



Speakers Session

August 2021

Biology and Medicine Case Report
Volume: 05

HEALTHCARE PHYSICAL THERAPY | 2021

2021
August 03
Webinar

8th International Conference and Expo on
**Novel Physiotherapies, Physical
Rehabilitation and Sports Medicine**

The effect of exercise program in water on pain level and functional status in patients with chronic lower back pain: A single-blind randomised controlled trial

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BACKGROUND: Lower back pain is one of the most widespread health issues today. Water-based exercise is an effective treatment to reduce pain intensity and disability.

OBJECTIVE: To assess the effect of a water exercise program on pain level and functional status of patients suffering from chronic low back pain.

METHODS: One hundred and twenty-four volunteers with chronic lower back pain, aged 19 to 70, were randomly assigned to either a water exercise group or a land exercise group. Both groups performed exercises that combined local deep muscles transversus abdominis and the multifidus with diaphragm activity, with the integration of movements of routine daily life. Both programs lasted three months, 28 twice-weekly 45-minute sessions.

RESULTS: Significantly better improvement of all pain variables and functional status was found in the water group. The major significant ($p < 0.001$) contribution of the water group was obtained for pain description improvement. A multivariate linear regression model examined the predictors for pain and functional status improvement. The independent predictors for pain and functional status were pre-intervention status and the assigned group.

CONCLUSIONS: The water program has a greater potential than the land program for pain reduction and improving functional status of patients with chronic lower back pain.

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Rejuvenate Your Mind, Body, and Spirit; Physical Therapy for the Older Adult

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Sarcopenia, multi-morbidities, functional decline and social isolation are some of the reasons why the older adult lives a sedentary lifestyle. The COVID-19 pandemic have made it worst for these older adults, with lockdown measures closing the local gyms and outdoor exercises being controlled meant that they had to stay at home. For the technologically saavy adult, the use of fitness applications and online videos can serve as a guide to perform exercises at home. However, for those without access to the internet or media, self-determination and motivation to perform exercises may diminish with time. This presentation will focus on the various types of exercises that are not only safe, but convenient for the older adult.

Physical therapy should not only focus on physical aspect of exercise, but the physicality of the individual. As such, the mind and spirit needs to be frequently stimulated as well. Puzzles or the use of augmented and virtual reality games with other participants can not only help sharpen the mind, but increase social capital amongst the older adult. The building of social capital in old age acts as a pathway to decrease social isolation amongst older adults. By engaging with others, it creates a bond and an extended network, especially for the older adults who are single and reside alone. Meditation, yoga and mindfulness exercises are some ways that will be explored in this presentation to elevate the spirits of the older adult.

Biography

Gerard Charles is currently pursuing his PhD in Gerontology at the age of 30 years old from Singapore University of Social Sciences. He is a registered nurse at Singapore General Hospital's Department of Emergency Medicine. He has published 3 papers in reputed journals. His research interests are in the field of gerontology, healthcare, and nursing.