

The impact of Lymphedema on occupational performance, an opportunity for
Occupational Therapy

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Presentation at 2013 Canadian Association of Occupational therapy conference

Introduction: Lymphedema is a chronic medical condition caused by an abnormal accumulation of protein-rich lymphatic fluid in the body that may result in a progressive edema, along with physical, psychosocial, and occupational performance complaints. Lymphedema clients need to integrate self-management into their daily living activities to promote effective long-term chronic disease management.

Objectives: To provide evidence-based information on appropriate evaluation, treatment, and the efficacy of client long-term Lymphedema self-management on functional performance outcomes.

Approach: Occupational therapy involvement with this population will be supported by evidence-based research review and a retrospective review of clinical practice outcomes.

Practice implications: The shortage of treatment services combined with a growing body of clinical and evidence-based research supports an important role for occupational therapy. Occupational therapists unique skills in addressing occupational performance concerns can offer a vital contribution to provide long-term solutions for these clients.

Conclusions: Occupational therapy services are indicated for Lymphedema clients to successfully incorporate self-management strategies into occupational performance, to promote health and occupational performance while adapting to living with a chronic condition.

Introduction:

Lymphedema is a chronic medical condition that requires clients to integrate self-management strategies into their daily living over a lifespan.

Self-management includes client's ability to:

- Routinely self-bandage their affected limb;
- Ability to don and doff graduated compression garments consistently and independently;
- Care and replace graduated compression garments;
- Meticulous skin, nail and wound care;
- Integrate Lymphedema risk reduction strategies into their daily living activities;
- Integrate recommended activity or task modification to accommodate or adapt to current functional limitations.

Clients who effectively integrate self-management strategies between clinical visits may help expedite the rehabilitative process, improve clinical outcomes, and reduce the frequency and duration of intensive treatment.

Impact on Occupational performance:

- Impact on basic self-care performance including dressing;
- Extended daily self-care periods to complete Lymphedema management impacting daily living;
- Modified homemaking performance to reduce risk of flare-up;
- Reduced social interaction, leisure pursuits;
- Decreased work durability

Occupational Therapists through careful consideration of individual occupational performance can identify and address barriers to facilitate effective client-centered self-management of this chronic condition.

(Ref: Vignes, Porcher, Arrault, & Dupuy (2007). McWayne and Heiney, (2005); Radina and Armer (2001); Ridner (2009); Mayoritz (2009); Shier (2012)).

Objectives:

Complete Decongestive Therapy training is a widely accepted treatment program that will provide an occupational therapist the opportunity to acquire condition-specific assessment and treatment skills.

Assessment to include:

- Impact of physical (incl: mobility, dexterity, endurance) on functional performance including self-management and impact on daily living activities;
- Impact of pain or discomfort on individual occupational performance;
- Psycho-social impact on performance considering impact of signs and symptoms of: depression, anxiety, anger, and body image on functional performance;
- Social supports, roles, and responsibilities within family unit, relationships and community;
- Vocational demands: return to work planning and physical job demands.

Treatment to include:

- Addressing barriers to successful Lymphedema self-management through introducing adaptive strategies, biomechanical education, and incorporating adaptive equipment including use of donning and doffing aids;
- Address client's barriers to occupational performance including homemaking modification, adaptive equipment as indicated;
- Assess need for caregiver assistance as required;
- Care coordination as required including interdisciplinary treatment;
- Pain management techniques: ergonomic review, pacing, energy conservation, relaxation strategies;
- Education;
- Job site assessment, ergonomic review and recommendations, gradual return to work planning and follow-up;
- Complete Decongestive Therapy when appropriately trained including garment recommendations

The skills of an OT to successfully address functional limits may be the difference between the clients succeeding in managing their Lymphedema independently, versus having to rely on daily caregiver assistance.

Ref: (Balzarini, A. et al. (2006); Crane (2009); Helms, Kuhn, Moser, Rimmel, and Kreienberg (2009); Armer, Radina, Porock, and Culbertson (2003); McWayne and Heiney (2005); Woods, Tobin and Mortimer (1995); Soran et al. (2006); Radina and Armer (2001); (The Diagnosis and Treatment of Peripheral Lymphedema, 2009).

Approach:

A purposive, retrospective file review was conducted of clients referred to an Occupational Therapist at a Calgary, Alberta outpatient rehabilitation clinic in 2008.

All clients were referred by an Oncologist with a diagnosis of breast cancer related secondary Lymphedema.

Data Collection and Analysis:

Data was collected from a file review of Occupational Therapy assessment documentation including: physical limitations, infection history, pain complaints, psychosocial complaints, and deficits in occupational performance including demonstrated performance of self-care, vocational and leisure activities, as indicated.

Treatment intervention was summarized in 4 general themes:

- Lymphedema education materials provided;
- Graduated compression garment recommendations;
- Complete decongestive therapy treatment with follow-up volume measurements;
- Interventions to address deficits in occupational performance.

In 2008, the Occupational Therapist completed 117 client assessments referred with breast cancer related secondary Lymphedema. Table 1 summarizes assessment findings.

Table 1: Assessment findings

Issue identified	Number of clients	Description
Physical limitations/Mobility concerns	44 (37%)	Clients demonstrated with soft tissue/mobility concerns including: decreased fine motor coordination, decreased shoulder active range of motion, lymphatic cording
Infection	8 (7%)	Client subjectively report recent physician diagnosis of infection with subsequent flare up of Lymphedema symptoms.
Pain complaints	73 (62%)	Client subjective complaints including “heaviness,” “fullness,” “achiness”, in their affected limb with functional use or arm, resulting in client restricting or avoiding specific daily living activities
Psychosocial complaints	54 (46%)	Clients reported psychosocial and/or emotional concerns. Common reported symptoms include: “sadness”, “frustration”, “anxiety”, and “anger”
Deficits in occupational performance	70 (60%)	Occupational performance issues identified in at least one area: self-care, productivity, leisure.

Practice implications:

Clients reported a variety of occupational performance issues:

- Self-care: basic self-care issues including dressing and bathing activities. One commonly cited complaint was difficulty fitting clothes due to volume change of their affected limb;
- Return to work concerns included: decreased workplace durability, an increase in Lymphedema-related pain symptoms including “heaviness” and “achiness” with completing workplace activities, and perceived volume increases in their limb while completing work related activities;
- Leisure: Lymphedema flare-up with a return to active leisure pursuits, such as: returning to gym workouts, golfing, playing with children/grandchildren, knitting, crochet, or computer activities.

Summary of treatment interventions and outcomes is enclosed table 2.

Table 2: Treatment provided and outcomes

Intervention	Number of clients	Description/summary
Lymphedema education materials provided	117 (100%)	Written and/or verbal information and instruction on Lymphedema diagnosis, treatment, and risk reduction provided.
Compression garment recommendations	110 (94%)	Occupational therapist provided detailed recommendation to client and physician.
Complete decongestive therapy treatment with volume measurement outcomes available	35 (30%)	Clients seen for mean of 7.2 visits, resulting in measured mean volume reduction of 53.8% (median 47%).
Occupational performance deficits addressed	70 (100%)	Client provided education, instruction to address functional performance issues including incorporating adaptive equipment as indicated.

Discussion:

Lymphedema is a chronic, incurable medical condition which will typically progress over time if unmanaged. Lymphedema may have a significant impact on an individual's physical, psycho-social and functional status.

Occupational Therapy treatment outcomes in volume reduction from Complete Decongestive Therapy compare favorably to published outcomes.

Occupational Therapy assessment results identified functional performance issues in 70/117, or 60% of referrals. The incidence of functional performance issues identified during assessment suggests occupational therapists have a crucial role to play as part of the healthcare team.

Conclusions:

Lymphedema management will require a chronic disease care management approach (Shier, 2012). Our client's ability to integrate self-management strategies while returning to their daily living activities is crucial to minimizing the progression and secondary complications of Lymphedema, while optimizing our client's function and quality of life.

Occupational Therapists should be an integral part of interdisciplinary healthcare professionals aligned to support a chronic disease management for Lymphedema clients across Canada.

Ref: (Dicken, Ko, Lerner, Klose, & Cosimi, (1998); Yamamoto and Yamamoto, (2007); Shier, (2012).

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