Session Proposed Title:

Prescribing Exercise for the Cancer Population

Speaker:

Kelly Sturm, PT, DPT, OnCS, CLT-LANA

Speaker Bio:

Kelly Sturm is a physical therapist who received her B.S. in Movement Science from Winona State University and earned her Doctor of Physical Therapy (DPT) degree from the Mayo Clinic. She became a Certified Lymphedema Therapist (CLT) through Klose Training and is certified by the Lymphology Association of North America (LANA). In 2019, Kelly became one of the first Board-Certified Oncology Clinical Specialists in the United States. She has taught in Physical Therapy Programs and is a guest speaker at various conferences, programs, and community groups. Kelly has clinical expertise in the rehabilitation treatment of oncology diagnoses, primary and secondary lymphedema, and pelvic health. Kelly owns Cancer Rehab PT LLC, with engaging educational Youtube and Instagram platforms, bringing awareness and light to lymphedema, oncology rehabilitation, and physical therapy. After meeting with many patients who lived in pain for years and assumed it was normal, she started creating content and sharing knowledge online to help those living with and beyond cancer and lymphedema learn how to manage and improve their symptoms. Her goal is to make education available to as many people as possible so more people would have the resources to realize that pain and discomfort are common, not normal, and feel empowered to start making small changes that lead to significant results.

Speaker Disclosures:

Financial:

-Owner of Cancer Rehab PT, LLC.
-Airos Medical – Clinical Advisor
-Aasa Health –Advisor
-PESI - honorarium

Non-financial:

None

Learning Objectives:

1. Introduce oncology-related functional impairments and side effects that can be addressed in cancer rehabilitation
2. Understand how exercise and physical activity affects individuals living with and beyond cancer
3. Identify the current recommended exercise guidelines for cancer survivors

Course Description:

Over 18 million cancer survivors live in the United States, and 2 million new cases are diagnosed yearly. Along with new medical treatments, exercise is critical in managing cancer and treatment side effects. In this course, participants will explore the profound impact of physical activity on cancer prevention, treatment, survivorship, and palliative care. Many healthcare professionals may underestimate exercise's importance in cancer care, failing to recommend or prescribe specific exercise programs as part of treatment strategies. This course aims to change this by educating clinicians and providers on evidence-based interventions and clinical applications of exercise, providing them with the tools to effectively integrate physical activity into their patients' care plans. By bridging this knowledge gap, healthcare professionals can help their patients enhance treatment outcomes, reducing treatment-related side effects and enhancing overall quality of life before, during, and after cancer treatment.

Outline:

1. Introduction to Cancer and Effects
    - Understand the incidence and prevalence
    - Common side effects of cancer and cancer treatment
2. Cancer Rehabilitation and Exercise
    - Define Cancer Rehabilitation
    - Common impairments addressed in cancer rehab
    - Unmet needs with patient reported impairments and side effects
    - The Cancer Care Continuum – Where exercise plays a role
3. The Role of Exercise -Before Treatment (Prehab)
    - Define prehab
    - Goals of exercise to address pre-existing impairments, improve physical health, and establish baseline
    - The outcomes of supervised exercise in various cancer types (Garcia, 2016)(Singh, 2013)(van Rooijen, 2019)
    - High-intensity interval training and affects of VO2peak in prehab setting (Palma, 2021)
    - Exercise's role in reducing surgical complications and recovery (Parker, 2019)
    - Address the limitations of research and potential risks
4. The Role of Exercise -During Cancer Treatment
    - Goals of exercise to address impairments, side effects and symptoms related to treatment
    - Exercise impacting side effects during cancer treatment (Stout, 2017)
    - Exercise benefits and risks during chemotherapy (Mijwel, 2018)
    - Current exercise recommandations and prescriptions (Stout, 2017)
    - Comparing outcomes of low-intensity vs mod/high-intensity exercise vs no exercise (van Waart, 2015)
    - Acknowledge potential risks and contraindications of exercise during treatment
5. The Role of Exercise - After Cancer Treatment
    - The goals of exercise after cancer treatment is completed
    - Physical activity's impact of non-physical outcomes (Fuller, 2018)
    - Exercise role on risk of cancer mortality (Li, 2016)
    - Limitations of the research and potential risks in the survivorship phase
6. The Role of Exercise – Long-Term Survivorship
    - Discuss long-term clinical applications of exercise for cancer survivors
    - Cardiovascular disease risk and exercise role (Henry, 2018)
    - The role of exercise in androgen deprivation therapy (Newton, 2020)
    - Pediatric cancer survivorship and exercise role in chronic diseases (Brunet, 2018)
    - Cancer recurrence – does exercise lower the risk? (Morishita, 2020)
7. The Role of Exercise – Hospice/End of Life
    - Recognize the benefits of exercise in end-of-life care settings (Chen, 2020)
    - Adapting exercise to the needs of terminally ill cancer patients (Dittus, 2017)
    - Understand the limitations and potential risks in palliative exercise programs
8. Interdisciplinary Collaboration

- Explore how healthcare professionals can work together to promote exercise in cancer care
- Discuss strategies for overcoming barriers to interdisciplinary collaboration

9. Course Conclusion and Future Directions
    - Summarize key takeaways from the course
    - Reflect on the evolving landscape of exercise in cancer care
    - Encourage continued learning and research in the field

      Note: Throughout the course, we will emphasize the limitations of existing research and the potential risks associated with exercise interventions, ensuring a comprehensive and responsible approach to exercise across the cancer continuum

Needs Assessment:

Please explain how this course meets the learning needs of your intended audience today, addressing **each** of the questions below.

1. What is the problem/practice gap that this course addresses? Please answer **at least one** of the below:
    a. What is the needed change in practice?
    b. What is the problem in practice?
    c. What is the opportunity for improvement?
    d. What are professionals lacking, misunderstanding, or misusing?

    Healthcare professionals think on the cancer population and tend to think it's best for those with cancer to get rest and avoid activity. It's assumed their bodies need more sleep to help minimize fatigue and to fight the cancer. However, many healthcare professionals fail to understand the research-based evidence showing how important exercise plays a role in combating side effects like cancer-related fatigue and how physical activity and exercise can improve the effectiveness of cancer treatment. Another portion of the profession, especially rehabilitation professionals, are scared to treat this population. They hold back and don't prescribe enough exercise and physical activity for the fear of over-doing it, which this often leads to under-prescribing and may do more harm than good.

2. What educational needs are contributing to the problem? Is it an educational need regarding knowledge, competence, skill and/or practice? Please note: a knowledge need alone is not sufficient.

    Educational needs contributing to the problem encompass knowledge, competence, and practice. Healthcare professionals, including oncologists, nurses, and rehabilitation specialists, lack comprehensive knowledge of the current research on exercise in cancer care. They may lack the competence and skills to tailor exercise programs to individual patients, dosing and modifications needed for safety, and not be able to integrate them into the broader treatment plan. There is also the factor that rehab professionals, and others, are taught in training that cancer is a contraindication to many treatments, and therefore, do not put their skills and training into practice within the oncology population, simply avoiding this population altogether.

3. How do you know these are problems? What evidence supports your assessment of the educational needs and practice gap(s)? Please list references (recently published journal

articles, ongoing scientific studies, results of professional surveys, and/or updates to diagnostic criteria, treatment methods, policies, procedures, or best practice) below.

Schmitz, K. H., et al. (2019). American College of Sports Medicine roundtable on exercise guidelines for cancer survivors. Medicine and Science in Sports and Exercise, 51(11), 2375-2390.
Cheville, A.L., Mustian, K.M., Winters-Stone, K.M., Zucker, D.S., Gamble, G.L., & Alfano, C.M. (2017). Cancer Rehabilitation: An Overview of Current Need, Delivery Models, and Levels of Care. *Physical medicine and rehabilitation clinics of North America, 28 1*, 1-17.
Hewitt M, Greenfield S, Stovall E, eds. From cancer patient to cancer survivor: lost in transition. Washington, DC, US National Academy of Sciences; 2006.

Learner Engagement Strategies/Tools: (From proposal guidelines)

1. Which learner engagement activities and learner assessments are going to be used in this program?

☐Didactic lecture	☐Learner polls	☐Open discussions
☐Case studies	☐Simulations	☐Panel discussions
☐Large group activities	☐Reading material w/ discussion	☐Debate
☐Small group activities	☐Group quizzes	☐Hands-on skills training
☐Live demonstrations	☐Q&A session(s)	☐Other (please specify):
☐Video demonstrations		

2. Which supplemental educational tools will be present in the PowerPoint/participant handouts?

☐Learner handout material	☐Assessment/diagnosis tools	☐Pocket reference cards
☐Patient handout material	☐Online resources	☐Other (please specify):
☐Worksheets	☐Recommended additional reading	

Target Audience:

Any healthcare professional who works with the oncology population and all rehab professionals

Additional Docs:

POST TEST –

1. Which impairment does exercise NOT have a positive effect on in the oncology population?:
   a. Dysphagia
   b. Lymphedema
   c. Cancer-Related Fatigue
   d. Aerobic Capacity

2. In the prehab setting, exercise has shown in literature to:
   a. Increase the risk of blood clots
   b. Cause an increase in falls
   c. Reduce surgical complications
   d. Only help younger adults

3. Which of the following is NOT a potential benefit of exercise during cancer treatment:
   a. Increase Anxiety
   b. Improved Quality of Life
   c. Decrease Depression
   d. Improve Sleep

4. What does a MET stand for?:
   a. Measure of Exercise Threshold
   b. Metabolic Established Threshold
   c. Measure of Exercise Treatment
   d. Metabolic Equivalent

5. What is the most effective treatment intervention for cancer-related fatigue?:
   a. Corticosteroids
   b. Sleep and Meditation
   c. Multimodal exercise
   d. Antidepressant medication and sleep

6. Which of the following statements is most correct regarding cancer-related fatigue (CRF)?
   a. CRF remains constant over the course of chemotherapy.
   b. CRF can increase with each successive chemotherapy cycle.
   c. CRF decreases with each successive chemotherapy cycle.
   d. CRF does not have a relationship with chemotherapy.

7. Which of the following are the current (2019) exercise guidelines for cancer survivors, as recommended by the American College of Sports Medicine (ACSM)?
   a. Low-intensity exercise for 60 minutes a day, 7 days a week and 5 days of strength training
   b. Moderate-intensity exercise for 30 minutes, at least 3 days a week and strength training 2 days a week
   c. Low-intensity exercise for 30 minutes a day, 3 days a week and 4 days of strength training
   d. Moderate-intensity exercise for 60 minutes a day, 7 days a week and strength training 2 days a week

8. What measure of cardiorespiratory fitness is highly predictive of overall and cardiovascular-specific mortality in women, both in the healthy population and in a breast cancer setting?
   a. 2-minute walk test
   b. VO2 peak
   c. 5-time sit-to-stand
   d. 10-meter walk test

9. According to Dittus, 2017, physical activity interventions in a hospice/end of life setting result in improvements in all of the following, EXCEPT
   a. Wounds
   b. Aerobic activity
   c. Strength
   d. Physical Function

10. Exercise goals in the end-of-life setting include all of the following except:
    a. Maintain independence and self-management
    b. Maximize quality of life
    c. Enhance safety and prevent falls with strength and balance training
    d. Avoid addressing cancer and treatment side effects

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