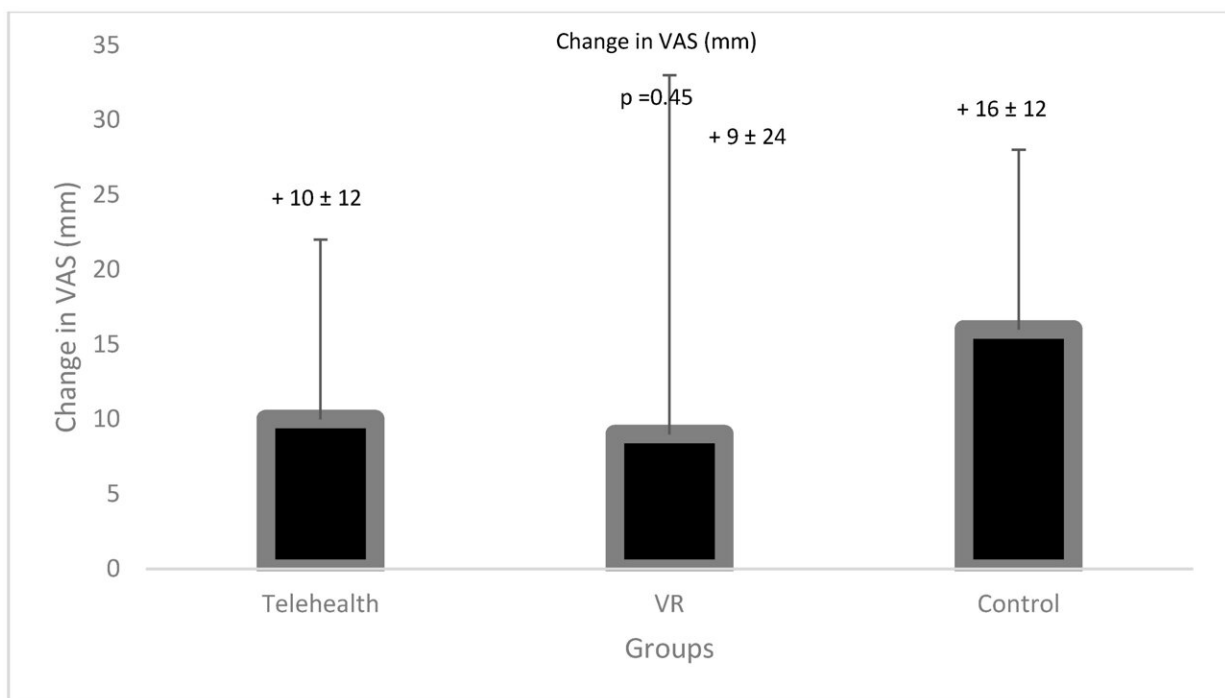


A 'self-managed' virtual reality exercise session may provide short-term pain relief for women with endometriosis

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Changes in VAS scores following different types of interventions in women with mild-to-moderate endometriosis. Credit: *International Journal of Environmental Research and Public Health* (2023). DOI: 10.3390/ijerph20031665

A virtual reality (VR) exercise session may be as effective as telehealth appointments at providing short-term pain relief for women diagnosed

with endometriosis, according to the results of a new health study.

Endometriosis is a debilitating disease affecting approximately 10% of women of reproductive age worldwide.

Pain management usually involves both pharmacological and [surgical interventions](#) but there is increasing interest in the [benefits of exercise](#) to reduce symptoms for many women.

With Australians facing hurdles in accessing immediate face-to-face exercise sessions, Exercise Physiologist and Senior Lecturer Dr. Joyce Ramos in the College of Nursing and Health Sciences, colleagues at the Flinders University Caring Futures Institute, SHAPE Research Centre, College of Medicine and Public Health, and Western Colorado University have assessed the benefits of self-managed exercises delivered through VR technology.

Twenty-two Australian women experiencing [pelvic pain](#) due to endometriosis were included in three groups for the study which consisted of a VR exercise group, telehealth exercise group and a [control group](#). The visual analog scale (VAS) was used to assess the severity of their pelvic pain.

The results show that increases in pain experienced by the [virtual reality](#) and telehealth participants may not be as severe as those in the control group, suggesting that both digital health interventions may reduce pelvic pain experienced by women diagnosed with endometriosis.

Flinders University Exercise Physiologist, Senior Lecturer, and study author, Dr. Joyce Ramos, says this is the first randomized controlled study to compare the potential benefits of a single telehealth appointment and VR-delivered [exercise session](#) on pelvic pain in women with mild-to-moderate endometriosis.

"Our study suggests that a single bout of a 'self-managed' VR-delivered exercise may be as effective as a single session of supervised telehealth-delivered exercise in providing immediate relief from pelvic pain associated with endometriosis," says Dr. Ramos

"These findings are consistent with a previous study which demonstrated that a 10-to-20-minute VR session was able to alleviate pain in participants with chronic pain and endometriosis. The previous study results show the VR group had a 36.7% reduction in global pain scores during the intervention period when compared to the control group."

"However, it should be noted that there was no statistically significant difference in pain scores between all three groups in our study. Nevertheless, this pilot study provides important information on the potential benefits of these digital health interventions, and the feasibility of a larger and more expensive full-scale study on assessing future treatment options," says Dr. Ramos.

"A plausible mechanism to explain the pain-relieving effect of VR- and telehealth-delivered exercise interventions may be their capacity to alter how pain is processed in the central nervous system (CNS). So, performing a task that consumes a lot of attention and resource, such as exercise, reduces the capacity for the processing of pain."

"The availability of an efficacious self-managed digital health tool is particularly important among those with busy lifestyles or those who live in rural and remote areas with limited access to synchronous healthcare."

The work is published in the *International Journal of Environmental Research and Public Health*.

More information: Muhammad Lutfi et al, A Single Session of a Digital Health Tool-Delivered Exercise Intervention May Provide

Immediate Relief from Pelvic Pain in Women with Endometriosis: A Pilot Randomized Controlled Study, *International Journal of Environmental Research and Public Health* (2023). [DOI: 10.3390/ijerph20031665](https://doi.org/10.3390/ijerph20031665)

Provided by Flinders University

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