

The use of clinical hypnosis in the Virtual Therapeutic Garden



Joanna Szczepańska-Gieracha

My name is Joanna Szczepańska-Gieracha, and I would like to tell you about my experience from running a grant sponsored by the Polish National Center for Research and Development, which was realized between the years 2016 and 2020, which aimed to develop VR therapy to support the rehabilitation process.

SLAJD 2

NCT03830372	Evaluation of the Effectiveness of the "VR <u>TierOne</u> " Virtual Therapeutic Game as a Method Supporting the Post-stroke Rehabilitation.
NCT04047511	Immersive Virtual Therapy as a Method Supporting the Non <u>Farmacological</u> Treatment of Late-Life Depression.
NCT04313777	The Evaluation of Virtual Reality Therapy Efficacy in the Treatment of Depressive and Anxiety Symptoms in Patients With Coronary Artery Disease.
NCT04045977	Evaluation of the Effectiveness of Immersive Virtual Reality Therapy as a Method Supporting the Cardiac Rehabilitation.
NCT04601545	The Evaluation of the Efficiency of Immersive Virtual Reality Therapy as a Pulmonary Rehabilitation Supporting Method.
NCT05285501	Virtual Therapeutic Garden for Depressive Symptoms
NCT06002139	Virtual Reality in Orthopedic Rehabilitation

Looking at the results of clinical studies where the effectiveness of the **VR TierOne®** medical device was tested, I can say with full confidence that VR therapy effectively supports the rehabilitation process in the area of reducing depressive-anxiety symptoms and the level of perceived stress.

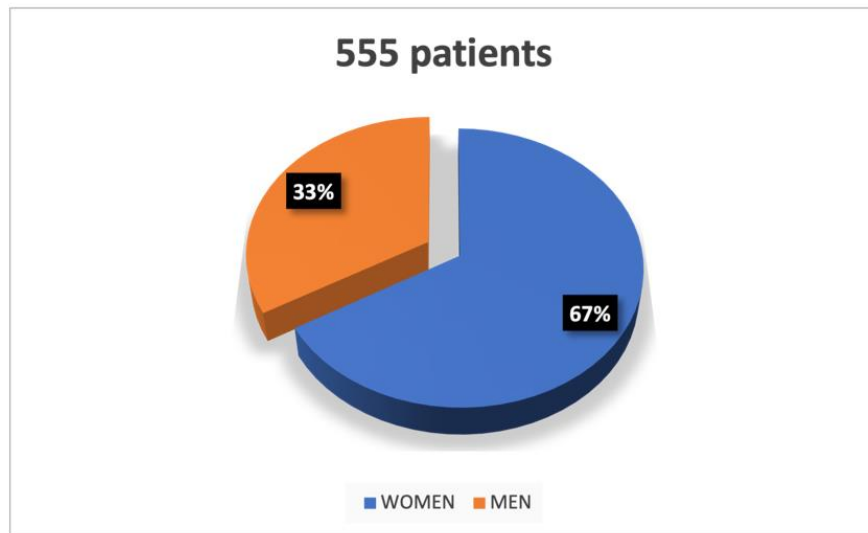
I know this from the seven clinical trials I have directed. They all were randomized controlled trials. Here are their numbers and titles of scientific projects.

Between 2019 and 2023, we published 12 original research papers, 8 literature reviews and 2 second-round analyses, in a total of 76 Impact Factor points.

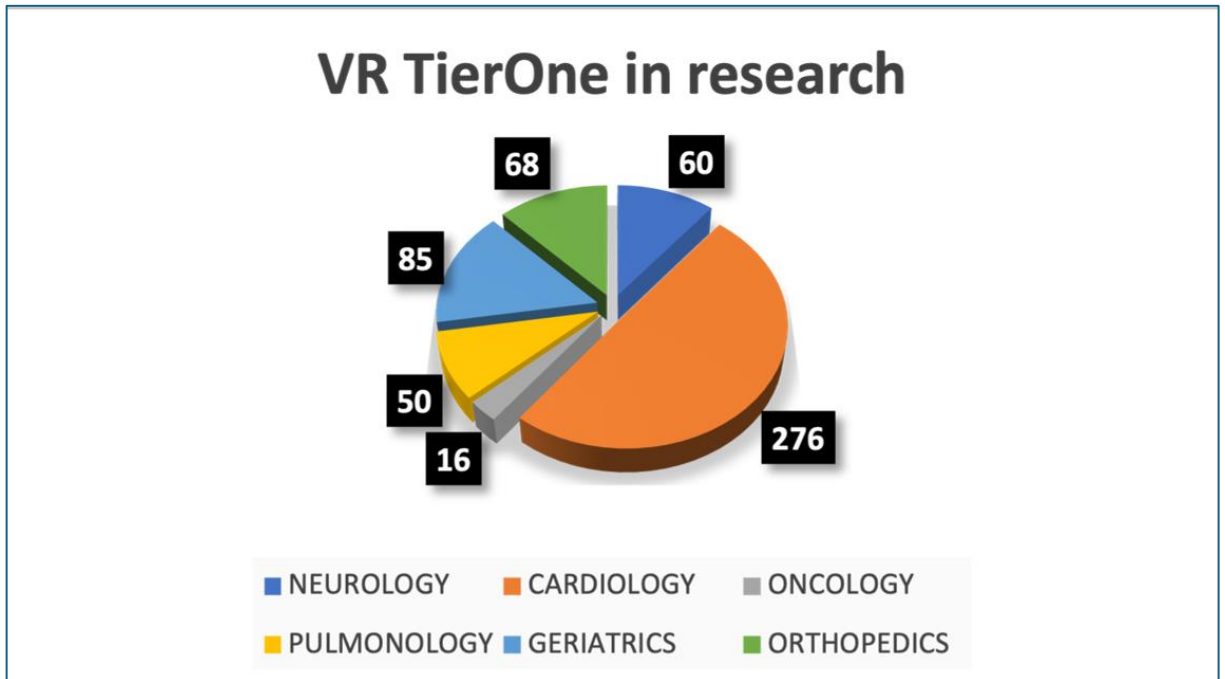
Those who publish know that a powerful research work has been done here by my scientific team.

We all know that reducing depressive-anxiety symptoms and the level of perceived stress are extremely important in the course of any treatment, especially in a long-term treatment and rehabilitation requiring cooperation from the patient.

SUMMARY OF CLINICAL TRIALS



A clinical study on the use of **VR TierOne®** medical device in many areas of rehabilitation was conducted on a group of 555 patients, three 370 were women and one 185 were men.



The largest group of patients received cardiac rehabilitation, this was 50% of the total group, which means 276 patients.

60 patients were rehabilitated for stroke, 68 for hip endoprosthesis, 85 were undergoing geriatric rehabilitation, and this was the oldest group of patients - the average age was over 70.

50 patients had chronic obstructive pulmonary disease and received pulmonary rehabilitation.

The smallest group involved patients treated for breast cancer, because we are just beginning a study in the oncology area.

SLAJD 5



This is the device itself, which was created as a result of the work of our team of specialists, in which I as a psychotherapist and Scientific Director was included. Other members of the team were: a clinical psychologist, a neurologist, a music therapist, a physiotherapist, a landscape architect and, of course, IT developers, programmers and 3D graphic designers.



The therapy included in the **VR TierOne®** medical device is based on the idea of the Virtual Therapeutic Garden.

During VR therapy, it is important to separate the patient from stressful hospital stimuli and transfer to a virtual world filled with beautiful plants and sounds of nature.

Such a landscape refers to previous positive experiences and puts the patient into a state of psychophysical relaxation.

This effect is deepened by focusing the patient's attention on what is happening "here and now" in the virtual world.

The quality of the image is so good that it is an illusion of the view spreading out in a beautiful garden. Through visual, auditory and kinesthetic stimulation we achieved the phenomenon of total immersion.

However, the goal of therapy is not to escape from stressful stimuli, because returning to hospital reality could be too painful, but the goal of the therapy is to regain mental balance and better contact with one's own resources.

Let's imagine that the opening gate leading to a beautiful garden opens access to the patient's mental and emotional resources necessary for the rehabilitation process.



However, the initial stage of therapy is all about tuning into the patient's situation. His / her health is damaged and requires treatment.

However, we don't say this in a direct way because the power of Ericksonian psychotherapy lies in the fact that it is the patient who decides what meaning he / she will give to the various elements of the virtual world.

The sooner the patient understands and feels that the success of the rehabilitation process largely depends on his / her effort and commitment, the greater the chance of returning to good functioning and independence.



Every session the beautiful mandala emerges from the sand and spins around, with the sounds of beautiful music, and at the same time the therapist tells the story to the patient about the important skills needed in the process of gardening, for example, patience, carefulness, endurance, calmness, trust and others.

Emotions associated with specific colors and music selected by the music therapist become the illustration of subsequent sessions, in which the patient becomes more and more deeply "immersed" in the virtual world and beautiful story about a garden that was gray and uncolored and thanks to the persistent work of the gardener becomes healthy and full of life.



During each session, the patient colors his / her own mandala, which deepens the process of total immersion in the virtual world.

If the tasks prove too difficult, the computer immediately adjusts the degree of difficulty to the patient's cognitive and kinesthetic abilities, so that the level of difficulty of the task does not exceed the patient's current capabilities.

In this way, during each session, the patient has a chance to achieve success, which motivates him / her to continue participating in virtual therapy. We made the assumption that it will increase the patient's motivation to greater involvement in the physiotherapy process.

The repetition of the same motif of coloring mandala during each session (the degree of difficulty, colors, metaphorical meaning changes, but the activity itself remains the same) all of them build a sense of security, because the patient knows what to expect on the next day of the therapy.

Such a scheme refers to the rehabilitation process, which is also repetitive and predictable in nature. In this way, virtual therapy reinforces important qualities necessary in the rehabilitation process: patience and persistence in achieving a goal.

It is extremely important in the physiotherapy process, because certain processes take a certain amount of time and happen at their own pace.

SLAJD 10



As a reward for the effort put into coloring the mandala, the watering can waters the magical plant, and the garden is revived.

SLAJD 11



New plants appear.



New animals and birds appear.

In this way, the patient sees the changes taking place in the garden from day to day, and becomes an active participant in them.

Daily stays in the Virtual Therapeutic Garden, listening to beautiful music and the sounds of nature, the calming voice of the therapist, watching the garden revive all result in improved mood, reduced anxiety, increased motivation for the rehabilitation process and increased sense of self-efficacy.



Metaphorical communication was used to make the patient's own meaning most important to them. Therefore, the VR therapy does not directly refer to the patient's health and disability but shows the recovery process in a symbolic way.

With the patient's involvement in nurturing the garden, the virtual world becomes vibrant and energetic from day to day, symbolizing the process of treatment and rehabilitation.

Encouraging motivation and self-efficacy are very important goals of the developed therapy. These are essential qualities on the journey to recovery and mobility.

The sooner the patient understands and feels that the success of the rehabilitation process largely depends on his / her effort and commitment, the greater the chance of returning to full recovery and independence.

The bridge connecting the two parts of the garden symbolizes the process of transformation of the patient from a person who is being rehabilitated into a person who becomes an active participant in the physiotherapy process.

Each element of the virtual world has a specific symbolic function. The power of Ericksonian psychotherapy lies in the fact, that it is the patient who decides what meaning he / she will give to the various elements of this world.



The use of clinical hypnosis, metaphorical communication and post-hypnotic suggestions makes that the effect of VR therapy does not end with its final session but lasts much longer, as clinical studies with follow-up have shown.

If you are interested in the topic I presented feel free to contact me

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Professor of Health Sciences and member of Polish Academy of Sciences, physiotherapist and certified psychotherapist of European Association for Psychotherapy (EAP). She specializes in psychotherapy for people experiencing health problems. From 2016 to 2020, she was the Scientific Director of a project funded by the Polish Center for Research and Development, and together with an interdisciplinary team of specialists created the Virtual Therapeutic Garden, the VR therapy designed for people requiring long-term rehabilitation www.vrtierone.com

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