

## Poster 63

**The Importance of Quality of Life in Patients With Multiple Sclerosis: Do They Need Auxiliary Walking Devices? Luisa Pedro (Escola Superior de Tecnologia da Saúde de Lisboa, Lisboa, Portugal), José Luis Pais Ribeiro.**

Disclosure: None declared.

**Objective:** To describe the importance of training multiple sclerosis (MS) patients with auxiliary walking devices (walking stick, crutch, or wheelchair) in a way that achieves a better quality of life (QOL). **Design:** Exploratory and descriptive. **Setting:** General hospital in Portugal. **Participants:** 280 patients with MS. **Interventions:** We compared different walking device groups for the QOL domains. **Main Outcome Measure:** The Multiple Sclerosis Quality of Life (MSQOL-54) instrument and 1 question (What auxiliary for walking do you use?) were used with 3 groups: walking stick, crutch, and wheelchair. **Results:** Results show statistically significant better QOL for the crutch device for the domains of physical health, emotional role limitations, pain, well-being, social, energy; and for overall QOL. Results were statistically better for QOL for the walking stick device group in the following domains: physical role limitations, health distress. Results were statistically better for QOL for the wheelchair device group in the following domains: health in general, sexual function, change health, and satisfaction with sexual function. **Conclusions:** The dimensions showed better QOL for patients who utilized a crutch, mainly for the dimensions of physical component, social, and overall QOL in the MSQOL-54. **Key Words:** Multiple sclerosis; Quality of life; Rehabilitation; Walking.

## Poster 64

**Relationships Between Perception of Functionality and Quality of Life in Patients With Multiple Sclerosis. Luisa Pedro (Escola Superior de Tecnologia da Saúde de Lisboa, Lisboa, Portugal), José Luis Pais Ribeiro.**

Disclosure: None declared.

**Objective:** To describe the importance of functioning perception and quality of life (QOL) in patients with multiple sclerosis (MS). **Design:** Exploratory and descriptive. **Setting:** General hospital in Portugal. **Participants:** 280 patients with MS. **Interventions:** We explored the relationship between perception of functionality and QOL. **Main Outcome Measure:** The Multiple Sclerosis Quality of Life (MSQOL-54) instrument and 1 question (What do you think about your functionality?) were used. **Results:** The correlation between perception of functionality and the domains of MSQOL-54 were: physical health ( $r=.63, P<.01$ ), physical role limitations ( $r=.58, P<.01$ ), emotional role limitations ( $r=.41, P<.01$ ), pain ( $r=.41, P<.01$ ), well-being ( $r=.42, P<.01$ ), energy ( $r=.50, P<.01$ ), health in general ( $r=.50, P<.01$ ), social ( $r=.53, P<.01$ ), cognitive function ( $r=.31, P<.05$ ), health distress ( $r=.44, P<.01$ ), overall QOL ( $r=.60, P<.01$ ), sexual function ( $r=.40, P<.01$ ), change in health ( $r=.32, P<.05$ ), and satisfaction with sexual function ( $r=.34, P<.05$ ). **Conclusions:** There is a statistically significant correlation between the variables, suggesting that perception of functionality can play an important role in the QOL of patients with MS. **Key Words:** Multiple sclerosis; Quality of life; Rehabilitation.

## Poster 65

**Kinematics of the Spine in Obese Subjects. Paolo Capodaglio (Istituto Auxologico Italiano IRCCS, Piancavallo, Italy), Francesco Menegoni, Manuela Galli.**

Disclosure: None declared.

**Objective:** To develop a biomechanic model to provide repeatable characterization of trunk movements in obese subjects. **Design:** Not

provided. **Setting:** A laboratory-based optoelectronic motion analysis system (Vicon 460), with 6 cameras operating at 100Hz. **Participants:** 10 obese and 10 healthy women with no musculoskeletal condition. **Intervention:** Subjects performed forward flexion, bilateral bending, and rotation of the trunk at their preferred speed 3 times. Then, bony landmarks were manually re-palpated. If discrepancies were observed, data were collected (original configuration), and then the markers relocated and final kinematic data collected (modified configuration). **Main Outcome Measures:** Not provided. **Results:** Significant differences between the 2 configurations were observed (average, 5°). Intrasubject SD was less than 6°. Obese patients showed reduced forward flexion and dorso-lateral bending, increased pelvic tilt, and decreased kyphosis angle. **Conclusions:** The dorsal stiffness and the strategies observed could play a role in the onset of low back pain in obese subjects. The protocol appears to overcome biases due to skin artifacts, which are particularly obvious in obese subjects, and provides repeatable characterization of trunk movements in obese and control subjects. **Key Words:** Kinematics; Rehabilitation; Spine.

## Poster 66

**Effects of Chronic Epilepsy on Neuropsychologic Performance and Quality of Life in Greek-Cypriot. Fofi Constantinidou (University of Cyprus, Nicosia, Cyprus), Savvas Papacostas, Maria Nicou, Despina Themistocleous.**

Disclosure: None declared.

**Objectives:** To investigate the effects of epilepsy on neuropsychologic performance in Greek-Cypriot adults and to assess quality of life (QOL) in Greek-Cypriots with epilepsy. **Design:** Between-group experimental design. **Setting:** Standard clinical setting and neurologic and genetics institute. **Participants:** 30 Greek-Cypriot adults with chronic epilepsy (age range, 18–55y; mean age, 34.27±11.33y) and 25 neurologically healthy adults matched on age, sex, and education levels. **Interventions:** A battery of common neuropsychologic tests and 2 QOL measures were administered. **Main Outcome Measures:** Mini-Mental State Examination, Rey Auditory Verbal Learning Test (RAVLT), Trail-Making Tests (TMT) Parts A and B, Rey complex figure test, verbal fluency, digit span forward and backward, spatial span forward and backward, Symbol Digit Modalities Test, and logical memory from the Wechsler Memory Scale, 3rd edition. In addition, the following QOL measures were used: World Health Organization Quality of Life–BREF and the Quality of Life in Epilepsy Inventory. **Results:** Participants with epilepsy scored 1 SD lower and performed significantly lower (multivariate analysis of variance,  $\alpha=.05$ ) than normal cohorts on both verbal and nonverbal working memory measures (RAVLT, digit span forward and backward, visual span forward and backward, Rey complex figure test, paragraph recall immediate/delayed). In addition, performance was significantly lower ( $\alpha=.05$ ) on executive functioning and mental fluency tasks (Controlled Oral Word Association Test, Symbol Digits Modalities Test, TMT-A, TMT-B). Performance on executive tests correlated significantly ( $\alpha=.05$ ) with memory performance. In addition, there were significant differences in QOL dimensions relating to relationships. **Conclusions:** This first study with Greek-Cypriot patients suggests that chronic epilepsy affects several neurocognitive functions. The reduction in executive functioning interferes with the use of active memory strategies, thus contributing to the memory impairment. From a QOL standpoint, chronic epilepsy seems to influence important parameters such as interpersonal relationships. Implications for rehabilitation will be discussed. **Key Words:** Epilepsy; Memory; Neuropsychology; Quality of life; Rehabilitation.