Occupational Therapy Practice Guidelines for Cancer Rehabilitation with Adults

Brent Braveman, OTR/L, PhD
Jennifer Nicholson, OTR, MOT
Elizabeth Hunter, PhD, OTR/L

Objectives

1. Identify and apply evidence-based occupational therapy interventions with clients to enhance occupational performance support participation.

2. Describe the occupational therapy process for adult cancer rehabilitation.

3. Describe the implications of evidence supporting occupational therapy practice for adult cancer rehabilitation and identify potential directions for practice, education, and research.
Practice Guideline Team

- **AOTA:** Marian Arbesman, PhD, OTR/L and Deborah Lieberman, MHSA, OTR/L, FAOTA

- **Systematic Review:** Mariana D'Amico, EdD, OTR/L, FAOTA, Nova Southeastern University, Robert Gibson, PhD, MOTR/L, FAOTA, Medical College of Georgia, and Devera W. Kastner, MSLS, Medical Librarian, Alumni Library, Case Western Reserve

- **Clinical Consultants:** Claudine Campbell, MOT, OTR/L, CLT-Memorial Sloan Kettering Cancer Center and Lauro Munoz, OTR, MOT, CHC- MD Anderson Cancer Center, Jennifer Nicholson, OTR, MOT, Courtland Lee, OTR, MOT

Background

- As survival improves and cancer becomes a chronic condition in many patients, measures to maximize the level of function and, thereby, the quality of life, of cancer patients become increasingly relevant.

- Cancer can cause impairments, activity limitations and participation restrictions (Fialka-Moser, et al., 2003; Hewitt, et al., 2003).

- Many cancer survivors report declines in their physical functioning, including basic body mobility and engagement in work and leisure activities (Kroenke et al., 2004; Nomori, Watanabe, Ohtsuka, Maruke & Suemasu, 2004).
Background

- Functional status is lowest immediately after treatment and tends to improve over time; however the presence of pain and co-occurring diseases may negatively affect this projected improvement (Ko, Maggard & Livingston, 2003).

- To better understand where we stand with cancer rehabilitation, this review was designed to explore the research focused on cancer rehabilitation from an OT’s perspective.

Step One in Development of Practice Guidelines- Systematic Review

- Goal: Evidence based practice to support the best clinical care possible

- Basis for AOTA practice guideline development

- Over view of state of the field- what do we know, what don’t we know

- Key word “systematic”
  - Not a literature review
  - Not a gap analysis
Overview of the Systematic Review Process

- Framing the question
- Identifying relevant research publications
- Review of results and Assessing study quality
- Summarizing the evidence
- Interpreting the findings: a research perspective
- Interpreting the findings: a clinical perspective

The Question

“What is the effectiveness of cancer rehabilitation interventions (within the scope of occupational therapy practice) addressing the activity and participation needs of adult cancer survivors in: ADL, IADL, work, leisure, social participation, and rest/sleep?”
Identifying Relevant Publications

- Generate search terms (diagnosis, interventions, outcomes, adverse effects, study design)
- Decide on inclusion/exclusion criteria
- Conduct the search
- Inclusion criteria:
  - Intervention research
  - Adults with cancer, English language, 1995 through June 2014
  - Level I, II, III evidence

Levels of Evidence

- **Level I** – Systematic reviews, meta-analyses, randomized controlled trials
- **Level II** – Two group, non randomized studies (e.g. cohort, case-control)
- **Level III** – One group, non-randomized (e.g., before-after, pretest and posttest)
- **Level IV** – Single subject design, case series
- **Level V** – Case reports, expert opinion, including narrative literature reviews and consensus statement

Final Synthesis

138 articles were included in the final synthesis/summary
- Level I studies: 129
- Level II studies: 4
- Level III studies: 4
Main Themes

- Multidisciplinary Rehabilitation- 18 articles
- Exercise- 25 articles
- Complementary Health Approaches and Integrative Health (CHAIH)- 26 articles
- Psychosocial- 29 articles
- Symptom Management (fatigue, pain, breathlessness)- 19 articles
- Lymphedema- 12 articles
- Physical Agent Modalities (PAM)- 4 articles
- Work- 3 articles
- Sexuality- 2 articles

Multidisciplinary Rehabilitation- 18 articles

- Level I (14), Level II (2), Level III (1)

- **Strong evidence** Rehab is beneficial (increased SF-36).
  - Single domain or outcome focus appeared more successful than programs with multiple aims.
  - Don’t need to focus on specific types of cancer.
  - Face to face is best way to conduct rehab with one follow up phone call.

- **Moderate evidence** Rehab can be beneficial pre and post treatment in many cases.

- **No evidence** showing services were more effective if they were delivered by a particular type of health professional.

- OT was the specific focus in two of these studies.
Intervention Example-Multidisciplinary Rehabilitation

- (Cherrier, et al., 2013)- seven week cognitive rehabilitation intervention delivered in group format. - seven workshop sessions lasting 1 hour and delivered over seven consecutive weeks.

- Content of the workshops included memory aids (e.g. calendar, reminders, note taking, study aids) as well as development of memory skills (e.g. habit formation, method of loci, chunking, learning names) and one session on mindfulness meditation.

- Participants were also given assignments to work on the outside of the group sessions (i.e. homework)
  - treatment group demonstrated improvements in symptoms of perceived cognitive impairments (p = .01), cognitive abilities (p = .01), attention (p = .05), and overall quality of life with regard to cognitive symptoms (p = .01) as measured by the FACT-Cog.

Exercise- 25 articles

- Level I (25)
- Strong evidence related to exercise is that it reduces cancer related fatigue (CRF). Particularly aerobic exercise.
- Strong evidence that exercise can increase muscle tone/strength and lung capacity.
- Moderate evidence that it helps HRQOL for some survivors and that it can increase sexual activity.
- Moderate evidence that counseling and telephone support can be helpful to keep people exercising.
- Moderate evidence that supervised exercise was better than non-supervised
- Limited evidence related to dose and if CBT combined with exercise is beneficial.
Intervention Example- Exercise

(Basen-Engquist, et al., 2006)- 6-month, 21, 90 minute group session to increase breast cancer survivors’ physical activity by teaching them to incorporate short periods of moderate activity into their daily routines (lifestyle intervention).

– The intervention sessions emphasized information and skills such as benefits of physical activity, making small changes, overcoming barriers, goal-setting, rewarding yourself, and self-monitoring. Several methods of self-monitoring were used, including recording minutes of activity and recording steps using a pedometer.

– Despite the small sample size (n=30 each arm), the lifestyle intervention showed promise for improving physical functioning and quality of life and increasing physical activity, and should be tested in a larger randomized trial.

Complementary Health Approaches and Integrative Health (CHAIH)- 26 articles

• Level I (26)

• Moderate evidence for Yoga, Qigong, Meditation and Mindfulness being used for symptom management of Pain, Anxiety, Depression, and for increasing Quality of Life

• Limited evidence for most CHAIM interventions (i.e. Art, Music, Dance/Movement, Creative Arts, Expressive writing, Tai Chi, Guided Imagery).
Intervention Example- CHAIH

(Piet, et al., 2012)- systematic review of the current evidence for the effect of mindfulness based therapy (MBT) on symptoms of anxiety and depression in adult cancer patients and survivors.

– 22 independent studies with a total of 1,403 participants were included in the review. Mindfulness Based Therapy (MBT) was associated with significantly reduced symptoms of anxiety and depression from pre- to post-treatment. The pooled controlled effect sizes of RCTs for anxiety symptoms and for symptoms of depression appeared robust.

Psychosocial- 29 articles

• Level I (27), Level II (2)
• Strong evidence that psycho social strategies have a strong effect on reducing anxiety and short term effects on reducing depression

• Moderate evidence:
  – Psychosocial interventions increase QOL for people with advanced stage cancer.
  – Mindfulness based therapy decreases anxiety and depression.
  – Group stress management can increase psychosocial adjustment among breast cancer survivors.
  – Self management training was beneficial using both group and individual approaches to improve QOL.
  – Cognitive behavioral therapy decreased symptom limitations for those undergoing chemotherapy and those with advanced stage cancer.
Intervention Example- Psychosocial

(Guo, et al., 2013)- 178 cancer patients receiving radiation- Patients in the intervention group received psychosocial care during RT, whereas the control group received RT only.

- Intervention included developing a supportive relationship with the patient, helping them understand radiation therapy, help them problem solve any issues that emerged during treatment, and encourage patient to take part in enjoyable activities.

- the intervention arm showed significant improvements on symptoms of depression (p<0.05) and anxiety (p<0.05), health-related QOL (p<0.05) (i.e. better global health status, and physical and emotional functioning, and less insomnia) when compared with controls.

Symptom Management- 19 articles

- Level I (17), Level II (1), Level IV (1 OT specific intervention pain management)
- Focus: cancer related fatigue (CRF), pain, breathlessness

- There is strong support for exercise to reduce CRF and increase QOL.

- Strong support for non-pharmacological interventions for breathlessness.

- Moderate support for
  - sleep therapy/modification
  - behavioral modification or psychoeducational programing for CRF
  - education and problem solving for pain management
  - CBT for CRF management.
Intervention Example- Symptom Management

(Gielissen et al., 2006)-randomized controlled trial was to show the effectiveness of cognitive behavior therapy (CBT) especially designed for fatigue in cancer survivors.

- CBT was focused on six factors (six modules) of post-cancer fatigue: coping with the experience of cancer, fear of disease recurrence, dysfunctional cognitions concerning fatigue, dysregulation of sleep, dysregulation of activity, and low social support and negative social interactions.

- The number of sessions was determined by the number of modules used and whether the goal of the therapy was reached. Therapy sessions varied between five and 26 sessions (mean, 12.5 sessions) with a duration of 1 hour during a 6-month period.

- Cognitive behavior therapy has a clinically relevant effect in reducing fatigue and functional impairments in cancer survivors.

Lymphedema- 12 articles

- Level I (11), Level III (1)
- Limited inclusion depending on outcomes

- The studies that were reviewed showed strong support for the use of compression garments

- Strong support for the use of exercise.

- There is limited support for manual lymph drainage

- No support for relying on self-care alone
Intervention Examples- Lymphedema

(Chan, et al., 2010)- systematic review of the effectiveness of exercise programs on shoulder mobility and lymphedema in postoperative patients with breast cancer having axillary lymph node dissection

– Six studies were included in the review. Early rather than delayed onset of training did not affect the incidence of postoperative lymphedema, but early introduction of exercises was valuable in avoiding deterioration in range of shoulder motion

(Preston, et al., 2004)- Systematic review physical treatment programs on Lymphedema

– Three studies involving 150 randomized patients were included. A crossover study of manual lymph drainage (MLD) followed by self-administered massage versus no treatment, concluded that improvements seen in both groups were attributable to the use of compression sleeves and that MLD provided no extra benefit at any point during the trial. The authors concluded that wearing a compression sleeve is beneficial.

Physical Agent Modalities- 4 articles

• Level I (4)

• There was strong evidence supporting using PAM in swallowing training

• There was moderate evidence of pain reduction.

• There was limited evidence related to the usage of PAM to reduce lymphedema swelling
Intervention Example- PAM

(Ryu, et al., 2009)-**Intervention:** 30min of neuromuscular electrical stimulation (NMES) and 30min of traditional swallowing training for 5 days per week for 2 weeks (n=14). **Control:** (N=12) sham stimulation plus traditional swallowing training (control group)

– NMES combined with traditional swallowing training is superior to traditional swallowing training alone in patients suffering from dysphagia following treatment for head and neck cancer.

Return to Work- 3 articles

• Level I (2), Level III (1)

• **Strong evidence** that multidisciplinary interventions benefit the return to work experience of cancer survivors

• **Moderate evidence** that rehabilitation interventions can help survivors continue to work during and after cancer treatment.
Intervention Examples- Return to Work

(de Boer, et al., 2011)-Systematic review of interventions geared toward RTW for cancer patients.

- Fourteen RCT. These studies involved a total of 1652 participants. Moderate quality evidence showed that employed patients with cancer experience return-to-work benefits from multidisciplinary interventions compared to care as usual.

(Thijs, et al., 2012)-18-weeks rehabilitation program including strength and interval training, and home-based activities vs standard care.

- Patients in the intervention group showed significantly less reduction in working hours per week. No significant difference in time until return-to-work

Sexuality- 2 articles

- Level I (2)
- Strength of evidence- Moderate

- The findings from these two papers highlight the benefits of exercise and the importance or couple-based, psycho-educational interventions that include an element of sexual therapy.

- Exercise may increase sexual interest and activity among men with prostate cancer.
Intervention Examples- Sexuality

(Cormie, et al., 2013) 12-week exercise program on sexual activity in prostate cancer patients

– There was a significant (P=0.045) adjusted group difference in sexual activity following the 12-week intervention.

– Patients undergoing usual care decreased sexual activity while patients in the exercise program maintained their level of sexual activity.

Conclusion-Strengths

• There is research that supports the importance of rehabilitation as a whole, and multiple types of rehabilitation interventions for cancer survivors
  – This included
    • All types of cancer
    • All stages of cancer
    • All stages of the survivorship continuum

• There are many proven interventions/treatments for a variety of cancer survivor issues that OTs are involved in and can be more involved in.
Conclusion: Gaps/weaknesses

- Many of the interventions included in the review were conducted by other disciplines than OT (nursing in particular)
- Functional activity outcomes was a limited factor in the vast majority of the research
- There was even less focus on return to meaningful roles and participation
- There is incredible opportunities for OT researcher and clinicians to design and execute research projects that examine what interventions increase cancer survivors return to function and support increased participation.
- An example of easy low hanging fruit would include studies related to return to work.

The Occupational Therapy Practice Framework: Domain and Process

- The Framework was originally developed to articulate occupational therapy’s distinct perspective and contribution to promoting the health and participation of persons, groups, and populations through engagement in occupation.
The Occupational Therapy Practice Framework: Domain and Process

- The Framework is divided into two major sections:
  - (1) the domain, which outlines the profession’s purview and the areas in which its members have an established body of knowledge and expertise, and
  - (2) the process, which describes the actions practitioners take when providing services that are client centered and focused on engagement in occupations.


*Exhibit 1. Aspects of the domain of occupational therapy. All aspects of the domain transact to support engagement, participation, and health. This exhibit does not imply a hierarchy.*
The Occupational Therapy Practice Framework: Domain and Process


Celebrate 100 years of occupational therapy!
What is the role of OT in cancer care?

• The role of occupational therapy in oncology is “to facilitate and enable an individual to achieve maximum functional performance, both physically and psychologically, in everyday living skills regardless of his or her life expectancy”


Clinical Perspectives

• Significant secondary conditions related to cancer and its treatment:
  – Cancer-Related Fatigue (CRF)
  – Deconditioning
  – Cancer-Related Cognitive Dysfunction
  – Cancer-Induced Neuropathy
  – Cancer-Related Pain
  – Cardiovascular and Pulmonary Considerations
  – Graft Versus Host Disease
  – Lymphedema
  – Postsurgical Complications
  – Psychosocial Issues: Body Image, Depression, and Anxiety
Clinical Perspectives

- Cancer treatment settings
  - Acute care
  - Inpatient rehabilitation
  - Outpatient rehabilitation
  - Palliative care
  - Hospice, end of life care
- Cancer care continuum and rehabilitation
  - Prevention
  - Pre-habilitation
  - During treatment
  - Post treatment
  - Long term survivorship

Clinical Perspectives - Example of Assessments

Table 2.1: Selected Assessments Commonly Used With Adults With Cancer

<table>
<thead>
<tr>
<th>Aspect of the Domain of Occupational Therapy</th>
<th>Categories Within Each Aspect</th>
<th>Examples of Assessments Used in Occupational Therapy Practice</th>
<th>Brief Description of Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abilities to be learned</td>
<td>ADLs</td>
<td>Activity Card Sort (Santos &amp; Edwards, 2008)</td>
<td>Profile and useful measure of occupations that help clients describe their ADLs.</td>
</tr>
<tr>
<td></td>
<td>ADLs, fine and gross motor, educational</td>
<td>Activity Measure for Post-Acute Care Short Form for Inpatient and Outpatient Settings (AM-PAC-IT, Jette, Hays, Caster, &amp; No, 2003)</td>
<td>Activity limitations instrument that examines functional activities most adults are likely to encounter during daily routines.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FIM™ (Uniform Data System for Medical Rehabilitation, 1987)</td>
<td>Rating tool for functional performance in self-care, sphincter control, transfers, locomotion, communication, and social cognition.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Functional Activities of Daily Living Scale (Zuwan &amp; Body, 1998)</td>
<td>Tools assess IADL; necessary for functioning in community settings (e.g., shopping, cooking, finance).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kirkman Evaluation of Living Skills (KES), Kirkman-Thomas &amp; Balenett, 2015)</td>
<td>Assessment of ability to function in basic living skills.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Self-Maintenance Scale (Zuwan &amp; Body, 1998)</td>
<td>Tools gauge disability in abilities that are necessary for basic assessment and treatment-planning; tools target observable behaviors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Test of Gait, Shopping Skills (Brown, Haaper, &amp; Hineson, 2008)</td>
<td>Performance-based measure of how accurately and efficiently clients can locate items in a grocery store.</td>
</tr>
</tbody>
</table>
Case Study

Jennifer Nicholson, OTR, MOT
Brent Braveman, PhD, OTR/L, FAOTA
Both of
MD Anderson Cancer Center
Houston, Texas

Case Study-Randall

- 38 year old male with non-Hodgkin’s lymphoma who underwent an allogenic SCT
- Following a 26 day inpatient stay he was discharged and referred to outpatient OT and PT
- Followed 1-2 times per week in the ambulatory treatment center
Occupational Profile

• Occupies roles of spouse, father, worker, golfer and religious participant.
• Highly values high quality performance in each of his roles and describes himself as “competitive” and “not willing to settle for less than his very best”
• Expresses desire to “battle” his cancer and learn strategies to minimize the negative effects of his cancer and its treatments on his occupational performance

Occupational Profile

• Married for 8 years and has two children ages 5 and 2.
• Works as a crew supervisor and manager in a landscape design and maintenance business
• Over sees 8 crews (40 workers) and is a “hands on” boss completing heavy physical labor in addition to responsibilities for ordering materials, payroll etc.
• His performance patterns have supported performance of family and work occupations through structure and routine, preventative health habits including exercise and stress reduction and a strong spiritual orientation including spiritual co-occupations involving his family
Occupational Profile

• Randall is technologically savvy and uses the Internet and a wide range of apps in his business, leisure and personal life
• His spouse is also employed and their socio-economic status is middle class and both have college educations
• Randall’s spouse is Indian and Hindu and both Randall and his spouse have a strong orientation toward health interventions that include biological, psychological and spiritual elements

Analysis of Occupational Performance

• Assessments
  – Model of Human Occupation Screening Tool (MOHOST)
  – Brief Fatigue Inventory (BFI) and daily fatigue levels along with general assessment for deconditioning
  – Daily assessment of pain on scale of 0-10
  – A-ONE and ongoing screening for cancer-related cognitive dysfunction
  – Activity Measure for Post-Acute Care Daily Activities (AM-PAC)
  – Screen for work related issues based on the Worker Role Interview (WRI)
  – General assessment of ADL/IADL function
Analysis of Occupational Performance

• Daily check of critical lab values and vital signs
  – Platelets (N 150 k/uL-450 k/UL, accepted for participation (140k/UL-440 k/uL or MD approval)
  – White blood cells (N 3-5 k/UL-10.5 k/UL, accepted for participation (4k/UL-11 k/UL or MD approval)
  – Hemoglobin (N 12-16, accepted for participation, (8 or above or MD approval)
  – Hematocrit (N male 37%-49%, accepted for participation male 40%-54% or MD approval)
  – Blood pressure 90 to 120/60 to 80


Analysis of Occupational Performance

• Monitor for symptoms of Graft Versus Host Disease (GVHD) including rash or reddened area of the skin, yellow discoloration of the skin or eyes, nausea, vomiting, diarrhea or abdominal cramping, and increased dryness and irritation of the eyes.
• General assessment for depression and anxiety and administration of the Functional Assessment of Cancer Therapy (FACT)
GVHD Treatment Considerations

- Sclerotic and fascial changes resulting in impaired upper extremity range of motion
- Routine photopheresis treatments which increase edema
- Lymphedema
- Long-term use of high-dose steroids resulting in myopathies
- Routine lab draws to monitor blood levels and electrolyte balance
- Chronic fatigue

Intervention Planning

- Goals
  - Independent in ADL/IADL while utilizing energy conservation and work simplification strategies to minimize fatigue.
  - Patient will state and describe signs and symptoms of GVHD and edema/lymphedema.
  - Patient will independently complete SROM and home activity program to maintain ROM.
Interventions-Symptom Management

• Range of motion deficits
  – Individualized home exercise program
  – Education on incorporating stretching into daily routine
  – Help patient identify activities he can do with his family to improve function in this area
  – Edema management strategies to improve ROM

• Fatigue
  – Energy conservation strategies (Zhao & Yates 2008)
  – Problem solving
    • To aid in task analysis and education
    • To aid patient appreciate activity demands and discover ways of reducing these demands for improved tolerance i.e. pacing, positioning, prioritizing and giving permission to others to assist
    • Increase patient awareness to patterns of fatigue
  – Exercise
    • Strong evidence that exercise is beneficial in reducing CRF and increasing QOL (Level I: Kangas, Bovbjerg, & Montgomery, 2008; Kuchinski, Reading, & Lash, 2009; Wanchai, Armer, & Stewart, 2001)

• Lymphedema
  – Compression garments – strong support for compression bandages for volume control and must be worn daily (Level I: Devoogdt, Van Kampen, geraerts, Coremans, & Christiaens, 2010; Kim & park, 2008; King, Deveaux, white, & Rayson, 2012; Kiligman, wong, Johnston, & Laetsch, 204; Preston, Seers, & Mortimer, 2004).
    • Teach donning/doffing techniques
    • Provide training on adaptive equipment to aid in donning
    • Teach skin inspection and care routine
  – Exercise was found not to cause lymphedema or exacerbate existing lymphedema (Level I; Cormie Pumpa, et al., 2013).
    • Teach specific exercises paired with diaphragmatic breathing
    • Assist patient in identifying ways to incorporate exercises into daily routine
Interventions-Symptom Management

• Pain

Interventions-Psychosocial Needs

• Patient endorses stress and anxiety related to loss of roles.
• Patient reports feeling inadequate due to inability to be “hands on” with his job. He additionally has had to ask his wife for help with payroll due to persistent fatigue and decreased attention, which further increases feelings of stress.

Celebrate 100 years of occupational therapy!
Interventions-Psychosocial Needs

• OT interventions
  – Educational intervention is strongly supported by the evidence with regard to reducing anxiety and depression compared with routine care (Level I: Chien et al., 2014)
    • Education on stress as a negative symptom
    • Education on stress management techniques
  – Problem-solving strategies
    • Help patient identify stressors and impact on occupational performance
    • Help patient identify triggers of stress
    • Help patient identify meaningful ways he can maintain worker role when not able to be “hands on”

Interventions-Psychosocial Needs

– Stress management
  • Mindfulness-based therapy is supported by strong evidence (Level I: Cramer, Lauche, Paul, & Dobbs, 2012; Piet, Wurtzen, & Zachariae, 2012).
    – Help patient attend to incoming thoughts and grow in acceptance
    • Help patient develop occupations i.e. leisure pursuits that are stress-relieving
Interventions-Physical Activity

- Patient endorses reduced activity tolerance and poor sleep at night leading to reduced energy to perform basic physical functions during daytime hours.
- OT interventions
  - Aerobic exercise for physical performance and is shown to reduce CRF (Level I: Anderson et al., 2013; Kuchinski, Reading, & Lash, 2009; McMillan & Newhouse, 2011; McNeely et al., 2006).
    - Provide education and training on self-monitoring of heart rate and maintaining safe ranges
    - Provide education on metabolic equivalents and identifying activities that are more aerobic in nature
    - Assist patient in determining ways to integrate aerobic exercise into routine

Interventions-Physical Activity

- Exploring sleep quality
  - Exploring sleeping habits and recommendations on routine around sleep preparation and sleep participation
  - Evaluation and recommendations on positioning during sleep
  - Moderate evidence also exists that exercise improves sleep quality for people undergoing cancer treatment (Level I: Sprod et al., 2010, Tang, Liou, & Lin, 2010).
Interventions-Complimentary and Integrative Health

• OT interventions
  – Yoga—moderate evidence indicates that yoga promoted improvement in mental health and QOL, decreased stress and the use of sleep medication, and improved participants’ sense of well-being (Level I: Carlson et al., 2012; Harder, Parlour, & Jenkins, 2012; Mustian et al., 2013; Shneerson, Taskila, Gale, Greenfield, & Chen, 2013).
    • Explore resources at home and within the community for yoga participation
    • Discuss strategies for infection control recommendations (using own mat versus community mat) when WBCs are low
    • Review typical yoga poses and provide modifications as indicated
    • Explore yoga poses/sequences which best achieve goals for improvement in other areas i.e. deficit range of motion in shoulders
    • Assist patient in exploring alternative methods of access to yoga classes including download or streaming of routines/plans since patient is very tech savvy.

• Expressive writing
  – Explore integration of writing into daily routine
  – Collaborate with patient on topics to write
  – Make appropriate referral should patient need more support outside OT scope of practice
Interventions-Sexuality

• OT interventions
  – Therapeutic listening
  – Coordination of discussion on issues related to sexuality with other members of the multi-disciplinary team
  – Strong evidence to support physical training is better than usual care in terms of effect on interest in sex and sexual activity among male prostate cancer survivors (Cormie, Newton, Taaffe, Spry, Joseph, Akhil Hamid, & Galvao, 2013)
    • Physical deficits including strength, endurance, and range of motion that may improve sexual performance
  – Promote communication among patient and partner
Interventions-Advice and Referral on RTW

- RTW intervention is not commonly covered during hospital-based outpatient care
- Needs/concerns informally assessed and recommendations/resources provided
  - www.cancersandcareers.org
  - https://adata.org/find-your-region (regional ADA centers)
- Moderate quality evidence shows multidisciplinary interventions involving physical, psychological and vocational components led to higher return-to-work rates than care as usual (de Boer et al., 2011)
  - Referral to a multidisciplinary program in the community
  - Communication to treatment team about Randall’s concerns

Outcomes

- Maintained independence in ADL/IADL
- No loss of ROM
- Actively using fatigue management approaches in occupations associated with roles of spouse, father and worker.
- Aware of minor cognitive deficits and incorporating compensatory strategies in conjunction with spouse.
- Pursuing strategies to minimize stress and express his spirituality including yoga, meditation and stress reduction strategies.
- Using community resources to assist with his worker role, has disclosed his illness to his employer and co-workers and receiving support. Participating a few hours a week with the support of his boss and spouse.
Discharge Planning & Follow-Up

- Continue to monitor symptoms of GVHD and edema/lymphedema.
- Appointment with a return-to-work program in his home community including onsite visits to negotiate accommodations with his employer
- Continue home activity program
- Continue use of yoga, meditation and stress reduction activities
- Receiving counseling to address body image and sexuality concerns

Some Implications for Practice

- Interventions such as problem solving and stress reduction help with things such as depression, anxiety, pain and cancer-related fatigue.
- Occupational therapy practitioners are experts in helping people develop problem-solving skills, establish healthy habits and routines, and provide techniques to address symptoms stemming from the cancer experience.
- Return to work is becoming an increasing area of interest in cancer survivorship. OT services can help people plan for potential occupational disruption, improve physical and emotional skills to return to work and consult with employers to advocate for modifications, job adaptations and planned re-entry to work.
Some Implications for Education

• Provide opportunities for students to work with cancer survivors in across the cancer continuum and settings (e.g., inpatient, outpatient, wellness centers) in fieldwork and other experiences.
• Stress the importance of evaluating occupational performance and participation in daily activities for cancer survivors in both outcomes and evaluation.
• Increase training related to the clinical condition of cancer and cancer survivorship, and the needs of people with cancer across the continuum of cancer care.
• Continuing education and specialty fellowships would strengthen the knowledge, experience, and skill tool box occupational therapy practitioners use in cancer rehabilitation.

Some Implications for Research

• Only a handful of studies specifically included occupational therapy either as a component or specific intervention. More high-quality studies are needed with occupational therapy as a specific component of the interventions and a return to meaningful participation as the outcome.
• Cognitive issues secondary to cancer and cancer treatment, significantly issue affect cancer survivors’ ability to participate in daily life activities and occupations. These issues are important to occupational therapy service delivery, but limited research is currently available to inform and guide best practice.
• Research is needed to understand appropriate service delivery: who needs what type of intervention at what point in their cancer care and survivorship.
Thank You
Questions or Comments?

Contact Information:
Beth Hunter: beth.hunter2@uky.edu
Brent Braveman: bhbraveman@mdanderson.org