Rehabilitation Research Review™

Making Education Easy

Issue 47 – 2019

In this issue:

Abbreviations used in this issue
ABI = acquired brain injury
MCID = minimal clinically important difference
RTW = return to work
TBI = traumatic brain injury

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**

Welcome to issue 47 of Rehabilitation Research Review.

I am very pleased to welcome Dr Joanna Fadyl as our guest reviewer for this issue of Rehabilitation Research Review. Her commentaries focus on critically discussing evidence relevant to vocational rehabilitation, including various challenges involved in the return to work after injury, from the viewpoints of the injured worker, co-workers and managers. The findings help to clarify how workplace accommodations can best support injured workers on their return to work.

I am also excited to have the opportunity to discuss a paper I co-authored about a topic very close to my heart – person-centred practice. In this paper, Gareth Terry and I emphasise the importance of cultures of care in enhancing person-centred practice.

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

Kind regards,

Associate Professor Nicola Kayes
nicolakayes@researchreview.co.nz

"Minimal clinically important difference" estimates of 6 commonly-used performance tests in patients with chronic musculoskeletal pain completing a work-related multidisciplinary rehabilitation program

Authors: Benaim C et al.

Summary: This investigation involved 838 working-age patients (mean age, 44 years; 88% male) admitted to a single rehabilitation centre with chronic musculoskeletal pain (≥3 months) after an acute orthopaedic injury of neck/back, upper or lower limb. The study sought to determine the minimal clinically important differences (MCIDs) for the 6-min walk test (6MWT), the Steep Ramp Test (SRT), the 1-min stair climbing test (1MSCT), the sit-to-stand test (STS), the Jamar dynamometer test (JAM) and the lumbar protocol of the Progressive Isoinertial Lifting Evaluation (PILE) in these patients. The anchor-based method (i.e. this addresses the patient's perspective) was selected as the reference method, supplemented by the distribution method (this compares change in outcome score with a measure of variability) and the opinion-based approach (this uses an iterative consensus approach to gather opinions of experts or patients), to determine the MCIDs. These were significantly affected by the estimation method and the lesion location. Anchor- and Distribution-based estimations were very close in many cases: +75 m and +60 m for the 6MWT (lower limb and neck/back lesions, respectively), +18 steps for the 1MSCT (lower limb and neck/back lesions) and +6 kg for the JAM (upper limb lesions). The Distribution- and Opinion-based methods provided rough estimations of MCIDs for the SRT (+39 w to +61 w), the STS (–5 sec to –7 sec) and the PILE (+4 kg to +7 kg).

Comment (NK): It is important to understand that statistically significant change (often reported in efficacy studies) does not necessarily correspond to clinically important change. The MCID is a measure of change developed to address this gap and denotes the smallest change deemed to be important from a patient's perspective. This research attempts to determine the MCID for a range of functional measures commonly used in a musculoskeletal setting (such as the six-minute walk and sit-to-stand tests). The results provide a useful benchmark for clinicians working in this setting who routinely draw on these measures as an indicator of success. It is important, however, to note that this research included working-age adults with chronic musculoskeletal pain, who were predominantly male, and were engaged in an intensive inpatient rehabilitation programme. As such, the MCIDs provided are specific to that population and context. The authors also highlight some interesting points to keep in mind when interpreting MCIDs in this and other research. First, the MCID varied by lesion location (e.g. the MCID was different for upper and lower limbs), highlighting that MCIDs do not necessarily generalise well across impairment type. Second, given that an MCID may be specific to impairment, it may not provide a useful clinical goal in the context of multi-morbidity, where important change, as defined by the patient, may be subject to a range of complex factors (and impairments).

Reference: BMC Musculoskelet Disord. 2019;20(1):16
Abstract

Independent commentary by Associate Professor Nicola Kayes

Associate Professor Nicola Kayes is Director of the Centre for Person Centred Research at Auckland University of Technology. Nicola has a background in health psychology and as such her research predominantly explores the intersection between health psychology and rehabilitation. She is interested in exploring the role of the rehabilitation practitioner and their way of working as an influencing factor in rehabilitation and whether shifting practice and the way we work with people can optimise rehabilitation outcomes. Nicola actively contributes to undergraduate and postgraduate teaching in rehabilitation at the School of Clinical Sciences at Auckland University of Technology.

Inter-professional communication and interaction in the neurological rehabilitation team: a literature review

Authors: Franz S et al.

Summary: This literature review included 17 studies (12 qualitative and five quantitative) describing inter-professional teamwork in neurological early rehabilitation, with a particular focus on how nurses, physiotherapists, occupational therapists and speech therapists communicate and interact as teams in neurological rehabilitation wards. Four of the studies were performed in neurological rehabilitation settings, 5 in stroke units, 6 in general rehabilitation, 1 in short-term care rehabilitation and 1 in geriatric rehabilitation. All underwent qualitative analysis for the grade of evidence, methods and the relevance for the conditions and processes in rehabilitation units. The results indicate that better patient-oriented inter-professional communication would improve the efficiency and quality of cooperation in rehabilitation teams. The study researchers call for cross-professional team organisation to promote inter-professional communication. They recommend that vocational and on-the-job-training, as well as team supervision, include inter-professional communication. Finally, the researchers suggest that profession-specific terminologies and differences in understanding of roles could thwart successful team collaboration, which is promoted by being informed about the various functions of team members from different disciplines, about the role each member plays within the team and communication styles.

Comment (NK): I was looking forward to reading this paper but admit to being somewhat disappointed with the content. The topic of interprofessional teams and teamwork in rehabilitation has been explored extensively over the years and I am not convinced this review adds anything new! However, it is a good reminder of the things that can help or hinder a well-functioning team. Some of the common pitfalls (which will no doubt resonate with you) include the hierarchical nature of teams, lack of value ascribed to the contribution of some professions, poor role clarity, and role segregation based on disciplinary skills and experience. On the contrary, teams with collective goals, with opportunities for both formal and informal communication and interactions, and whose primary focus is on patient needs appear to be more successful. In 2017, we were lucky to have Dr Vicky Ward from the UK contribute to our NZ Rehabilitation Conference as a keynote speaker. In reading this paper, I was reminded of her excellent research exploring knowledge sharing within healthcare teams. I highly recommend exploring her project website if you want to reflect further on this topic: https://mobilisinghealthandsocialcareknowledge.wp.st-andrews.ac.uk/stories-about-knowledge-sharing/.

Reference: Disabil Rehabil. 2018 November 20. [Epub ahead of print]
Abstract

System complexities affecting recovery after a minor transport-related injury: the need for a person-centred approach

Authors: Samoborec S et al.

Summary: This qualitative study recruited 23 people with physical or mental disabilities caused by traffic accidents that had occurred, on average, 4 years earlier. All had made a post-injury compensation claim. Semi-structured interviews explored the clients' experiences of the recovery journey through the compensation system. The study aimed to identify areas and strategies for quality improvement in compensation service delivery. Thematic analysis of the interview data revealed the complexity of the recovery processes for patients, as they navigate the compensation system and use its services. Clients perceived the compensation provider as limited by rules prohibiting access to certain services. Moreover, clients commonly reported that the compensation provider could not understand health and recovery processes and did not provide adequate guidelines or instructions that would assist with the recovery process. Many clients dealt with numerous case managers and felt uninformed about the compensation system, which fostered loss of trust in rehabilitation management and case managers' decisions. Clients also reported financial impacts that were inadequately addressed. Many felt abandoned by the system.

Comment (NK): This research reports on data relevant to participants' journeys through the compensation system as part of a larger qualitative study aiming to explore experiences of recovery following minor transport-related injury. It is set in the context of the Transport Accident Commission (TAC) in Victoria, Australia – a system not unlike our Accident Compensation Corporation (ACC) system. The findings highlight a range of complex factors at play – where the benefits of the compensation system (e.g. provision of financial support, equipment, home assistance and access to health services) sit in contrast to the frustrations of navigating a system where there appears a lack of transparency over entitlements, poor communication, and where provision is not sufficient to fully meet needs for recovery. The authors call for a person-centred approach to intervention delivery. I would take that one step further – and argue for a person-centred system of care that focuses attention not only on individuals within the system, but rather, acknowledges the role of the system in providing the structures and processes to underpin a person-centred way of working. It is tricky though – any system of this nature inevitably experiences tension between person-centricity and fiscal responsibility, so we need to find ways of managing this tension. Regardless, we all need to recognise the psychosocial context of recovery as being potentially formative to outcome, and therefore something we need to pay attention to in practice. As an aside, the journal that published this paper includes both a conventional scientific abstract and a lay abstract. This is a good example of the ways in which the research community is attempting to improve how we communicate research findings. If you are not already aware, it is worth checking out the activities of Cochrane Rehabilitation (https://rehabilitation.cochrane.org/), who are doing a range of work to make rehabilitation evidence more accessible to key stakeholders.

Reference: J Rehabil Med. 2019;51(2):120-6
Abstract

Refining a clinical practice framework to engage clients with brain injury in goal setting

Authors: Prescott S et al.

Summary: This Australian research group examined the application of their theoretical framework – the Client-Centred Goal Setting Practice Framework – to routine everyday practice developing client-centred goals in brain injury rehabilitation. In particular, the study focused on the extent to which goal setting was client-centred. The investigation involved 36 community-dwelling clients with acquired brain injury (ABI) and 17 practitioners (including 8 occupational therapists). Communication exchange between practitioners and clients during routine goal setting was audio-recorded, transcribed and analysed using framework analysis. Sixty-five goal setting sessions were audio-recorded. They revealed that all 3 goal setting phases (needs identification, goal operationalisation, and intervention) of the framework, their associated processes and strategies, were represented. The 'establishing trust' process was interwoven throughout all phases of goal setting. The researchers also identified the 'social connection' strategy, which helped in establishing trust to engage the clients.

Comment (NK): This paper was excellent – both in terms of the in-depth and well-informed critical exploration of the substantive topic (client-centred goal setting) and in terms of methodological quality. It complements prior qualitative research exploring clinicians' self-reports of their goal setting practices, with an observational study to explore what actually happens in practice (at least in the context of rehabilitation with community-dwelling clients with ABI). There is more in this paper than I can meaningfully share in a brief commentary, so I highly recommend reading it to learn more. In particular – the paper provides a useful overview of how their previously published client-centred goal setting framework (see https://www.ncbi.nlm.nih.gov/pubmed/28602116) is applied in practice, with explicit examples of how key components are and can be operationalised. This is useful, as it not only demonstrates how these goal planning strategies can be applied in practice, but also provides a useful breakdown of key processes to support individuals and services to critically reflect on the extent to which they are embedding these processes into routine practice in their own setting (and indeed, whether the service structures and goals support this way of working).

Reference: Aust Occup Ther J. 2019 January 30. [Epub ahead of print]
Abstract

Physiotherapy New Zealand Business Symposium 2019

This year's Physiotherapy New Zealand Business Symposium will be held on 1 November, at Jet Park Auckland Airport Hotel. The Physiotherapy Business Symposium is a one day event bringing together members, speakers, stakeholders and providers of products and services from across the profession to discuss the business of physiotherapy. Tickets will be available on **pnz.org.nz** in the coming months.

Person centered care in neurorehabilitation: a secondary analysis

Authors: Terry G, Kayes N

Summary: This article describes examples of person-centred care in existing practice, identified from a qualitative analysis of data from previous neurorehabilitation projects undertaken by these authors. The data revealed 4 themes: (1) Patient experience and needs must be understood in terms of their difficult new reality; (2) care must be underpinned by a relational orientation; (3) trust must be treated as a currency; and, (4) efficacy in rehabilitation is co-constructed and enabled by the efforts of practitioners. Identifying positive examples of care, enacted irrespective of the framework of care they are found within, may provide opportunities to critically reflect on practice. The authors suggest that person-centred care is already happening in neurorehabilitation within existing health systems and frameworks, whether tacitly acknowledged or not.

Comment (NK): I usually avoid providing commentary on papers that I have authored myself, but I am so pleased to have this paper published that I could not resist the opportunity to share it with you. The great news is that this paper is an open access paper, so you can easily access it for free if you are interested in reading the full paper. This paper draws on a secondary analysis of data from three projects we have carried out over the years in the Centre for Person Centred Research. Our hope was that we might be able to glean insights from the voices of our participants with regards to ways in which we can enact and practice person-centred care in neurorehabilitation. I hope you take the time to read the paper, but I thought I would share one of our key messages with you as a taster: While we can sometimes get stuck on specific indicators that person-centred care has prevailed (such as actively involving the person, offering choice, and so on), we argue this may risk person-centred care becoming yet another transactional, or scripted process. Rather, our findings suggest that person-centred care is better described as a culture of care that recognises the subjective experience of individuals and their family and which values and prioritises connectivity and trust as foundational for building the capacities of persons experiencing injury and illness.

Reference: Disabil Rehabil. 2019 January 29. [Epub ahead of print]
Abstract

Enhancing return to work or school after a first episode of schizophrenia: the UCLA RCT of Individual Placement and Support and Workplace Fundamentals Module training

Authors: Nuechterlein KH et al.

Summary: This article describes the outcomes of an 18-month investigation into the efficacy of an enhanced vocational intervention, Individual Placement and Support (IPS), which was combined with a Workplace Fundamentals Module (WFM) intended to help individuals with a recent first schizophrenia episode to return to and remain in competitive work or regular schooling. Sixty-nine patients with recent-onset schizophrenia were randomised to either the IPS-WFM programme (n=46) or to equally intensive clinical treatment at the University of California, Los Angeles, including social skills training groups and conventional vocational rehabilitation given by state agencies (n=23). All study participants received case management and psychiatric services from the same clinical team and oral atypical antipsychotic medication. During the first 6 months of treatment, compared with the patients in the university programme, a significantly higher proportion of patients in the IPS-WFM module participated in competitive employment or school (83% vs 41%; p<0.005) and IPS-WFM continued to deliver higher rates of schooling/employment over the subsequent year (92% vs 60%; p<0.03). Furthermore, the IPS-WFM intervention was associated with a significantly higher number of weeks of schooling and/or employment (45 vs 26 weeks; p<0.004).

Comment (JF): This is an interesting trial with well thought-out methods, although the data from this study is well over a decade old now. IPS is a model that is specifically designed to integrate with treatment services and to be used in populations with 'severe' mental illness who have often been overlooked in the provision of vocational rehabilitation. IPS has recently been the subject of a lot of research, reporting largely positive results. Despite this, it has so far had limited implementation in Aotearoa New Zealand. It is interesting that this study combined IPS with an additional component specifically teaching work-relevant skills in a setting outside of the workplace. Indeed, it is logical that in a population experiencing the severe disruption of a first episode of schizophrenia, this would be of benefit in helping develop understanding of how to negotiate work in addition to IPS, which has more of a focus on the specific real-world job. Results of the overall package in this study are impressive, although the specific effect of the additional component remains untested.

Reference: Psychol Med. 2019 January 4. [Epub ahead of print]
Abstract

Participation in competitive employment after severe traumatic brain injury: new employment versus return to previous (pre-injury) employment

Authors: Simpson GK et al.

Summary: This study involved 588 clients with severe TBI enrolled in the 11 community rehabilitation services of the New South Wales Brain Injury Rehabilitation Programme. This analysis of employment outcomes found that around 40% of clients accessed new employment. These clients were significantly more likely to be younger-aged, single, less educated, and have more severe injuries as well as displaying challenging behaviours, compared with those returning to previous employment. Time taken to return to work was significantly prolonged for new employment. Stability of new employment was significantly poorer; jobs were twice as likely to break down compared to previous employment. New employment positions were more likely to be part-time and in unskilled occupations compared to previous employment.

Comment (JF): For me, there are two particularly noteworthy messages from reading this study. The first is the importance of supporting job retention wherever possible, acknowledging that in the context of a severe brain injury, this is likely to require contact with key people in the workplace over a sustained length of time. In this study, the median time to return to work for those returning to their previous employment was more than a year. Maintaining good relationships and expectations of return over this time involves all stakeholders, and the importance of supporting these relationships cannot be underestimated. As qualitative studies about being a co-worker or manager of someone who is returning to work show (including the next paper in this issue of Rehab Research Review), these roles are complex to navigate, and often people require support to increase their knowledge of the effects of the injury and understand the implications for support in the workplace.

The other aspect of the findings I want to highlight is that psychosocial context matters, and psychosocial challenges are often the difference when it comes to how successful a return to work is. In this study, the number of psychosocial issues was a significant independent predictor of work stability (i.e. over and above other variables) and for those in new employment the effect was particularly pronounced. One of the reasons it matters so much is that issues accumulate. A breakdown of a job is another challenge, adding to whatever was already there. Understanding a person's psychosocial context and supporting them to address existing issues might just be the thing that helps to break that cycle.

Reference: Neuropsychol Rehabil. 2018 November 8. [Epub ahead of print]
Abstract

Being a co-worker or manager of a colleague returning to work after stroke: a challenge facilitated by cooperation and flexibility

Authors: Öst Nilsson A et al.

Summary: This study explored the experiences of co-workers and managers of a colleague returning to work after stroke. The colleagues with stroke were participating in a person-centred rehabilitation programme focusing on return to work, including a work trial. Interviews were conducted with 7 co-workers and 4 managers during the work trial of a colleague with stroke. The qualitative analysis of the interview transcripts revealed that being a co-worker or manager is challenging in various ways: being a supportive co-worker or manager is an emotional challenge; having too much responsibility is challenging; and needing to be supportive despite a lack of knowledge about how best to provide that support presents its own challenges.

Comment (JF): This research is from a Swedish context, in which there is a greater expectation of employer involvement in return to work compared to here in Aotearoa New Zealand. However, as the authors point out, relationships at the workplace are a key aspect of work-ability across countries. The findings of this qualitative study highlight how multi-faceted working relationships are, and how each of those facets is affected by a change in a person's abilities. Co-workers and managers relate to the affected individual as a person, but also as someone who needs to help them achieve tasks. People negotiate both personal relationships and work demands in the context of not really knowing how things will go, what can be done, and where the limits are. Furthermore, the relationships and pressures are woven together in a constant negotiation between how 'support' can function and how to get the job done.

Reference: Scand J Occup Ther. 2019 January 29. [Epub ahead of print]
Abstract

Workplace accommodations following work-related mild traumatic brain injury: what works?

Authors: Gourdeau J et al.

Summary: This Canadian research group investigated workplace accommodations received by individuals returning to work after mild TBI. Telephone interviews were conducted with 12 such individuals, to explore what types of accommodations they received. A thematic analysis of the interview data identified certain accommodations as being useful or required by individuals on return to work. Amongst others, these accommodations included being able to make a gradual return to work and being allowed to undertake modified duties. Factors that influenced how accommodations were provided included components of the workplace social and structural environment, as well as the occupational context.

Comment (JF): The effects of mild TBI are often poorly understood by workers and their workplace, leading to frustrations on both sides. This qualitative study highlights the impact this can have and shows also what can act to mitigate some of these issues. Tensions between getting the job done and supporting a return to work come up again in this article, as do the influence of existing relationships in the workplace (see also the previous study by Nilsson et al.). Once again, there is a suggestion that the nature of these relationships (supportive/unsupportive; positive/negative) mediated understanding of the effects of the injury on work-ability, and therefore willingness or ability to accommodate. Empathy that can arise with more knowledge about mild TBI may serve to shift some of the more negative perceptions by employers and co-workers. For the person with mild TBI, knowing their abilities and ability to self-advocate may well be helpful in getting the appropriate accommodations, but the effects of a mild TBI may impair this ability, even in an individual who is normally very able. Timely advocacy from health and vocational professionals regarding the need for supports and the right supports could make an enormous difference.

Reference: Disabil Rehabil. 2018 November 18. [Epub ahead of print]
Abstract

Independent commentary by Dr Joanna Fadyl

Dr Joanna Fadyl is Senior Lecturer at AUT School of Clinical Sciences and Deputy Director of the Centre for Person Centred Research. Jo came to research and teaching in 2006 from a background in vocational rehabilitation, and has a particular interest in sociocultural aspects of rehabilitation practice. Her current research examines work-ability and vocational rehabilitation, as well as experiences of disability, recovery and adaptation.

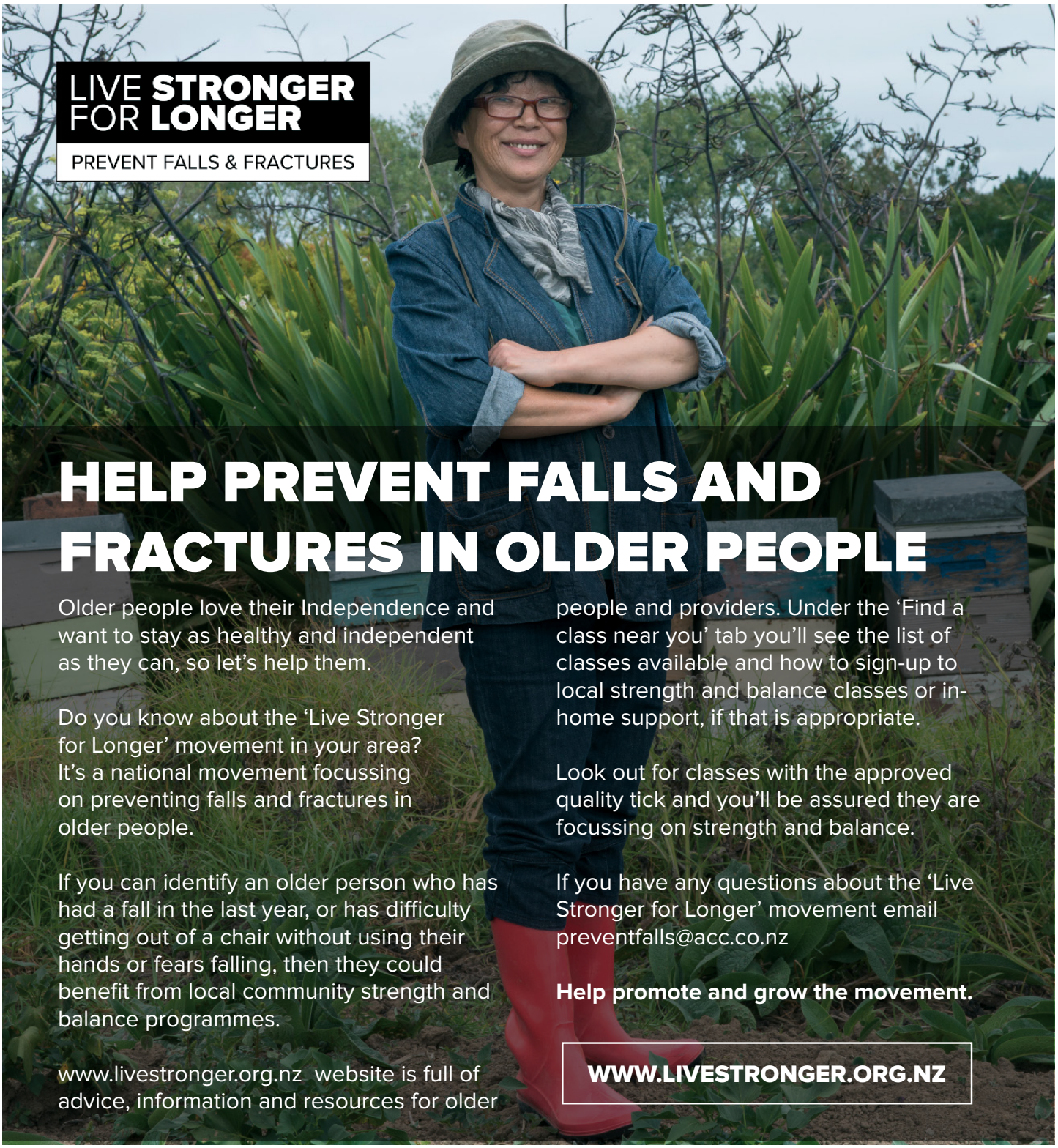
Models of brain injury vocational rehabilitation: The evidence for resource facilitation from efficacy to effectiveness

Authors: Trexler LE et al.

Summary: These researchers sought to determine the effectiveness of the Resource Facilitation intervention developed at the Rehabilitation Hospital of Indiana (RHI) to improve return to work following brain injury. This investigation included a cohort of 242 clients referred to the RHI Resource Facilitation programme from the Indiana Vocational Rehabilitation Services. The Resource Facilitation programme specialises in connecting patients and caregivers with community-based resources and services to mitigate barriers to return to work. Of the participants in this study, 33 were from previous randomised controlled trial control groups who did not receive Resource Facilitation and 210 were clinical patients discharged from the RHI Resource Facilitation programme. After discharge from the Resource Facilitation intervention, a significantly higher proportion of those individuals obtained employment as compared with controls [$X^2_{(1)}$ = 5.39; p=0.018]. In analyses that adjusted for baseline levels of disability, treatment allocation was a significant predictor of employment outcome (Wald=4.52; p=0.033) and those who participated in the Resource Facilitation programme more than twice as likely than controls to return to work (OR 2.3).

Comment (JF): This is the latest in a series of studies by a group of authors in the US investigating effectiveness of Resource Facilitation for returning to work after brain injury. I have followed this work since reviewing their first study for a systematic review of models of employment support following brain injury (published in 2009). Resource Facilitation has similarities with case management/case coordination but also some important differences which I think are worth noting. In particular, the focus of the Resource Facilitation model is on facilitation – both in the name and the practice. The Resource Facilitator is seen as an expert in navigating systems that can support the person with brain injury to make informed decisions in seeking the right support. This emphasis on collaboration and partnership shifts the focus away from 'entitlement' and 'responsibility' which can act as distractions from getting the right supports in place. The trials of Resource Facilitation themselves are pragmatically designed – very different from a double-blind drug trial. However, the evidence is building that supports this approach and it is clear from the Indiana context that the State there is increasingly recognising and supporting the approach – also adding to the data available for analysis.

Reference: J Vocat Rehabil. 2018;49(2):195-203
Abstract



HELP PREVENT FALLS AND FRACTURES IN OLDER PEOPLE

Older people love their Independence and want to stay as healthy and independent as they can, so let's help them.

Do you know about the 'Live Stronger for Longer' movement in your area? It's a national movement focussing on preventing falls and fractures in older people.

If you can identify an older person who has had a fall in the last year, or has difficulty getting out of a chair without using their hands or fears falling, then they could benefit from local community strength and balance programmes.

www.livestronger.org.nz website is full of advice, information and resources for older people and providers. Under the 'Find a class near you' tab you'll see the list of classes available and how to sign-up to local strength and balance classes or in-home support, if that is appropriate.

Look out for classes with the approved quality tick and you'll be assured they are focussing on strength and balance.

If you have any questions about the 'Live Stronger for Longer' movement email preventfalls@acc.co.nz

Help promote and grow the movement.

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