Physiotherapy Research at the University of Otago

Some recent research projects examining: a different model of care; impact of the Canterbury earthquake; quad bike accidents; YouTube and evidence-based practice; and physical activity for people with disabilities.

1. Blue Prescription: a novel intervention to enable physical activity for people with multiple sclerosis
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For people with multiple sclerosis (MS), taking part in physical activity is important but can be difficult to sustain. Long-term adherence can be helped by, for example, allowing choice over the activity and control over the level of engagement, plus advice and encouragement from a physiotherapist. This is the basis of Blue Prescription, a novel physiotherapy approach aimed at optimising long-term adherence with physical activity.

We evaluated the feasibility, acceptability, and short-term benefits of Blue Prescription in 27 people with MS. After the intervention we asked what participation in Blue Prescription had meant to them; how they intended to continue with their physical activity; how the approach differed from previous physiotherapy encounters; and how Blue Prescription could be improved. All participants, irrespective of level of disability, managed to choose a physical activity. At the end of the trial there was significant improvement in the physical component MS Impact Scale score.

Evaluation of the programme identified ‘Support’ as a key theme, with three subthemes: ‘The therapeutic relationship’; ‘The Blue Prescription approach’; and ‘Supporting themselves’. We identified two additional themes: ‘Motivation to participate’; and ‘Improving the Blue Prescription approach’. Blue Prescription appears feasible, acceptable, and potentially beneficial, and thus warrants further evaluation. The approach may be particularly useful for people with MS ready to adopt new health-related behaviours and for encouraging increased physical activity in other long-term conditions.

2. Effects of a natural disaster on physiotherapists and physiotherapy service provision: The Canterbury earthquake
Hilda Mulligan, Cath Smith & Sandy Ferdinand

This qualitative study (supported by a PNZ grant) investigated how the Canterbury earthquakes affected physiotherapists and physiotherapy services. We interviewed more than 30 physiotherapists and/or physiotherapy managers who provide physiotherapy services either in hospital or community settings in the Canterbury region.

Our preliminary analysis has identified four themes: ‘A life-changing event’ – a contextual description of the most damaging earthquake (February 22nd), a day when participants struggled between concerns for family and a professional need to support their patients and contribute to the disaster management process; ‘Uncertainty’ – where participants have described an ongoing process of uncertainty in many domains such as building safety, working environments and personal impact; ‘Support’ – where participants have described providing ongoing psychological support to patients and, that the ability to support patients required feelings of being supported in turn; ‘Resilience’ – a state we felt was influenced by participants’ ability to balance the giving and receiving of support. Participants offered suggestions for
how physiotherapists could be better utilised in disaster situations. Yet we felt these suggestions did not reflect the role of psychological support that had emerged in the other themes of the research. We suggest that to equip physiotherapists and other health professionals better for similar situations, psychological support should be recognised as a core proficiency of physiotherapy disaster management.

3. Quad bike accidents on NZ farms: “it won't happen to me”
Lynne Clay, Stephan Milosavljevic, Jean Hay-Smith & Gareth Treharne

Quad bikes are used extensively in NZ agriculture for stock work, towing implements and personal transport. Use of these vehicles, however, carries some risk. They are involved in approximately 27% of work-related deaths and are responsible for approximately 850 injury claims per year. This mixed methods study explores whether farmers with a ‘cavalier’ attitude and a propensity for risk-taking are more susceptible to quad bike loss of control events (LCEs). Phase I involved a face-to-face structured survey to investigate for LCEs and psychological constructs in 216 Otago and Southland farmers. Results showed that, in general, farmers did not have risk-taking personalities or fatalistic beliefs but did appear to have an “It won’t happen to me” attitude towards their risk of quad bike accidents. The stronger this attitude, however the less likely farmers were to report LCEs. Phase II plans to explore how farmers perceive risk with respect to quad bike use and what factors modify this perception. Results will allow for more targeted quad bike safety interventions in the future.

4. YouTube and our health – are we getting the right story?
S. John Sullivan & Anthony G. Schneiders

Social media in its various formats is now an integral part of our daily lives. We use social media sites to communicate with friends, to search information and to dialogue with others about our health. YouTube is one of the fastest growing social media sites and delivers user uploaded videos in a friendly format. As an open resource there is no quality assurance on the content of the material available. Our team is conducting a series of studies which are exploring the information content of YouTube videos in the areas of sport concussion and low back pain. We are documenting what is being broadcast and benchmarking this to accepted best-practice criteria/guidelines. These studies have identified the need for health professional groups, including physiotherapy, to be more proactive in providing high quality YouTube video content in a format which the public can easily locate and use.

5. Promoting physical activity for people with physical disabilities.
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This study aimed to identify the barriers and facilitators to increasing physical activity from the perspective of three groups: people with physical disabilities; providers of physical recreation facilities and services; and those who plan or fund services for people with disabilities. Despite considerable reduction in barriers in recent years, people with physical disabilities still face challenges arising from attitudes, expectations, information, finance, transport, and the environment. In contrast, providers at recreation facilities often discounted and minimised these barriers, expressing the belief that they did a good job of providing for people with physical disabilities. Funders and planners were very diverse in their ability to influence promotion of physical activity, with system gaps evident. The findings suggest that promotion of physical activity should be client-centred and should incorporate collaborative problem-solving, goal setting, and monitoring with the clients. There are also opportunities for health professionals such as physiotherapists to take broader roles in their communities as advocates, educators, health promoters and facilitators.

For further information about current research in the School of Physiotherapy refer to ‘Centre for Physiotherapy Research: Research Report 2007-2011’: