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Clinical Practice Skills and Educational Resources for Managing Lymphedema

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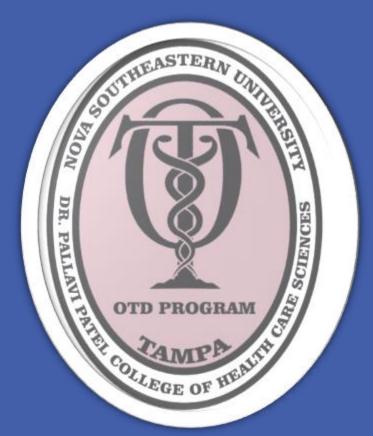
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Clinical Practice Skills and Educational Resources for Managing Lymphedema

Introduction

Lymphedema is characterized by the buildup of protein-rich fluid in the interstitium, which causes edema, chronic inflammation, reactive fibrosis, and adipose growth in the affected body areas (Keith et al., 2023). Self-management is an essential part of everyday practice for chronic lymphedema difficulties. Occupational therapists can address unique client needs by concentrating on the functional effects of lymphedema on occupational performance and engagement (Baxter et al., 2017). Rubio (2021) suggested that clinicians trained in lymphedema therapy would benefit from opportunities to acquire the skills and resources to adequately educate patients in selfmanagement practices.

Figure 1. Treating Lymphedema / John Hopkins Medicine.



Note: Adapted from, "lymphedema hand bandaging" by John Hopkins Medicine, 2023, retrieved from https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/treatinglymphedem

Site Description

HCA Pasadena Hospital Outpatient Clinic in St. Petersburg, Florida.

- Adults ranging in age from 21 to 92
- OT mentor is a lymphedema therapist primarily treating individuals with chronic venous insufficient, cancer per/post radiation, and secondary lymphedema.

Figure 2. HCA Florida Pasadena Hospital.



Note. Adapted from "HCA Pasadena Hospital Outpatient Entrance" by HCA Florida Healthcare, 2023, retrieved from https://www.hcafloridahealthcare.com/locations/pasadena-hospital

Summary of Needs Assessment

Needs identified from the current literature review and by the certified lymphedema therapist at HCA:

- □ Awareness in the healthcare field of a suitable and timely diagnosis of lymphedema.
- Early treatment aids in decreasing the complication of lymphedema.
- □ The medical staff can provide lymphedema patients with more comprehensive care if they have a better awareness of the nature of the disease and the various treatment choices.
- Resources of preventative care and maintenance for patients pertaining to lymphedema.
- Development of self-management and exercise programs that patients can easily follow and perform in the home.

Lacinda Grimes-Williams, OTD-S Dr. Kaye Rubio, Ph.D., MHS, OTRL, CLT-LANA & Palms of Pasadena Hospital, HCA

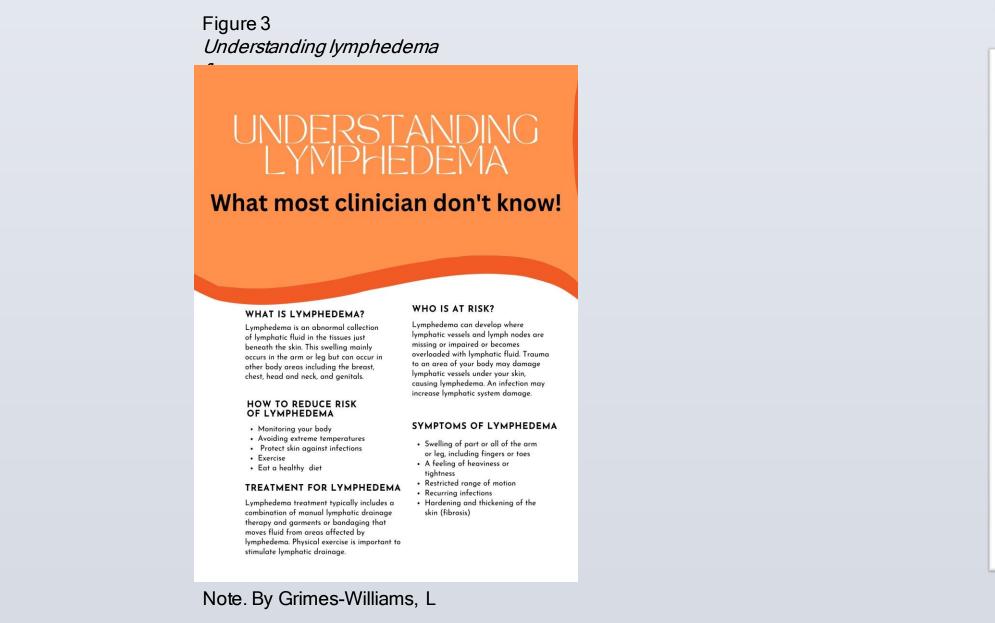
Literature Review Summary

Common Causes of Lymphedema: Breast cancer is the most frequent cause of lymphedema in the upper extremities in the USA, and chronic venous insufficient is the main risk factor for developing lymphedema in the lower extremities (Bjork & Hettrick, 2019). Lymphedema can also be caused by acute injury to lymphatic tissues, such as surgery, radiation treatments, or infection (Keith et al., 2023).

Importance of Recognizing Lymphedema: Treatment for symptoms of lymphedema should continue for the rest of one's life in order to manage the condition and avoid consequences (Keeley, 2021).

Lack of Knowledge of Lymphedema: The condition frequently goes undiagnosed until a patient develops significant health risks (Chang et al., 2021).

Treatment of Lymphedema: Educating patients on manual lymph drainage, compression bandaging, self-care, and exercises are essential because they allow the patient to have control over their care, as well as educating patients on the disease's progression, lifestyle changes, and techniques for improving activities of daily living (Lentz et al., 2021).

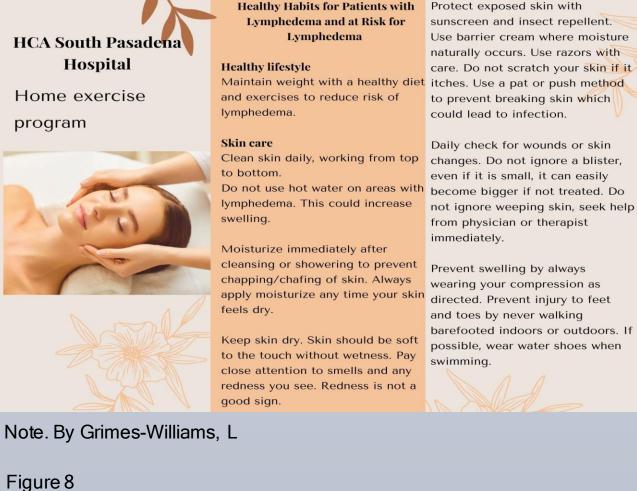


Capstone Project Description

- This project aimed to provide individuals with lymphedema and practitioners with relevant resources that would support self-management, improve quality of life, and the ability to manage lymphedema successfully.
- As a component of my capstone experience, I created an educational resource binder containing self-care strategies and techniques, home exercise programs, health and nutrition, known risk factors and causes, manual lymphatic drainage massage techniques, scar massage techniques, compression strategies, and information about the distinct types of lymphedemas.
- As a part of my 16-week capstone experience, I performed various assessments and provided Complete Decongestive Therapy. I had the opportunity to treat clients diagnosed with lipedema, lymphedema, chronic venous insufficiency, arterial insufficiency, clients who had a lumpectomy, sustained an injury or surgery induced edema, and multifactorial lymphedema.

Figure 5

Phase 2- maintenance and exercise program for UE lymphedema (Pg 1)



Phase 2- maintenance and exercise program for UE lymphedema (Pg 4)

Wrist circles Clasp hands together in front of Begin with the unaffected arm. Rotate fist in small circles, your chest, raise bent arms parallel to the ground, and push isolating movement to wrist only. breasts. Place your hands behind palms together. Hold 5 seconds Do the same with the affected and release. Repeat 5 times. arm.

Wrist rotations

Place palms together, then push Clasp your hands with fingers interlocked in front of your chest. highest position for one minute your arms. Separate your hands, Rotate wrists in a circular motion bring elbows back. Repeat as if Reverse direction. Finger dexterity 1

With hands in a prayer position, push matching fingers from side side, slowly pinch your shoulder to side 5 times. Move to the next blades together, back and down. pair until all five pairs are worked the same with the affected arm. Finger dexterity 2 With hands in a prayer position, neck and be sure not to bend

separate matching pairs of fingers your neck forward too much. away from each other. Move to Stretch your elbows out to the Rotate arm in large circles. Do the next pair until all five pairs are side and back in toward your the same with the affected arm. worked.

Back climbs Perform this one arm at a time if you have had surgery on both your back and grasp the hand on your affected side with your other hand. Slowly slide your hands up to the center of your back as far as possible and hold at the With your back against the wall position yourself with good

posture. Placing your arms at your Hands behind neck Place both hands behind your

Medical check-ups Avoid possible triggers Get screened for lymphedema and Wear gloves while doing activities supinc discuss risk factors with CLT. that may cause skin injury (eg, Asked if a compression garment is washing, gardening, using recommended for air travel or chemicals like detergent). Avoid raise arm out to the side as activities. If compression garment limb constriction. Avoid exposure tolerated. Hold for three seconds is recommended, get properly to extreme cold, which can cause then, return to the starting fitted. Be sure to understand wear, swelling or chapping of skin. Avoid position. Repeat 10 times. care, and replacement guidelines. prolong exposure to heat longer Schedule a follow-up appointment than 15 minutes. Avoid prolonged Shoulder abduction walk-supine with CLT based on your needs. standing or sitting by moving and Laying on your back on the floor Report changes of your at risk changing position throughout the or a bed, use your fingers to crawl body parts to CLT. shoes and hosiery. Infection education Signs of infection: rash, fever, Home Exercises for Patient at Risk to your side. Repeat 5 times. for Lymphedema pain, itching, redness, increased skin temperature, increased swelling, or flu like symptoms. If Shoulder flexion AAROM - supine- down-standing any of these signs occur, seek cane care from a health professional Laying on your back end holding a palm down on both sides. Raise immediately. If skin is scratched wand or cane, slowly raise the or punctured wash with soap and cane towards overhead and hold 🦯 unaffected arm to provide most of water, apply topical antibiotics for 10 seconds. Use your

Keep a first aid kit when traveling. movement. Repeat 5 times. Note. By Grimes-Williams, I

Figure 9

Swelling

Forward wall walks Stand facing the wall and slowly throughout the day for 15 minutes Place your hand flat on either side walk your fingers forward up the _____at a time. If swelling persists after _____of your neck below the ear. Gentle wall as high as tolerated. You may four weeks inform your physician. stretch the skin backward away use your unaffected arm to assist the other up the wall. Try not to Self-massage look at your hands or arch your Avoid massage if you have an back.

Side wall walks up the wall as far as tolerated. fingers relaxed. Self-massage for Lymphedema and Scar Management

Following surgery, some swelling of your neck just above your or puffiness in the arm or hand is collarbone. Massage this area in a skin down your chest toward your normal. Elevate the arm and hand "J" stroke facing your neck. with pillows above heart level for twenty minutes every three hours. Under arm massage With arm and hand elevated Place your palm against your perform pumping motion 10 times under arm and gently pull up and with fist to drain the fluid. towards your chest, then release

Note. By Grimes-Williams, L

active infection or are being treated for an infection in the head or neck. When beginning your neck just below the hairline Stand with your unaffected side self-massage make sure you are in on the side of your spine. Stretc facing the wall, about a foot away a comfortable position. Use light the skin toward your spine then from the wall. Walk your fingers pressure and keep your hand and down towards the base of you Preparing the lymph nodes Using the flat parts of your 2nd Collarbone massage and 3rd fingers, begin on one side Place your hand on your

Note. By Grimes-Williams, I

Isometric chest press

your hands forward, extending

Begin with the unaffected arm.

parallel to the ground. Rotate

palms outward, then inward. Do

Begin with the unaffected arm.

Raise your hands in front,

Breast stroke

swimming.

Turning arm

Arm circles

Figure 4 *6 ways to help manage lymphedema flyer*

6 WAYS TO HELP MANAGE LYMPHEDEMA			
1 Regular skin cleansing and moisturizing			
2 Manual massage			
Compression garments			
4 Exercise			
5 Elevating the affected limb			
6 Maintaining a healthy weight			

Note. By Grimes-Williams, L

Phase 2- maintenance and exercise program for UE lymphedema (Pg 3)

Shoulder abduction and adduction Laying on your back with knees bent and arm resting on the side

day. Wear appropriately fitted your hands away from your body. Go as high as you can, hold for 10 seconds then crawl the hand back Shoulder flexion AAROM-palms While holding a wand or cane the cane up allowing your

the effort. Your affected arm and observe for signs of infection. unaffected arm to assist with the should be partially relaxed. Hold for 3 seconds. Repeat 10 times.

Phase 2- maintenance and exercise program for UE lymphedema (Pg 5) Ice can be used to reduce swelling Neck massage (sides) from your face and release. Repeat 10-15 times with gentle pressure. Neck massage (back) Place your hands on the back of neck and release. Repeat 10-15

> collarbone and gently stretch the underarm and release. Repeat 10-15

Phase 2- maintenance and exercise program for UE lymphedema (Pg 3)

Shoulder abduction-standing-cane Breast Surgery Best Practices and The correct posture is to plant While holding a wand or cane, palm face up on the affected side Exercise can help increase energy straighten spine and draw and palm face down on the and alertness. As well as minimize shoulders back. unaffected side, slowly raise up effects of many drugs, fatigue, and your affected arm to the side, nausea. Expect to have some pain **Shoulder roll** hold for 3 seconds then lower or discomfort after surgery. Ask In a circular motion, bring your back down. Repeat 10 times. the therapist for modification shoulder up towards ears, then Wipe the wall Place your affected hand on the pounds for 3-4 weeks post-surgery wall with the palm facing the wall or depending on your physician's **Head turns** pressing against a towel/rag. recommendation. Slide your hand up the wall towards overhead while walking Arm and shoulder exercises towards the wall. Slide your hand Complete exercises as tolerated back down the wall to the starting as fatigue is normal after surgery. Neck stretches position. Repeat 10 times.

Note. By Grimes-Williams, L

Figure 10

Scar Massage

Many individuals feel

soften the tissue.

after surgery.

should be no open wound or

sensitive at first. This is normal

gently move the skin in all

Repeat as tolerated. Do not

squeeze your incisions.

directions (up and down, circle

and move them 1-2 inches over

side-to-side). Pick up your fingers

Note. By Grimes-Williams, I

Home Exercises avoid heavy lifting of more than 10 in continuous circular motion.

Perform one to two times per day. Slowly bring your chin towards Two sets of 10 repetitions each. Incorporate breathing with each of these exercises. Breathe in slowly through your nose and out Shoulder wings through your mouth. If you had a Place your hands up toward your do not lift your arm past shoulder out to the side and back down. level while drains are in.

Phase 2- maintenance and exercise program for UE lymphedema (Pg 6)

uncomfortable touching their skin Start this technique laying down

important to move the skin over by changing positions sitting up

in the area of their scar. It is on your back and later progress

the area and desensitizing it. This or standing. Complete for 5-10

helps improve the circulation and minutes, three to four times per

Do not start massage until the yourself comfortably. Place one

incision has fully healed. There hand on your upper chest and one

scabbed areas. The area of the slowly through your nose and out

To perform massage, place two or moving your abdomen in and out

three fingers over the scar and with each breath. Try to hold

scar may be numb or extra through your mouth. As you

Breathing

day. Use pillows to help position

inhale, work to keep your upper

chest from moving and focus on

each breath for 3-4 seconds

on your abdomen. Breathe in

feet firmly on the ground,

where necessary. Best practice to back down, forward and backward

Slowly turn your head from center to left, back to center, and center to right and back

vour chest, raise your head, and look towards the ceiling.

mastectomy with reconstruction, chest and slowly raise your elbows

I would like to acknowledge Dr. Kaye Rubio for the mentorship and expertise throughout this capstone experience. I would also like to give gratitude to the outpatient rehab staff and the patients for allowing me to work with them.

1. Independently developed an educational resource binder to increase the client's ability to manage lymphedema during phase 1 and phase 2 of complete decongestive therapy.

2. Developed clinical practice skills specific to lymphedema assessments and interventions to independently perform evaluations and treatments in the outpatient rehab clinic.

3. Professional development through completing online coursework and attending hands on skills lab focusing on Complete Decongestive Therapy.

Figure 11 Lymphedema exercises for the arm

• Occupational therapists have an opportunity to assist clients in overcoming challenges as research reveals individuals with lymphedema frequently experience occupational performance limitations.

management techniques, and ways to boost their overall participation in ADLs and IADLs using occupational therapy services, which in turn improve their quality of life.

• Continued client education about their diagnosis, symptom • Occupational therapists continued use of educational resources is essential to aid in reducing complications from lymphedema

Figure 12 HCA Trademark Florida Tampa Bay Regional Campus

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Learning Objectives Achieved

	When he had a start of the star	
d close your hand	Move your wrist forward and back	Bend and straighten your elbow
G		
shoulders in a backward direction	Lift your hand up toward the ceiling and gently lower back down	Raise arms from your side up above your head and gently lower back down

Note. Lymphedema exercises for the arm, n.d., retrieved from https://s-media-cacheak0.pinimg.com/736x/c4/6f/1b/c46f1bbbff92d0b69fec8c081d2feece.jpg

Implications for OT Practice

REFERENCES & ACKNOWLEDGMENTS