

Rehabilitation Research Review

Making Education Easy

Issue 6 – 2009

In this issue:

- *Water exercises for back pain?*
- *CBT in chronic ABI*
- *Sales interactions allowing for TBIs*
- *Chronic post-traumatic headache*
- *Treating rotator cuff impingement*
- *Patients' and professionals' rehab goals*
- *Assessing neck pain in office workers*
- *Returning to work after cancer*
- *Health-related beliefs and work*
- *After-effects of head injury*

Welcome to the the sixth issue of Rehabilitation Research Review and the first edition for 2009.

I hope the issue is of interest and I welcome your comments and feedback.

Kind regards,

Kath McPherson

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

Therapeutic aquatic exercise in the treatment of low back pain: a systematic review

Authors: Waller B et al

Summary: This systematic review of data from seven clinical controlled trials of adults participating in all types of therapeutic aquatic exercise for low back pain suggests that therapeutic aquatic exercise is potentially beneficial to patients suffering from chronic low back pain and pregnancy-related low back pain, although not necessarily better than other interventions. Outcomes were assessed by the Oswestry Disability Index, the McGill Pain Questionnaire, subjective assessment scales for pain (e.g. visual analogue scale) and number of work days lost as a direct result of low back pain.

Comment: It is great to see more and more systematic reviews as they are one of the best guides as to when knowledge is at a level to suggest that practice really should change i.e. – it is not uncommon to get different studies concluding different things which always leaves the question as to who to believe! However, the authors did not look at a number of important aspects to a therapy (because the individual research they were reviewing didn't) including: 'acceptability' of the intervention; long-term behavioural change (in relation to exercise engagement); or long-term RTW rates. This review highlights that we still have a lot to learn about the effectiveness of water-based therapies.

Reference: *Clin Rehabil.* 2009;23(1):3-14

<http://cre.sagepub.com/cgi/content/abstract/23/1/3?rss=1>



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.



PREVENTION. CARE. RECOVERY.

Te Kaporeihana Āwhina Hunga Whara

Rehabilitation focused on returning to productive life

For more information, please go to <http://www.acc.co.nz>

The efficacy of cognitive behavior therapy in the treatment of emotional distress after acquired brain injury

Authors: Bradbury CL et al

Summary: Twenty participants with chronic acquired brain injury (ABI) attending an outpatient community brain injury centre were assigned to 11 sessions of cognitive behaviour therapy (CBT) (n=10) or education control. All were experiencing significant emotional distress at the onset of the study. The CBT was designed to decrease psychological stress and improve coping, and was specifically adapted to better accommodate individuals with cognitive difficulties, and modified for both a face-to-face group setting and telephone delivery. At one month's follow-up, significant CBT treatment effects (in both group and telephone formats) were observed on the Symptom Checklist-90-Revised and the Depression Anxiety Stress Scale (DASS-21); no such effects occurred for the education control group.

Comment: This is a very small study, and so to some degree the fact that it produces significant findings of the measures chosen is intriguing and means my dubious nature kicks in. However – I am in favour of the challenging assumptions it pokes a stick at. One assumption that sometimes is an erroneous interpretation of the importance of early intervention is that perhaps people with chronic brain injury have little to gain from rehabilitation. It's another one of those indications that it just has to be the *right sort* of rehabilitation at the *right time*.

Reference: *Arch Phys Med Rehabil.* 2008;89(12 Suppl):S61-8

<http://tinyurl.com/9fp29k>

Sales assistants serving customers with traumatic brain injury

Authors: Goldblum G and Alant E

Summary: These researchers examined the effects of a specialised once-off training session on the confidence and knowledge of sales assistants in identifying barriers to, and facilitators of, sales interactions with customers with cognitive-communication disorders following a traumatic brain injury (TBI). Two questionnaires were developed and administered on two different occasions to the experimental group pre- and post-training, as well as the control group, to determine the confidence and knowledge with which they identified barriers and facilitators during videotaped sales interactions. Using the confidence and knowledge constructs derived from item analysis of the questionnaires, inter- and intra-group comparisons indicated that the once-off training session had a consistently impact upon the experimental group participants, who also rated the training session highly.

Comment: This study piqued my interest because in our recently completed pilot study working on goals in TBI, managing shopping was something that came up repeatedly as an issue the participants wanted to work on. I like the idea that this paper recognises that facilitating positive participation is not just something for our clients/patients to work on, but to some degree is down to shop assistants and others in service industries (not to mention health and social care providers!). Interventions in the community arguably need to consider 'the community' itself

Reference: *Aphasiology.* 2009;23(1):87-109

<http://www.ingentaconnect.com/content/psych/paph/2008/00000023/00000001/art00005>

Headache after concussion

Authors: Stovner LJ et al

Summary: These researchers assessed the validity of a rather disputed headache diagnosis – chronic post-traumatic headache attributed to mild head injury, by studying the headache pattern of concussed patients that participated in one historic (n=131) and one prospective cohort (n=217) study. Patients with minor orthopaedic traumas not involving the head and neck served as controls. A pooled analysis of data from the two studies indicated no difference in any headache category (diagnosis, attack frequency, symptoms) at one or more years post-trauma, except for a higher prevalence of photophobia amongst the concussed patients. In both injury groups, the existence of pre-traumatic headache was a predictor of post-traumatic headache, although pre-traumatic headache seems to have been under-reported amongst the concussed patients. A significant negative correlation was observed between the duration of unconsciousness and the headache.

Comment: Despite the high incidence of mild TBI, managing its aftermath is something that around 10% people struggle with for long periods of time. This is one of an increasing number of papers highlighting how consequences often assumed to be related to the injury itself are just as common in those without TBI. Increasing evidence is also coming out that one's beliefs about symptoms play a big part in the time they take to resolve and the impact they have on participating in life, so how we advise and respond is probably fundamental. This is an area where knowledge is currently changing at a great rate so watch this space.

Reference: *Eur J Neurol.* 2009;16(1):112-20

<http://www.ingentaconnect.com/content/bsc/ene/2009/00000016/00000001/art00030>

Research Review publications are intended for New Zealand health professionals.



PHARMACY GUILD OF NEW ZEALAND (INC)



NEW ZEALAND MEDICAL ASSOCIATION



ACC

PREVENTION. CARE. RECOVERY.

Te Kaporeihana Āwhina Hunga Whara

Committed to improving sustainable rehabilitation outcomes for all clients

Exercise in the treatment of rotator cuff impingement: A systematic review and a synthesized evidence-based rehabilitation protocol

Authors: Kuhn JE

Summary: This systematic literature review identified 11 randomised controlled trials evaluating the role of exercise in treating rotator cuff impingement. Although there were methodological concerns with many of the studies, the data analysis revealed statistically and clinically significant effects of exercise on pain reduction and improvement of function, but not on range of motion or strength. Manual therapy was found to augment the effects of exercise; no difference was seen between supervised exercise and home exercise programmes. The researchers also synthesised information regarding specific components of the exercise programmes into a gold standard rehabilitation protocol for future studies on the nonoperative treatment of rotator cuff impingement

Comment: Again a review that bemoans the quality of the research they could draw on to make their conclusions (but don't get depressed – there are good signs that things are improving). I selected this paper because they have taken a really useful step in taking the best evidence forward into recommending a standardised intervention package that will definitely contribute to advancing future research in the area but is probably also useful to reflect on as practitioners.

Reference: *J Shoulder Elbow Surg.* 2009;18(1):138-60

<http://linkinghub.elsevier.com/retrieve/pii/S105827460800476X>

Identification and comparison of rehabilitation goals after multiple injuries: an ICF analysis of the patients', physiotherapists' and other allied professionals' reported goals

Authors: Soberg HL et al

Summary: This study sought to explore and compare the rehabilitation goals with respect to functioning of 66 adult patients with multiple injuries (New Injury Severity Score >15) with the reported goals of 76 physiotherapists and other municipal rehabilitation professionals/services. Patients completed a questionnaire and interview upon returning home and a second questionnaire at one year post-injury. A questionnaire was applied to the professionals. Short-Form Health Survey scores were lower than those of the general population. The patients' goals concerned body functions/structures (8.6%), activities (16.2%) and participation (31.7%). The professionals reported few participation goals (10.7%). Kappa scores indicated poor agreement between patients and professionals for musculoskeletal functions/structures, self-care, mobility, interpersonal interactions/relationships, work and recreation/leisure.

Comment: One of the nice bits of doing Research Review is that colleagues email me their views about topics or my comments, sometimes letting me know how a paper has been useful. So, many thanks to you who do that. However, occasionally, people also send papers through that they think I might find interesting and thanks to Jo Fadyl here at AUT for this one. Whilst this paper is from early in 2008 (and usually I try and select papers published in the past month or so), I think it is worth highlighting as it makes clear just how wrong we tend to get client goals!

Reference: *J Rehabil Med.* 2008;40(5):340-6

<http://jrm.medicaljournals.se/article/pdf/10.2340/16501977-0174>

Contribution of individual, workplace, psychosocial and physiological factors to neck pain in female office workers

Authors: Johnston V et al

Summary: This study investigated the relative contribution of individual, workplace, psychosocial and physiological features associated with neck pain in female office workers, as factors for developing appropriate intervention programmes. Participants comprised workers without disability (Neck Disability Index [NDI] score of 8, n=33); workers with neck pain and disability (NDI 9/100, n=52) and 22 controls (women who did not work and without neck pain). Logistic regression analysis revealed significant associations between neck pain in workers and higher score on negative affectivity scale (OR=4.47), greater activity in the neck flexors during cranio-cervical flexion (OR=1.44), cold hyperalgesia (OR=1.27) and longer duration of symptoms (OR=1.19). Workers without disability and controls were only differentiated by greater muscle activity in the cervical flexors and extensors during a typing task. No psychosocial domains were detected in the analysis.

Comment: Given how many times we read of how important psychosocial and psychological factors are in how disabling neck pain and indeed other pain-related conditions, this looked to be an interesting paper on first read. However (and to check my interpretation I got the full paper currently in press only), a group not considered are workers with neck pain but reporting little disability. To me – that would have enabled a clearer answer as to whether psychosocial and psychological factors are important.

Reference: *Eur J Pain.* 2008 Dec 24. [Epub ahead of print]

<http://tinyurl.com/9jm3xr>

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 it to anyone without your prior approval. Research Review and you have the right to inspect, update or delete your details at any time.



Injury can change someone's life forever.
So can you.

PHYSIOTHERAPY
OCCUPATIONAL THERAPY
PODIATRY

POSTGRADUATE HEALTH SCIENCES

WWW.AUTUNI.AC.NZ ENROL NOW: 0800 AUT UNI

AUT
UNIVERSITY

“So, are you back to work yet?” Re-conceptualizing ‘work’ and ‘return to work’ in the context of primary bone cancer

Authors: Parsons JA et al

Summary: These researchers used qualitative narrative methodology to explore the relationship between experiences of osteosarcoma illness and experiences of vocation, uncovered during in-depth audiotaped interviews conducted with 14 osteosarcoma survivors undergoing treatment. Respondents reported engaging in three types of ‘work’: ‘illness work’, ‘identity work’ and ‘vocational work’. Osteosarcoma illness represented a crisis for respondents, with illness work portrayed as all-consuming, whereby respondents were forced to stop vocational work for considerable periods. The illness crisis also precipitated ‘identity work’; respondents described ‘becoming other’ to whom they had been prior to illness, after which they re-entered the vocational sphere with a different sense of themselves from when they left it. At surgical follow-up, clinicians routinely ask, “So, are you back to work yet?” expecting simple ‘yes/no’ answers. These researchers suggest that the answer is instead highly complex and that patients have been ‘working’ all along.

Comment: I chose this paper because a) I really like the journal and b) I’m really interested in issues that people with cancer face in re-engaging with life either because of the disabling consequences of the disease itself OR the disabling consequences of treatment. Some work carried out here in NZ about work and cancer is soon to be published and I’ll mention it here when that happens, and it too highlights that returning to work (and life) after cancer is not straightforward and in particular ‘yes/no’ questions are rarely going to capture that experience. Not only is this important (if you are actually interested in someone’s experience!) but it’s also important for accurate data as such a limited question will provide spurious results about productivity and engagement.

Reference: Soc Sci Med. 2008 Dec;67(11):1826-36

<http://tinyurl.com/8rs97y>

Beliefs about common health problems and work: a qualitative study

Authors: Barnes MC et al

Summary: This qualitative analysis investigated beliefs about common health problems (CHPs) in relation to work, using data from 16 focus groups involving 79 people aged 17–83 years from South Wales, the UK, where there is a high prevalence of limiting long-term illnesses in a number of areas. Depression and stress had a high impact on life and work relative to other CHPs, with work being perceived as a primary cause of these complaints. Social, moral and economic pressures involved in work and sickness absence emerged as a major theme. Differences were identified in beliefs about CHPs and work according to gender, age and socio-economic status. Beliefs were relatively consistent across geographical locations, although changes in forms of work and social structure of communities were more salient issues within the ex-coalfield areas.

Comment: At the risk of sounding repetitive... I partly chose this paper because a) I really like the journal and b) I met one of the authors, Mansell Aylward recently and found his views really interesting (about the positive value of work for health). But in particular, I think this paper provides a very timely caution that although preventing unnecessary work disability is absolutely the best thing for people’s health, there is a real risk that poorly managed, all we might do is exacerbate the very things that make people feel unable to work.

Reference: Soc Sci Med. 2008;67(4):657-65

<http://tinyurl.com/96sx8t>

VINTAGE PAPER

The after-effects of head injuries

Authors: English TC

Summary: This series of 3 Hunterian Lectures, delivered by the Hunterian Professor of Surgery at the Royal College of Surgeons of England in February 1904, discusses the case notes of 300 patients with head injuries: 100 were consecutive cases of fracture of the skull, seen at intervals of ≥ 1 year after the injuries; 100 were consecutive cases of concussion, cerebral contusion, and laceration without evidence of fracture, examined also at intervals not shorter than 1 year post-injury; and 100 were miscellaneous cases other than those included in the first two groups.

Comment: One or two people were disappointed that the vintage paper last issue was comparatively youthful so I figure you will be pleased at this choice! This is a fabulous paper in many ways – one of them being that despite obvious advance on the one hand, it shows how little we have progressed in over 100 years. In one fell swoop Thomas English highlights a) the importance of early intervention b) the importance of sufficient dose of rehabilitative efforts to make a difference c) the vagueness of descriptive terminology in describing severity of injury and d) that participation and work are outcomes of most interest to most people post injury. So – 100 years later we seem to still be learning those lessons....

Reference: Lancet. 1904 Feb 20;485-9



Upgrade your knowledge of occupational disease.

One of the side effects of being a doctor is there’s never enough time in the day. To help make things easier, a range of interactive case studies on occupational disease is now available online. Each one gives you access to evidence based best-practice learnings in this increasingly important area of medicine. Plus you’ll gain some CME credits along the way.

Check out the latest case study now by visiting www.goodfellowclub.org

ACC 4858

