Rehabilitation Research Review™

Making Education Easy

Issue 32 – 2014

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Abbreviations used in this issue

ABI = acquired brain injury
MI = motivational interviewing
RTW = return-to-work
SCI = spinal cord injury
TBI = traumatic brain injury

Welcome **to the thirty-second issue of Rehabilitation Research Review.**

This is my last issue of Rehabilitation Research Review – for a couple of reasons. Firstly – I have done it for a number of years and figure you might like to hear from someone else! Secondly – I am taking up a new appointment in January as Chief Executive of the Health Research Council and whilst I will still be involved in rehabilitation research and education to some degree – it will be at a less intensive level. So – I hope you enjoy my last issue and look forward to the new lead contributor Paula Kersten – Professor of Rehabilitation at AUT! If you want to stay informed of my occasional thoughts – you can follow me on Twitter @katmcphe

Wishing you and all those close to you a very happy holiday season and peaceful start to 2015.

Kind regards,

Kath McPherson
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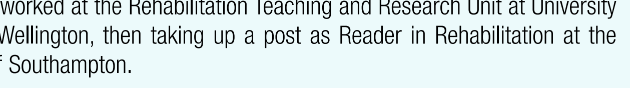
Understanding smokers' 'real' needs

Authors: Smokefree Nurses Aotearoa/New Zealand

Summary: The New Zealand campaign 'What Smokers *Really* Want' was launched on 23 October this year. It comprises evidence-based information, tools, networking opportunities and personal stories that are intended to help nurses better understand smokers' 'real' needs. The impetus behind this campaign is the fact that nurses are ideally placed to ask about smoking status, provide brief advice and cessation support. This website gives them a one-stop shop to help them deliver effective smoking cessation interventions.

Comment: Grace Wong, a senior lecturer in nursing and director of Smokefree Nurses Aotearoa/New Zealand came to see me in early December about her work to try and enhance health professional advice for people to quit smoking. The results of her research (funded by the Ministry of Health) are available at the website below with video clips from participants in her study identifying what they need from health professionals – and it's different to what they currently get. Whilst a stop smoking message is the content of these videos, the message of ensuring we create a fit between advice/information and our patients/clients is a message that is relevant across all sorts of health advice – including rehabilitation. Information alone is not influential. Person-centred information – contextualising it in ways that people can really listen to, engage with and apply is – but it takes specific action. I think it's worth checking these videos out and thinking about how you advise your patients/clients.

Reference: Smoke Free Nurses New Zealand. 2014.
http://whatsmokersreallywant.co.nz/



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.

For full bio CLICK HERE.

Life goals and social identity in people with severe acquired brain injury: an interpretative phenomenological analysis

Authors: Martin R et al.

Summary: People with severe acquired brain injury (ABI) living in a residential rehabilitation setting participated in semi-structured interviews examining their views and experiences regarding the place of 'life goals' in residential rehabilitation. Interpretative phenomenological analysis of the interview material identified 3 inter-related themes: social connectedness (being 'part of things') emerged as a life goal of central importance for all participants (Theme 1). In order to achieve this sense of belonging, the participants needed to tentatively balance the opportunities arising within their environmental milieu (Theme 2) with the interpersonal factors relating to their unchanged, changed and changing self-identity (Theme 3). The study researchers conclude that it is important to consider both the environmental contexts and the intrapersonal strategies that support people who require residential rehabilitation services to achieve social connection, and thus their life goals, following a severe ABI.

Comment: Colleagues at the University of Otago have recently published an interesting paper further adding to understanding how important social identity is to people with ABI. Some interesting findings for goal setting and goals of importance here.

Reference: Disabil Rehabil. 2014 Sep 24:1-8. [Epub ahead of print]
Abstract

Time spent reading this publication has been approved for CME for Royal New Zealand College of General Practitioners (RNZCGP) General Practice Educational Programme Stage 2 (GPEP2) and the Maintenance of Professional Standards (MOPS) purposes, provided that a Learning Reflection Form is completed. Please **CLICK HERE** to download your CPD MOPS Learning Reflection Form. One form per review read would be required.

Time spent reading this publication has been approved for CNE by The College of Nurses Aotearoa (NZ) for RNs and NPs. For more information on how to claim CNE hours please **CLICK HERE**

Self-management: challenges for allied healthcare professionals in stroke rehabilitation – a focus group study

Authors: Satink T et al.

Summary: Focus group interviews with allied healthcare professionals (AHPs) explored their perceptions and beliefs regarding the self-management of stroke survivors and their knowledge and skills regarding stroke self-management interventions. The AHPs discussed different levels of post-stroke self-management, depending on factors such as pre-stroke skills, recovery phases post-stroke and cognitive abilities of the stroke patients. They hesitated about stroke clients' capacities to self-manage. AHPs questioned whether their own attitudes and skills were really supportive for stroke clients' self-management and criticised stroke services as being too medically oriented. They recommended that self-management programmes could be delivered post-discharge at stroke survivors' own homes.

Comment: Self-management is one of those buzz words – oft overused and – oft poorly understood as this paper highlights. We are just doing a review of the literature around health professionals' experience of being involved in self-management and – it makes for challenging conclusions. The data suggests we struggle to do it well and that we even use self-management to control and blame patients for not self-managing! First author of that paper will be Suzie Mudge so keep your eyes peeled, as they say. ☺

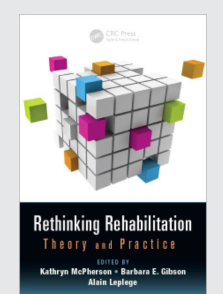
Reference: Disabil Rehabil. 2014 Oct 28:1-8. [Epub ahead of print]
Abstract

Rethinking rehabilitation: theory and practice

Editors: McPherson K et al.

Summary: This book contains contributions from leading researchers in rehabilitation in the US, UK, Australia, New Zealand, Canada and Europe. It covers a wide array of topics and each author proposes ways of thinking that are informed by theory, philosophy, and/or history as well as empirical research. The book presents chapters that model ways readers might advance their own thinking, learning, practice and research.

Comment: Deviating from the norm seems to be becoming my norm – so instead of a paper, I highlight this new book (coming out in Feb 2015). Whilst I have a conflict of interest in dispassionately making comment (being one of the editors) – the reviews coming back are really positive – recommending this as a book all rehabilitation professionals should read. Why? Because it challenges business as usual – it is not intended as a technical clinical handbook but rather, as a text to 'rethink' the status quo, the norm of practice. Some great chapters by kiwis as well as some interesting reads from around the world. 20% off too if you order online! OK – enough shameless advertising I hear you say.



Reference: Rehabilitation Science in Practice Series
http://www.crcpress.com/product/isbn/9781482249200

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Geriatric and physically oriented rehabilitation improves the ability of independent living and physical rehabilitation reduces mortality: A randomised comparison of 538 patients

Authors: Lahtinen A et al.

Summary: This study involved 538 independently living patients with nonpathological hip fracture who underwent physical and geriatric rehabilitation. At baseline, patients were physically oriented (n=187), geriatrically oriented (n=171), or in health centre hospital rehabilitation (n=180; controls). All study participants were evaluated on admission, at 4 and 12 months for social status, residential status, walking ability, use of walking aids, pain in the hip, activities of daily living (ADL) and mortality. At 4 months, the physical rehabilitation group had significantly lower mortality compared with both the geriatric rehabilitation group and the control group (3.2% vs 9.6% and 10.6%, respectively; $p<0.05$ for both comparisons); corresponding values at 12 months were 8.6%, 18.7% and 19.4%, respectively ($p \leq 0.04$ for both comparisons with controls). The physical and geriatric rehabilitation groups also experienced significant improvements at 4 months in the ability to live at home or in sheltered housing, compared with the control group. This was particularly the case for femoral neck fracture patients (physical rehabilitation vs control group, $p<0.001$; geriatric rehabilitation vs control group, $p<0.001$; physical rehabilitation vs geriatric rehabilitation, $p=0.308$), but this effect had disappeared after 12 months.

Comment: Rehabilitation saves lives and enhances independent living. That a strong enough reason for providing it?

Reference: Clin Rehabil. 2014 Dec 1. [Epub ahead of print]
Abstract

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Use of psychoactive substances in persons with spinal cord injury: A literature review

Authors: Tétrault M, Courtois F

Summary: This review analysed data from 105 articles published between 1980 and 2014 on use of legal and illegal psychoactive substances (PAS) in persons with spinal cord injury (SCI) before and after trauma. Prior to injury, between 25% and 96% of people with SCI reported using alcohol, while 32% to 35% had used illegal drugs. At the time of injury, 31% to 50% of individuals with SCI were intoxicated with alcohol, 16% to 33% with drugs and 26% with a combination of drugs and alcohol. Among those reporting PAS use before injury, up to 50% stated that they had reduced their use during active rehabilitation, during which time only 6% consumed psychoactive substances for the first time.

Comment: I was at a most interesting meeting in Melbourne last month (http://www.ifdm2014.com.au/index.php/14-fp-roktabs/71-achrf), where the last day focused on mental health and injury. Some fascinating data was presented by Meaghan O'Donnell from the University of Melbourne around the prevalence of mental health disorders in the first year post-injury and it was pretty shocking. Perhaps of no surprise that drug and alcohol use is an issue for people coming to terms with the cause of injury, but also self-medication subsequent to it. It is a good reminder that long-term mental health and well-being should be topics at the top of our mind in practice.

Reference: Ann Phys Rehabil Med. 2014 Oct 22. [Epub ahead of print]
Abstract

Use of motivational interviewing to improve return-to-work and work-related outcomes: A review

Authors: Page KM, Tchernitskaia I

Summary: These researchers examined the available evidence on the use of motivational interviewing (MI) for improving return-to-work (RTW) and employment outcomes. They found strong evidence for the efficacy of MI in clinical settings to motivate health behaviour change, but they advise that more research is needed to determine whether MI can be usefully applied to improve RTW and other work-related outcomes.

Comment: We are just finishing a clinical trial investigating motivational interviewing post-stroke (the PI is Valery Feigin and the research co-ordinator is Emma Witt) and so I read this review with interest. Along with others – these authors conclude that practitioners can tend to go off-piste (i.e., deviate from the protocol unless well trained and well supported) and in those cases – outcomes are not as good. So – the message is quasi MI is not effective and – applications to the field of RTW are needing investigation.

Reference: Austral J Rehab Counselling. 2014;20(1):38-49
Abstract

Need help managing patients with persistent pain?

Download our new patient handout from the 'For Providers' area of our website under Best Practice.

The state of the art of physical medicine and rehabilitation in New Zealand

Guest Editors: Seemann R, Kaplan M

Summary: This special issue of the *Critical Reviews™ in Physical and Rehabilitation Medicine* journal showcases research and reviews of the state of the art of Physical Medicine and Rehabilitation in New Zealand. These Guest Editors have selected local clinicians and researchers who make regular contributions in their respective fields. The articles highlight pioneering work in neurogenesis, prognostication in traumatic brain injury, and issues in optimising the content of stroke rehabilitation and dosing, which may serve to alter the design of stroke services locally and internationally. The articles also cover the role of neuroplasticity in chronic pain, the assessment and treatment of emotion recognition difficulties in brain injury rehabilitation, and a review from Burwood Spinal Unit, Christchurch, of their approach to patients with SCI and the current fields of research in which the unit is involved. The final articles discuss the current evidence for combination therapy with functional electrical stimulation and mirror therapy for the hemiplegic upper limb, and a case study highlighting therapies for fine motor control of hand affected by stroke.

Comment: A range of useful papers all from NZ clinicians or researchers. I suspect there is something of interest in here for everyone because there is a series of reviews providing a useful summary of the fields. I always feel a bit anxious about phrases like 'state of the art' – it's a bit like 'world first' and other grand claims – one can only go downhill from there! However – lines in the sand on topics are needed and there are a number in these papers about where to next – where should we go for state of the art?

Reference: Crit Rev Phys Rehabil Med. 2014;26(1-2):i-iii
Abstract

Predictors of postoperative cognitive decline in very old patients with hip fracture: A retrospective analysis

Authors: Luger MF et al.

Summary: Data were retrospectively analysed from the hospital charts of very old patients (aged ≥80 years) with hip fracture, to investigate the incidence and predictors of postoperative cognitive declines. A total of 70 patients showing either diagnosed postoperative delirium (POD; group 1; n=18) or an unspecified cognitive dysfunction and behaviour (group 2; n=52) were analysed and compared with those without any acute postoperative cerebral impairment (control group; n=259). Analyses of data from group 1 revealed that POD was more likely to develop in those patients who had a medical history of stroke (relative risk [RR] 16.2; p=0.0001) or nicotine abuse (RR 14.4; p=0.001) and perioperative surgical bleeding (RR 6.54; p=0.002). Unspecified cognitive dysfunction and behaviour (group 2) was significantly associated with a medical history of stroke (RR 12.5; p=0.0001) and postoperatively with depression (RR 3.32; p=0.001). Over a median 5-year follow-up, significantly more patients in group 1 (55.6%; RR 21.8; p=0.0001) and group 2 (13.5%; RR 3.88; p=0.001) developed dementia as compared to controls (1.9%). Mortality did not differ significantly between groups 1 and 2.

Comment: Accurate prediction around who is going to have more difficulty postoperatively is a key to targeting services appropriately. It is arguably these people who have the most to get out of rehabilitation so hopefully phrases such as 'not ready for rehab' or 'not suitable for rehab' will not result… Instead – maybe we will ensure our rehab strategies are fit for purpose for the reasonably high proportion of people who have post-op cognitive decline. A challenge – but reality often is.

Reference: Geriatr Orthopaedic Surg Rehabil. 2014;5(4):165-72
Abstract

Systematic review of interventions for fatigue after traumatic brain injury: A NIDRR Traumatic Brain Injury Model Systems Study

Authors: Cantor JB et al.

Summary: These researchers systematically reviewed the evidence on interventions for post-traumatic brain injury fatigue (PTBIF) through 22 January 2014. Nineteen articles met all inclusion criteria and were included in this review. Using the 2011 American Academy of Neurology Classification of Evidence Scheme for therapeutic studies, 4 studies were class I, 1 class II/III, 10 were class III, and 4 class IV. Only 5 articles examined fatigue as a primary outcome. Interventions were pharmacological and psychological or involved physical activity, bright blue light, electroencephalographic biofeedback, or electrical stimulation. Only 2 interventions (modafinil and cognitive behavioural therapy with fatigue management) were evaluated in more than 1 study.

Comment: Joshua Cantor was a leading USA-based rehabilitation researcher (originally musician!) who sadly died just over 12 months ago. Of the three papers he has co-authored in this issue of the journal (his colleagues completing the work for publication), this one took my eye because we all know how overwhelming fatigue is for people post-TBI. It is therefore disappointing in the extreme to have such a lack of good research to draw on to inform our practice. They identify 'areas of promise' – but to have insufficient evidence to recommend or contraindicate any treatments for such a common problem for patients and clients seems a travesty don't you think?

Reference: J Head Trauma Rehabil. 2014;29(6):490-7
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.

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