

## Virtual Reality Exercise Improves Mental Wellbeing



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A new study shows that virtual training can reduce psychosocial stress and anxiety. Psychosocial stress refers to the stress experienced in social situations such as social judgment, rejection, and performance evaluation. These findings provide further evidence that virtual training can produce acute cognitive and neural benefits. The research is published in the *International Journal of Environmental Research and Public Health*.

There is no doubt that physical activity benefits the overall health and well-being of an individual. However, some patients, including those who suffer from neurological disorders and cardiovascular disease, and those who are hospitalised, may not find it possible to engage in physical exercise. However, the use of immersive virtual reality (IVR) could provide these patients with similar effects. IVR allows users to experience a virtual world through a virtual body.

A previous study conducted by the same researchers on young patients found that looking at a moving virtual body displayed in a first-person perspective induced physiological changes. The heart rate increased/decreased with the virtual movements, even though the participants remained still. In addition, the participants experienced acute cognitive and neural benefits similar to those experienced after real physical activity.

A follow-up study observed the same benefits in healthy elderly subjects after 20-minute sessions twice a week for six weeks.

In this current study, the researchers explore the effect on stress, adding another level to the beneficial effects of virtual training. Young, healthy subjects, while sitting still, experienced a virtual training displayed from the first-person perspective. IVR created the illusion of movement for the participants. The avatar ran at about 6.4 km/h for 30 minutes. The researchers assessed the psychosocial stress response before and after the virtual training. They also distributed a questionnaire for anxiety.

Results showed a decreased psychosocial stress response and lower anxiety levels after the virtual training comparable to the benefits observed after real exercise. They observed that virtual training could also reduce psychosocial stress and anxiety.

Source: [Tohoku University](#)

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