

4th International Conference on

Sports Medicine and Fitness

November 14-15, 2018 | Edinburgh, Scotland

Technological advances in cancer rehabilitation

Gabriel R Signorelli

University College of Dublin, Ireland

A critical element in cancer care has been the rise of active rehabilitation. In the past years many studies investigated the benefits of physical activity (PA) for cancer survivors and have reported significant health improvements, maximizing functional capacity and quality of life (QOL), and preventing secondary recurrence. However, many barriers to implementation of active rehabilitation in cancer care exist due to its profound physical and psychological implications. In particular, we need to understand specific challenges and patient journeys and how we can help patients to leverage physical and psychological tools to better engage in their own care. A multidisciplinary quanti-qualitative method: with interviews, focus groups, questionnaires and physical tests will address the issues of barriers to PA, personalized mobile interventions and neuromuscular electrical stimulation (NMES) in cancer rehabilitation. Specific group PA programs, such as Nordic Walking and deep-water running, can provide benefits by improving physical fitness and strength. As a recreational activity, it can reduce the level of depression and anxiety and improve the mental and social mood, producing a positive effect on the QOL. NMES involves the administration of electrical impulses through a small stimulator unit operated by battery and hand, and electrodes placed on the skin near the target muscles. It has been shown to be a safe and effective method to improve muscle strength and cardiorespiratory fitness, highlighting its potential as a therapeutic intervention in the rehabilitation of cancer. Finally, technology advances such as personalized mobile apps, can help address some of the PA barriers.

g.signorelli@oncoavanze.es