



HHS Public Access

Author manuscript

R I Med J (2013). Author manuscript; available in PMC 2021 March 22.

Published in final edited form as:

R I Med J (2013). ; 103(9): 34–35.

Promoting Social Connectedness among Cardiac Rehabilitation Patients During the COVID-19 Pandemic and Beyond

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Cardiac rehabilitation (CR) is a critical component of the continuum of care for cardiovascular patients and includes physician-supervised exercise, patient counseling and education to address risk factors for cardiovascular disease, and social support. The effectiveness of center-based CR is well established, and the benefits include reduced mortality and rehospitalizations, improved physical functioning, fewer depressive symptoms, and increased quality of life.¹ The social distancing recommendations to reduce the spread of COVID-19, however, has made it necessary to close, alter, or limit the availability of center-based CR services. Avoiding close-contact settings, confined and enclosed spaces, and limiting contact with other people are essential to preventing COVID-19 transmission, especially among people with underlying medical conditions such as heart failure or coronary artery disease. Nonetheless, measures used to mitigate the spread of COVID-19 concomitantly increase cardiac patients' risk for poor physical and mental health. Furthermore, social isolation during the COVID-19 pandemic is a serious public health concern given the association between loneliness and poor cardiovascular and mental health outcomes.² Home-based programs can mitigate these health risks by offering remote coaching, supervised exercise training, and support to cardiac patients during the COVID-19 crisis.

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Disclosures/Conflicts

None

Home-based CR programs have been successfully used in other countries (e.g., Australia, Canada, United Kingdom) but have largely been limited (with some exceptions, e.g., Kaiser Permanente HMO) in the United States to patients in the Veterans Affairs (VA) Healthcare System. Unlike many center-based programs outside the VA, home-based CR programs within the VA continued and, in some cases, were extended to veterans receiving center-based CR during the COVID-19 pandemic.³ While the Centers for Medicare and Medicaid Services (CMS) expanded reimbursement for telehealth coverage for patients during the COVID-19 pandemic, reimbursement for home-based CR was not included.³ The ongoing social distancing efforts to mitigate the transmission of COVID-19, and the lack of CMS reimbursement for home-based CR, has resulted in delayed critical secondary prevention services as patients are waitlisted due to prolonged center closures or reduced access to in-person rehabilitation services. Concerns about the safety and efficacy of home-based CR may contribute to the reluctance to offer the program to all patients but meta-analyses of randomized controlled trials showed that home-based CR is as safe as center-based CR⁴ and associated with reduced rehospitalizations or cardiac events relative to usual care (RR = 0.56, 95% CI = 0.39, 0.81, $p < .001$).⁵ These benefits strongly suggest that home-based CR should be considered for all patients eligible for center-based CR to minimize the care gap during the COVID-19 pandemic. As others have asserted, “there is no better time than now” for providers to explore new approaches to deliver cardiac rehabilitation programs.⁶

The social distancing required to mitigate the transmission of COVID-19 conflicts with the innate human need for social connection, which may increase loneliness.⁷ Innovative methods to enhance social connectedness during home-based CR will be critical for keeping patients motivated and healthy until a vaccine for SARS-CoV-2 becomes available. While technology is vastly underutilized in the management of cardiovascular diseases, the COVID-19 pandemic has renewed interest in the use of innovative strategies to provide ongoing care. The growing popularity of digital health technology such as smartphones, video-based platforms, and social media, and the social distancing required to avoid spreading COVID-19, presents a unique opportunity to engage and motivate home-based CR patients while promoting social connection.

Many technology tools are readily available to the healthcare community at low or no cost to the CR provider or patient. Facebook, for example, is the largest freely available social media platform with more than 2.5 billion monthly active users worldwide.⁸ Seven out of ten U.S. adults are Facebook users with 74% visiting the site at least once per day.⁸ Facebook is the most popular social media platform across all age groups. It has also become an important source of health information with 90% of users 50 years of age using Facebook to find and share health information.⁹ Furthermore, Facebook has become an important tool to share information about COVID-19 with 74% of the public posts sharing news articles on COVID-19.¹⁰ Users are not only sharing information about COVID-19 on their Facebook feeds but they are also using other features of the platform, such as Facebook Groups, a place to communicate with others about common interests, to connect with family, friends, and neighbors while socially distancing.¹¹ Identifying credible groups is critical to enhancing knowledge, increasing motivation, and forging social connections. Thus, social media groups that are facilitated and moderated by the health care team may offer home-based CR patients the opportunity to share and receive accurate, real-time information to

support disease management and social connections while reducing their risk for COVID-19.

Social media platforms offer the additional advantage of enhancing patient care by enabling providers to provide ongoing support to their patients. Healthcare providers can interact directly with patients by sharing critical information on cardiovascular risks via text or infographics, responding to posted messages, and engaging with patients using a live video streaming tool to support healthy behaviors. Recommendations¹² on the adaption of health-related interventions for social media delivery can guide the process: closed or private groups allow for the content and activities to only be shared among individuals invited to participate in the group; content must be adapted to align with how users interact with the platform, and participants must be trained to optimally use the platform; moderators can facilitate the flow of content to the group, and provide reminders regarding privacy and personal safety to participants; and peer “champions” can be trained to motivate and engage with other patients and to support healthy social behaviors. Implementation of a group to support home-based CR patients can not only support patients during the COVID-19 pandemic but may also bridge the gap between the adoption of new behaviors and implementation within patients’ home, work, and community environments.

Clinical care is often slow to change, requiring extensive study often over a long duration. The COVID-19 pandemic changed healthcare delivery and afforded clinicians and researchers a rare opportunity to rapidly explore innovative tools, methods, and approaches to deliver cardiac rehabilitation to all cardiac patients. Now is the time to show how cardiac rehabilitation that uses modern methods to promote social connectedness can improve cardiac outcomes during the COVID-19 pandemic and beyond.

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