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**PTs Answering the Call: Addressing Exercise Behaviors in Cancer Care**

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It’s no secret that the use of exercise for patients diagnosed with cancer can be safe and feasible for improving impairments, physical performance, fatigue, and quality of life across type and stage within the cancer care continuum.1-6The unfortunate reality for many of these patients is that conversations about their exercise behaviors and how this relates to their participation in their lives is often missed within their plan of care. Advancements in treatment have allowed patients, in most cases, to return home and live beyond recovery; however, without an exercise regimen, impairments from cancer and its treatment become compounded with normal age-related changes causing a far more substantial decline in the individual’s independence.6 Why the patient may not exercise could be for many reasons. They may simply not know the benefits of exercise, they could be fearful of exercise and believe their body is not capable, or they may not want to; but until the conversation is had we do not know. And just because we don’t know, doesn’t mean we don’t ask or assume we know.

When I think of characteristics that describe a “cancer survivor,” those that come to mind are courageous, resilient, and brave, among many others. The fact that these characteristics, earned through the enduring treatments such as chemotherapy, radiation, stem-cell transplants, and extensive surgical procedures that wreak havoc on the body, are met with incomplete care from a lack of conversation does a disservice to these individuals. So, who is to answer the call equipped to provide this missing piece within cancer care and get the patient beyond basic ADLs and home function?

*Ring, ring* physical therapists are on the line, prepared to be the standard healthcare professional consulting oncological patients exercise behaviors and making the appropriate referral.

Current literature asserts that prior to exercise prescription, patients with an oncologic diagnosis need a thorough systems review and physical evaluation. 2,6-9 Our entry-level curriculum provides us with this knowledge guided by the ICF model to reach an assessment of what is limiting the patient and whether we are the appropriate clinician to be treating. I like to draw parallels between the role the physical therapist plays in the cancer care continuum to a telephone switchboard. The consult comes to the PT to meet with a patient and complete an evaluation. The PT will:

- review medical history

- evaluate treatment status

- complete a physical exam

- conduct performance measures of the cardiovascular and musculoskeletal systems

- administer patient reported outcome measures assessing the individual’s readiness and confidence to participate in exercise

If the PT determines the patient can benefit from skilled intervention the connection has already been established. The therapist can utilize expertise in therapeutic exercise, anatomy and physiology, biomechanics, and evidence-based practice to target impairments limiting activities and participation. Tenets of exercise physiology learned that also are applied in oncology care are pulled forward such as individualization, progressive overload, specificity, and rest/recovery when providing interventions.2 Additionally, PT students have learned to recognize and measure physiological responses to exercise through monitoring of vital signs and rate of perceived exertion (RPE).

The physical therapist could also determine that the connection needs to go elsewhere. In these cases, the PT will direct care to the appropriate professional among the interprofessional oncology team, such as a PT with oncology clinical specialty, exercise physiologist or personal trainer, to get the patient toward their optimum care. The decision of where to connect is based on a myriad of factors including patient complexity, comorbidities, previous exercise experience, and self-efficacy.5,6,10

Proposed models of above triage have begun to emerge in literature following a stepwise approach where an individual can enter the model at any point, a time of diagnosis, during treatment, or after treatment, and move throughout based on the previously stated factors. 3-6,10 Regardless of entry point, the patient requires an appropriate evaluation and assessment to be done. Since physical therapists have the unique skill set to do the assessment, it makes sense to standardize the placement of our profession at the entry points of this approach. With this great power comes great responsibility to prepare students to be confident in addressing exercise behaviors within the scope of oncology care and be confident being a director of physical care.

After receiving foundational knowledge within the didactic curriculum, what do opportunities look like to integrate and apply said knowledge? There exists a gap in literature regarding design and implementation of oncology curriculum within DPT programs, but sessions slated for the upcoming 2022 APTA Combined Sections Meeting look promising in presenting ways this could look. From my perspective this could take the form of offering a learning opportunity to integrate the foundational knowledge and skills we learn like motivational interviewing and receive peer and facilitator feedback within mock scenarios. It’s often one thing to see and think of ways to use these skills to gauge of an individual’s values and desires regarding exercise. It’s another to navigate these conversations in real time. This form of learning opportunity would allow students to apply their knowledge about the multisystem effects of cancer on the body, pharmacological agents used in cancer treatment and how side effects impact patient’s function and consider how the lifespan and contextual factors influence clinical decisions and care.

I think it is easy to see all the concepts and complexities that need to be brought forward when working within oncology care and become overwhelmed; I am a bit just from thinking and writing about it. This exposure isn’t the key to the castle of simplicity, and I would argue that if we take this integrated approach to all our patients, we see the complexities there too. The goal is to have opportunities in place so that students can leave more confident when stepping into the role in clinical practice.

It's time to change the reality for cancer survivors. It is not enough to achieve ADL’s and home function. It’s not enough to ignore the discussion and education of the importance of exercise on long term functional independence. The incorporation of exercise into a survivor’s plan of care across the care continuum is safe, feasible and efficacious in reducing cancer-related and age-related impairments that limit return to participation in life. Our profession is suited to address exercise behaviors and perform the evaluation necessary to make decisions regarding direction of care for exercise prescription. I believe we have a vital role, in alignment with our mission, to empower patients with oncology diagnoses to return to a level of function at or **beyond** their individual goals and with exercise, maintain this function longer than without.

*The phone’s ringing, let us pick up.*

**References**

1. De Lazzari N, Niels T, Tewes M, Götte M. A systematic review of the safety, feasibility and benefits of exercise for patients with advanced cancer. *Cancers (Basel)*. 2021 Sep 6;13(17): 4478. doi: 10.3390/cancers13174478
2. Sasso JP, Eves ND, Christensen JF, Koelwyn GJ, Scott J, Jones LW. A framework for prescription in exercise-oncology research. *J Cachexia Sarcopenia Muscle*. 2015 Jun;6(2):115-124. doi: 10.1002/jcsm.12042
3. Morris, G.S. Who is the best exercise professional to provide an exercise training programs in an oncology rehabilitation setting—it depends!, *Rehabilitation Oncology*. 2018 Oct; 36(4): 185-187. doi: 10.1097/01.REO.0000000000000120
4. Morris, G.S. Personalizing exercise programs for the cancer survivor. *Rehabilitation Oncology*. 2019 Oct 37(4): 139-141. doi: 10.1097/01.REO.0000000000000179
5. Coletta AM, Campbell A, Morris GS, Schmitz KH. Synergy between licensed rehabilitation professionals and clinical exercise physiologists: Optimizing patient care for cancer rehabilitation. *Seminars in Oncology Nursing*. 2020;36(1): 1-7. https://doi.org/10.1016/j.soncn.2019.150975
6. Stout, N. L., Brown, J. C., Schwartz, A. L., Marshall, T. F., Campbell, A. M., Nekhlyudov, L., Alfano, C. M. An exercise oncology clinical pathway: screening and referral for personalized interventions. *Cancer*. 2020; 126(12), 2750-2758. doi: 10.1002/cncr.32860
7. Dalzell MA, Smirnow N, Sateren W, Sintharaphone A, Ibrahim M, Mastroianni L, Vales Zambrano LD, O'Brien S. Rehabilitation and exercise oncology program: translating research into a model of care. *Curr Oncol*. 2017 Jun;24(3):e191-e198. https://doi.org/10.3747/co.24.3498
8. Mina DS, Sabiston CM, Au D, Fong AJ, Capozzi LC, Langelier D, Chasen M, Chiarotto J, Tomasone JR, Jones JM, Chang E, Culos-Reed SN. Connecting people with cancer to physical activity and exercise programs: a pathway to create accessibility and engagement. *Curr Oncol*. 2018 Apr; 25(2):149-162. https://doi.org/10.3747/co.25.3977.
9. Jones LW, Eves ND, Scott JM. Bench-to-bedside approaches for personalized exercise therapy in cancer. *Am Soc Clin Oncol Educ Book*. 2017;37: 684-694
10. Dennett, A.M., Peiris, C.L., Shields, N., Taylor, N.F. From cancer rehabilitation to recreation: a coordinated approach to increasing physical activity. *Physical Therapy*. 2020 Nov; 100 (11): 2049–2059. https://doi.org/10.1093/ptj/pzaa135.