

**Main Measures:** To measure equilibration, coordination and gait impairment, and level of spasticity, patients were assessed at baseline and 12 weeks post treatment with a neurological examination, maximum muscle strength, Modified Ashworth Scale and visual analogue scale.

**Results:** At the baseline we found 83 % of the participants with muscle strength differences with more than 10% in side comparison of leg, arm and core muscles. After 12 weeks intervention 18% of the muscle strength side differences could be reduced. The standardised specific exercise training improved significantly muscle strength. The quality of life and fatigue showed amelioration.

**Conclusions:** Specific exercise training once a week is an important and easily performed tool to improve focal neurological deficits, especially motor weakness, spasticity and gait impairment in patients with MS. Additionally the quality of life is increased and fatigue ameliorated.

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#### P581

**“Standing up is a little thing that’s actually a big thing” - a mixed methods investigation of the use of Oswestry standing frames in the homes of people with severe multiple sclerosis**

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**Background:** Increasing weakness and loss of balance limits opportunities for people with severe multiple sclerosis (MS) to engage with activities in standing. This can lead to deconditioning and other secondary complications of inactivity. Scant evidence exists on the effects of frame standing in people with severe MS and no qualitative exploration of the lived experience of frame standing could be found.

**Objectives:**

- To evaluate the effect of regular frame standing on motor ability, activities of daily living (ADL), spasms, constipation and pain.
- To explore the lived experience of using a standing frame.

**Method:** A mixed methods study was undertaken over 48 weeks using nine people with severe MS. Subjects were asked to stand regularly for 16, 20 or 24 weeks with an optional 12 week self-management phase.

Quantitative - a series of nine multiple baseline, single-case experiments was used. A range of outcomes were measured: Amended Motor Club Assessment, Canadian Occupational Performance Measure, Penn Spasm Frequency; bowel frequency and pain visual analogue scale.

Qualitative - a case study approach with a phenomenological perspective explored the experiences of living with MS before standing began, at the end of the standing phase and after self-managing a standing regime.

**Results:** Visual (trend, slope, level) and statistical analyses (two standard deviation band, C statistic) demonstrated improvement

in motor ability and performance of ADL in all subjects who stood regularly (n=8). Two subjects demonstrated improvement in spasm frequency. No change was seen in pain or bowel frequency but two subjects reported an improvement in bowel and bladder control.

Initial qualitative themes included loss of ADL, diminution of roles and fear of the future. Standing restored some ADL ability and relationship roles of spouse and parent. The upright body reconnected subjects with feeling normal and enhanced feelings of being back in the world. Standing enabled them to do more of what they wanted to do. Regaining previously valued activities reinstated them within important life roles which increased well-being and optimism about the future.

**Conclusion:** This provides evidence of the benefits of regular frame standing in improving motor ability, ADL and spasms in people with severe MS. This self-managed intervention also reinstated a sense of belonging by restoring important life-roles and feelings of normality as subjects regained previously valued activities.

The authors have nothing to disclose.

#### P582

**Specific multidisciplinary consultation: adapted physical activity and multiple sclerosis**

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Multiple sclerosis (MS) doesn't prohibit adapted physical activity practicing. Moreover, it was established that quality of life level of MS people is correlated with physical activity level 1-2.

**Objective:** Assessing multidisciplinary consultation impact in physical activity resumption in MS people.

**Method:** A semi-structured questionnaire was administered to 132 patients who received a consultation before (March 2008 - August 2010). Questionnaire incorporated causes and time of activity arrest, feeling of practical, difficulties and consequences of meeting with multidisciplinary team. A descriptive analysis was performed.

**Results:** 78 patients responded (age: 47.9 years  $\pm$  9.9; duration of illness: 12.9 years  $\pm$  7.7; median EDSS: 5.5). 70% of patients were engaged in physical activity at diagnosis. 46.3% of patients stopped at diagnosis announcement. After consultation, 68.4% of those who had stopped activity have resumed. In 30% who didn't practice, 54% have started a regular activity. Some expected benefits of practice before and after diagnosis announce doesn't change (well-being and physical fitness).

**Discussion:** Fear of illness and fatigue worsening can explain the physical activity cessation. Even adapted practice is difficult because of suitable symptoms but also by unreachable structure, low level of information on this subject, other people steering and underestimation of abilities.

**Conclusion:** Exercise impact on people with MS and positive development (physical and mental) after consultation reinforces the idea that specific consultation is required to accompany the patient's project.

**References:**

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