

# Research news



## Cognitive rehabilitation

Many people with MS have some degree of problem with memory, attention span or concentration at some time. Two different approaches to coping with these symptoms have been tested recently.

In one study, 35 people with mild to moderate cognitive problems attended a five week course which aimed to improve understanding of cognition and teach skills and strategies to tackle these difficulties. At the end of the study, participants felt better able to cope with cognitive difficulties and were able to apply techniques they had learnt to a wider range of situations.

Another study assessed a computer-based training programme with 20 people with some degree of cognitive difficulties. Half received three months intensive training aimed at improving attention, information processing and planning, whilst the other half received no treatment. The training group scored significantly higher in cognitive tests and also showed improvement in depression scale scores.

Shevil E, et al. Pilot study of a cognitive intervention program for persons with multiple sclerosis. Health Education Research 2009 Aug 3. [Epub ahead of print]  
Flavia M, et al. Efficacy and specificity of intensive cognitive rehabilitation of attention and executive functions in multiple sclerosis. Journal of Neurological Sciences 2010;288(1-2):101-105.

For more on cognitive issues, see page 8

## One-to-one versus group rehab

This study compared individual versus group-based physical rehabilitation programmes for people with MS. 50 volunteers were divided into two groups: the first received four one-on-one physical rehabilitation sessions and three personalised phone calls whilst the second group attended seven group-based education sessions. At the end of the eight week study, both groups had improved general health and physical activity. However, the individual therapy group showed a greater improvement in physical health whilst the group-based approach showed greater improvements in mental health. This suggests that a programme combining both approaches would be most effective.

Plow MA, et al. Comparing individualized rehabilitation to a group wellness intervention for persons with multiple sclerosis. American Journal of Health Promotion 2009;24(1):23-26.

## Short-term palliative care is cost-effective

Evidence for the effectiveness of palliative care has largely been drawn from studies in cancer. The impact of palliative care on people with advanced MS and their carers and evidence for its cost-effectiveness has been sought in a study involving 46 people in south east London.

Participants were either allocated immediately to the fast track palliative care team or continued with standard support services for three months before referral to palliative care. Those under the care of the fast track team fared better both psychologically and physically, as did their carers. There was also a significant reduction in care costs with fewer hospital admissions and less reliance on social services. The investigators conclude that short-term palliative care for people severely affected by MS and their carers will be cost-effective and warrants further study.

Higginson IJ, et al. Is short-term palliative care cost-effective in multiple sclerosis? A randomized phase II trial. Journal of Pain and Symptom Management 2009;38(6):816-826.

## Risk of deep vein thrombosis in advanced MS

Advanced MS often leads to loss of mobility, increasing the risk of venous thromboembolism (blood clots forming within veins, typically in the legs or lungs). As no reliable figures exist for the incidence of this complication, this study investigated the frequency of deep venous thrombosis of the legs (DVT) in 132 people with advanced MS who were permanent wheelchair users or confined to bed. DVT was found in 58 people (44%). The investigators note that despite this high incidence, little is known about those most at risk or ways to reduce the risk and highlight the need for further research.

Arpaia G, et al. Risk of deep venous thrombosis (DVT) in bedridden or wheelchair-bound multiple sclerosis patients: A prospective study. Thrombosis Research 2009 Jul 27. [Epub ahead of print]

## Differences in how men and women cope with MS

This Italian study of 370 people with MS (105 men and 265 women) looked for differences in the way physical disability affected aspects of quality of life in men and women. Participants completed a quality of life questionnaire and were assessed for their level of disability using the EDSS scale.

Overall, the group had a lower quality of life (irrespective of EDSS score) than the general population. Quality of life fell as disability increased. Quality of life was more reduced in men than in women, particularly for mental well-being and at greater disability. These results would suggest that while MS has a major impact on quality of life, women seem better at coping with its effects than men.

Casetta I, et al. Gender differences in health-related quality of life in multiple sclerosis. Multiple Sclerosis 2009;15(11):1339-1346.

## Disease modifying drugs and parenthood

Although people are advised to discontinue disease modifying treatments (DMTs) prior to starting a family, there is little data on the effects on parenthood, particularly in relation to fathers with MS. This study investigated pregnancies fathered by men taking DMTs.

A questionnaire was sent out via a German outpatient MS clinic and captured information about 46 pregnancies. Despite the small numbers, the results suggest that pregnancy fathered by men taking DMTs is safe. The average birth weight of babies was the same as that for the general population.

The study also recorded the birth weight of babies born to women with MS and found that this tended to be lower regardless of whether the mothers were receiving DMTs or not.

Hellwig K, et al. Parenthood and immunomodulation in patients with multiple sclerosis. Journal of Neurology 2009; [Epub ahead of print].

## Modafinil for fatigue

Previous studies investigating the effectiveness of modafinil (Provigil) in treating fatigue have produced conflicting results. In this UK study, investigators audited the effectiveness of modafinil in 39 people with MS-related fatigue and found that those experiencing excessive daytime sleepiness perceived greatest benefit from the treatment.

Littleton ET, et al. Modafinil for multiple sclerosis fatigue: Does it work? Clinical Neurology and Neurosurgery 2009 Oct 16. [Epub ahead of print]

## MS and birth month

Research suggests that babies born in spring face an increased risk of developing multiple sclerosis later in life.

The researchers looked at records of 1,300 people with MS born in the west of Scotland between 1922 and 1992. A much higher than expected proportion was born in March, April or May. In contrast, a lower proportion of those born in the autumn, particularly in November went on to develop MS.

The study reflects earlier studies that have drawn a connection with vitamin D levels in the mother. A principal source of vitamin D is regular exposure to sunlight. For children born in April, the last stages of the pregnancy will have coincided with the darkest months of the year.

Bayes HK, et al. Timing of birth and risk of multiple sclerosis in the Scottish population. European Neurology 2009;63(1):36-40.

## Personal information on YouTube analysed

The Internet has become a major source of health information. A variety of resources, such as videos, blogs and social networking sites, encourage people to post personal health information. Researchers have evaluated information generated by people with MS found within YouTube video comments. They took a random sample of 25 videos and analysed their comments. Out of 320 comments, 70 contained personal health information concerning their creators or a third party (eg relatives).

The researchers point out that by looking for the same web alias on different sites, such as Flickr or Facebook, a 'curious' reader could piece together detailed personal information and possibly identify a comment's author. Theoretically, this might be used to deny health insurance coverage or have implications for job applications. They also found that although some commenters' YouTube profiles had been deleted, their comments remained.

The researchers were surprised by the number of videos and comments relating to medications, especially Tysabri (natalizumab), and they drew attention to the potential legal and ethical implications of giving medical advice through YouTube.

Fernandez-Luque L, et al. An analysis of personal medical information disclosed in YouTube videos created by patients with multiple sclerosis. Studies in Health Technology and Informatics 2009;150:292-296.

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