

Rehabilitation Research Review™

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Issue 19 – 2011

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Welcome.

We are very pleased that ACC is going to continue support for RRR and so we are back on stream to send an issue quarterly. I have asked a number of colleagues whether they would like to contribute a paper and commentary and the first off the ranks to do so is Dr Nicola Kayes who considers a paper about exercise engagement in frail older adults. More next issue from Nicola and/or others so that you hear more than just my view. Meantime – I hope you enjoy this issue of Rehabilitation Research Review.

Kind regards,

Kath McPherson

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Community integration following TBI: An examination of community integration measures within the ICF framework

Authors: Salter K et al

Summary: These researchers examined whether the content of existing community integration measures used following traumatic brain injury (TBI) is represented in the International Classification of Functioning, Disability and Health (ICF) and also whether the ICF may be used as a framework within which such measurement tools may be compared. A total of 185 measurement concepts were identified from 85 items in five scales. Seventy-five percent of the concepts were linked to the ICF. The majority of linked concepts were assigned to 64 categories within the activities and participation component of the ICF; however, the focus of assessment within each instrument varied considerably.

Comment: There are ever increasing discussions within the rehabilitation community (from funders to providers) about how to best evaluate outcome and participation (one aspect of which is about community integration). This paper highlights that whilst the title of a measure might read 'community integration' when you get down to it, it might actually measure something quite different. I personally was surprised that there were 185 concepts in just five scales but it surely emphasises the need to make sure the measure addresses the aspect you are wanting to address. The odds are 1:185 if you chose by name only that it won't! This paper is helpful in identifying which of the concepts in these measures relate to the ICF, the next question 'is which of these 185 are most important?'

Reference: *Brain Inj.* 2011;25(12):1147-54.

<http://informahealthcare.com/doi/abs/10.3109/02699052.2011.613088>



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Disability: shifting frontiers and boundaries

Author: Bickenbach J

Summary: This paper comments on the World Report on Disability, jointly published by the World Health Organisation and the World Bank, launched in June 2011. Bickenbach states that this report is an “*astonishing achievement that will set the standard for disability studies research for evidence-informed policy for years to come*”. It summarises the best available evidence on disability and covers the widest scope of policy domains, types of disability and voices from low, medium and high resource countries of the world. The Report’s recommendations are both topic-focused and cross-cutting, and are supplemented with actions that operationalise the recommendations in ways that are both progressive and feasible to implement. The report provides the evidence and analysis needed to facilitate the implementation of the United Nations Convention on the Rights of Persons with Disabilities (2006).

Comment: You don’t really need a commentary from me to add to Bickenbach’s. It’s a hugely worthwhile report to read and you can get your own copy at: http://www.who.int/disabilities/world_report/2011/en/index.html

Reference: *Disabil Soc.* 2011;26(5):655-8.

<http://www.tandfonline.com/doi/abs/10.1080/09687599.2011.589198?journalCode=cds020>

Injury severity and outcome: a meta-analysis of prospective studies on TBI outcome

Authors: Cappa KA et al

Summary: This meta-analysis involved 26 studies (total n=21,050 patients) that assessed the relationship between injury severity and outcome following traumatic brain injury (TBI) at 1 year postinjury. Injury severity was found to be a significant predictor of outcome ($r = .257$). Homogeneity testing by means of the Q test, $Q(n)$, indicated that injury severity measurement, $Q(68) = 1140.76$ ($p < 0.00001$), outcome measurement, $Q(42) = 516.63$ ($p < 0.00001$), and outcome measurement construct, $Q(4) = 14.65$ ($p = 0.006$), were significant moderators of the injury severity/outcome link. In addition, there was a significant interaction between the measure of injury severity and the outcome construct, which the study authors interpreted as indicating that different measures of injury severity more precisely predict one outcome construct over another.

Comment: Predicting who is going to do well long-term after brain injury is a tricky business. We’ve likely all had occasions where we’ve seen two people with similar injury type and severity on admission end up very differently. This makes prediction hard for us and, hard on individuals and their families. Most models of prediction are quite complex and explain only a little of the variance in outcome (leaving lots yet to be discovered which is why we need to keep pursuing research in this domain). I admit to being surprised to see that the FIM score at postacute hospital admission (plus time to follow simple motor commands) were the strongest predictor of global outcome at 1 year post injury as I’ve become a bit of a skeptic about the value of the FIM after brain injury. Of course there are still major gaps to be discovered (meaning we need to remain cautious in advising individuals and their families based on such measures) but - FIM data is clearly more valuable than I have come to think. Who said you can’t teach an old dog new tricks?

Reference: *Health Psychol.* 2011;30(5):542-60.

<http://psycnet.apa.org/journals/hea/30/5/542/>

Comparing patients’ and clinician-researchers’ outcome choice for psychological treatment of chronic pain

Authors: Beale M et al

Summary: These researchers investigated how well outcome domains for chronic pain were measured in 60 randomised controlled trials of pain rehabilitation and compared the results with the 19 outcome domains rated by patients as most important for measuring chronic pain, as identified in a recent large-scale survey (Turk et al. *Identifying important outcome domains for chronic pain clinical trials: an IMMPACT survey of people with pain.* Pain. 2008;137:276-85) In all 60 trials, only 2 outcomes, physical activities and emotional well-being, were assigned comparable importance by survey respondents and clinician-researchers. Five of the 19 outcomes important to survey respondents were not measured at all, and 8 rarely. There was a positive, although modest, correlation between the methodological quality of trials and their coverage of survey respondents’ outcomes.

Comment: It’s long been acknowledged that different stakeholders (health professionals, patients, funders and of course researchers) consider different outcomes important. However – the extent to which this appears to be the case is fascinating. It seems barely any of the things our patients with chronic pain think are important are focused on in many clinical trials (so that for a start seems odd!). But some of the things we all talk lots about as being important (work outcome, participation) weren’t measured either. Finally – there are some big concerns for patients with pain that traditionally we don’t associate with that population (e.g. memory and concentration). These findings of course have clear implications for research, but it would be a mistake to miss the implications for clinical practice and intervention delivery...

Reference: *Pain.* 2011;152(10):2283-6.

<http://tinyurl.com/measuring-outcome-domains>

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When you dislike patients, pain is taken less seriously

Authors: De Ruddere L et al

Summary: These researchers examined variables that influence pain estimation by others. Forty people viewed head shots of patients, all of whom had shoulder pain, whose likeability was manipulated by being paired with descriptions of them as negative (e.g. "arrogant"), neutral ("reserved") or positive ("honest"). The study participants then watched videos of the patients undergoing physiological examination, in which they expressed no pain, mild pain, or high-intensity pain. The observers rated the severity of pain of the patients. In the case of high-intensity pain, the participants rated the pain of "disliked" patients as lower than that of the other patients.

Comment: The fact that whether someone is likeable or not influences how serious (or 'real') their condition is viewed is a bit scary. That said – a number of people in our projects have said they tried to be the 'best patients they could be so as to get a good service'. So whilst many patients undoubtedly have clocked that 'how' they are, influences health professionals – the key message is for clinicians to question 'to what extent is my assessment influenced by my emotional response to this patient'. I suspect just making that 'stop, think' process might be helpful, although clearly more research is needed here (I know – I keep saying more research – can't help it!).

Reference: *Pain*. 2011;152(10):2342-7.

<http://tinyurl.com/pain-estimation>



Independent commentary by Professor Kath McPherson, Professor of Rehabilitation (Laura Fergusson Chair) at the Health and Rehabilitation Research Centre, AUT University in Auckland.

Kath has been at AUT since 2004 and has been building a research, teaching and consultancy programme focused on improving interventions and outcomes for people experiencing disability.

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Familiarity and prevalence of Facebook use for social networking among individuals with traumatic brain injury

Author: Tsaousides T et al

Summary: Outcomes are reported from an online survey that assessed use of Facebook among individuals with traumatic brain injury (TBI). Responses were analysed from 96 individuals (60% female, age 23–70 years). Sixty percent reported using Facebook on a regular basis. Among those who reported not using Facebook, the most commonly reported barriers for use were security concerns and cognitive deficits. Approximately half of the TBI patients who were not Facebook users were interested in learning to use the site, with 70% reporting that they would use it more if they were more knowledgeable about it. Both users and non-users indicated that they would be interested in receiving training to learn how to use Facebook better.

Comment: In addition to social media as a potential tool for enhancing social linkages and for providing 'interactive information', it may be there are other valuable applications. One of the things that can be really problematic for long-term follow-up of people after brain injury is finding them, as they tend to be a pretty mobile population! With the use of social media increasing (currently over 2.1 million NZ'ers use Facebook) it is an option worth thinking about.

Reference: *Brain Inj*. 2011;25(12):1155-62.

<http://informahealthcare.com/doi/abs/10.3109/02699052.2011.613086>

Frail older adults and patterns of exercise engagement: understanding exercise behaviours as a means of maintaining continuity of self

Authors: Bundon A et al

Summary: Interview material was analysed from 5 men and 5 women aged between 71 and 87 years who had between four and 17 chronic conditions, in this exploration into patterns of engagement in exercise amongst frail older adults. In the previous two years, these individuals had experienced marked declines in their health statuses. They all scored low on tests of functional abilities and reported profound physical changes and concomitant social losses. Despite the seriousness of their health statuses, 7 of the participants were engaged in formal exercise programmes. The analysis uncovered three patterns of participation in exercise across the life course: lifelong participation, lifelong non-engagement and later-life adoption. In all three patterns, participants' decisions to engage or not engage in exercise reflected efforts to maintain continuities of self and valued social or physical activities.

Comment: (Dr Nicola Kayes, AUT University) There is a growing body of evidence regarding the impact of chronic disabling conditions on identity and continuity of self and related implications. This paper discusses these concepts in the context of exercise engagement in frail older adults. Effectively engaging clients in goal-directed activities is a long-standing challenge for rehabilitation practitioners (and indeed other health care professionals). This paper is a timely reminder of a) the importance of values-based rehabilitation and 'meaningful' engagement that is consistent with one's sense of self; and b) the risk of not incorporating identity-oriented goal strategies into practice when continuity of self has been compromised.

Reference: *Qualitative Research in Sport, Exercise and Health*. 2011;3(1):33-47.

<http://www.tandfonline.com/doi/abs/10.1080/19398441.2010.541482>



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Older adults' experiences regarding discharge from hospital following orthopaedic intervention: A metasynthesis

Authors: Perry MA et al

Summary: These researchers metasynthesised themes from 16 qualitative research trials that explored the lived experience of older adults being discharged from hospital following orthopaedic intervention. Four themes were identified: 1) mental outlook; 2) loss of independence; 3) function and activity limitations; and 4) coping with pain. Mental outlook was central to the other three themes.

Comment: One of the relatively new methodologies we have at our disposal to make sense of research findings is qualitative metasynthesis (it's proposed by some to be the parallel to meta-analysis in quantitative methods). Will Levack and colleagues did an interesting metasynthesis around outcomes that matter in brain injury that I referred to last year (*Disabil Rehabil.* 2010;32[12]:986-99) and here is a second of real relevance in rehabilitation. Of particular note for me was the interpretation that older adults want more information and advice about how to manage their 'mental outlook'. The period when people are discharged is often a time when 'reality' kicks in. Helping people prepare for that, and giving them some strategies to manage disappointment when things just don't go 100% according to their own (possibly over optimistic) recovery plan, is a good thing.

Reference: *Disabil Rehabil.* 2011 Oct 8. [Epub ahead of print]

<http://informahealthcare.com.ezproxy.aut.ac.nz/doi/abs/10.3109/09638288.2011.603016>

Towards developing a guideline for vocational evaluation following traumatic brain injury: the qualitative synthesis of clients' perspectives

Authors: Stergiou-Kita M et al

Summary: These researchers analysed clients' perspectives on return to work following traumatic brain injury (TBI), using evidence from relevant published qualitative studies. Four key themes were identified: 1) meaning of work; 2) process of return to work and reconciling new identities; 3) opportunities to try versus risks of failure; 4) significance of supports. These themes are discussed by the paper in relation to vocational evaluation and findings from other syntheses.

Comment: Return to work for people with brain injury can be very difficult and there remain relatively high proportions of people with prolonged or persistent problems where return to work does not work out. This paper (like the one by Perry et al. above) synthesises multiple qualitative studies to try and go beyond what the numbers tell us about who does well, who doesn't and importantly – why. What is clear from this work (and from a series of studies that have been done here in New Zealand – just ask if you want more details of these) is that decisions around RTW for people in complexity are – yes – complex. For many of us the decision to return to work after a period of illness or injury is straightforward, and a light touch to support is the most that is needed. For others – issues highlighted here may well be key and failure to address them could lead to poorer than optimal outcomes.

Reference: *Disabil Rehabil.* 2011 Sep 28. [Epub ahead of print]

<http://informahealthcare.com/doi/abs/10.3109/09638288.2011.591881>

Evidence that self-affirmation reduces alcohol consumption: randomized exploratory trial with a new, brief means of self-affirming

Authors: Armitage CJ et al

Summary: This UK study assessed the efficacy of a new, brief self-affirmation manipulation (the "self-affirming implementation intention") to decrease alcohol consumption against a standard means of self-affirmation (the self-affirming "kindness" questionnaire) and an active control condition; to test whether self-affirmation effects can be sustained beyond the experimental session; and to examine potential moderators of the effects. A total of 278 subjects were randomised to one of three conditions: control questionnaire, self-affirming questionnaire, and self-affirming implementation intention. All participants were exposed to a threatening health message, designed to inform them about the health risks associated with consuming alcohol. At the end of the study, daily alcohol consumption was 2.31 units by participants in the control condition, 1.52 units by participants in the self-affirming questionnaire condition, and 1.53 units by those in the self-affirming implementation intention condition. There were no significant differences between the self-affirming questionnaire and self-affirming implementation intention, and adherence did not moderate the effects. Self-affirmation also improved message processing, increased perceived threat, and led to lower message derogation.

Comment: Alcohol is a big issue in rehabilitation. It will have been part of the cause of a significant number of the injuries we see (between 18% and 35% of injury-based emergency department presentations are estimated to be alcohol-related, rising to between 60% and 70% during the weekend). It also gets in the way of people's ability to engage in rehabilitation and can lead to decisions that people 'are not ready' for rehabilitation. I found this simple study (albeit not in the field of rehabilitation) really interesting, particularly with regard to the potential power of 'self-affirming' messages and behaviour change. Many of the people we will be seeing are in difficult positions where life is not really too fabulous. Perhaps 're-thinking' the 'context' when giving information (re alcohol but also about other things) and looking to be more affirming (and enhancing their ability to be self-affirming) is something to think about.

Reference: *Health Psychol.* 2011;30(5): 633-41.

<http://psycnet.apa.org/journals/hea/30/5/633/>

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