

PLAY
ENJOY
IMPROVE!



EVOLVREHAB: The solution

EvolvRehab is a CE marked therapy platform for physical rehabilitation that helps augment traditional therapy services, enhancing the process of motor rehabilitation by making therapy engaging and accessible. Our system uses off-the-shelf motion capture hardware to deliver virtual rehabilitation to patients of all levels of disability through repetitive game-like and task-orientated activities across the care pathway, including the hospital and home.

Our solution allows the tracking of functional gains for upper and lower extremities through remote assessments, allowing clinicians to review their clients rehabilitation journey no matter their geographical location. VirtualRehab tackles the two main impediments to successful motor recovery: access to rehabilitation and adherence to therapy. It meets these needs by providing a wide range of engaging rehabilitation activities that can be used in adjunct to conventional therapy approaches.

EvolvRehab is available around the world, having been used in 20 countries, translated into 6 languages and used by thousands of patients. It can be easily integrated into rehabilitation programmes for a wide variety of neurological and physical impairments. We aim to empower people to take an active role in their rehabilitation.

Conditions treated

Acquired Brain Injuries

- Stroke
- Tumours
- Cerebral Palsy
- Anoxias
- Traumatic Brain Injuries (TBI)

Neurodegenerative Diseases

- Multiple Sclerosis
- Parkinson's Disease
- Alzheimer's Disease
- Amyotrophic Lateral Sclerosis (ALS).

Neuromuscular Disorders

- Dystrophies
- Myopathies
- Amyotrophies
- Neuropathies

Musculoskeletal conditions

- Knee and hip replacement post-op
- Shoulder injuries
- Spinal cord injuries

Geriatrics Care

- Maintenance of activity level for the elderly
- Cognitive impairments
- Fall prevention

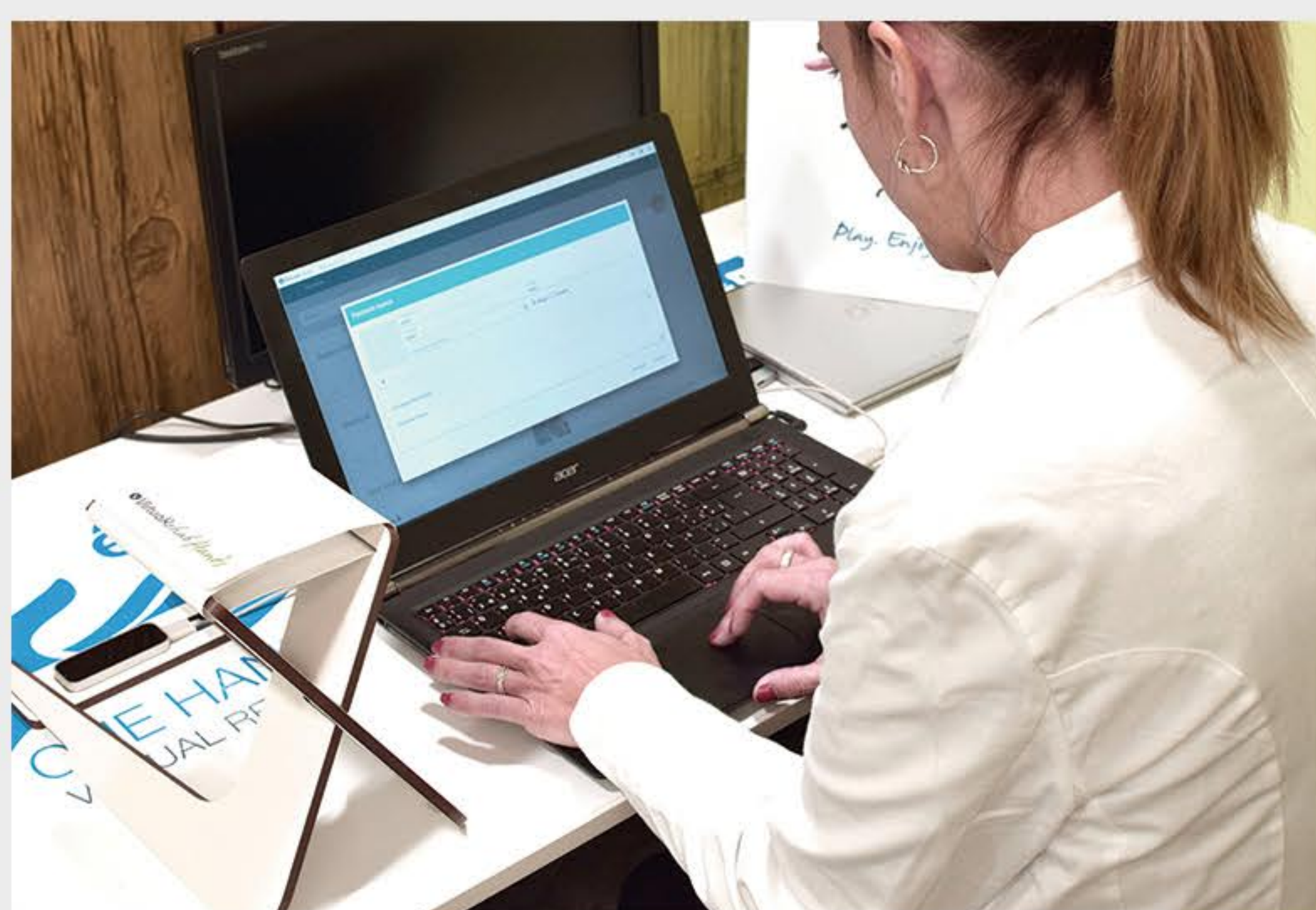


EVOVLREHAB: The Benefits



FOR CLINICS

- Improved service for patient cohort
- Improved adherence to therapy
- Improved patient outcomes
- Reduced waiting lists
- Offers a telerehabilitation business model



FOR THERAPISTS

- Intuitive and easy to use Manager
- Personalised treatment for each patient
- Advanced performance and progress reports
- Patient programmes can be monitored remotely
- Designed to incorporate goal setting
- System of alerts



FOR PATIENTS

- Engaging personalised therapy
- Task practice for activities of daily living
- Simple and intuitive to use
- Valid for different levels of ability
- Enhances treatment intensity and frequency
- Can be used at home any time of the day



“Repetitive exercises are an essential part of treatment and rehabilitation for patients with neurological conditions, but they can become boring. And therapy assistants can be trained to support patients to use EvolvRehab, so that senior therapists have more time for other specialist patient care”

Jayne Coulson
Physiotherapist, Basildon and
Thurrock University Hospital,



“I believe EvolvRehab played a vital part in the recovery from my first relapse. The program encouraged me to exercise and train my balance using a series of fun games. I could notice improvement each week when I was using this software”

Harrison Mockett
MS Patient, Basildon
University Hospital, UK

EVOLVREHAB Body



EvolvRehab body is a suite of therapy modules for upper and lower extremity rehabilitation. It is used across the world, within in-patient, out-patient and home settings. The system has been designed to include content for a wide range of abilities for different neurological disease.

Body includes three modules: **Assessments, Exercises and Exergames**. Each module features content that can be easily customised to the patients' impairment level via our intuitive therapy manager. Body uses a single low-cost motion camera to detect user movements. There is no need attach sensors to the patient – enabling a quick setup and easy tear down.

EvolvRehab Body is a great starting point for clinics who want to explore what virtual reality rehabilitation has to offer.

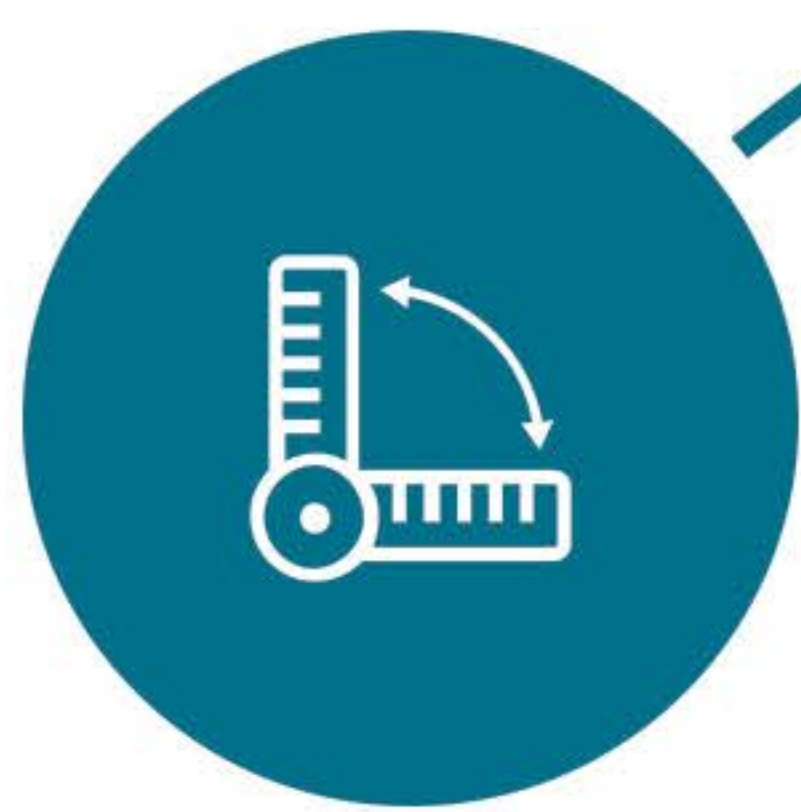


REHABILITATION OF UPPER AND LOWER EXTREMITIES

“When we saw the possibilities that EvolvRehab offered, especially the customizable games and patient data monitoring, we were immediately interested in incorporating it into our existing services in Queen Square”

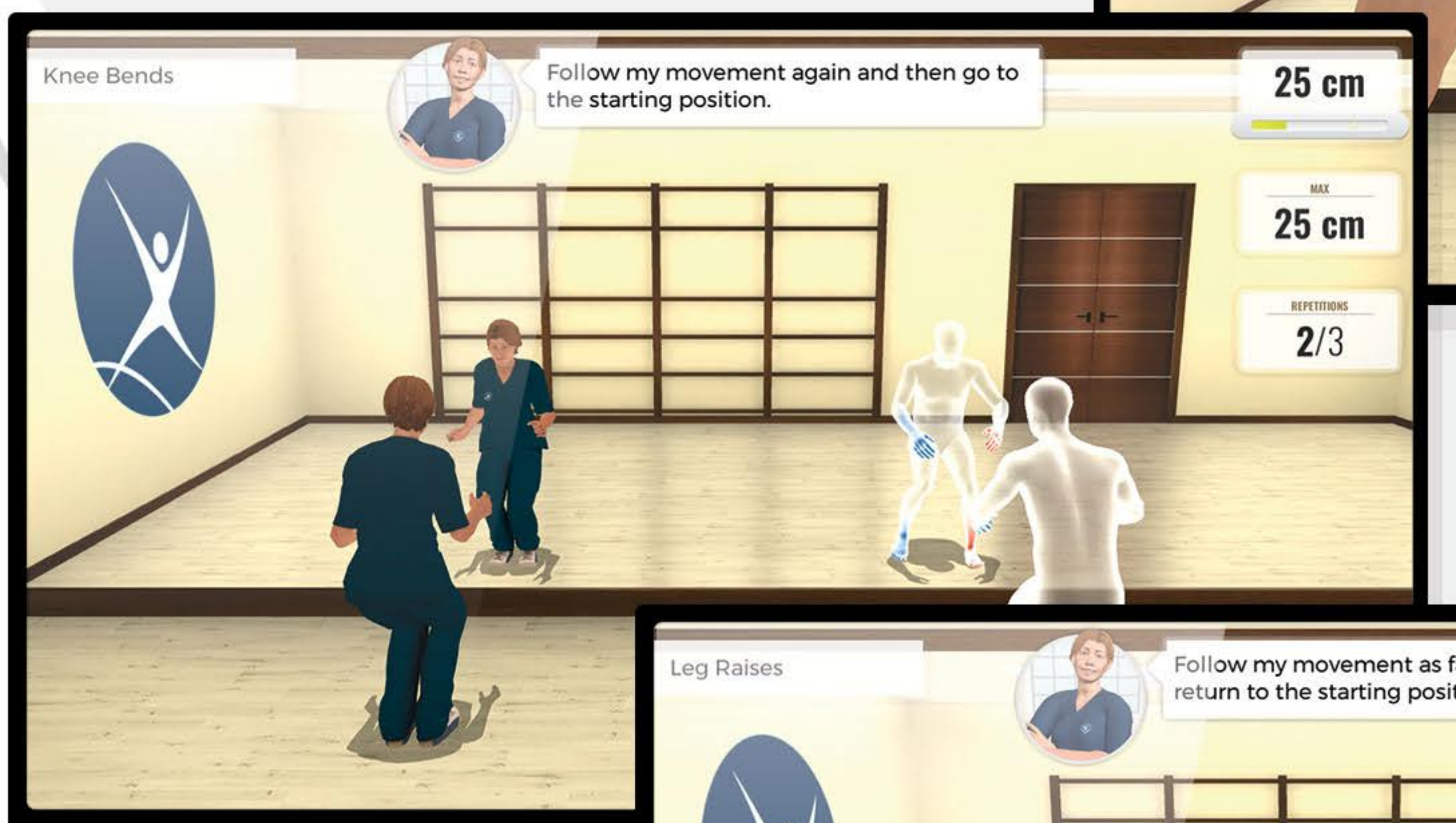
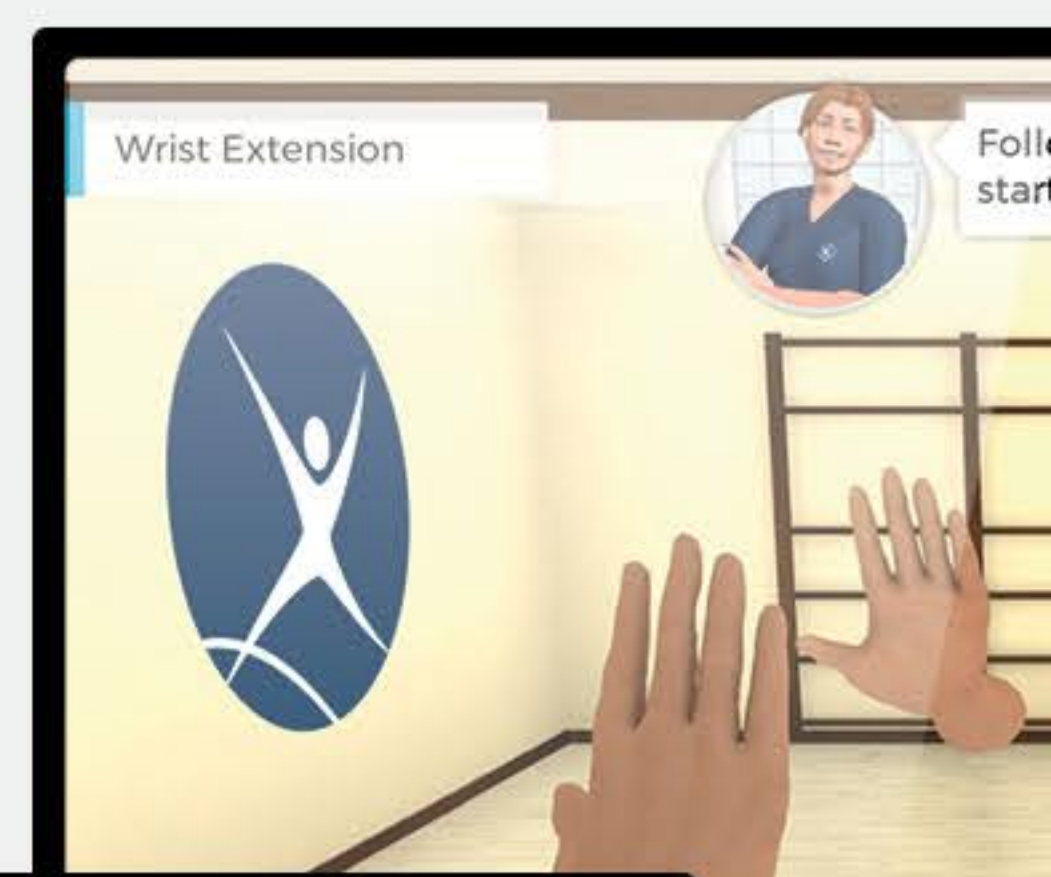
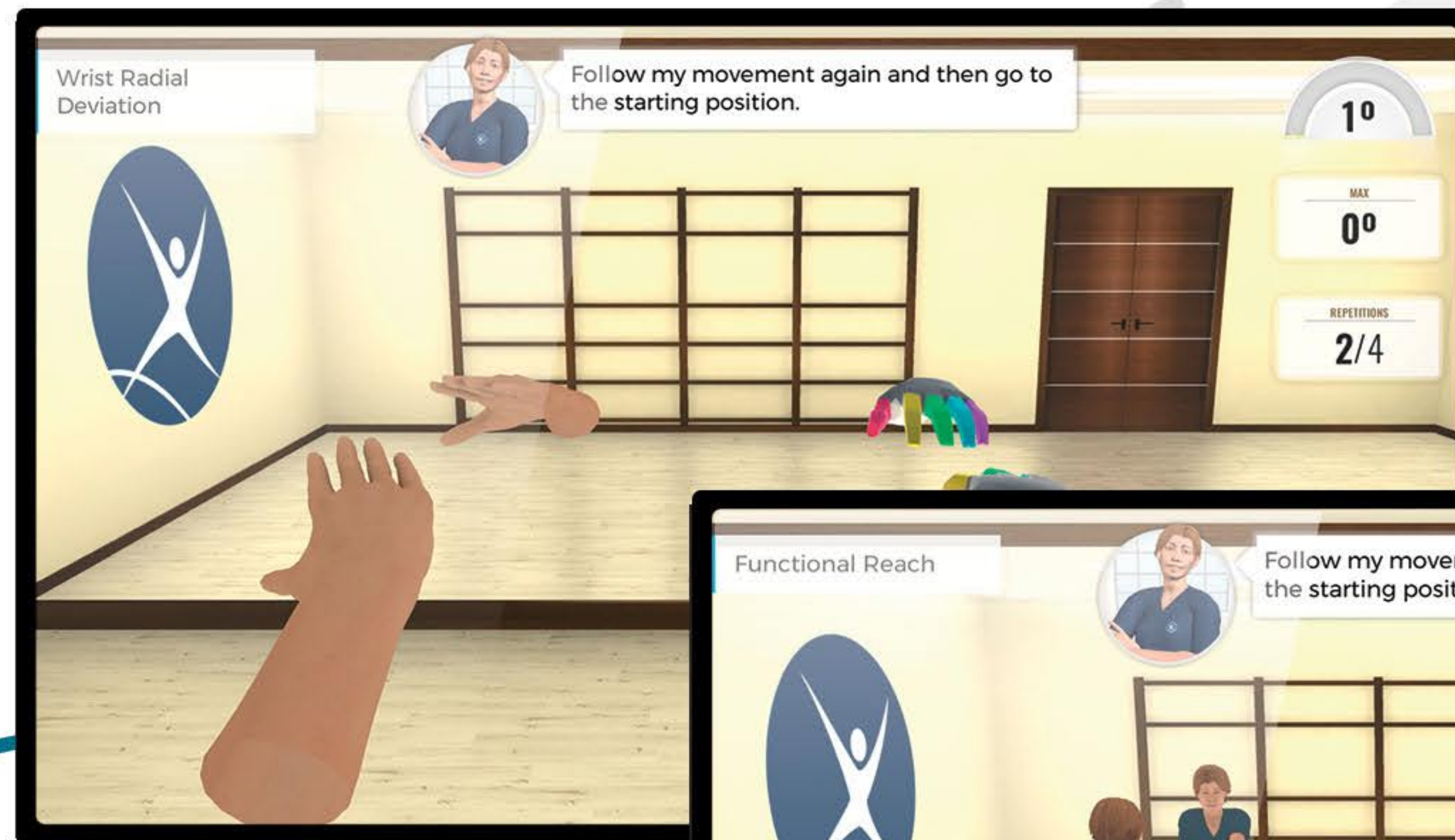
Prof. Nick Ward
Director Upper Limb
Neurorehabilitation Clinic,
UCLH Queen Square, London (UK)

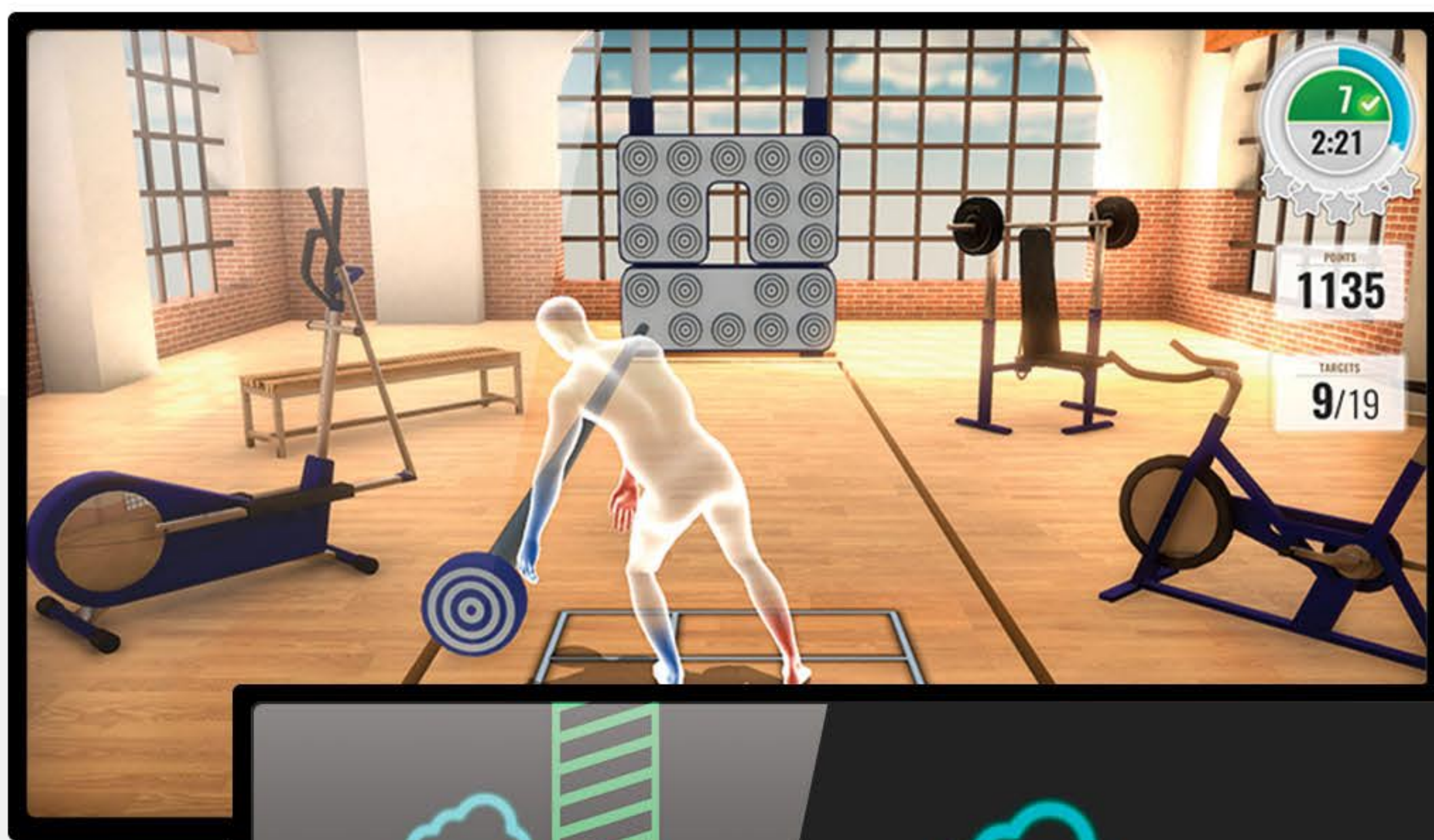
The Modules



Assessments

The assessment module has been designed to enable clinicians to track gains on the impairment level over time. Available for both EvolvRehab Body and Hands, our motion capture technology enables a variety of important range of motion metrics to be collected for the impaired limb.





Exergames

A suite of therapeutic game-like exercises that can be customised for each patient's needs based on their level of physical ability. Gamification is used to make the exergames even more engaging, helping to ensure improved patient adherence over time.



Exercises

Patients can perform prescribed customised workouts guided by a virtual coach who delivers real time feedback to the participant. The exercise module is for the patient who wants to work purely on increasing repetitions and quality of movement. The exercises can help increase aerobic capacity, flexibility and reduce spasticity to regain greater range of motion



EvolvRehab is comprised of **3 modules** formed by a series of activities to assess and train upper and lower extremities. The modules – **Assessments, Exercises** and **Exergames** – have been developed together with therapists to assure they meet the requirements of rehabilitation professionals and patients in clinical and telerehabilitation settings.

All 3 modules feature a high level of customisation, allowing the activities to be highly personalised to the clients individual impairments. Therapy programmes can be adjusted as the client progresses through their rehabilitation journey. Meanwhile, the system provides therapists with a variety of performance metrics that can be used to better assess patient outcomes.

EVOLVREHAB Hands

EvolvRehab Hands enables mass practice of fine motor skills through a novel approach to training dexterity, range of motion and muscle strength for fine motor rehabilitation.

EvolvRehab Hands includes activities for finger flexion, extension, abduction, and wrist ulnar and radial deviation. These exercises can be personalised to the patient's ability through our assessment, exercise, or exergame modules.

Patient comfort while using EvolvRehab Hands is assured with the purpose-built arm support designed and manufactured by Evolv.



REHABILITATION
OF FINE MOTOR SKILLS
OF THE HANDS



“The objectives we try to reach with traditional rehabilitation are also achieved when using EvolvRehab, which additionally improves the adherence to the treatments and the motivation of the patients”

Pedro Carrascal
Manager of the MS
Association of Vizcaya, Spain
(ADEMBI)



LEAP MOTION SENSOR

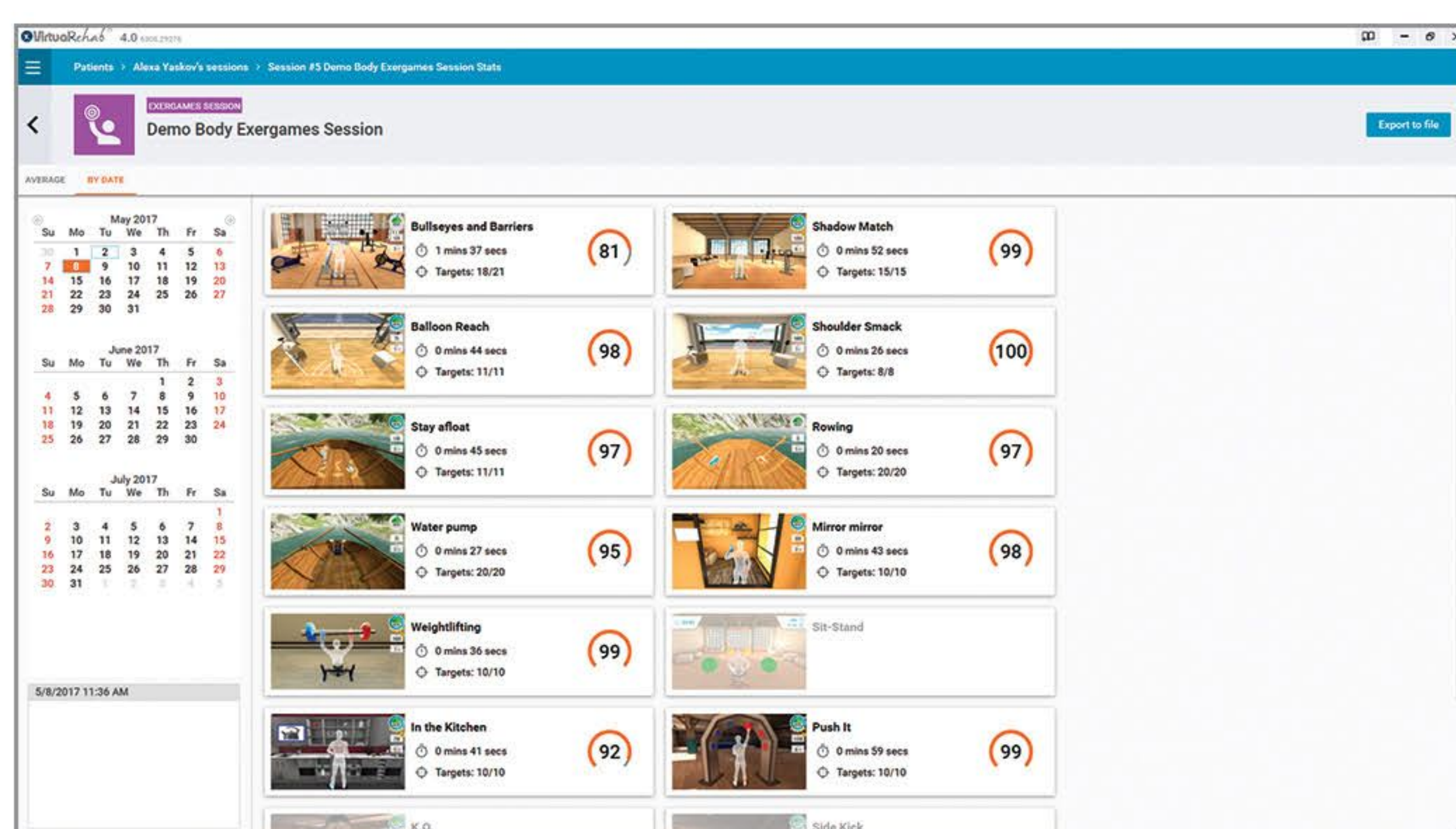
This diminutive motion-capture sensor recognizes the slightest movements of the hands and fingers with a high degree of precision.

EvolvRehab Hands is a simple set up including: the LEAP motion sensor, a computer and our purpose-built Hands Arm Support.



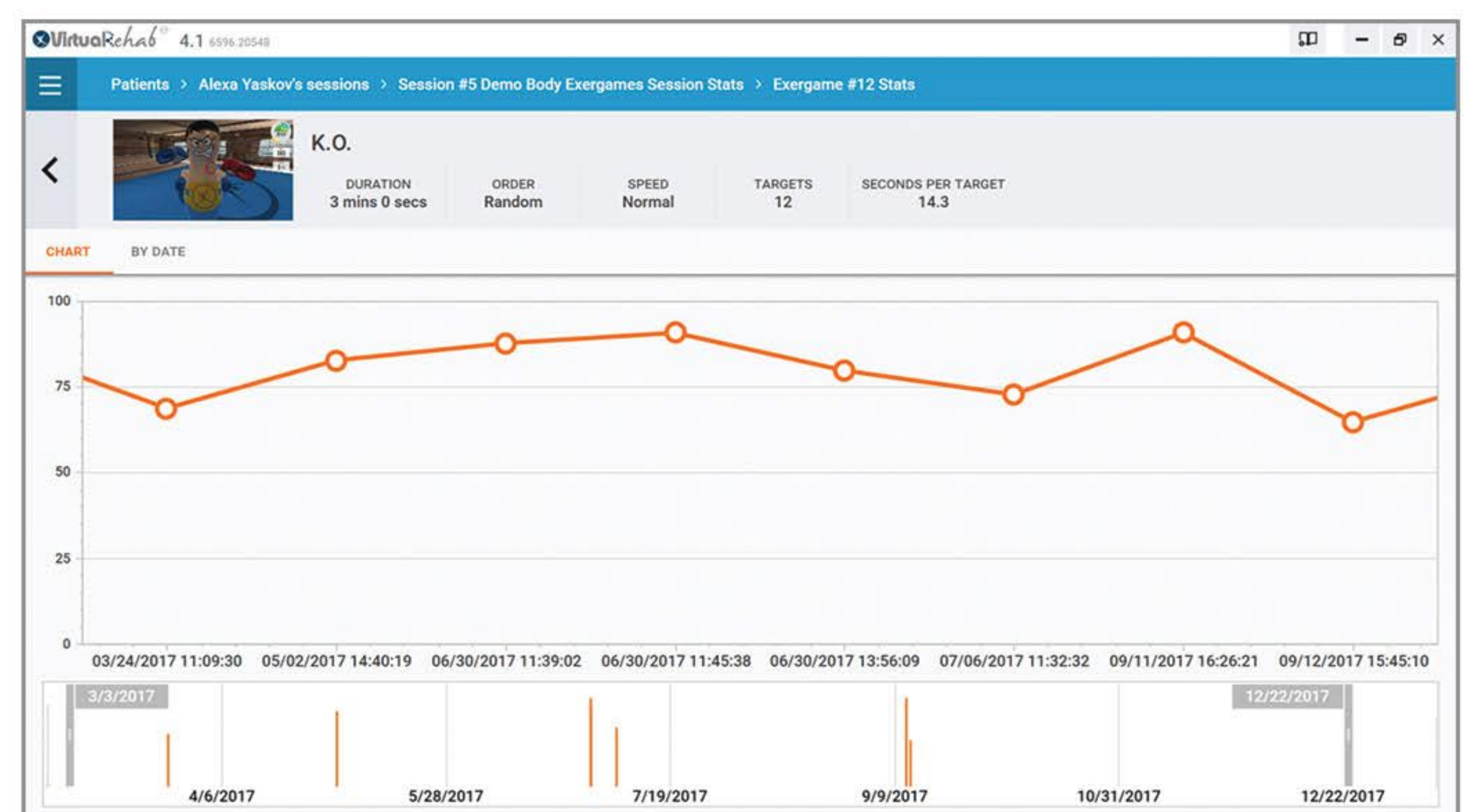
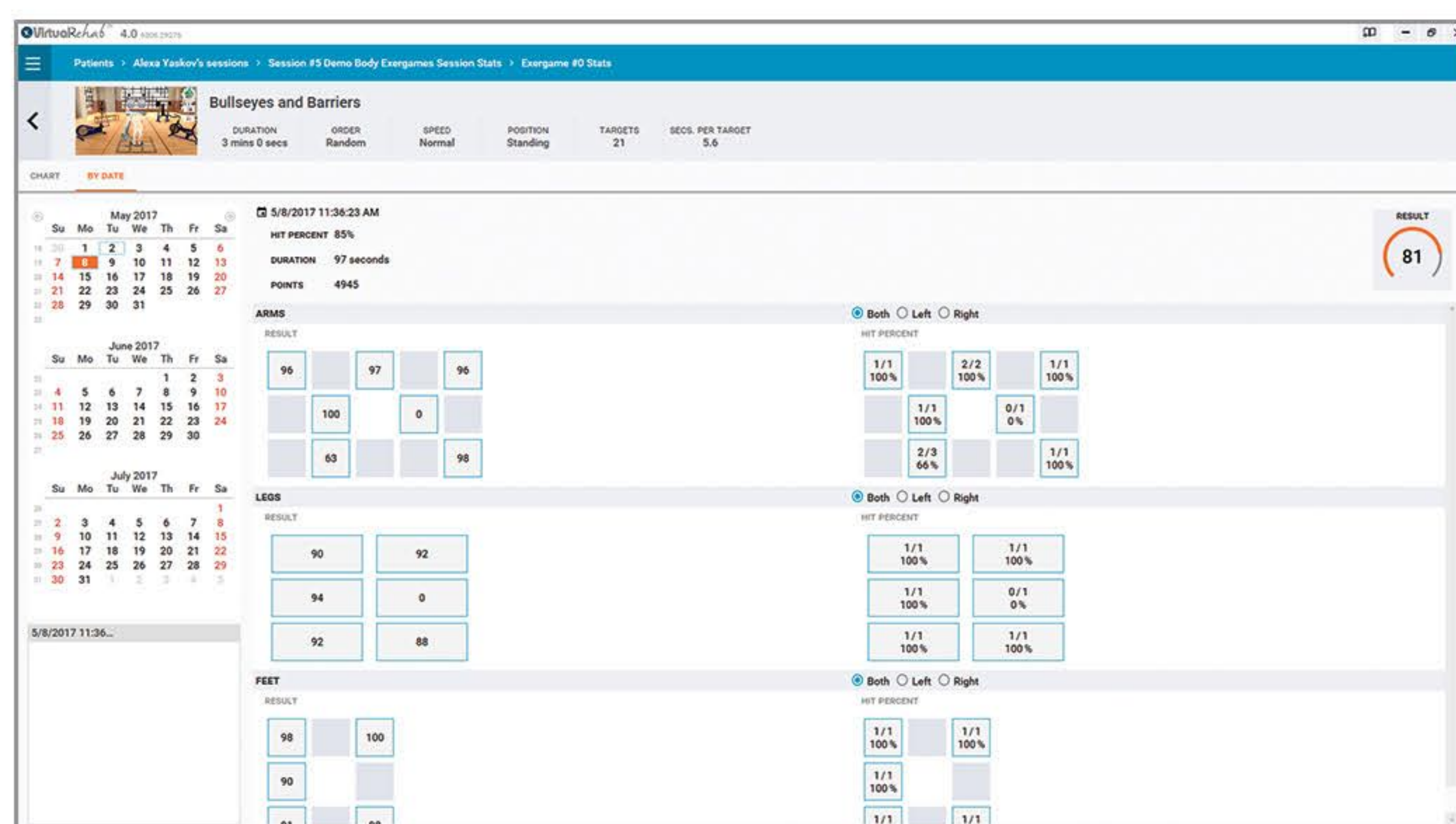
EVOLVREHAB Manager

Real-time Performance Analytics



EvolvRehab includes a simple-to-use manager that is used to set up patient profiles and sessions, customise different EvolvRehab activities to match each patient's specific requirements, track patient results and review in-depth visual analytics.

The therapy sessions' results are automatically saved - either online or locally - providing detailed analysis and reports. Therapists use the Manager to remotely monitor their patients' performance, either in clinical settings or in the home.



Clinical Efficacy



Improvement in levels of Depression on the Hospital Anxiety and depression Scale



Improvement on the Functional Independence Measure



Improvement in Dynamic Balance on Tinetti Scale.



Improvement in levels of anxiety on the Hospital Anxiety and depression Scale



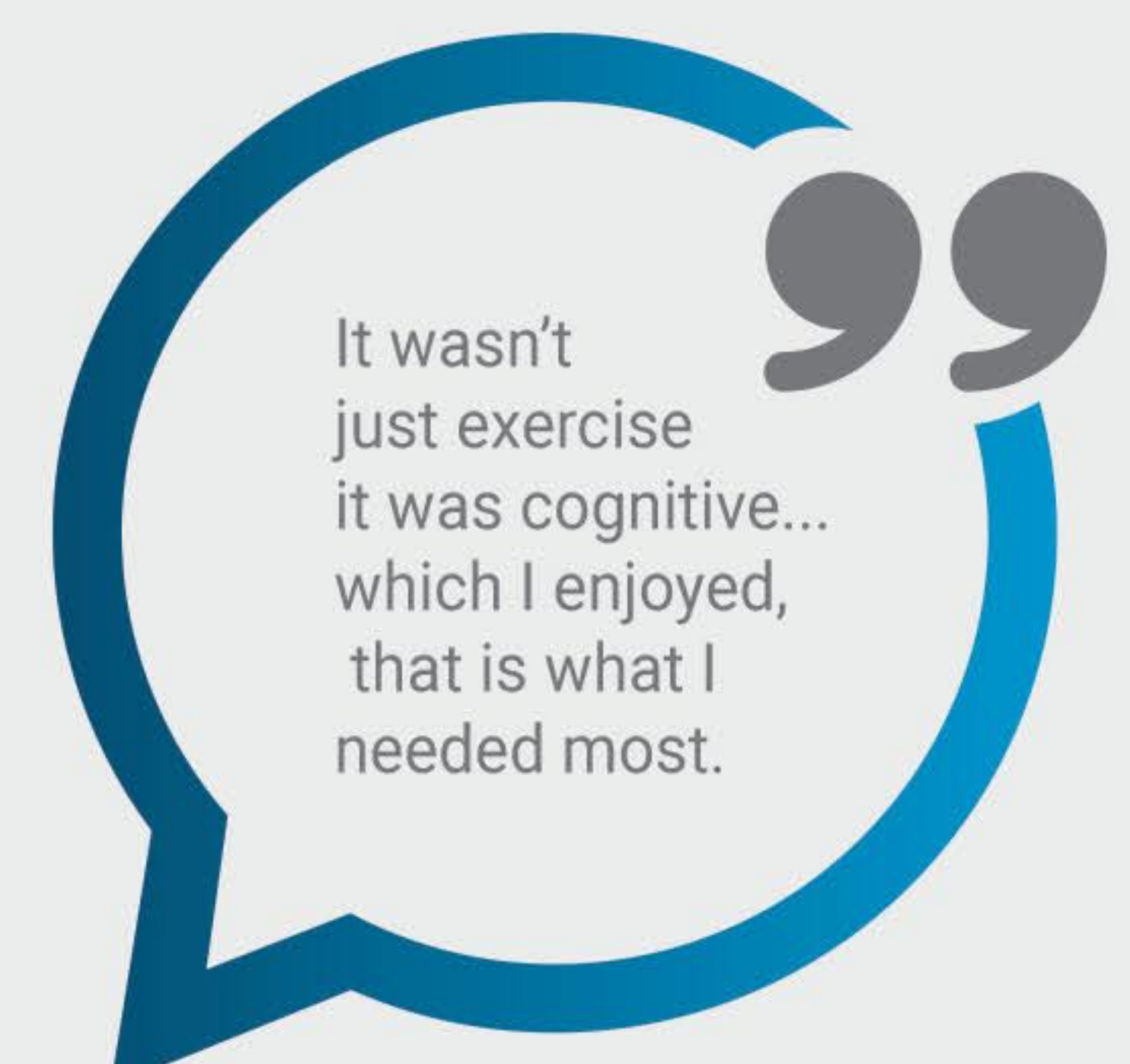
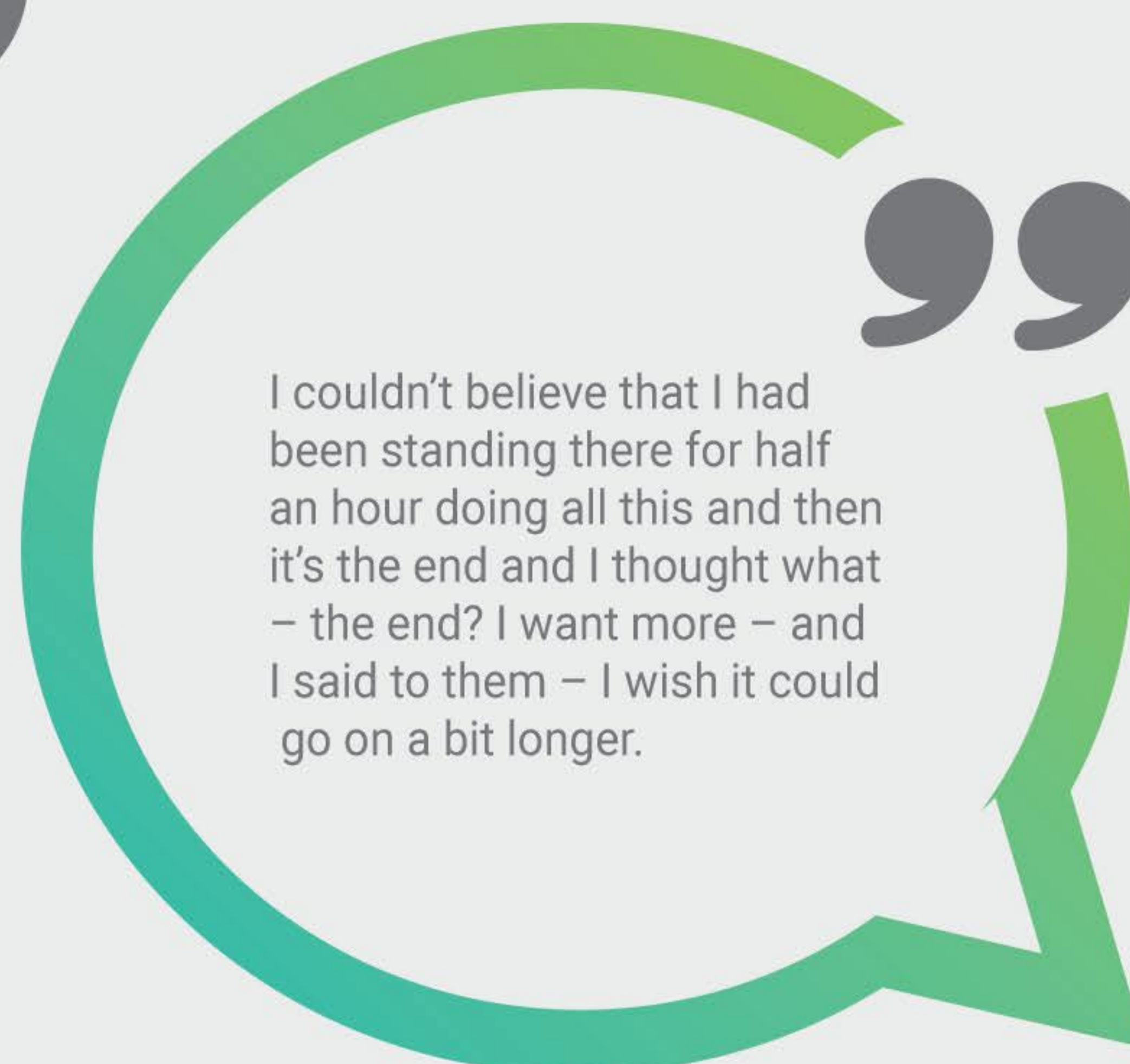
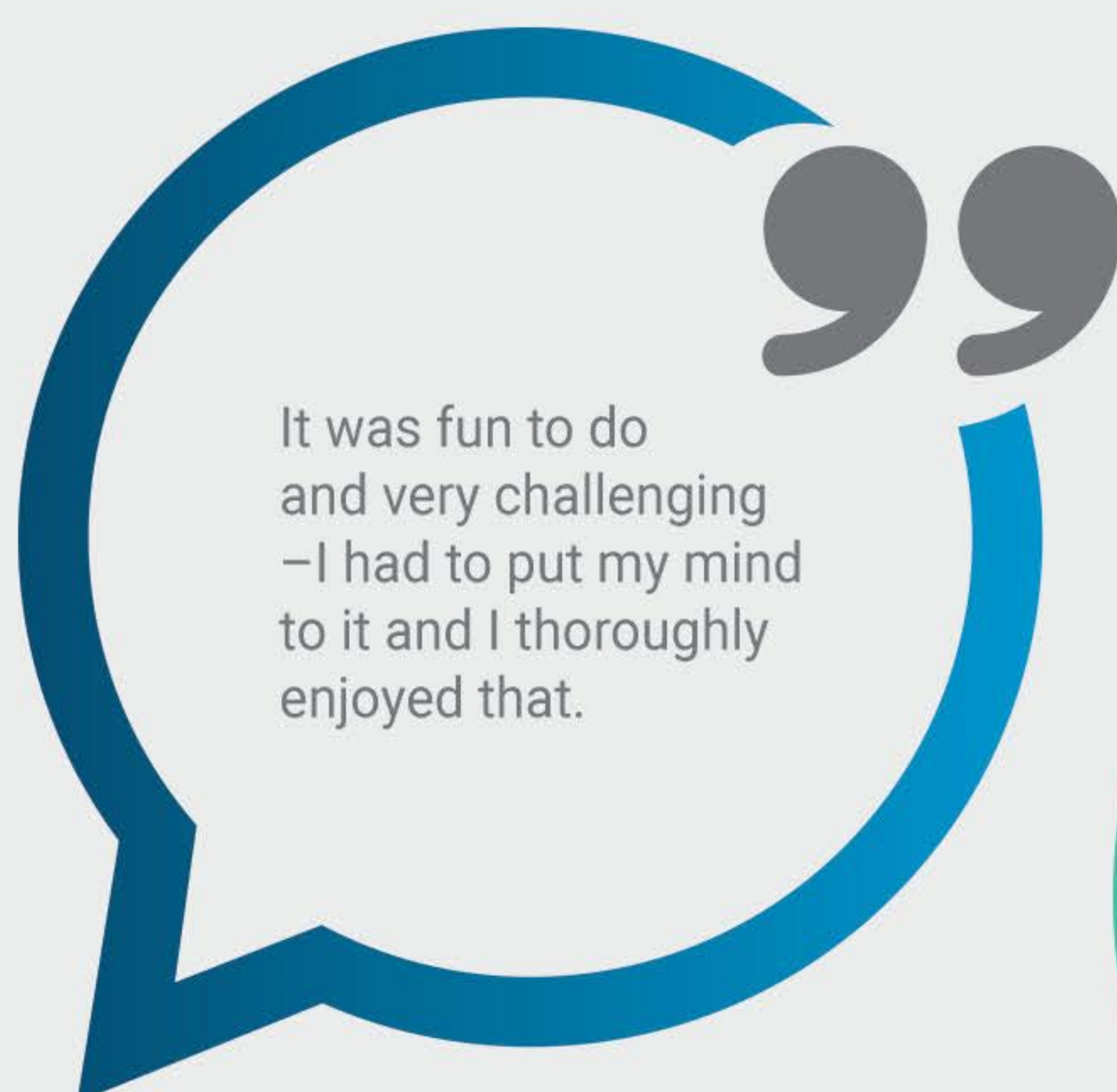
Improvement in static balance on Berg Scale



Improvement in Fatigue scores on the Fatigue Impact Scale

Murie-Fernandez, M. (2014). Use of Virtual Reality for physical rehabilitation in Multiple sclerosis as an adjunct to traditional therapy. 8th World Congress for Neurorehabilitation, Turkey.

Data taken from 4-month trial with 20 MS patients featuring 2 weekly VirtualRehab therapy sessions.



Taylor, M & Murray, G. (2017)

The use of individually tailored rehabilitation exergames:

The views of people affected by MS, MS Frontiers, Edinburgh. Data taken from 2-month

trial with 10 MS participants who carried out 8 individually supervised 30-60 min sessions, 1 session/week.



A medical device manufacturer that specialises in developing rehabilitation technology solutions.

Our mission is to advance the use of affordable technologies for rehabilitation that make a real impact in the patient care pathway. We provide therapists with new tools that they can use with persons of all ages and levels of ability.

From large rehabilitation institutions, to smaller rehab clinics, care residences, or the home setting, we aim to ensure that anyone using Evolv products can expect to have a great user experience.

For more information, visit:

 www.evolvrehab.com

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 @virtualrehab_en

