

# Rehabilitation Research Review™

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Issue 26 - 2013

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### Abbreviations used in this issue

**MI** = motivational interviewing  
**SCI** = spinal cord injury  
**SF-36** = Short-Form 36 General Health Survey  
**TBI** = traumatic brain injury



## Welcome to the twenty-sixth issue of Rehabilitation Research Review.

This issue opens with rather discouraging findings from an exploration into the journey of care in the prevention and management of secondary health conditions following spinal cord injury (SCI). Qualitative analyses of interviews with people with SCI and their care providers, community advocacy organisation representatives, system service delivery administrators and policy-makers revealed the concept of 'fighting' to be the major over-arching domain pervading the prevention and management of secondary health conditions following SCI. The study authors describe the journey as a persistent uphill battle for patients and carers alike.

It can be challenging to read results like this - most health and social care professionals I know are keen to offer their patients and clients the best services possible. And - this paper is from Canada - a place we frequently look to as a place of excellence in healthcare. Although my gut response to such findings are - surely not us, surely not here, I think it is worth thinking about how we, and how our services, contribute to the battle of recovery and adaptation for the populations we serve. And - just in case you are looking for inspiration of some new approaches - we have some of that in this issue too!

I hope you find the papers in this issue useful in your practice and I welcome your comments and feedback.

Kind regards,

**Kath McPherson**

Professor of Rehabilitation (Laura Fergusson Chair),  
The Health and Rehabilitation Institute, AUT University

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## Secondary health conditions and spinal cord injury: an uphill battle in the journey of care

**Authors:** Guilcher SJ et al

**Summary:** This Canadian investigation conducted in-depth interviews with 28 individuals (14 persons with spinal cord injury [SCI] and 14 persons representing care providers, community advocacy organisation representatives, system service delivery administrators and policy-makers) in an attempt to understand the journey of care in the prevention and management of secondary health conditions following SCI. Descriptive and interpretive analyses revealed the concept of 'fighting' to be the major over-arching domain that emerged from the data. Themes identified at the micro-individual level were about social isolation and system abandonment, funding and equitable care, bounded freedom and self-management; themes at the meso care provider level were to do with gender and caregiving strain, help versus disempowerment, holistic care-thinking outside the box, poor communication and coordination of care; while themes at the macro health system level were about fighting for access and availability, models of care tensions, private versus public tensions and rigid rules and policies.

**Comment:** One of the things we found in a recent study with carers of people with a range of impairments (from learning/intellectual impairments through to physical conditions such as stroke, traumatic brain injury, cancer) was that at times, services contribute to, rather than alleviate, stress and burden. Like the core concept here of 'fighting' - we identified a key theme to be 'a constant battle'. It's not only challenging to think that we might contribute to that sense of having to fight, but surely a priority to consider 'how' we might do that (wittingly or unwittingly) and therefore what we could do differently.

**Reference:** *Disabil Rehabil* 2013;35(11):894-906

<http://informahealthcare.com/doi/abs/10.3109/09638288.2012.721048>



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## Motivational interviewing: a novel intervention for translating rehabilitation research into practice

**Authors:** Lal S et al

**Summary:** These researchers explored the potential of motivational interviewing (MI) as a knowledge translation strategy for using with rehabilitation clinicians, to help move evidence into clinical practice. The article explains that MI has been proven to be effective with patients, to motivate them to change a current behaviour. The researchers argue that the MI conceptual framework, principles and strategies can potentially enhance clinicians' readiness to change clinical practices.

**Comment:** I often think that rather than intervening constantly with patients/clients, we should intervene with ourselves (practitioners) (I guess that's one of the things I love about teaching). This paper does this in spades by using MI with clinicians to help them change their behaviour. If you are a manager, maybe that is worth considering bringing into staff training and if you are a practitioner, maybe it's worth considering with regard to why you do (or don't) let evidence drive your practice more often.

**Reference:** *Disabil Rehabil* 2013;35(11):919-23

<http://informahealthcare.com/doi/abs/10.3109/09638288.2012.711897>

## Yoga for chronic neck pain: a 12-month follow-up

**Authors:** Cramer H et al

**Summary:** This paper reports beneficial long-term outcomes among 51 patients with chronic nonspecific neck pain (mean age 47.8 years) who participated in a 9-week yoga intervention. At 12 months' follow-up, significant improvements from baseline were recorded in neck pain intensity (as determined by a 100 mm visual analogue scale; from a mean of 48.81 to 32.31;  $p < 0.001$ ), in functional disability (neck disability index score; from 25.26 to 19.49;  $p = 0.001$ ) and bodily pain on the short-form 36 questionnaire (SF-36; from 49.37 to 59.26;  $p = 0.005$ ). Improvements in pain intensity were predicted by weekly minutes of yoga practice during the past 4 weeks ( $r^2 = 0.12$ ;  $p = 0.028$ ); improved neck-related disability ( $r^2 = 0.24$ ;  $p = 0.001$ ) and bodily pain ( $r^2 = 0.26$ ;  $p = 0.006$ ) were predicted by regular yoga practice during the past 12 months. Generic disability (days with restricted activities) did not decrease significantly. Twenty-four patients (68.6%) rated their health as at least somewhat improved.

**Comment:** This is a small study and there is a tendency for small to medium studies to demonstrate a greater treatment effect than large studies, so we should bear that in mind when considering the positive result (see the *BMJ* paper by Dechartres in this issue of Rehab Research Review). Nevertheless, maybe yoga is another 'activity' strategy that should be in our toolkit/networks for referral.

**Reference:** *Pain Med* 2013;14(4):541-8

<http://onlinelibrary.wiley.com/doi/10.1111/pme.12053/abstract>

## Rehabilitation Research Review

### Independent commentary by Professor Kath McPherson.

Kath McPherson is Professor of Rehabilitation (Laura Fergusson Chair) at the Health and Rehabilitation Research Centre, AUT University in Auckland. She completed a PhD at the University of Edinburgh exploring how individuals and their families recover and adapt after moderate to severe brain injury. From 1997-2001, Kath worked at the Rehabilitation Teaching and Research Unit at University of Otago - Wellington, then taking up a post as Reader in Rehabilitation at the University of Southampton. She returned to New Zealand (AUT) in 2004 building a research, teaching and consultancy programme focused on improving interventions and outcomes for people experiencing with disability. Current projects are funded by the Accident Compensation Corporation, the Health Research Council, the UK-NHS and a number of charitable organisations.



Research Review publications are intended for New Zealand health professionals.

## Rehabilitation counselor knowledge, comfort, approach, and attitude toward sex and disability

**Author:** Pebdani RN

**Summary:** This investigation involved 312 rehabilitation counselling master's students in Council on Rehabilitation Education (CORE) accredited programmes throughout the USA. The study examined the effect of the students' age, sex, disability status, geographic location, marital status, religion, sexual orientation, and level of sexuality training on knowledge, comfort, approach, and attitudes toward the sexuality of people with disabilities. Analyses revealed that knowledge scores were affected by intensity of training. The students had generally negative attitudes toward sex and disability and low levels of comfort with approaches from clients.

**Comment:** I was prompted to read this paper after having an email conversation with a therapist wanting more information on dealing with sexuality and sexual intimacy in rehabilitation. The fascinating thing for me here is that the population were actually studying rehab counselling and even they were reluctant to talk about sex or had sufficient knowledge. Suggests even less knowledge and confidence may be the context for those of us whose training had little or nothing on the topic. Does that matter? I suspect so.

**Reference:** *Rehab Res Policy Educat* 2013;27(1):32-42

<http://www.ingentaconnect.com/content/springer/rpe/2013/00000027/00000001/art00003>



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### The conventional and unconventional about disability conventions: a reflective analysis of United Nations Convention on the Rights of Persons with Disabilities

**Authors:** Umeasiegbu VI et al

**Summary:** This paper positions the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in relation to prior United Nations conventions on disability and US disability policy law. Whereas previous United Nations conventions related to disability have been only partially successful in effectively protecting the human rights of individuals with disabilities, the CRPD, as a policy instrument, has considerable potential for advancing the legal rights of persons with disabilities in the United States and globally. The paper explores this potential and discusses the implications of the CRPD for rehabilitation counselling advocacy and education.

**Comment:** This paper provides a really useful summary of the Convention and its potential application. New Zealand was not only one of the early signatories to the Convention, but contributed to its development and operationalisation. You can see how well we are doing at implementing it at <http://www.odi.govt.nz/what-we-do/un-convention/>

**Reference:** *Rehab Res Policy Educat* 2013;27(1):58-72

<http://www.ingentaconnect.com/content/springer/rrpe/2013/00000027/00000001/art00005>

### The association of compensation and long-term health status for people with severe traumatic injuries

**Authors:** Schaafsma FG et al

**Summary:** This study was conducted by the Rehabilitation Studies Unit at Sydney Medical School. It sought to determine the association between receiving financial compensation and health status or disability level in two patient cohorts – 132 patients with severe traumatic brain injury (TBI) and 58 with traumatic SCI. In the TBI cohort, those receiving financial compensation showed a significantly worse Disability Rating Scale score after 5 years compared to those who were not compensated (median scores of 4.0 and 2.5, respectively;  $p=0.01$ ). Financial compensation was a modest predictor for being disabled (scores  $\geq 4$ ) after 5 years. In the SCI cohort, those receiving financial compensation scored significantly lower with the SF-36/Physical Component Summary scores after 5 years than those who did not. Again, receiving financial compensation had a modest predictive value for the SF-36/Physical Component Summary scores after 5 years.

**Comment:** Given the setting of this study (Australia), the government system in many states covers people for traffic accidents but not for other injury. So – they can explore the impact of compensation in ways we can't. It's thought-provoking to think that an unintended consequence of compensation may be poorer outcomes for some. We have found talking with patients/clients about that to be quite helpful in alerting them to that possibility and supporting them to take charge of their life rather than letting compensation do so. I think we are very fortunate to have ACC and universal coverage for injuries. But I also think such discussion is worthwhile – entitlement is a welcome right in our legislation but receipt of it is not the key outcome, and should not obscure what is.

**Reference:** *J Rehabil Med* 2013;45(5):446-51

<http://www.medicaljournals.se/jrm/content/?doi=10.2340/16501977-1135>

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### An examination of factors influencing responses to requests for disability accommodations

**Authors:** Carpenter NC, Paetzold RL

**Summary:** Outcomes are reported from a vignette-based experiment that explored the influences of responses to reasonable accommodation requests for an individual with a disability. The experiment manipulated aspects of the requestor's disability and the accommodation request. Two-hundred-forty individuals participated in the experiment. The results showed that intentions to grant an accommodation were predicted by a number of factors, including emotional responses toward the requestor, characteristics of the impairment causing the disability, characteristics of the accommodation, and perceptions of fairness.

**Comment:** Here is yet more evidence that what people get from us relates in part to how we respond to them – whether we like them – how we judge the 'deserving' from the 'non-deserving', and the 'value' we attach to the nature of the person's impairment. Surely this doesn't influence us, ACC case managers, W&I staff....

**Reference:** *Rehabil Psychol* 2013;58(1):18-27

<http://psycnet.apa.org/journals/rep/58/1/18/>



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### Incidence of fall-related traumatic brain injuries among older Finnish adults between 1970 and 2011

**Authors:** Korhonen N et al

**Summary:** This group of researchers has previously reported that the number and incidence of adults aged  $\geq 80$  years admitted to the hospital due to fall-induced TBI in Finland increased from 1970 through 1999 (Kannus P, et al. JAMA 2001;286(6):673-674). They have now reported follow-up data for this population through 2011, using data from the Finnish National Hospital Discharge Register, a nationwide, computer-based register that provides data for severe injuries among the Finnish population. The total number of older Finnish adults with a fall-induced TBI increased considerably from 60 women and 25 men in 1970 to 1205 women and 612 men in 2011. The age-adjusted incidence of TBI (per 100,000 persons) also increased from 168.2 women in 1970 to 653.6 in 2011 (an increase of 289%) and from 174.6 to 724.0, respectively, in men (an increase of 315%).

**Comment:** The recent BIONIC study that I referred to in a previous RRR (Feigin et al. Lancet Neurol. 2013;12(1):53-64) highlighted that NZ was having an apparent epidemic in TBI. This paper shows some pretty frightening data about the increase over years for older adults – dare I say, another epidemic. I'm not sure how prepared we are for this.

**Reference:** JAMA 2013;309(18):1891-2

<http://jama.jamanetwork.com/article.aspx?articleid=1685851>

### Influence of trial sample size on treatment effect estimates: meta-epidemiological study

**Authors:** Dechartres A et al

**Summary:** The influence of trial sample size on treatment effect estimates was assessed within 93 meta-analyses (735 randomised controlled trials) of various medical conditions and interventions. Trials within each meta-analysis were sorted by their sample size: using quarters within each meta-analysis (from quarter 1 with 25% of the smallest trials, to quarter 4 with 25% of the largest trials), and using size groups across meta-analyses (ranging from  $<50$  to  $\geq 1000$  patients). Treatment effects were compared within each meta-analysis between quarters or between size groups by average ratios of odds ratios (where a ratio of odds ratios less than 1 indicates larger effects in smaller trials). Treatment effect estimates were significantly larger in smaller trials, regardless of sample size. Compared with quarter 4 (which included the largest trials), treatment effects were, on average, 32% larger in trials in quarter 1 (which included the smallest trials; ratio of ORs 0.68), 17% larger in trials in quarter 2 (0.83), and 12% larger in trials in quarter 3 (0.88). Similar results were obtained when comparing treatment effect estimates between different size groups: compared with trials of  $\geq 1000$  patients, treatment effects were, on average, 48% larger in trials with  $<50$  patients (ratio of ORs 0.52) and 10% larger in trials with 500–999 patients (0.90).

**Comment:** This paper usefully points out the caution we should have when we get perhaps overly excited about the effects shown by small studies (particularly those with non-random samples!) – they are likely to be over-estimates of 'real' impact.

**Reference:** BMJ 2013;346:f2304

<http://www.bmj.com/content/346/bmj.f2304?view=long&pmid=23616031>

**Disclaimer:** This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.

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### Healing Pathways: a program for women with physical disabilities and depression

**Authors:** Hassouneh D et al

**Summary:** Outcomes are reported for 80 women with physical disabilities and clinically significant co-occurring depressive symptoms who were randomly assigned to an intervention group ( $n=44$ ) – a 14-week Healing Pathways programme, a peer-implemented group mental health treatment initiative – or to a wait-list control group ( $n=36$ ). The primary outcome variable for this study was reduction in depressive symptoms as measured by the Center for Epidemiologic Depression Scale (CES-D). There was a significant interaction effect of treatment by time on depression scores: scores were markedly decreased from baseline to the first post-test and remained stable in the two follow-ups in the intervention group, whereas there was little change in the mean profile over time in the control group. Moreover, the programme had a transformative impact upon women's lives – many positive changes were made by the participants including leaving abusive relationships, expanding social networks and achieving gainful employment.

**Comment:** I am quite interested in non-traditional approaches to how we work. The name (Healing Pathways) is certainly non-traditional, which interested me as I reflect on the degree to which there is a shared understanding of what terms like 'rehabilitation' mean. Although the programme is in fact relatively traditional (a manualised strengths-based cognitive behavioural group therapy programme) it is implemented by two peers – not by professionals. Of note – two colleagues (Paula Kersten at AUT and Jim Stinear at UoA) have been funded in the recent HRC round to test the feasibility of two different types of peer support/involvement – the first in post-TBI and the second in stroke. I'm part of their respective study teams, so will ensure we include findings of those studies as soon as possible.

**Reference:** Rehabil Res Pract vol. 2013, Article ID 649875, 15 pages, 2013

<http://www.hindawi.com/journals/rerp/2013/649875/>

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