

Rehabilitation RESEARCH REVIEW™

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Issue 55 – 2021

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Ruth Spearing (Haematologist at CDHB)
and Peter Shapkov (Breast Surgeon at
Waitemata DHB)

who were winners in our prize
draw by taking part in our recent
Research Review Annual
Subscriber Update.

Welcome to issue 55 of Rehabilitation Research Review.

An Australian investigation of the decision-making processes and experiences of clinicians, regarding referral and acceptance of patients to rehabilitation after stroke, shines a bright light on this area of practice. It may well be time to interrogate our own referral practices in a similar way. Other topics covered in this issue include a review of clinical practice guidelines for amputation rehabilitation, intimate partner violence in women experiencing disability, rehabilitation after hip abductor tendon repair, inpatient multidisciplinary pain management programmes, and tailored rehabilitation nursing care for rib fractures.

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

Kind regards,

Professor Nicola Kayes

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“Everyone needs rehab, but...”: exploring post-stroke rehabilitation referral and acceptance decisions

Authors: Marnane K et al.

Summary: Using multisite rapid ethnography techniques, including observation of multidisciplinary case conferences, interviews with clinicians and document review, Australian researchers examined decision-making processes and experiences of patient referral to post-stroke rehabilitation. Themes identified revealed a complex post-stroke rehabilitation referral and acceptance decision-making process. Most clinicians felt that rehabilitation could benefit all patients, but this could not always be possible. Rehabilitation potential and goals were considered, but decision-making was affected by acute stroke unit context and team processes, rehabilitation availability and access processes, and relationships between acute and rehabilitation clinicians. Patients and families were not actively involved in decision-making.

Comment: This research highlights the complexities inherent in an often taken for granted process. The findings highlight that referral to, and acceptance of, clients for post-acute stroke rehabilitation services is subject to a range of interacting factors. There are many things I could draw attention to, so it is hard to know where to start! In my mind, these findings make visible some concerning realities, such as: a) the extent to which someone is perceived to have rehabilitation potential is key to decision-making, yet determining rehabilitation potential is complex and inevitably subjective; b) prevailing discourses position rehabilitation as a limited resource and professionals as gatekeepers to that resource; and c) structural and organisational factors dominate clinical decision-making processes. In the organisations involved in this research, patients and families themselves were rarely (if ever!) actively engaged in decision-making. While not discussed in this paper, it seems inevitable that implicit assumptions and (un)conscious bias influence access to stroke rehabilitation, and therefore contribute to inequities in access and outcome. I thank the authors for shining a bright light on this area of practice, which has made visible a largely invisible area of practice. I encourage all services to critically reflect on and interrogate their own referral practices in a similar way.

Reference: *Disabil Rehabil.* 2021;May 11 [Epub ahead of print]

[Abstract](#)

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Systematic review of clinical practice guidelines for individuals with amputation: Identification of best evidence for rehabilitation to develop the WHO's Package of Interventions for Rehabilitation

Authors: Heyns A et al.

Summary: This paper describes the results of a systematic review of interventions and rehabilitation of individuals with amputation-based clinical practice guidelines. The analysis identified 4 guidelines, including a total of 217 recommendations (20 on assessments, 131 on interventions, 66 on service provision). Recommendations focused on management of pain, education, pre- and post-operative management, and care of residual limbs. Recommendations were generally of weak to intermediate strength with evidence mostly based on expert opinion; only 15 of 217 recommendations came from randomised controlled trials, systematic reviews or meta-analyses.

Comment: This review sits in the context of a much broader programme of work being undertaken by the WHO in collaboration with Cochrane Rehabilitation aiming to identify best available evidence to develop a Package of Rehabilitation Interventions for a range of health conditions. The focus of this paper is on establishing evidence for amputee rehabilitation via a review of relevant clinical practice guidelines (CPGs). Disappointingly for those of you working in amputee rehabilitation, there is only limited detail provided in this paper regarding the recommendations for rehabilitation. Also, perhaps one of the most important take homes, is that the findings point to a lack of high-quality evidence to inform rehabilitation for amputees, with existing CPGs drawing primarily from expert opinion, rather than robust empirical evidence, to construct recommendations. The authors offered only a brief enticement of their substantive findings indicating that recommendations with the highest level of evidence addressed "pain treatment, the importance of exercise therapy, education of patients and their caregivers, use of rigid dressing in transibial amputations, and to assess the medical history and preoperative limitations of patients with respect to their potential outcome." However, there were many topics that may be critical to rehabilitation process and outcome that were not addressed at all in the included CPGs. It is important to note that the most up-to-date guideline included was published in 2017 and so more recent primary research or systematic reviews may augment these findings and provide a more encouraging outlook.

Reference: *Arch Phys Med Rehabil.* 2021;102(6):1191-1197

[Abstract](#)

Addressing intimate partner violence with female patients with chronic physical disabilities: The role of physical therapists

Authors: Ballan MS and Freyer M

Summary: This paper explored assessment, practice and education guidelines for physical therapists in the identification and response to intimate partner violence (IPV) among individuals with disabilities in their practice. Women with disabilities have an increased risk of intimate partner violence versus those without disabilities, and are at risk of sustaining additional chronic injuries and debilitating conditions.

Comment: While this paper is specifically targeted at physiotherapists, I would encourage all rehabilitation professionals to engage with it. Some key messages include that: a) women who have experienced IPV have increased risk of musculoskeletal disorders; b) they are more likely to access care due to the chronic impact of these conditions and so are more likely to present at a physiotherapy clinic than acute services; and c) disabled women are particularly vulnerable to IPV and may be even more likely to be engaging with physiotherapy services. Given this, the authors argue that physiotherapists should engage with education and professional development activities to ensure they are prepared to identify and provide support to women experiencing IPV. They provide some useful advice regarding preparedness for routine screening, at the outset and in an ongoing way, the development of trusting relationships that provide the context for safe disclosure, the need for a trauma-informed approach, the potential for therapeutic touch to provoke a traumatic response or indeed to contribute to healing, and the unique and particular experiences that disabled women may be exposed to which may not be well addressed with existing screening tools. Essentially this paper is a call to action. Given New Zealand has one of the worst rates of IPV in the world, I think it is a call to action we should pay attention to.

Reference: *Disabil Rehabil.* 2021;43(10):1404-1409

[Abstract](#)

Independent commentary by Professor Nicola Kayes

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.

For full bio [CLICK HERE](#).



Recommendations in the rehabilitation of patients undergoing hip abductor tendon repair: A systematic literature search and evidence based rehabilitation protocol

Authors: Ebert JR et al.

Summary: This systematic review of 17 published clinical studies on patients undergoing hip abductor tendon (HAT) repair, along with the authors clinical experience, was used to develop a detailed overview of rehabilitation for this patient population. Components of rehabilitation included post-operative weight bearing restrictions, and initiation of passive/active hip range of motion and resistance exercises.

Comment: I like the pragmatic approach taken in this paper. The authors combine what is currently known in the evidence base with their extensive clinical experience to inform an evidence-based protocol for rehabilitation following HAT repair. They carefully acknowledge the limitations of this approach, including that the empirical evidence base has some gaps, that the practice-based evidence they have drawn on is anecdotal, and therefore that further research is warranted. However, in the absence of existing guidelines to inform practice, they provide a detailed protocol for practitioners working with this population. The protocol spans from the pre-operative phase through to 24 months post-surgery and focuses primarily on progressively increasing weight-bearing, range of motion and loading. It provides detailed and nuanced guidance on therapeutic activities that can support this graduated programme and makes explicit instances where progression may be contraindicated or indeed where it may be accelerated. While this is certainly not an aspect of practice I can claim expertise in, if you are a practitioner working with people following HAT repair, this paper looks to me like it may be worth a read.

Reference: *Arch Orthop Trauma Surg.* 2021; May 13 [Epub ahead of print]

[Abstract](#)

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The effect of the Take Charge intervention on mood, motivation, activation and risk factor management: Analysis of secondary data from the Taking Charge after Stroke (TaCAS) trial

Authors: McNaughton H et al.

Summary: The open label, parallel-group, randomised Taking Charge after Stroke (TaCAS) trial was conducted in 400 patients discharged to community, non-institutional living after acute stroke who received 0, 1 or 2 sessions of a self-directed rehabilitation intervention. Analysis of secondary data from 388 of 390 survivors at 12 months showed no differences in mood, activation, 'ability to Take Charge', medication adherence, body mass index or blood pressure between groups. There was a positive association between baseline Autonomy-Mastery-Purpose-Connectedness scores and 12-month outcomes among control participants (1.73; 95% CI 0.90-2.56) but not in intervention participants (0.34; 95% CI -0.17 to 0.85).

Comment: This paper reports on secondary analysis of data from the TaCAS trial. If you are not already familiar with this trial, I highly recommend exploring the existing work in more detail.^{1,2} In brief, the Take Charge Intervention included a single session or two sessions six weeks apart, supporting self-management after stroke through a non-directive and facilitated exploration of what matters most to the person, what their desired outcomes are, and possible ways to achieve them. Trial findings have been positive, indicating the intervention is effective at improving health-related quality of life. This secondary analysis was primarily interested in understanding the mechanisms of action, that is, why and how does the intervention produce the reported outcomes. Understanding mechanisms of action can be important for several reasons. For example, to identify key ingredients that need to be retained in the process of wider implementation and scale-up; to replicate the effects in other populations, settings, and contexts; and/or to inform future intervention development. The main hypothesis for these analyses were that the 'ability to Take Charge' would be primarily responsible for the observed intervention effects. However, the findings were not straightforward, showing that while the intervention potentially had a moderating effect on baseline scores on the 'ability to Take Charge', there was no evidence of positive change scores in that construct in response to the intervention. The authors proffer a few explanations for these findings. Regardless, additional work is needed to explore this further.

1. Fu V et al. Taking Charge after Stroke: A randomized controlled trial of a person-centered, self-directed rehabilitation intervention. [Int J Stroke. 2020;15\(9\):954-64.](#)
2. Harwood M et al. Taking charge after stroke: promoting self-directed rehabilitation to improve quality of life – a randomized controlled trial. [Clin Rehabil. 2011;26\(6\):493-501.](#)

Reference: [Clin Rehabil. 2021;35\(7\):1021-1031](#)
[Abstract](#)

Development and validation of the WHO Rehabilitation Competency Framework: A mixed methods study

Authors: Mills J-A et al.

Summary: This mixed methods study used content analysis of rehabilitation-related competency frameworks, a modified Delphi analysis, and a questionnaire of service users to determine and validate competencies, behaviours, activities and tasks required in the rehabilitation workforce. In total, 4 core values, 4 core beliefs, 17 competencies, 56 behaviours, 20 activities, and 62 tasks were identified. Content analysis identified an alpha list of competencies, behaviours, activities and tasks categorised into 5 domains. The Delphi study garnered an average 95% agreement with the statements, while the service user consultation found an average of 87% agreement with statements in the questionnaire.

Comment: The goal of this research is to develop a Rehabilitation Competency Framework that is relevant across disciplines, captures the breadth and depth of rehabilitation activities and which has global relevance (including across diverse resource settings). This is a big ask! The process used was relatively robust including a) engagement with existing competency frameworks, b) input from rehabilitation professions, and c) input from rehabilitation service users. Rehabilitation has historically been a bit of a lost soul. It is not so much a profession as a process that involves a multi-disciplinary team. As such, so called 'rehabilitation professionals' identify first and foremost with their disciplinary home (e.g. physiotherapy, occupational therapy, etc.). Competencies have therefore tended to be bound by disciplinary frameworks and regulations, and not by a shared understanding of what it means to have expertise in rehabilitation. This has, in part, contributed to the value of rehabilitation being under-estimated and therefore under-resourced. As such, moving towards a shared understanding of rehabilitation competencies is a step forward in establishing a professional identity for rehabilitation (among other things!). The final framework is available for download at <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/rehabilitation-competency-framework>. Central to the framework are 4 core values (*compassion and empathy, sensitivity and respect for diversity, dignity and human rights, self-determination*) and 4 core beliefs (*functioning is central to health and well-being, rehabilitation is person/family-centred, rehabilitation is collaborative, rehabilitation should be available to all who need it*). I encourage you to download it, reflect on it, reflect on practice with reference to it, debate it, critique it, and contribute to discussions regarding its potential for use (or not) in the New Zealand context.

Reference: [Arch Phys Med Rehabil. 2021;102\(6\):1113-1123](#)
[Abstract](#)

What influences outcomes from inpatient multidisciplinary pain management programs? A systematic review and meta-analysis

Authors: Lewis GN and Bean DJ

Summary: This meta-analysis included 85 studies (n = 15,255) to examine patient and programme characteristics influencing outcomes of inpatient multidisciplinary pain management programmes (PMP), and the time-course after discharge. Larger effect sizes were observed in studies where patients had greater intensity or longer duration (more severe) pain, those with alcohol or drug problems not excluded, those that included mixed pain conditions, or included a cognitive and/or a passive therapy component. Effect sizes for depression and anxiety declined with time.

Comment: This paper is written by colleagues whose offices are literally a few doors down from mine! However, I am embarrassed to say that I did not know about it until it came up in the set of recent papers published in the field. It is a really good review! It is robust and comprehensive, and the findings have high practical utility for those involved in the development, administration and delivery of multi-disciplinary PMP. A key thing to note when interpreting the findings are that this review is specific to the inpatient setting. There are a few key findings and nuances to dig into, so it is worth reading the full paper. However, there are three key findings I found of interest that I will emphasise here. First, there were greater effect sizes when people with alcohol and drug problems were included. People with substance use issues are routinely excluded from programmes both in research and practice. However, these findings highlight that people with substance issues may be particularly well suited to an inpatient programme given the complexity that comes with that multimorbidity. Second, programmes with mixed populations had greater effect than those that were focused on a particular sub-group. In healthcare, we frequently assume that programmes tailored to specific diagnostic groups will be more effective. However, this is an artefact of the biomedical model and premised on the need for targeted treatment of specific pathological causes. This is not necessarily the case in the context of a PMP where it is more likely the cognitive, behavioural, and socio-emotional aspects are the common denominator that programmes should attend to. Third, it is now well understood that PMPs should include a psychological component. However, there remains debate around the most effective psychological intervention. In this review, PMPs which drew on cognitive behavioural therapy or acceptance/mindfulness-based approaches had greater effect than those drawing on operant conditioning strategies.

Reference: [Clin J Pain. 2021;37\(7\):504-523](#)
[Abstract](#)

Twenty-five-year cross-sequential analysis of self-reported problems: Findings from 5 cohorts from the spinal cord injury longitudinal aging study

Authors: Li C et al.

Summary: This US single centre study of 1997 people with spinal cord injury (SCI) enrolled in the SCI Longitudinal Aging Study, examined how self-reported problems (health, social isolation, emotional distress, environmental barriers, money, lack of opportunities) changed over 25 years using cross-sequential analysis. The number of years after injury was negatively associated with initial status of problems of social isolation, emotional distress, environmental barriers, and lack of opportunities. Higher scores were also observed on the health problem factor with increasing number of years after injury. However, social isolation, emotional distress, environmental barriers, money, and lack of opportunities decreased over time.

Comment: I found this paper quite interesting. I will admit that the results were not consistent with what I might have expected. Everyone tends to experience some level of age-related decline in health and function as they get older. It is likely that these effects will be exacerbated for people with SCI due to the compounding effect of impairment and disability. So, it is not surprising that health problems increase over time. However, it is surprising that this did not appear to generalise to the other outcomes captured. The authors propose a range of plausible explanations which are worth reflecting on including: a) that there may have been a survivor effect, i.e. they noted their high attrition rates could be attributed to mortality and therefore that their findings may be a reflection of survivors being more resilient; or b) that the self-report was weighted against expectations, i.e. that perhaps participants had predicted a worse possible future leading to more positive self-evaluations of current state. This made me think of a wonderful presentation I heard some years ago, frustratingly, I cannot recall who the speaker was, but his words have stuck with me: "Disabled people are subject to the soft bigotry of low expectations". Is it possible that this also leads to a kind of self-fulfilling prophecy, impacting on one's own expectations of self or possibilities for the future?

Reference: *Arch Phys Med Rehabil.* 2021;102(5):888-894
[Abstract](#)

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Impacts of tailored, rehabilitation nursing care on functional ability and quality of life in hospitalized elderly patients after rib fractures

Authors: Santiago MG et al.

Summary: This randomised controlled trial examined a tailored rehabilitation nursing care programme in 80 elderly patients receiving conservative treatment for rib fractures. The study revealed differences in overall quality of life (74.25 vs 60.28), and functional ability (71.79 vs 69.41) between the tailored rehabilitation nursing care and the treatment as usual groups ($p < 0.05$). The intervention group also experienced improvements in functional ability and quality of life at 6-month follow-up.

Comment: We so rarely see papers that explicitly attend to the role of rehabilitation nurses, despite them being a critical part of the rehabilitation team. In this case, the rehabilitation nursing programme being tested was a comprehensive programme including, but not limited to, tailored discharge planning, education, symptom control, pain management, advice on analgesics use, and self-management. The findings are positive and highlight the therapeutic potential of rehabilitation nursing programmes as part of multidisciplinary rehabilitation. Researchers have previously argued that the structures and organisational cultures within rehabilitation settings have the potential to alienate nurses and limit their meaningful engagement as a legitimate member of the rehabilitation team. This has contributed to nurses themselves participating in sustaining a reductionist perspective of their role in rehabilitation. Papers like this should serve as a call to action for all of us to address this. Angela Davenport from ABI Rehabilitation grappled with some of these things in her DHSc if you want to explore these ideas further (see [Davenport A.pdf](#)). Julie Pryor (a nurse based in Australia) is a long-standing advocate of rehabilitation nursing and has also published in this space.

Reference: *Clin Rehabil.* 2021;Jun 6 [Epub ahead of print]

[Abstract](#)

Participants' unspoken thoughts and feelings negatively influence the therapeutic alliance; a qualitative study in a multidisciplinary pain rehabilitation setting

Authors: Paap D et al.

Summary: A qualitative research study explored 26 participants' perceptions of the therapeutic alliance with healthcare professionals in a multidisciplinary pain rehabilitation programme. Participants initially reported satisfaction with their healthcare professionals, but after deeper reflection, unspoken thoughts and feelings and relational ruptures emerged. Almost all mentioned disappointing and fragmented healthcare and this affected their cognitions, perceptions and beliefs about the current programme. Participants chose to avoid confrontation and felt insufficiently empowered to voice their concern, a lack of ownership and that the programme was not person-centred.

Comment: Those of you who know me will know that I have long been interested in the therapeutic alliance/relationship/connection. So, it will not be a surprise to you that I enjoyed this paper. The findings offer insight into the nuance and complexity of the therapeutic alliance for people accessing a multidisciplinary pain programme. What this paper does well is make visible the systemic nature of therapeutic alliance, that is, it is not just about what happens in that moment within the therapeutic dyad that matters. Rather, people bring the cumulative impact of past encounters in their emotions, experiences, thoughts, expectations, trauma, failures, and disappointments (I focus on the negative here as the picture painted in this paper is bleak). These experiences contribute to a distancing, passivity, surrender, avoidance, and rupture that existing measures of therapeutic alliance fail to capture. As such, these tensions and uncertainties remain unspoken. In this paper, the authors conclude that personalised collaborations which make space for client's disagreements, dilemmas, thoughts, and feelings are necessary. I agree in principle. However, the findings in this paper present an incredibly complex picture. I would suggest that managing this complexity requires a level of clinician skill, vulnerability, humility, and reflexivity that does not come without explicit, active, and ongoing work. Investing in this kind of work has the potential to support the development of quality relationships and optimise rehabilitation outcomes.

Reference: *Disabil Rehabil.* 2021; May 10 [Epub ahead of print]

[Abstract](#)



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