



Rehabilitation Research Review

Making Education Easy

Issue 18 – 2011

In this issue:

- *Keep exercising in multiple sclerosis*
- *Peer support promotes physical activity in heart disease*
- *Evidence-based cognitive rehabilitation*
- *Knowledge brokering in children's rehabilitation organisations*
- *Goal Management Training for executive functioning deficits*
- *Aphasia worsens quality of life after stroke*
- *Obesity interventions for people with a learning disability*
- *Understanding permanent post-concussion symptoms*
- *Facing the huge financial challenges in the NHS*
- *What constitutes good quality care for the disabled?*

Welcome to the first issue of RRR for 2011. If you thought it was later than usual – you would be right. Sadly, our funding was not continued for this year, but given that more than 2,300 health professionals around New Zealand are now receiving RRR, and your feedback has been very positive – we will produce four issues this year while we try to find some new funding. Thanks for your continued support and interest.

Kind regards,

Kath McPherson

Professor of Rehabilitation (Laura Fergusson Chair),
The Health and Rehabilitation Research Centre, AUT University
kathmcperson@researchreview.co.nz

Lifestyle physical activity and walking impairment over time in relapsing-remitting multiple sclerosis: results from a panel study

Authors: Motl RW et al

Summary: To determine whether an inverse association exists between change in lifetime physical activity and change in walking impairment over time in patients with relapsing-remitting multiple sclerosis (MS), 269 such patients completed a battery of measures at baseline and then again at 6 months' follow-up (n=263) in the absence of an intervention. The panel model fit the data ($\chi^2 = 25.23$; $df = 12$; $P = 0.01$; standardised root-mean-squared residual, 0.04; comparative fit index, 0.98) and identified the direct effects between baseline physical activity and walking impairment (path coefficient, -0.31) and follow-up physical activity and walking impairment (path coefficient, -0.16). The second path coefficient indicated that a standard deviation unit change of 1 in physical activity was associated with a standard deviation unit residual change of 0.16 in walking impairment.

Comment: 'Motion is lotion' & 'Doing something is better than doing nothing'. Just how much someone needs to do to yield benefits has long been a moot point with an emphasis in much of the literature of the need to get to a certain threshold of activity (the 'dose/response' argument) for change to occur. Whilst I suspect that is true, this paper is a timely reminder that even a small increase in activity is worthwhile in MS and, one suspects, for other populations. Perhaps a phrase we should use more often is 'even doing a little more of any activity you can do and enjoy is worthwhile and should make a difference'. Quite empowering...

Reference: *Am J Phys Med Rehabil.* 2011 Mar 8. [Epub ahead of print]

http://journals.lww.com/ajpmr/Abstract/2011/05000/Lifestyle_Physical_Activity_and_Walking_Impairment.4.aspx



PHARMACY GUILD
OF NEW ZEALAND



NEW ZEALAND MEDICAL ASSOCIATION



The Role of Exercise in the Management of Musculoskeletal Pain and Dysfunction

Holiday Inn (previously Heritage Hotel), Rotorua, New Zealand
Saturday 27th August (9am - 5pm) and Sunday 28th August (9am - 4pm)

Registrations available on
www.nzmpa.org.nz

Registrations Close 7th August 2011
after which a late fee will apply.

For further information please contact
the NZMPA office: **0800 646 000**
or if in Auckland: **476 5353**.

Peer support to promote physical activity after completion of centre-based cardiac rehabilitation: evaluation of access and effects

Authors: Clark AM et al

Summary: These researchers compared the characteristics of 79 patients with heart disease choosing to join a peer support (PS) programme versus 30 who did not. The effects of the PS programme on patterns of physical activity were evaluated after 12 months. Patients who joined the peer support programme tended to be older ($p < 0.001$), and female compared to those who were eligible but did not join ($p = 0.04$). Over the next 12 months, those who did not participate in the programme reported a decline of 211 min in the total amount of physical activity accumulated in an average week (1382.5 to 1171.5 min/week; $p = 0.003$), whereas programme members sustained similar levels of physical activity to those recorded after completing cardiac rehabilitation (1021.1 to 1070 min/week).

Comment: The connection between human rights and rehabilitation is a big one on so many levels. One of the rights that seems overlooked at times but makes life worthwhile for many of us is the *right to contribute* and peer support provides a really good opportunity for this. Given the enormous pressure on resources, maybe these ideas are worth more of a look in a number of different settings. The criticism from some would be it is shifting the cost from the government to the community but – who pays for government services...

Reference: *Eur J Cardiovasc Nurs.* 2011 Jan 17. [Epub ahead of print]

<http://tinyurl.com/3cyp7n>

Evidence-based cognitive rehabilitation: updated review of the literature from 2003 through 2008

Authors: Cicerone KD et al

Summary: This research group has updated their clinical recommendations for cognitive rehabilitation of people with traumatic brain injury and stroke, based on a systematic review of the literature from 2003 through 2008. Of the 112 studies eligible for review, 14 were rated as class I, 5 as class Ia, 11 as class II, and 82 as class III. Evidence within each area of intervention was synthesised and recommendations given for Practice Standards, Practice Guidelines, and Practice Options. Articles were assigned to 1 of 6 categories reflecting the primary area of intervention: attention; vision and visuospatial functioning; language and communication skills; memory; executive functioning, problem solving and awareness; and comprehensive-holistic cognitive rehabilitation.

Comment: Cicerone and colleagues regularly do a review and update of cognitive rehabilitation and I for one am grateful! They do a great job in identifying what works and what doesn't in six key areas of neurorehabilitation. A number of folk have asked me how to access publications given that subscribing to journals is so expensive and so often, only the abstract is freely available. This is a paper where more than the abstract is really needed and while some of the papers I mention are freely available in Google Scholar, your local library will be able to loan papers for you and whilst there is a charge, if any NZ library such as a university has the journal, that cost is pretty affordable.

Reference: *Arch Phys Med Rehabil.* 2011;92(4):519-30.

<http://www.archives-pmr.org/article/S0003-9993%2810%2900950-0/abstract>

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.

Privacy Policy: Research Review will record your email details on a secure database and will not release them to anyone without your prior approval. Research Review and you have the right to inspect, update or delete your details at any time.

Knowledge brokering in children's rehabilitation organizations: Perspectives from administrators

Authors: Cameron D et al

Summary: This paper describes administrators' perceptions of the successes and challenges in using a knowledge broker (KB) to promote the use of evidence-based measures of motor function for children with cerebral palsy. The 27 administrators completed a semi-structured telephone interview following 6 months of knowledge brokering within their organisations. Thematic analysis identified six interview themes: "Efficient and Effective," "Stimulating Peer-to-Peer Learning Environment," "Committed and Respected Knowledge Brokers," "Sharing Beyond," "Organisational Beliefs and Values," and "The Dilemma of Moving Forward". Administrators were positive about the KB experience, acknowledging its efficiency and effectiveness. They commented on the stimulating peer-to-peer and interdisciplinary learning environment that the KB process encouraged. Major barriers to the continuation of a KB role in their facilities included funding and resource constraints, as well as the absence of evidence of the effectiveness of knowledge brokering.

Comment: Those of you who know me well will know that one of the things I think is fundamental to good teamwork is the ability to exchange knowledge. That is – how to represent your knowledge in a way that clients/family and others from different disciplines can 'get' what you are saying and conversely, really listening so that what others say impacts on your own knowledge and understanding (i.e. rather than just in one ear and out the other :) This paper highlights that there are time and resource issues that need to be addressed. But if exchanging knowledge is key to 'good quality' and 'safe' care – perhaps directing resources to allow the necessary time seems a no brainer to me. Otherwise – maybe all those other things we spend time doing have more limited impact than they possibly could. . . .

Reference: *J Contin Educ Health Prof.* 2011;31(1):28-33.

<http://onlinelibrary.wiley.com/doi/10.1002/chp.20098/abstract>

Sports Medicine Research Review

by Drs Chris Milne and James McGarvey

Add Sports Medicine Research Review to your current subscriptions

[CLICK HERE](#)

Rehabilitation of executive functioning in patients with frontal lobe brain damage with goal management training

Authors: Levine B et al

Summary: These researchers assessed the efficacy of Goal Management Training (GMT) in the rehabilitation of executive functioning deficits. This study compared an expanded version of GMT to an alternative intervention, Brain Health Workshop, which was matched to GMT on non-specific characteristics that can affect intervention outcome. The study enrolled 19 individuals in the chronic phase of recovery from brain disease (predominantly stroke) affecting frontal lobe function. GMT demonstrated specific effects on the Sustained Attention to Response Task as well as the Tower Test, a visuospatial problem-solving measure that reflected far transfer of training effects.

Comment: I selected this paper because I have long been interested in novel approaches to goal setting and in particular one of those discussed here (GMT). I've been waiting for Levine and colleagues to do further investigation of GMT, which they proposed some 10 years ago. Whilst I was a little disappointed in the small sample size and the lack of real-world outcome measures, I was excited that goal work of this nature is now considered to be a topic for a journal usually focused on microcellular frontiers. We are getting close to finishing recruitment in a trial investigating GMT (with a larger sample and real-life outcomes) and will let you know the results when they are to hand.

Reference: *Front Hum Neurosci.* 2011;5:9.

<http://tinyurl.com/3mbqds3>



NEW ZEALAND
RED CROSS

CLICK HERE
to make a donation to
NZ Red Cross

We'll take
your business'
pulse, before
we prescribe.



bnz partners

The impact of stroke: are people with aphasia different to those without?

Author: Hilari K

Summary: Long-term outcomes are reported for 87 people admitted to hospital with a first stroke. They were assessed at 2 weeks, 3 months and 6 months post-stroke. Outcomes were compared for patients with aphasia (PWA) and those without aphasia. Outcomes improved significantly over time, but patients continued to experience substantial functional limitations at 6 months (16% aphasic; 32% dependent on basic Activities of Daily Living [ADL]); participation limitations (79% ≤ 30 on the Frenchay Activities Index); high psychological distress (45%) and compromised quality of life (54% ≤ 4 on the Stroke and Aphasia Quality of Life Scale-39g). Levels of social support remained relatively stable. At 3 months' post-stroke, PWA were significantly more likely to experience high psychological distress (93% versus 50% for those without) but across time, no significant differences were seen between PWA and those without on psychological distress and also ADL and social support. There were, however, significant differences on extended ADL ($F(1,68) = 7.80$; $p < 0.01$) and quality of life ($F(1,69) = 6.30$; $p < 0.05$).

Comment: Stroke is a devastating condition in so many ways. But often it is the more 'visible' losses that attract attention – walking and other aspects of mobility being the thing that many people 'see' as its key consequences. Lately, I have met a number of people for whom it is the loss of less visible abilities that has been most challenging (visual deficit being one that seems poorly understood and addressed) and this paper highlights the major impact of aphasia on a range of important outcomes. By definition, people with aphasia will find it difficult to ask for support. By default we should explore whether it is needed.

Reference: *Disabil Rehabil.* 2011;33(3):211-8.

<http://informahealthcare.com/doi/abs/10.3109/09638288.2010.508829>

Obesity interventions for people with a learning disability: an integrative literature review

Authors: Jinks A et al

Summary: These researchers reviewed the effectiveness of non-surgical, non-pharmaceutical interventions designed to promote weight loss in people with a learning disability. The paper included qualitative evidence relating to people's experiences and motivations, and explored how these can help understanding of quantitative research outcomes. Twelve papers published between 1999 and 2009 were included in the review. The most common research design was quasi-experimental pretest and post-test. Few researchers used a clinical trial approach, and there was only one predominantly qualitative study. Interventions mainly focused on energy intake, energy expenditure or health promotion. Only a few studies incorporated behaviour modification approaches. The study authors suggest that nurses who work with clients with learning disabilities have a key role to play in the management of obesity.

Comment: The degree to which obesity prevention and obesity management are adequately addressed in disabled populations is a topical issue (and one the government is currently exploring). Given that most evidence would suggest a behavioural component is needed (a behavioural change being required so this is perhaps hardly surprising) it is interesting (or is that depressing) that such research is lacking here. What works for people with intellectual impairment? We know less than we should about that.

Reference: *J Adv Nurs.* 2011;67(3):460-71.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2010.05508.x/abstract>



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.

Research Review publications are intended for New Zealand health professionals.

Foot and Ankle Research Review

Add Foot and Ankle Research Review to your current subscriptions

CLICK HERE

Permanent post-concussion symptoms after mild head injury

Authors: King NS, Kirwilliam S

Summary: These researchers evaluated demographic, cognitive, emotional and psychosocial variables and their relationship to post-concussion symptoms (PCS) severity and quality-of-life (QoL) in 24 patients with a mild head injury (MHI) for more than 18 months (mean time post-injury of 6.9 years) attending a Community Head Injury Service in Buckinghamshire, UK for the treatment of persistent PCS. The participants were characterised by older age compared to those typically presenting with MHI, very high levels of PCS, high post-injury unemployment, pre- or post-morbid factors which might exacerbate post-concussional difficulties, elevated levels of anxiety and depression and mildly reduced scores on tests of short-term memory and speed of information processing. QoL negatively correlated with symptoms, and anxiety scores accounted for 45.9% of the variance in PCS severity.

Comment: Predicting just who will have long-term problems after mild TBI is tough and this study doesn't really answer that question. But what hit me when reading this paper was that out of 100 people, only 24 responded – that is less than a quarter (OK only just less!). I'm involved in a number of studies in TBI and the difficulty in recruiting reasonable numbers has also been a real issue for us, as it has been for just about every researcher internationally that I know. Without a concerted effort from clinicians and researchers – we'll still struggle to answer questions like 'who will have difficulty' and 'what are the most effective strategies'. Maybe a national TBI clinical/research network is needed . . . anyone up for it?

Reference: *Brain Inj.* 2011;25(5):462-70.

<http://informahealthcare.com/doi/abs/10.3109/02699052.2011.558042>

Can we save money by improving quality?

Authors: Marshall M, Øvretveit J

Summary: These researchers describe the major financial challenge faced by the National Health Service (NHS) in the UK. Providers will be forced to achieve dramatic savings and 'do more with less' to meet the immediate funding crisis, as well as the longer-term financial pressures resulting from changing demographics, new technologies and increased demand. The challenge for the NHS is to avoid making indiscriminate cuts without considering the longer-term costs, and in ways which save little but irritate staff greatly. In particular, the NHS must not damage the significant gains in quality that have been achieved in the last decade; it should be able to build on them. Patient care is put at risk by 'slash and burn' policies – a more considered approach is needed to the current financial crisis. Notably, recently released reports from leading institutions suggest that improving quality and safety can help to address both the short- and long-term financial challenges.

Comment: This is another paper that I think is really worth a read. Quality is sometimes thought of as an added extra in health care – a nice thing to have but really – what we need is good outcomes for fewer resources. However – true 'quality and safety of care' in rehabilitation may well be crucial for preventing some of those big costs like readmission and costs associated with community care. If you think evaluating 'satisfaction' is the be all and end all of quality evaluation – you'd be wrong. This paper is a useful guide to doing it better.

Reference: *BMJ Qual Saf.* 2011;20(4):293-6.

<http://qualitysafety.bmj.com/content/20/4/293.extract>

Perspectives on quality of care for people who experience disability

Authors: Fadyl JK et al

Summary: This qualitative study sought to better understand what constitutes good quality care for disabled people in New Zealand. Qualitative focus groups and interviews were conducted with 31 participants, representing a range of ages and disabilities, including physical, sensory and/or intellectual impairment. Informal and formal carers; as well as health and social care professionals, also took part. Data analysis identified three main themes that contribute to quality of care in health and social care services from the perspectives of people who use these services: (1) technical competence of care service and professionals; (2) a 'human' approach to care; and (3) context-appropriate care that addresses individual needs.

Comment: I try not to abuse the privilege of editing RRR, but every now and again – it seems reasonable to refer to one of the papers that comes from my research team (and this seemed to be one of those times). As I was putting together the papers for RRR, I was listening to an interview on National Radio about the connection/disconnection between family carers and formal services. This paper reports on work we did that contributed to the National Health Committee's reports on caring for carers:

<http://www.nhc.health.govt.nz/moh.nsf/indexcm/nhc-how-should-we-care-for-the-carers>

Care and compassion have been proposed as key attributes of quality health services – and they seem just as relevant in disability and rehabilitation.

Reference: *BMJ Qual Saf.* 2011;20(1):87-95.

<http://qualitysafety.bmj.com/content/20/1/87.abstract>

To subscribe to
Rehabilitation Research Review
and other reviews go to
www.researchreview.co.nz

Find healthcare jobs
in your area

trade me
JOBS
www.trademe.co.nz/jobs

Stretch your specialist rehabilitation knowledge

REHABILITATION

POSTGRADUATE HEALTH SCIENCES

WWW.AUTHEALTH.AC.NZ | 0800 AUT UNI (0800 288 864)

AUT
UNIVERSITY

For more information, please go to <http://www.authealth.ac.nz>

www.researchreview.co.nz

a RESEARCH REVIEW publication