

ABSTRACT

The aim of this bachelor thesis was to compare the influence of two different therapeutical approaches to disorders of important functions of the arm of patients with Multiple sclerosis. It is said that 75% of Multiple sclerosis patients show lower unilateral or bilateral ability to use arms.

The thesis deals with the impact of therapeutical intervention on fine and gross motor functions, skilfulness and the intensity of squeeze of hand. The achieved results were assessed with the help of clinical tests, focused on these functional aspects carried out before and after the series of therapy.

Patients were divided into two groups. One group of patients went through proprioceptive neuromuscular facilitation using natural motion of a healthy human being and movements, a human being does, as a matter of daily routine. The second group of patients were stimulated via virtual reality.

The assumption that the stimulation with the help of virtual reality would have a bigger effect on patients was not confirmed. On the contrary, the research has shown that the stimulation using elements of proprioceptive neuromuscular facilitation appeared to have a better impact, especially on the gross motor functions.

It would be necessary to verify the results on a much higher number of patients as this is a pilot project.

Key words: examination of arm, proprioceptive neuromuscular facilitation, virtual reality, HTC Vive VR, fine motor functions, gross motor functions, the intensity of squeeze of hand