

# Excursion Report

Wednesday November 21st, 2018 marked a day on which a group of highly enthusiastic six master students from M.Sc. Health Science-Prevention and Promotion, visited the Medical Park Loipl, as part of the Applied Research into Neurological Disorders course, accompanied by Prof. Dr. Joachim Hermsdörfer and Nina Rohrbach. This rehabilitation center strategically situated between the majestic mountain range near Königssee, tends to all the needs of its patients. With a heavy reliance on advanced technologies in the field and research-oriented facilitation, this institute is one of the leading rehab institutes in Bavaria. The place is home to roughly over 100 patients dealing mostly with neurological debilitations such as stroke, multiple sclerosis or Parkinson's disease.

The group was warmly received by Prof. Dr. med. Peter Rieckmann and his team and was then given a brief introduction and tour of the facility that included various medical therapy rooms, a gymnasium and a pool area. The introduction was followed by observation of a patient with aphasia who was scheduled to undergo TDCS (trans direct current stimulation) therapy. Based on the best available evidence, the patient was required to perform linguistic and cognitive tasks like category recognition and naming items of daily use, while a direct current of 1mA was simultaneously passed between the two electrodes placed on the head of the patient.

After the lunch break the group moved on to the "Armstudio" where a therapist demonstrated the use of Tyromotion devices for the improvement of limb and digits' movement. The demonstrated therapy was targeted at the measurement of and improvement in patients' grip strength, muscle tone and spasticity. In addition to Amadeo therapy, which is a hand therapy, the therapist demonstrated the "MYRO", basically a large screen, which is sensory-based surface, with games aiming at muscle training tasks, pursuit tasks on accuracy, trail making tests and strength tests; basically, testing a patient's both motor and cognitive functions.

Perhaps the most heartwarming part of the excursion was the patient interviews. The group met with two patients on the road to recovery. The first patient was diagnosed with Parkinson's disease. His left side was more affected than the right and he had problems in walking. Despite his difficulty in whipping up facial expressions he had a smile on his face that said volumes about his recovery. He also explained how his favorite song helps him in improving his walking, hinting towards the usefulness of the therapy 'dancing using rhythms'. This therapy is the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual. Nowadays, this approach is being used increasingly in therapies of patients with Parkinson's disease. The second patient had suffered from two consecutive strokes 4 days apart, the impairment was more pronounced on the left side of his body and had problems with speech and swallowing. He told the group that Mirror Therapy, which is a type of motor imagery whereby the patient moves his unaffected limb while watching the movement in a mirror and this in turn sends a visual stimulus to the brain to promote movement in the affected limb, has proven to be helpful for him. He made use of a mirror at home for his own therapy. He also added that initially he couldn't clench his left fist and vowed that he'd one day be able to hold his lucky talisman in his fist. It was inspiring to see him achieve his goal.

The last hour was spent discussing the importance of putting interdisciplinary knowledge to use in making rehabilitation the most effective. The clinic was very keen on helping students with respect to their

Bachelor's and Master's theses by offering their assistance at any time. The group finally bid the place farewell after a meaningful experience at the medical park Loipl.