

The impact of Conductive Education

on quality of life for people with
acquired neurological conditions **2007**

Parkinson's, Stroke, Multiple Sclerosis (MS)



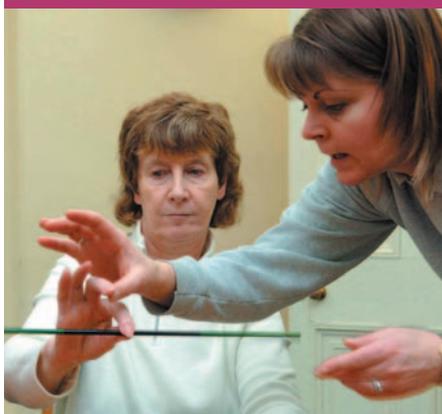
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Acknowledgements

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Introduction

To date there have been no large scale studies on the benefits of Conductive Education (CE) for adults with long term conditions (Parkinson's, stroke and multiple sclerosis (MS)), since it was founded by András Pető in the late 1940s. CE is a highly structured method of educating and motivating physically disabled adults at both the psychological and physical level in order to achieve success, achievement and improvement in quality of life for the person and their family. It is based on the teaching of movement strategies through diagnosis specific task series designed to increase cognitive awareness of movements as well as a problem solving approach to daily activities.

CE Sessions

These are run in diagnosis specific groups (Parkinson's, stroke and multiple sclerosis) and, on average, comprise of five participants and two qualified conductors. The weekly programme lasts for 1.5 hrs and the block programme for 2 hrs. During this time participants carry out a number of movement based tasks in lying, sitting and standing positions. The participants are facilitated not only to carry out the tasks but to learn how to regain control over their movements.

Each task series is delivered through the use of rhythmical intention. This means that the conductor verbalises the task e.g. "I lift my right arm up", then the participants repeat the intention using mental rehearsal to prepare for active movements. The movement is then carried out during a count of 1—5. This count acts as an external guide for the optimal tempo of the movement to achieve success. For those with Parkinson's the rhythmical intention acts as a cue for initiating movement and the group learn to use the count of 1 to carry out the movement; thus increasing tempo and providing them with an internal cognitive cue which can be transferred into daily activities.

Evaluation

Over the period of September 2004—September 2006 participants starting CE sessions at The National Institute of Conductive Education were invited to participate in the study. Of the 129 people who gave their consent 105 reached the analysis stage.

Subjects (Number and percentage)

Male 53 (50%)
Female 52 (50%)

Provision of Conductive Education:
2—week intensive course 57 (54%)
Weekly 47 (45%)
Monthly 1 (1%)

Diagnosis:
Stroke 34 (32%)
Multiple Sclerosis 16 (15%)
Parkinson's disease 55 (53%)

Age:
<40 years 4 (4%)
40 < 50 years 12 (11%)
50 < 60 years 30 (29%)
60 < 70 years 38 (36%)
70 < 80 years 19 (18%)
≥ 80 years 2 (2%)

Years between diagnosis and enrolment:
< 1 year 2 (2%)
1 < 2 years 22 (21%)
2 < 3 years 20 (19%)
3 < 4 years 15 (14%)
4 < 5 years 6 (6%)
5 < 10 years 22 (20%)
10 < 15 years 10 (10%)
≥ 15 years 8 (8%)



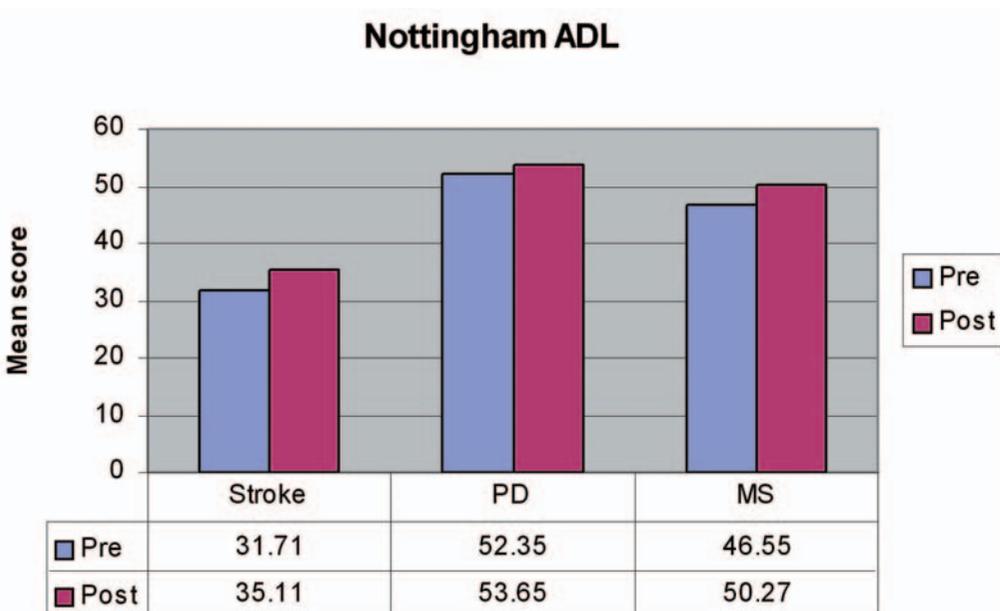
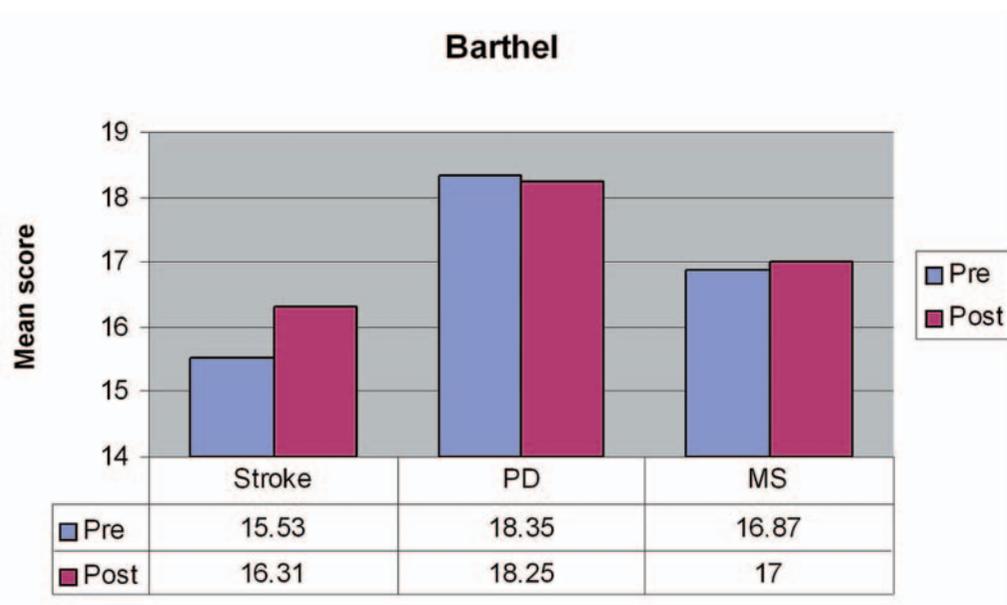
Outcome Measures

All participants completed the Barthel Index (BI) and the Nottingham Extended Activities of Daily Living (ADL) (NEADL) as a measure of mobility and functional independence. The BI is a commonly used measure comprising 10 items of self-care independence and scored 0-20 with 20 being more independent. The NEALD is a generic measure of health status comprising 22 items and scored from 0-66 with higher score indicating greater independence. To assess health related quality of life, stroke, multiple sclerosis and Parkinson's participants also completed the Short-form 36 (SF-36); MSQOL-54 and PDQ-39 respectively.

Results

Comparisons were made of the pre- and post intervention scores. These were analysed by diagnosis. Improvements are noted in 30 out of the 33 observed scores. The minimal drop in Barthel is consistent with degenerative disease.

Significance at $p=0.05$



Results showed improvement across all three conditions.

Stroke Quality of Life (QOL)

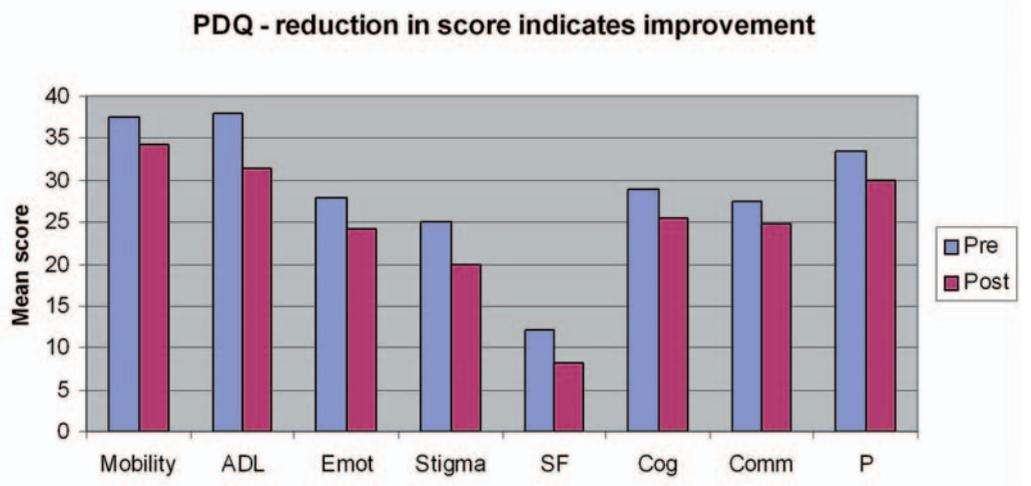
Areas covered in SF-36: Physical Function (PF); Role Physical (RP); Role Emotional (RE); Social Function (SF); Mental Health (MH); Energy (EV); Pain (P); Health Perception (HP); Change in Health (CH).



Positive changes were seen in all areas, of which six were statistically significant. Role Physical (RP); Role Emotional (RE); Social Function (SF); Mental Health (MH); Energy (EV); and Change in Health (CH).

Parkinson's Quality of Life (QOL)

Areas covered in PDQ-39: Mobility; ADL; Emotions (Emot); Stigma; Social Function (SF); Cognition (Cog); Communication (Comm); Bodily Discomfort (P).

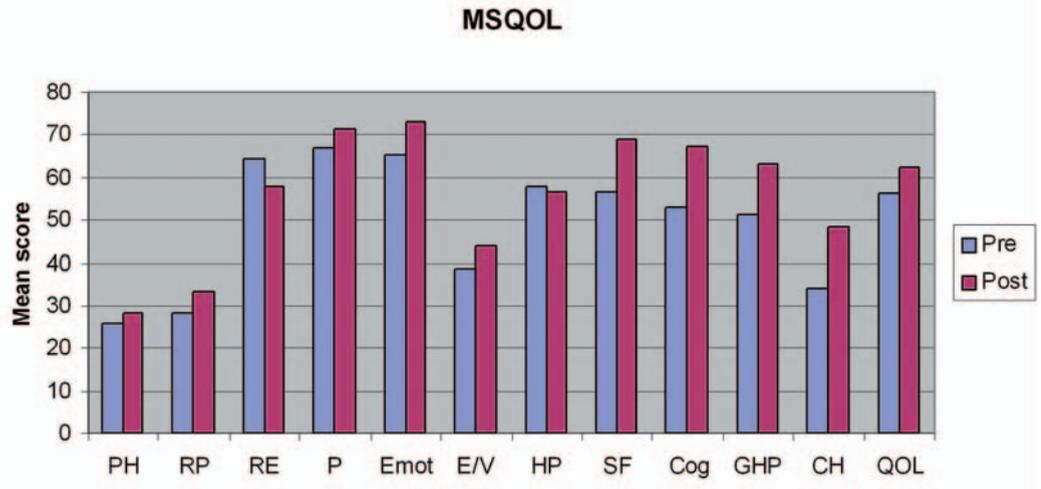


Positive changes can be seen in every area, three of which were statistically significant. (ADL; Stigma; Social Function (SF))



Multiple Sclerosis Quality of Life (QOL)

Areas covered in MSQOL-54: Physical Health (PH); Role Physical (RP); Role Emotional (RE); Pain (P); Emotional Well-being (Emot); Energy (E/V); Health Perception (HP); Social Function (SF); Cognitive Function (Cog); Health Distress (GHP); Change in Health (CH); QOL. The measure also generates scores regarding sexual function. As participants felt uncomfortable answering these and they were not relevant to the intervention they were omitted.



Positive changes were seen in ten areas, two of which were statistically significant. (Cognitive Function (Cog) and Change in Health (CH)).

Discussion

With over 100 people this is the largest study to date of the impact of Conductive Education for adults with acquired neurological long term conditions. Overall the results suggest that a 10 session diagnosis specific intervention can provide transferable skills that aid the daily function of the person as well as improving the emotional frame of mind. The use of problem-solving and cognitive input through rhythmical intention also indicates improvements in cognition across all three conditions.

The conductive programme aims to simultaneously influence physical, social and psychological well-being and the results indicate that this is not only possible but significant. Traditional approaches would frequently separate these areas and as such Conductive Education could be viewed as an alternative option of rehabilitation for complex individuals with acquired neurological conditions. The mean length of time between diagnosis and enrolment also indicates a role for CE in the longer term management of these conditions.

This study does have limitations associated with the lack of a control group and the subjectiveness of the outcome measures used. However it does demonstrate the short-term effects of CE. Future studies should aim to incorporate longer follow up assessments to demonstrate the long-term effects of this type of intervention.

Given the chronicity of most of the participants' conditions, they would be unlikely to qualify for conventional rehabilitation interventions. These results emphasise the potential benefits of Conductive Education for persons with neurological conditions that are beyond the stage of traditional involvement.



Conductive

Rehabilitation Services

at the National Institute of Conductive Education

We offer a range of specialised services for adults with long-term neurological conditions including:-

Parkinson's
Multiple Sclerosis
Stroke
Cerebral Palsy



All programmes are tailored to the needs of each individual and carried out in small diagnosis specific groups.

Applications welcome by self-referral or referral from a professional.

Further information available on request.



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