Assessment scales in PRM

Oral communications

CO0215
Conceptualizing disability to inform rehabilitation: Historical and epistemological perspectives
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In order to rethink rehabilitation — it is vital that we think about current rehabilitation — what it looks like and why. The dominant models that have emerged to guide development and practice, the frameworks that underpin compensation policies, funding for services, and indeed research, all have historical and political roots. If we better understand these models, their basis or foundation, their strengths and also their weaknesses, then perhaps we can better understand how to contribute to progress in the future. Our aim in this paper, therefore, is to discuss issues concerning how past, present, and future understandings of disability and related conceptual models might best inform rehabilitation strategies.

The paper is composed of two main parts: Part 1 revisits the history of “conceptions of disability”. We broadly retrace how disabled people have been described and progressively identified as a specific population within society throughout modern Western history. We mainly focus on the changing social and political perspectives on poverty and assistance, out of which disability has been emerged as a social and medical issue. In the twentieth century, the social and political approach to disability, supported by the social movements of disabled people, challenged this medical approach, bringing about an ongoing debate on conceptual models of disability.

Part 2 considers the merits of key contemporary disability and disablement models by challenging assumptions and “common” knowledge. We particularly focus on contemporary evolutions of disability models, from the 1960s to today, because in many ways, they reflect or react against prior approaches and underpin much of what is thought of as “modern rehabilitation”. Understanding these approaches, and their evolution, may help us better structure and plan future rehabilitation schemes, services, or evaluations. We conclude the paper by discussing and suggesting some future lines of reflection.

Keywords Rehabilitation; Theory; History; Epistemology

Disclosure of interest The authors declare that they have no competing interest.

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CO0216
Intra- and inter-rater reliability of the Modified Frenchay Scale to measure active upper limb function in hemiparetic patients
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Objective The Modified Frenchay Scale (MFS) measures active upper limb function in hemiparesis based on a video review of 10 everyday living tasks, each rated on a 10-point visual analogic scale. Six tasks are bimanual and four are unimanual performed with the paretic hand. We measured intra- and inter-rater reliability of MFS in hemiparetic patients among trained raters.

Material/patients and methods After a group training session consisting in reviewing and commenting upon ten patient videos, 10 raters assessed the videos of 10 adults with chronic hemiparesis (age 52 ± 13, mean ± SD) on two occasions one week apart. Intra- and inter-rater reliability was assessed using interclass correlation coefficients, mean intra- and inter-rater differences, coefficients of variation between raters and the agreement frequency procedure, agreement being defined as a difference equal or less than 0.5 between two individual ratings.

Results For the overall MFS scores, mean intra- and inter-rater ICC coefficients were respectively 0.99 [0.95; 1.00] (mean [95%CI]) and 0.98 [0.98; 1.00]. The mean intra-rater score difference between two ratings one-week apart was 0.26 ± 0.08 and the mean inter-rater standard deviation was 0.61 ± 0.17. Inter-rating differences of less than 0.5 were found in 86% of cases of intra-rater comparisons and in 52% of inter-rater comparisons. Mean inter-rater coefficient of variation was 0.11 ± 0.03.
Discussion - conclusion  After a group training session in using the scale, the Modified Frenchay Scale has excellent intra- and inter-rater reliability.

Keywords  Spastic paresis; Spasticity; Reliability; Upper limb; Functional evaluation; Modified Frenchay Scale

The authors declare that they have no competing interest.

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CO0217

Evaluating changes in quality of life using QoL-NMD in patients with neuromuscular diseases

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Objective  The “quality of life in neuromuscular disease” questionnaire (QoL-NMD) is a new health-related quality of life measurement tool specifically designed for patients with a slowly-progressive neuromuscular disease with motor deficiency. The QoL-NMD is structured into 3 domains: “impact of physical symptoms”, “self-perception” and “activities and social participation”. Our objective is to estimate conditional minimum detectable changes (cMDCs). The cMDCs help determine if a measurement change reflects a change of patient’s status over time or a measurement error.

Material/patients and methods  The QoL-NMD was administered to patients recruited in 8 tertiary hospitals dedicated to NMD. Each QoL-NMD domain was measured by a T score metric i. e. a normal distribution with a mean of 50 and a standard deviation of 10. High values represent good quality of life. Standard errors of measurement were estimated using items response theory. For each QoL-NMD domain we estimated the cMDCs associated with all measure changes.

Results  A total of 315 patients were recruited. Estimated cMDCs were generally smallest in the mid-range of all scales (between 9 and 12) and higher on the outer quartiles (up to nearly 17). The lowest mid-range cMDCs were for the domain “activities and social participation” (almost all below 10).

Discussion - conclusion  These results provide a clinically useful means of interpreting change for individual patients on the QoL-NMD. The cDMC tables can help clinicians and investigators identify differences for individual patients that are clinically relevant to reflect a status change and motivate a modification of care.

Keywords  Quality of life; Neuromuscular disease; Psychometrics; Item response theory; Minimal detectable change


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CO0218

Is it possible to determine the minimal clinically important difference (MCID) of the French version of the hand function sort (HFS-F) for patients hospitalized in musculoskeletal rehabilitation?

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Objective  The HFS is a pictorial questionnaire with 62 items; it is a self-report functional capacity evaluation of the upper limb [1]. The MCID is important in assessing the effectiveness of a therapy. It has not been estimated for HFS-F [2]. The aim of this study was to estimate the MCID of the HFS-F for patients hospitalized in musculoskeletal rehabilitation for chronic pain of the upper limb. As a comparison, the MCID of the DASH (disabilities of the arm, shoulder and hand) was also estimated.

Material/patients and methods  French speaking patients (18–65 years), hospitalized from January 1, 2012 to June 30, 2015, various pathology of upper limb in the aftermath of an accident. The pain has at least lasted three months. Reports: of HFS-F scores and DASH at the entrance and exit, of the global scale of change (Likert 7 levels) at the exit. The MCID was estimated using two methods: the subjective feeling of patient (ANOVA-ROC) and the objective method based on the distribution of scores (standard error of measurement: SEM).

Results  Two hundred and twenty five patients were enrolled, 82% men, age 43 ± 12 years, 65% proximal damage (shoulder, elbow), 35% distal damage (hand-wrist). The difference of the scores in subjectively improved patients was 26/248 (ANOVA, P > 10−4), the values of sensitivity/specificity were 0.51–0.81 for the threshold values of MCID between 25/248 and 30/248 (area under the ROC curve (AUC) = 0.72 [0.65–0.78]). The SEM gave a value of 28/248. The difference in the DASH scores in subjectively improved patients was –12/100 (P > 10−4), corresponding to the MCID commonly accepted for this questionnaire [3], the values of sensitivity/specificity were 0.25–0.54 for DASH values of –13/100 at –11/100 (AUC = 0.31 [0.24–0.37]).

Discussion - conclusion  Both used methods are consistent to propose a MCID for HFS-F between 25/248 and 30/248, corresponding to 11% improvement of the score. This estimate is useful in clinical practice. In this sample, the DASH seems less relevant to determine patients subjectively improved.

Keywords  Questionnaire; Functional capacity; Evaluation; Upper limb; Musculoskeletal rehabilitation

Disclosure of interest  The authors have not supplied their declaration of competing interest.

Références

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CO0219

Comparative study of psychometric properties of 3 tools to assess patients with degenerative rotator cuff disease

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