



CONNECT

Immersive therapy for anxiety disorders

Background

In collaboration with the German Centre for Neurodegenerative Diseases and the Charité, the neomento project was launched in 2017. This is a novel therapeutic approach based on clinical findings, which was driven forward by funding from the EU and the federal government. The success of the project is largely due to the fact that neomento GmbH maintains close cooperation between developers, researchers and therapists and always focuses on the users or those affected. In doing so, the start-up draws on its vast experience and expertise in the field of clinical research and application, as well as VR development, information technology and measurement diagnostics. The goal is to clarify the potential of VR therapies and to offer a meaningful translation of therapeutic concepts into practical technologies that represent much more than a substitution of in vivo therapies.

Virtual Reality Exposure Therapy

According to statistics, 10 to 14 percent of all people suffer from anxiety disorders at least once in their lives, which can manifest themselves in various forms from social anxiety or agoraphobia to depression and post-traumatic stress disorder. When a person experiences anxiety, the stress and fear system in the body is activated and the entire organism is put on alert. In the process, the information is passed on from the sensory organs to the brain and thereby processed unconsciously on the one hand and consciously on the other.

The unconscious processing happens much faster and leads to the amygdala, which has an enormous influence on the processing of feelings and the recognition of sources of danger. This is where the fear and stress reactions are triggered. If this process and the arousal continue over a longer period of time, this can contribute significantly to the development of an anxiety disorder in the brain.

The conscious processing and assessment of the situation of the information received through the eyes and ears takes significantly longer and also triggers a corresponding physical reaction depending on the respective individual assessment.

In general, anxiety disorders can be caused by negative or traumatic experiences as well as by prolonged stressful or overstraining situations, which expose those affected to a permanently high level of stress, persistent self-doubt and helplessness.

The neomento project aims to develop practical, immersive technologies that focus on different anxiety-provoking scenarios and help people confront their own fears in a safe environment.



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These include VR scenarios from the field of social interaction, everyday challenges and dealing with aggression or stress. Midpoint scenarios or dealing with anxiety in the context of public places or transport can also be addressed with neomento therapy.

For the start-up, it is particularly important to be close to patients and therapists in order to specifically promote the feasibility of high-quality in vivo therapies and to ensure that the therapy goals are achieved efficiently and sustainably. For the implementation of a neomento VR therapy, VR glasses, a therapist's PC and the company's own therapy software are required. The software is the core for the clinically and technologically accurate implementation of evidence-based VR therapy. During therapy, binocular vision is imitated on the two displays of the VR goggles so that the respective anxiety-inducing scenario is generated and simulated around the user. In addition, integrated headphones play a suitable background noise and intensify the immersion in the virtual world. The greatest advantage of this is that sufferers can be immersed in a controllable reality that is perceived as real and can thus exploit an enormous therapeutic potential.

The process is simple. First, the patient and therapist choose a suitable scenario together and adapt it individually to the therapy status and goals. Then the session is started and the patient is immersed in the virtual world while the therapist has the possibility to control the exposure. At the end, the session and the handling of the simulation are evaluated and discussed. By immersing themselves in the simulation, therapist and patient gain insights into the behaviour, emotions and thoughts of the person affected during the stressful situation, as what is seen is not only passively perceived but actively experienced.

The team at neomento GmbH has high standards for effectiveness, practicality and quality. Through the constellation of psychologists, scientists, software developers and designers, virtual experiences are created based on sound knowledge and experience of modern psychotherapy and therapy research in nationwide projects.

Are you interested in virtual reality therapies and would like to learn more about the areas of application, implementation and advantages? We have researched some international companies in the context of VR therapy for you. Take a look - arcoro connects ideas, companies and innovations.

COMPANY	LOCATION	WEBSITE	FIELD OF EXPERTISE
neomento GmbH	Germany	https://neomento.de/	VR therapy
Sympatient GmbH	Germany	https://invirto.de/	VR therapy
IVPNetworks GmbH	Germany	https://www.novego.de/	VR therapy
VR Coach GmbH	Austria	https://www.vr-coach.at/	VR therapy



You prefer a direct contact person with extensive expertise and experience? Here, too, we have created a small overview for you:

INDUSTRY EXPERT	JOB POSITION	FIELD OF EXPERTISE
Philipp Stepnicka	CEO neomento GmbH	VR exposure therapy
Michael Altenhofer	CEO VR Coach GmbH	VR exposure therapy
Julian Angern	Co-Founder & Managing Director Product	VR therapy (DIGA)

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