and osteoarthritis
- Pt-complains of urinary incontinence, urgency, frequency, and hesitancy, and fecal incontinence
- Disruption of work and related task completion, decreased physical activity engagement, and reduced sleep quality

**INTERVENTIONS:**

- Fluid titration to reduce impact on work routines and task completion
- Bladder retraining including timed voiding and bladder diary analysis
- Pelvic floor training – contraction and relaxation
- Relaxation techniques to reduce sympathetic activation and risk of incontinence
- Eating and hydration routine modifications to reduce intake of irritants and diuretics, and increase fiber intake

**POST-INTERVENTION OUTCOMES:**

- Improved symptom management
- Decreased frequency of work disruption and improved work output
- Improved participation in physical activity
- Improved emotional well being

**Results**

This case study highlights the methodology and strategies OTs can utilize to address toileting ADL function with individuals living with MS who experience bowel or bladder symptoms, and demonstrates the benefits of OT intervention in managing neuromotor pelvic floor dysfunction, as well as emotional and cognitive aspects of bowel and bladder management.

The case study outcomes demonstrate improvements in bladder control (BCLS) and bowel control (BCWS). In addition, other quality of life and functional areas that may impact bowel and bladder management showed improvements, including fatigue (MFIS), emotional well-being, social function, and overall performance and satisfaction in COPM scores.

The patient in Case Study 2 shows a decrease in bowel/bladder management self-ratings before and after intervention. However, the patient reported upon discharge that her lack of awareness of all possible techniques and strategies for managing her bowel and bladder symptoms was why she rated herself so highly pre-treatment, and her continued efforts to implement these strategies were the cause for her significantly lower self-scoring post-intervention.

These case studies add to a growing body of evidence that suggests OT interventions can make a significant difference in function and quality of life for people living with MS, including those who present with bowel and bladder symptoms.

**References**