

Greenwood, K.M. & De Nardis, R.J. (2000). Melbourne Whiplash Centre Outcome Data. Preliminary Report. Melbourne Whiplash Centre (Manuscript in preparation).

Summary of Findings

Having established that the measures produced by The Melbourne Protocol on the Hanoun Multi-Cervical Unit have an acceptable degree of reliability (Greenwood & De Nardis, 2000a), the focus of research attention should now move to the issue of the validity of measurements and the efficacy of therapy using the unit. **Validity** refers to the “appropriateness, meaningfulness, and usefulness of the specific inferences made from test scores” (Standards for Educational and Psychological Testing, 1985, p.9).

Method

The data were obtained from 123 patients (66% female, average age 40.4 years, average chronicity of symptoms 98.0 months, average duration of treatment 6.9 weeks). Patients were assessed before and after the treatment program on 8 variables: scores on Neck Disability Index, strength of isometric Flexion/Extension/Lateral Flexion and range of motion of Flexion/Extension/Lateral Flexion/Rotation.

Paired t-tests were used to compare changes from pre- to post-program values.

Results

	Pre-Program	Post-Program	t	df	p
Measure					
Neck Disability Index	33.8	17.5	15.165	98	<.001
ROM (degrees)					
Flexion	58.2	65.5	-8.041	116	<.001
Extension	48.7	55.3	-6.530	115	<.001
Lateral Flexion	38.8	48.0	-10.695	114	<.001
Rotation	63.5	73.4	-8.593	114	<.001
Isometric Strength (lbs)					
Flexion	10.1	17.1	-15.808	116	<.001
Extension	14.5	25.0	-15.352	117	<.001
Lateral Flexion	10.9	18.6	-14.490	116	<.001

It can be seen that highly significant changes were found in all variables in the expected direction, most notably for strength. It is clear from these results that treatments using the Melbourne Protocol with the Hanoun Multi-Cervical Unit results in improvements in Neck Disability Index, strength and ROM in these patients as a group.

Six month follow-up data (thus far only available for 18 patients) indicates that there is no evidence of changes in the values of NDI, strength and ROM from post-program to 6 month recording. Therefore, treatment gains have persisted in this sample.

Updated Outcome Data as of January 2002-05-14

The data were obtained from 287 patients (average age 39.0 years, average chronicity of symptoms 7.5 years, average duration of treatment 7.0weeks).

The average gain on NDI was 53%, and 56% on the SIR. ROM increased by 26% on average, and Isometric Strength improved by more than 100%.

On 6 month follow-up (N=75), 89% maintained NDI scores, 82.1% maintained ROM and 91.3% maintained Isometric Strength scores, again indicating a persistence of treatment gains.