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The Final Frontier(s)?

Have we reached the pinnacle of insurance-approved chronic diseases for supervised exercise therapy (SET)? This is true only if the clinical exercise physiology (CEP) community is satisfied that no other populations would benefit from SET. I have been a clinical exercise physiologist for 35 years (although my job title in my early career was exercise specialist). In the mid-1980s in the US, cardiac rehabilitation was becoming an important part of the treatment plan for those with ischemic heart disease. At the time this was essentially the sole practice location and patient population for those with a CEP background. And while today cardiac rehabilitation programs remain the primary clinical space where clinical exercise physiologists practice, the breadth of the clientele has expanded. Participants with insurance coverage for cardiac rehabilitation and SET has expanded to include heart failure/transplant, valve procedures, and peripheral artery disease. Concurrent with the exponential growth in the understanding of the benefits of physical activity and fitness, much of these additions have come in the past 10 to 15 years, after years of stagnation. For instance, approval for SET for peripheral artery disease was approved in 2017. The following are several chronic diseases with the potential for future reimbursement approval.

Cancer

Exciting work is ongoing in those who are being treated for cancer or who are in the survivor phase. Exercise during treatment can alleviate symptoms and improve physical functioning (1). While we have understood for some time that exercise has a preventive effect on risk for development of several types of cancer (2), there is emerging data supporting links between physical activity and exercise affecting physiology, suggesting mechanisms to improve cancer risk (3) and treatment response (4).

Renal disease

Kidney disease is a continuum ranging from chronic dysfunction to end-stage/dialysis to transplantation. Many patients currently participating in cardiac rehabilitation have renal disease. While the literature is mixed with respect to effects on improving kidney function (5), we do know that there is no harm to kidney function. There is also good evidence that exercise capacity improves in these patients (6). Additionally, improvements in blood pressure and diabetes control, as well as body composition may reduce the risk of further kidney function deterioration and cardiovascular complications that plague these individuals. In this population, as well as for those with cancer, low-level exercise may be performed during treatment (i.e., during dialysis or chemotherapy, respectively), affording increased clinical setting opportunities to provide SET.

Stroke

A recent pilot study provided preliminary data that exercise training performed in a cardiac rehabilitation setting improves physical functioning in stroke survivors (7). Importantly those suffering a stroke are at risk for cardiovascular complications, including another stroke and death. Supervised exercise following any necessary physical rehabilitation (i.e., physical therapy) might be important to improve exercise participation (which is very low), adherence, and benefits. Stroke rehabilitation integrated into cardiac rehabilitation is gaining traction in Canada (8,9), and in Australia those who have had a stroke are encouraged to seek an accredited exercise physiologist for assessment and exercise training.

Importantly, for many individuals with these conditions, opportunities for safe and effective exercise in the community rarely exists. With continued focus on these populations by the CEP community, and particularly on the benefits of supervised exercise training, I believe these diagnoses have the potential for future reimbursement in the US. Importantly, improvements in mortality data is not necessarily required. In fact, this type of data is lacking for several cardiac rehabilitation indications including heart transplant, valve replacement, and peripheral artery disease. However, the evidence for each of these conditions is generally excellent for improvements in physical functioning and quality of life. While morbidity and mortality outcomes may be forthcoming, I believe the CEP community needs to focus on the other outcomes in the quest to gain reimbursement approval. In the meantime for those practicing in a cardiac rehabilitation setting, consider opening your maintenance (phase 3) program to individuals with isolated (or comorbid) cancer, renal disease, and stroke. And consider adding to the literature by collecting real-life data or designing your own small-scale

study. These can help lead to definitive studies that may develop enough evidence to convince the decision-makers to approve coverage for SET in these and possibly other chronic disease/condition populations. Henry Ford Hospital, for instance, has opened a state-of-the art precision cancer treatment hospital and located an exercise training facility on the first floor. Additionally, we are developing a dialysis center and considering exercise opportunities in the design. These types of opportunities don't come along often, so be prepared as your institution might be open to these offerings. Seek these opportunities and be the champion promoter. The current climate is right to forge into these frontiers of CEP.

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