

Do wheelchair-dependent people with multiple sclerosis want to exercise?

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Should people with MS exercise?

- ▶ About 20% of people with MS need to use a wheelchair¹
- ▶ People with MS are less active than the general population²
- ▶ Physical inactivity increases the risk of deconditioning-related secondary complications of MS such as fatigue, and muscle atrophy³
- ▶ A Cochrane review found strong evidence for increased strength and stamina when people with MS exercise, but studies did not include wheelchair-users⁴
- ▶ Clinical guidelines advocate community-based and patient-led interventions that aim to improve function and social participation for people with MS⁵
- ▶ Clinical care includes maintenance rehabilitation ["maintaining function within the context of disease progression by optimising health and preventing avoidable secondary complications⁶"].

Can wheelchair-users with MS exercise in Edinburgh?

- ▶ People face considerable barriers to being active, including poor access to facilities, inability to use equipment, lack of assistance, and lack of expert exercise prescription.
- ▶ These barriers were evident to the Edinburgh Community Physiotherapy Service (ECPS)

What did we do?

- ▶ ECPS obtained part-funding (£600) from the MS Society (Edinburgh branch) to offer an exercise programme.
- ▶ The programme was designed for wheelchair-users with some ability to transfer independently
- ▶ Ethical and management approvals were obtained.
- ▶ 6 people attended the exercise programme; they responded to an invitation to local MS society branch members.
- ▶ 3 people participated in a focus group study to explore people's experiences of the class; 2 others commented on the main themes.

What was the exercise programme?

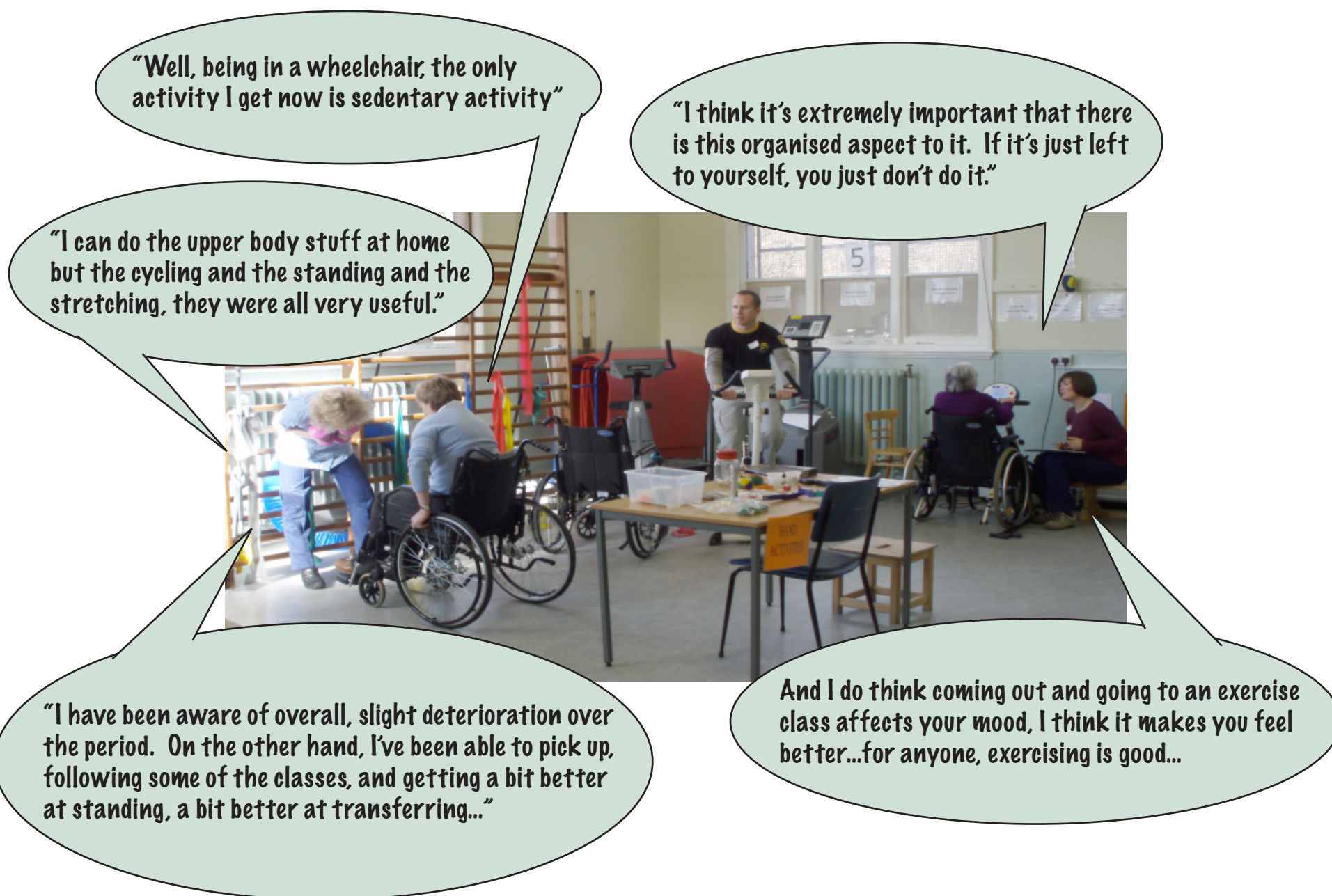
- ▶ A 6-month programme supervised by 4 physiotherapy staff.
- ▶ One 90-minute class per month.
- ▶ Class comprised a warm-up, circuit of exercise stations and stretching/guided relaxation.
- ▶ Exercise circuits:
 - ▶ a lower limb cycle ergometer;
 - ▶ assisted stretching in supine lying;
 - ▶ assisted standing using an Oswestry standing frame or wall bars;
 - ▶ arm strengthening exercises;
 - ▶ hand exercises for manual dexterity;

What did people say about exercise?

- ▶ Participants felt they lacked opportunities to exercise and were not physically active in their daily lives.
- ▶ They had little advice about exercise or physical activity from professionals, and often felt that they were seen as 'problem patients' for whom little could be done.
- ▶ They believed that contact with physiotherapy staff for advice and provision of an exercise programme was largely "a matter of chance" which depended on how well informed their GP was about MS and local services

What did people say about the exercise programme?

- ▶ Participants valued the opportunity to exercise, and felt overall benefits to function and psychological well-being.
- ▶ They especially valued the opportunity for lower-body exercises that they could not do elsewhere.
- ▶ They valued exercising in a supportive environment, assisted by knowledgeable staff who understood their condition and could tailor the exercise programme to their needs and limitations
- ▶ They made suggestions for improvement to the class format, including holding shorter classes more often.



"Well, being in a wheelchair, the only activity I get now is sedentary activity"

"I can do the upper body stuff at home but the cycling and the standing and the stretching, they were all very useful."

"I think it's extremely important that there is this organised aspect to it. If it's just left to yourself, you just don't do it."

"I have been aware of overall, slight deterioration over the period. On the other hand, I've been able to pick up, following some of the classes, and getting a bit better at standing, a bit better at transferring..."

And I do think coming out and going to an exercise class affects your mood, I think it makes you feel better...for anyone, exercising is good..."

Our conclusion

- ▶ Being wheelchair-dependent severely limits physical activity unless opportunities are provided, and motivating factors met, for people to regularly exercise.
- ▶ This pilot provided for:
 - ▶ exercise opportunities with specialist input relevant to MS
 - ▶ maintenance rehabilitation in a community setting

What next?

- ▶ We are redesigning our service, aiming to provide regular maintenance rehabilitation for wheelchair-users with MS in Edinburgh.
- ▶ This includes safe and appropriate exercise opportunities designed to combat deconditioning; monthly drop-in sessions will be offered in a community clinic setting.
- ▶ We recognise the need to promote the benefits of PA and exercise; targeting people with MS and health professionals.

References

(full details on request/in handout)

- 1 Kobelt et al (2006) Eur J Health Econ 7: S96-S104.
- 2 Motl et al (2005) Multiple Sclerosis, 11 pp.459-463.
- 3 Dalgas et al (2008) Multiple Sclerosis, 14 pp.35-53
- 4 Rietberg et al (2004) Cochrane Database, Issue 3, article CD003980.
- 5 NICE (2003) Management of MS in primary and secondary care. NICE.
- 6 Zajicek et al 2007 Multiple Sclerosis Care: a practical manual. OUP.

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