

Rehabilitation Research Review

Making Education Easy

Issue 16 – 2010

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Welcome to the sixteenth issue of Rehabilitation Research Review.

This issue covers a number of novel approaches we hope you find interesting including the potential for secondary prevention within the rehabilitation setting.

With novel strategies in mind... we are currently recruiting people 6 months to 5 years post TBI to test a new approach aimed at helping people achieve goals around what is important to them (recruiting in Auckland, Hamilton or Wellington). For more information just contact Greta.Smith@aut.ac.nz or me.

Meantime - enjoy this issue of RRR.

Kind regards,

Kath McPherson

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Impact of enhanced secondary prevention on health behaviour in patients following minor stroke and transient ischaemic attack: a randomized controlled trial

Authors: Gillham S, Endacott R

Summary: This study assessed readiness to change health behaviour, mood and lifestyle-related health behaviours, to determine whether they are influenced by an enhanced secondary prevention intervention following first minor stroke or transient ischaemic attack (TIA). The study cohort comprised 15 women and 37 men with a mean age of 68.3 years with first minor stroke or TIA, who all received 'conventional stroke secondary prevention', which included advice given during routine care; the intervention group received 'enhanced secondary prevention' (additional advice, motivational interviewing and telephone support) to change health behaviour. There was no statistical between-group difference for the primary outcome of readiness to change behaviour. Statistically significant improvements for change in self-reported exercise were demonstrated ($p=0.007$); to 2–3 times per week in the intervention group compared to 0–1 times per week in the control group, and in fruit and vegetable consumption ($p=0.033$); to 10 portions of fruit and vegetables consumed per week in the intervention group compared to 1 or 2 portions a week for the control group. There were no between-group differences in Hospital Anxiety and Depression Scale, alcohol consumption and smoking behaviour.

Comment: MI is increasingly proposed as a potential way to facilitate positive changes in health behaviours. Originally developed as a strategy for substance abuse management, it is now being used in other areas of healthcare including, as this paper highlights, secondary preventing after stroke. Although there are limitations to this paper, it is a useful reminder of the need to do more than just 'give' information if we are trying to help people change behaviour (leaflets alone are not enough). The back-story for me is that there are probably multiple opportunities for health promotion, and improved health, in rehabilitation.

Reference: *Clin Rehabil.* 2010;24(9):822-30.

<http://cre.sagepub.com/content/24/9/822.abstract>



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'Could I be imagining this?' – the dialectic struggles of people with persistent unexplained back pain

Authors: Toye F, Barker K

Summary: These researchers used grounded theory to explore how patients with persistent unexplained pain interpret and utilise the biopsychosocial model. Twenty patients attending a pain management programme for persistent unexplained back pain participated in three interviews; prior to attending the course, immediately following the course and at 1 year. Patients battled through several dialectic tensions in an attempt to legitimise their pain: First, patients wanted a medical diagnosis but also recognised that psychosocial factors contributed to their pain. Second, although the outward appearance of pain was important to legitimacy, it was also important not to appear 'too ill'. Third, meeting others with unexplained pain reinforced credibility, but patients also described how they were not 'like the others'. Finally, although holding on to one's self was important, patients also described an acceptance of loss.

Comment: It may be that this particular paper leapt out to me because we have just had a teaching block in one of our postgraduate courses we run, where this type of issue is discussed (Innovative Strategies: Engaging in Rehabilitation). The impact of pain (or indeed any disabling health issue) on people's sense of themselves is a major component of how they will engage in, and therefore benefit from, rehabilitation. I think we need to get that, and address it in how we work with people.

Reference: *Disabil Rehabil.* 2010;32(21):1722-32.

<http://informahealthcare.com/doi/abs/10.3109/09638281003657857>

Inpatient rehabilitation specifically designed for geriatric patients: systematic review and meta-analysis of randomised controlled trials

Authors: Bachmann S et al

Summary: These researchers systematically reviewed data from 17 randomised controlled trials involving 4,780 inpatients comparing the effects of general or orthopaedic geriatric rehabilitation programmes with usual care on functional status, admissions to nursing homes, and mortality. Meta-analyses of effects indicated an overall benefit in outcomes at discharge (OR 1.75 for function, relative risk 0.64 for nursing home admission, relative risk 0.72 for mortality) and at end of follow-up (1.36, 0.84, 0.87, respectively). Limited data were available on impact on health care or cost. Compared with those in control groups, weighted mean length of hospital stay after randomisation was longer in patients allocated to general geriatric rehabilitation (24.5 vs 15.1 days) and shorter in patients allocated to orthopaedic rehabilitation (24.6 vs 28.9 days).

Comment: One of the things that health and social services grapple with is the decision of whether targeting 'rehabilitation' or 'care' to particular populations is warranted. This paper makes it clear that 'active' rehabilitation is worth it for older adults in hospital for a wide range of conditions although it does leave some important questions unanswered, as the authors note. For me, the related question is whether more people in our communities who receive 'care' or 'support' could also benefit at times from active rehabilitation.

Reference: *BMJ.* 2010;340:c1718.

<http://www.bmj.com/content/340/bmj.c1718.abstract>

Making decisions for people with dementia who lack capacity: qualitative study of family carers in UK

Authors: Livingston G et al

Summary: This study sought to identify common difficult decisions made by family carers on behalf of people with dementia, and facilitators of and barriers to such decisions, in order to produce information for family carers about overcoming barriers. The participants were from healthcare settings in inner and outer London. There were 43 family carers of people with dementia in focus groups and 46 carers who had already made such decisions in individual interviews. Family carers identified five core problematic areas of decision making: accessing dementia-related health and social services; care homes; legal-financial matters; non-dementia related health care; and making plans for the person with dementia if the carer became too ill to care for them. They highlighted the difficulties in making proxy decisions, especially against active resistance, and their altered role of patient manager while still a family member. Families devised strategies to gain agreement in order to ensure that the person with dementia retained dignity. The strategies from this study will be made available to carers and professionals

Comment: Many of the clients we work with have compromised ability to make good decisions, either because of the condition they have (such as dementia in this case) with family members needing to be more involved. How we work with these people can either make that process easier or harder – I'd prefer the former and think this BMJ paper offers some useful advice on how to do that.

Reference: *BMJ.* 2010;341:c4184.

<http://tinyurl.com/27yzuag>



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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Moving on from ramps? The utility of the social model of disability for facilitating experiences of nature for disabled children

Authors: von Benzon N

Summary: This UK-based researcher explored barriers that may obstruct opportunities for disabled children to experience nature, through visits to environmental centres. She selected a social model of disability as a theoretical base for increasing access to nature for pupils at Special Educational Needs (SEN) schools. Interviews were conducted with teachers from 7 SEN schools, as well as with staff from 6 environmental centres. According to this research, a 'medicalised' approach to access may impede upon environmental centres' ability to cater effectively to the needs of SEN school groups. Dialogue between environmental centres and SEN school teachers is recommended as a means of facilitating SEN school group access.

Comment: Teachers and schools can make a big difference to how disabled children and young people engage with their worlds. That is a no brainer, really, isn't it. But – working with teachers and schools to enable them to feel safe and confident to do this is probably something more of us could get involved in if we work with young people. Watch out for work from Margaret Jones, a PhD student here at AUT who is exploring participation for children with Traumatic Brain Injury.

Reference: *Disabil Soc.* 2010;25(5):617-26.

<http://tinyurl.com/23pqrw>

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Communication as negotiation processes in long-term physiotherapy: a qualitative study

Authors: Øien AM et al

Summary: These Norwegian researchers explored the communicative complexity and the demanding negotiations of the collaboration between physiotherapists and patients with chronic pain in long-term physiotherapy. The study consisted of 11 cases, with each case representing a treatment course monitored from early treatment and 6–9 months onwards. Data were obtained from in-depth individual interviews, focus group interview, personal notes and repeated video-recordings. Communication within and over sessions was compared via a two-step procedure: identification of communication patterns and detailed analysis of selected dialogues from video-recorded sequences. One main communicative pattern was identified: Seeking for common ground – demanding negotiating process. This pattern was interrupted by short episodes of two types of challenges; the pattern of ambivalence and uncertainty, and the pattern of impatience and disagreement. Communication between the participants appeared as a demanding and complex process of negotiations during the treatment processes. The physiotherapists' sensitivity of and ability to negotiate the tasks, the emotions related to tasks and the nature of the relationships, seemed to facilitate change. The patients' and the physiotherapists' capacity to bear and come through demanding situations created new ways of interaction.

Comment: We have been exploring issues around communication and a positive therapeutic relationship recently, and so this paper piqued my interest. I particularly like the way it acknowledges that difficult or demanding situations occur, and are even likely, in physiotherapy (and I suspect most health contexts) and so learning strategies to deal with those seems a good idea to me. :)

Reference: *Scand J Caring Sci.* 2010 Apr 5. [Epub ahead of print]

<http://onlinelibrary.wiley.com/doi/10.1111/j.1471-6712.2010.00790.x/abstract>

Adjusting rehabilitation costs and benefits for health capital: the case of low back occupational injuries

Authors: Butler RJ, Johnson WG

Summary: These US-based researchers propose a new method for adjusting for initial health capital immediately after injury, as an effective means of adjusting for severity differences in the costs and benefits of treating occupational low back injuries. Initial post-injury differences in the health capital of 1,831 occupational-related back pain patients were combined with workers' compensation claim files and medical billing information. After adjusting for worker's health capital (injury severity) at entry into treatment, the net benefits of treating occupational low back pain between the three lowest cost provider groups (physician only care, physician plus physical therapy care, and chiropractic care) are virtually identical. Net benefits of care are lower for combined physician/chiropractic care, and lowest for all other forms of care (principally, treatment by orthopaedic surgeons).

Comment: I struggled a bit with this paper and, I'm going to have to read it a few more times before I feel completely clear on the analyses and interpretation. However – I was really interested in the way the authors considered *cost* and *cost benefit* a little differently to the majority of papers I have read. It addresses some key questions about three types of approach (the most common) in back pain but I look forward to when similar analyses are applied to the multidisciplinary, multi-component and case-coordinated programmes (e.g. the work of Loisel, Anema and others), where there is increasingly strong evidence of effectiveness.

Reference: *J Occup Rehabil.* 2010;20(1):90-103.

<http://www.springerlink.com/content/v3561850775x4663/>

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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Home and community care services: a major opportunity for preventive health care

Authors: Jorm LR et al

Summary: The Australian Home and Community Care (HACC) programme provides services in the community to frail elderly and people with disabilities living at home and their carers. As little is known about the health of people who use these services, this study sought to describe health-related factors associated with use of HACC services, and to identify potential opportunities for targeting preventive services to those at high risk. Questionnaire data from the 45 and Up Study for 103,041 men and women aged ≥ 45 years, sampled from the general population of New South Wales, Australia in 2006-2007, were linked with administrative data about HACC service use. A total of 4,978 (4.8%) participants used HACC services in the year prior to completing the questionnaire. Socio-demographic vulnerability (in particular, low income and not having a partner) and health needs were strongly associated with HACC service use. Overseas-born people and those speaking languages other than English at home were significantly less likely to use HACC services. Modifiable lifestyle risk factors, and health conditions that are amenable to primary and secondary prevention (including underweight, obesity and falls), occur at a much higher rate among HACC clients than other individuals. HACC service use increased with decreasing levels of physical functioning, higher levels of psychological distress, and poorer self-ratings of health, eyesight and memory. HACC clients were more likely to report chronic health conditions.

Comment: The attention we give to promoting health and wellbeing for disabled people seems pretty feeble to me (with notable exceptions such as the paper in this issue of RRR by Gillham et al. re MI after stroke). There is now plenty of data highlighting the fact that access to health screening of all sorts is problematic for disabled people. This paper identifies a number of key issues for those who are amongst the most vulnerable – frail elderly living at home and their carers. We are currently doing a study looking at other aspects of promoting health and well-being for disabled people <http://livingwellstudy.aut.ac.nz/> (feel free to explore the website and contribute). Our focus is particularly on the prevention of obesity and its secondary consequences in under 65's, but this paper highlights the need in older adults too.

Reference: *BMC Geriatrics*. 2010,10:26.

<http://www.biomedcentral.com/1471-2318/10/26/abstract>

Development of a tool for prediction of falls in rehabilitation settings (Predict_FIRST): A prospective cohort study

Authors: Sherrington C et al

Summary: These researchers describe their development and validation of a simple falls prediction tool for rehabilitation settings. Possible predictors of falls were obtained from medical records, interview and physical assessment of 533 inpatients. Fourteen percent of participants fell during inpatient stays. A multivariate model to predict falls included: male gender (OR, 2.70), central nervous system medications (OR, 2.50), a fall in the previous 12 months (OR, 2.21), frequent toileting (OR, 2.14) and tandem stance inability (OR, 2.00). The area under the curve for this model was 0.74. The Predict_FIRST tool is a unit-weighted adaptation of this model (i.e. 1 point allocated for each predictor) and its area under the curve was 0.73. Predicted and actual falls risks corresponded closely.

Comment: A straightforward paper presenting a straightforward tool and the full paper is available in google scholar – just search on Predict_FIRST and all will be revealed.

Reference: *J Rehabil Med*. 2010;42(5):482-8.

<http://jrm.medicaljournals.se/files/pdf/preview/1289.pdf>

VINTAGE PAPER

Vocational rehabilitation of the socially disadvantaged long-term sick: inter-organizational co-operation between welfare state agencies

Authors: Lindqvist R, Grape O

Summary: These Swedish researchers discuss the vocational rehabilitation of the socially disadvantaged long-term sick, clients who have to maintain contact with several welfare state agencies, all of which have different regulations, conflicting goals and various types of benefits. The researchers point out that this requirement is arduous and time-consuming for clients with medical, social and labour market problems. Many of them risk ending up in a no-man's land or being endlessly circulated between agencies because their problems do not correspond to the profile of the typical client. Both government and welfare workers see institutional co-operation between welfare state agencies as the remedy to such problems. Analyses of data from interviews with participants in 14 co-operating projects focus on difficulties and opportunities experienced in such co-operation. The paper concludes that such co-operation, when initiated in local settings and supported by local players, would rejuvenate Sweden's existing model of welfare.

Comment: As you may be aware, NZ is currently reviewing its welfare system <http://ips.ac.nz/WelfareWorkingGroup/Index.html> and I was intrigued that one of the things the 'issues' paper from that group acknowledged was the problems that come about when services are silos. The authors of the current paper have recently updated this work (making similar conclusions in a 2003 paper in the Scandinavian Journal of Disability Research, 5(1) pg 68–92). But still we have silos. . .

Reference: *Scand J Public Health*. 1999;27(1):5-10.

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