

Jonathan K. Ehrman, PhD, ACSM-CEP, FACSM  
 Editor-In-Chief, *Journal of Clinical Exercise Physiology*  
 Chair, Henry Ford Institutional Review Board  
 Associate Director, Preventive Cardiology  
 Edith and Benson Ford Heart & Vascular Institute  
 Henry Ford Medical Group, Detroit, MI

## Editor's Perspective: The Clinical Exercise Physiologist in the Time of Covid-19

At the time of this writing, the world is amid a pandemic due to the SARS-CoV-2 virus (a new coronavirus) which causes COVID-19 disease. More than 3.5 million are known to have been infected, and it can cause a range in severity of symptoms from asymptomatic (believed to occur in most individuals) to those with mild to severe flulike symptoms to those who end up in intensive care units (ICUs) with severe acute respiratory syndrome requiring artificial respiration support from a ventilator. Those with more severe effects often have chronic comorbid diseases including diabetes, chronic lung disease, cardiovascular disease, hypertension, and obesity. Up to 19% and 29% of those with 1 or >2 of these comorbidities, respectively, end up in ICUs or dying (1).

So what are the current and future roles of the clinical exercise physiologist (EP) during the age of COVID-19? Let us begin with current roles. Many clinical EPs in the United States work in exercise rehabilitation programs, primarily cardiac rehabilitation, but some others in diabetes, pulmonary, weight management, or oncology programs. During the COVID-19 pandemic, most programs discontinued “nonessential” services to reduce or eliminate direct patient contact. Because of this, clinical EPs in these programs are currently (April 2020) not seeing patients in the traditional face-to-face encounter. However, many have either begun or extended the use of remote connection with patients. Connections range from as simple as a phone call to texting/messaging regularly to video visits using commercially available products. Other activities include reassessing and updating patient education materials, but in many situations, this has not been enough to keep all staff working full time. Unfortunately, in the United States, some clinical EPs have been furloughed and have resorted to enrolling in their states’ unemployment benefits programs.

Others have fulfilled supplementary duties within their work environments. Some of the duties might remain within the clinical EP’s scope of practice (e.g., asking COVID-19-related symptom questions as door screeners in clinics and hospitals or taking vital signs such as temperature, blood pressure, heart rate, and assessing for dyspnea). Others have learned new skills, including face mask fitting. Additionally,

at Henry Ford Hospital in Detroit, some clinical EPs have been deployed to work as research staff in an ongoing study assessing the effect of hydroxychloroquine to prevent SARS-CoV-2 infection in hospitals, first responders, public transportation, and nursing home staff who are at high risk of virus exposure due to their essential vocations.

This pandemic has seen clinical EPs in various countries rise to the occasion. They have been, in some cases, recognized for their skill and abilities and used in ways they have never been used previously, but there are some opportunities for clinical EP professional growth as the current pandemic ends. Those working in rehabilitation settings should continue to advocate for the development, use of, and reimbursement for virtual visits, particularly those using telehealth or video visits. Unfortunately, the US Medicare program denied a request for reimbursement for video visits associated with cardiac rehabilitation. Alternatively, in Michigan, Blue Cross is very interested in expanding this technology for their members. Despite the Medicare decision, this might be an unprecedented opportunity, and likely a necessary one, to demonstrate alternative methods to provide supervised exercise programming. This is especially necessary if supervised exercise needs grow to desired levels set forth by the Million Heart Initiative for cardiac rehabilitation (2) and the American Heart Association for those with symptomatic peripheral artery disease (PAD; 3). It has been estimated that current programs in the United States only have capacity for ~47% of all patients referred to cardiac rehabilitation. If one adds PAD, and especially if other chronic diseases are approved by the US Medicare system for supervised exercise (e.g., cancer and renal rehabilitation), the current system will become quickly overwhelmed. Adding to this is the emerging information that a poor lifestyle leading to comorbidities, such as hypertension, obesity, and diabetes, also leads to an increased risk of severe COVID-19, so supervised exercise programs may become in very high demand.

I believe this is a time in history for clinical EPs across the world to rise to the occasion and show the broader allied health community, patients, and lawmakers that we are ready to provide the necessary care to all patients who might benefit from supervised exercise training.

## REFERENCES

1. Guan WJ, Liang WH, Zhao Y, Liang HR, Chen ZS, Li YM, Liu XQ, Chen RC, Tang CL, Wang T, Ou CQ, Li L, Chen PY, Sang L, Wang W, Li JF, Li CC, Ou LM, Cheng B, Xiong S, Ni ZY, Xiang J, Hu Y, Liu L, Shan H, Lei CL, Peng YX, Wei L, Liu Y, Hu YH, Peng P, Wang JM, Liu JY, Chen Z, Li G, Zheng ZJ, Qiu SQ, Luo J, Ye CJ, Zhu SY, Cheng LL, Ye F, Li SY, Zheng JP, Zhang NF, Zhong NS, He JX; China Medical Treatment Expert Group for Covid-19. Comorbidity and its impact on 1590 patients with COVID-19 in China: a nationwide analysis. *Eur Respir J*. 2020. pii: 2000547. doi: 10.1183/13993003.00547-2020. [Epub ahead of print]
2. Ades PA, Keteyian SJ, Wright JS, Hamm LF, Lui K, Newlin K, Shepard DS, Thomas RJ. Increasing cardiac rehabilitation participation from 20% to 70%: a road map from the million hearts cardiac rehabilitation collaborative. *Mayo Clin Proc*. 2017 Feb;92(2):234–42.
3. Treat-Jacobson D, McDermott MM, Beckman JA, Burt MA, Creager MA, Ehrman JK, Gardner AW, Mays RJ, Regensteiner JG, Salisbury DL, Schorr EN, Walsh ME; American Heart Association Council on Peripheral Vascular Disease; Council on Cardiovascular and Stroke Nursing; Council on Epidemiology and Prevention; and Council on Lifestyle and Cardiometabolic Health. Implementation of supervised exercise therapy for patients with symptomatic peripheral artery disease: a science advisory from the American Heart Association. *Circulation*. 2019 Sep 24;140(13):e700–10.