



The State of Cancer Rehabilitation

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The field of cancer rehabilitation is relatively young. With the help of pioneers such as Dietz and Lehmann, the field has grown from ambiguity as "special rehabilitation" to a field that has gained more recognition over the past 3 decades [1]. However, the field still has obstacles to overcome. Unfortunately, physical medicine & rehabilitation is still unavailable in many cancer centers [2]. Also, physiatry services are underutilized for cancer patients [3-6]. This could be due to poor awareness regarding the availability of physiatry treatments or a narrow focus on the cancer by oncologists rather than it's functional consequences. The uncomfortable reality is that our field continues to be a small and minor field in both physiatry and oncology. We've grown from an infant to a child.

The need for rehabilitation for palliative care patients has been demonstrated. It has been reported that the second most important unmet need behind symptoms control was occupational functioning for palliative patients [7]. Caregivers of terminal cancer patients report activities of daily living as their greatest unmet need [8]. A need has been found for occupational therapists caring for palliative care patients to expand services beyond ADL's [9].

There is also a therapeutic effect for palliative patients. Palliative patients feel best when the care team supported efforts to go on living as usual with as much normalcy as possible [10]. They also feel less abandonment, anxiety, loss of control and greater satisfaction through participation in rehabilitation programs [11,12]. Hospice patients are also able to make functional gains sometimes enough to leave an inpatient hospice. 46/355 patients in one study achieved adequate autonomy to discharge home from an inpatient hospice [12]. Efforts should be made to integrate rehabilitation into palliative care programs.

While the field has been progressively growing, the next decade may be the growth spurt that we have all been waiting for. There are 2 potential areas for cancer rehabilitation to flourish:

Cancer Survivorship

The increasing numbers of cancer survivors has brought increasing attention to overcome physical disabilities and symptoms of these patients brought more attention to our specialty. However, the increasing number of cancer survivors has been a recent phenomenon. The field of cancer survivorship is less defined and developed than even cancer rehabilitation. Questions remain over how cancer survivor care should be structured. Should it be run by physiatrists, internists, oncologists, or through multidisplinary clinics? Physiatry has been and will be a major component of the care of these patients.

Medical Outcomes

Research has found that exercise and rehabilitation may have positive impacts on feelings of well-being, pain, and fatigue. While improvements on qualitative aspects of patients' lives are wonderful, perhaps even more exciting impact may also be occurring.

Research has also shown that exercise may have beneficial effects on survival, in studies of breast, prostate, and colorectal cancer patients [13-15]. There is some research that suggests that function may have impacts on medical outcomes including survival. A lower Karnofsky Performance Status score at the time of stem cell transplantation has been found to be associated with an increased risk of grade 2 to 4 acute GVHD [16]. A lower Karnofsky Performance Status score at the time of stem cell transplantation has also been found in multiple studies to be associated with lower overall survival [17-21]. However, the causality is unclear. Is higher function simply a result of a smoother cancer treatment course or does the patients' higher function cause the patient to weather the cancer treatment better? More research needs to be done on this topic. Can improving function through perhaps a rehabilitation bootcamp before e.g. hematopoietic stem cell transplant result in improved survival for the patient? This is where the future of cancer rehabilitation research lies.

Cancer rehabilitation has grown from obscurity to a sprouting component of cancer care. Unfortunately, barriers due to limited availability and reduced utilization continue to exist. The need and effectiveness of rehabilitation services on well-being and quality of life have been demonstrated. As cancer survivorship grows, cancer rehabilitation's contribution to improving quality of life will gain more recognition. There is a need to research how rehabilitation can have an impact on medical outcomes. Our future can be bright, but we need quality research to uncover our potential.

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