

outwork



IN THIS ISSUE

2 / What researchers mean by... cohort studies, case control studies and RCTs

3 / Employers and doctors often have uneasy relationship in return to work, study finds

4 / Tapping into personal networks to share research and improve evidence uptake

6 / PREMUS 2016 keynote speakers tackle leading-edge issues in MSD prevention

7 / New review finds motor control exercise reduces low-back pain, disability among sufferers

Photo ©KatarzynaBialasiewicz/iStockphoto.com

Depressive symptoms common in first 12 months after work injury

Follow-up study by Institute for Work & Health finds depressive symptoms at six months after work-related injury a signal that poor mental health may persist at 12 months

Depressive symptoms are common in the first year after people have been injured at work, and the first six months appear to be particularly important to an injured worker's future mental health, a new study finds. This six-month period may be a window of opportunity to screen for symptoms of depression, and to provide the necessary support to those who need it, in order to prevent mental health problems in future, the study suggests.

According to the study by the Institute for Work & Health (IWH), published last September in the *Journal of Occupational Rehabilitation* (doi:10.1007/s10926-015-9604-3), about half of injured workers feel many symptoms of depression at some point during the year after their injury. These are people who have not been diagnosed with depression prior to their work-related injury.

For most injured workers, depressive symptoms do improve over the course of the year. However, the course of depressive symptoms

in the first six months is an important indicator of how well injured workers will likely feel by the year's end. Of those with high levels of depressive symptoms early on, half will again report high levels at six months; of that half, seven in 10 will continue to experience depressive symptoms 12 months after the injury. In comparison, most people who start out with low levels of depressive symptoms will continue to have low levels by the six-month and 12-month marks.

In other words, says study author Nancy Carnide, levels of depressive symptoms appear to stabilize at six months.

"Our findings suggest that the first six months after a workplace injury are particularly important to an injured worker's future mental health," says Carnide, a PhD student in epidemiology at the University of Toronto and a research associate at IWH. "This six-month period may be a window of opportunity to screen for symptoms of depression, and to provide the necessary support to those who need

continued on page 8



IWH updates

New biostatistician joins the Institute

The Institute for Work & Health (IWH) is happy to welcome **Dr. Victoria Landsman** as its new biostatistician. Landsman comes to IWH from the Canadian Memorial Chiropractic College, where she was a research methodologist. Prior to that, she held positions as a research biostatistician at the Ontario Institute for Cancer Research and the Centre for Global Health Research at St. Michael's Hospital. Landsman has her PhD in statistics from the Hebrew University of Jerusalem. She currently holds a position as an assistant professor in the Department of Biostatistics at the University of Toronto's Dalla Lana School of Public Health.

IWH Board of Directors welcomes three new members

A warm welcome as well goes out from IWH to three new members of the Board of Directors, including one who's already familiar with Institute activities. **David Clements**, director of corporate communications and outreach at the Canadian Institute for Health Information, was until recently a member and chair of the Knowledge Transfer and Exchange Advisory Committee (KTEAC), which offers advice and guidance to IWH's knowledge transfer team. A second new board member, **Louise Lemieux-Charles**, is professor emeritus in the Institute of Health Policy, Management and Evaluation at the University of Toronto, where she taught and conducted research in the areas of system evaluation, performance management, organizational learning, knowledge transfer and health service delivery networks. And **Kelly Jennings**, a third new board member, is a senior consultant at Korn Ferry Hay Group. Her consulting work focuses on stakeholder and expert group facilitation, health-care policy and clinical practice research, clinical process analysis and redesign, strategic planning and business development. All three appointments are effective January 1, 2016.

STAY CURRENT

Here are a few easy ways to keep up on IWH research, news, events and more.



Follow us on Twitter:
www.twitter.com/iwhresearch



Connect with us on LinkedIn:
www.linkedin.com/company/institute-for-work-and-health



Subscribe to our YouTube channel:
www.youtube.com/iwhresearch



Sign up for IWH News:
www.iwh.on.ca/e-alerts

WHAT RESEARCHERS MEAN BY...

Cohort studies, case control studies & RCTs*

Cohort studies, case control studies and randomized controlled trials, different in design, are useful for different types of questions

When people read about a research study, they may not pay attention to how the study was designed. But to understand the quality of the findings, it's important to know a bit about study design.

According to the widely-accepted hierarchy of evidence, the most reliable evidence comes from systematic reviews, followed by evidence from randomized controlled trials, cohort studies and then case control studies.

The latter three are research studies that fall into one of two main categories: observational studies or experimental studies.

Observational studies

Observational studies are ones where researchers observe the effect of a risk factor, diagnostic test, treatment or other intervention without trying to change who is or isn't exposed to it. Cohort studies and case control studies are two types of observational studies.

Cohort study: For research purposes, a cohort is any group of people who are linked in some way. For instance, a birth cohort includes all people born within a given time frame. Researchers compare what happens to members of the cohort that have been exposed to a particular variable to what happens to the other members who have not been exposed.

Case control study: Here researchers identify people with an existing health problem ("cases") and a similar group without the problem ("controls") and then compare them with respect to exposure.

Experimental studies

Experimental studies are ones where researchers introduce an intervention and study the effects. Experimental studies are often randomized, meaning the subjects are grouped by chance.

Randomized controlled trial (RCT): Eligible people are randomly assigned to two or more groups. One group receives the intervention (such as a new drug) while the control group receives nothing or an inactive placebo. The researchers then study what happens to

people in each group. Any difference in outcomes can then be linked to the intervention.

Strengths and weaknesses

The strengths and weaknesses of a study design should be seen in light of the kind of question the study sets out to answer. Sometimes, observational studies are the only way researchers can explore certain questions. For example, it would be unethical to design a randomized controlled trial deliberately exposing workers to a potentially harmful situation. If a health problem is a rare condition, a case control study (which begins with the existing cases) may be the most efficient way to identify potential causes. Or, if little is known about how a problem develops over time, a cohort study may be the best design.

However, the results of observational studies are, by their nature, open to dispute. They run the risk of containing confounding biases. Example: A cohort study might find that people who meditated regularly were less prone to heart disease than those who didn't. But the link may be explained by the fact that people who meditate also exercise more and follow healthier diets. In other words, although a cohort is defined by one common characteristic or exposure, they may also share other characteristics that affect the outcome.

The RCT is still considered the "gold standard" for producing reliable evidence because little is left to chance. But there's a growing realization that such research is not perfect, and that many questions simply can't be studied using this approach. Such research is time-consuming and expensive — it may take years before results are available. Also, intervention research is often restricted by how many participants researchers can manage or how long participants can be expected to live in controlled conditions. As a result, an RCT would not be the right kind of study to pick up on outcomes that take a long time to appear or that are expected to affect a very minute number of people.

*This is an update of a 2005 article

Employers and doctors often have uneasy relationship in return to work, study finds

Interviews with Australian employers highlight problems with physicians over communication, trust

One of the pillars of successful return to work is a good, communicative relationship among the injured worker, the employer and the worker's treating physicians. But a new study of employer perceptions finds the relationship between employers and physicians can be marred by mistrust and lack of communication.

"Employers and health-care providers are two very important stakeholders in the return-to-work process," says study author and Institute for Work & Health (IWH) Scientist Dr. Agnieszka Kosny. "But the relationship between the two can be uncomfortable in many ways."

The study, which Kosny conducted in the Australian state of Victoria, was published online in January in *Policy and Practice in Health and Safety* (doi: 10.1080/14774003.2015.11667812). The study was part of a larger project led by Dr. Danielle Mazza of Australia's Monash University that examined workers' compensation and return to work from the perspectives of several stakeholders: injured workers, employers, health-care providers and case managers.

Employer perspectives

The research team interviewed the people responsible for return to work in 25 organizations with a workforce of 50 or more that recently had a workers' compensation claim. The interview participants mostly worked in management, human resources and health and safety. The study found that:

- Employers recognize the critical role of doctors in the workers' compensation system and in getting injured workers back to work.
- Employers sometimes view doctors as unsupportive of the return-to-work (RTW) process. Participants felt doctors sometimes find it easier to simply order two weeks' off for an injured worker rather than to engage in the RTW process. They also said some

doctors are disdainful of anything related to workers' compensation.

- Employers have difficulties communicating with doctors. Some spoke about phone calls not being answered. While many understood that doctors are busy and not paid for engaging with employers, they were still left with a negative impression due to this lack of communication.
- Employers find doctors lack a realistic understanding of the needs of the workplace. Many felt this sometimes resulted in recommendations that are difficult for employers to comply with.

"Many of the issues came up in particular with respect to injuries that are not straightforward, such as gradual onset musculoskeletal disorders, chronic pain or mental health conditions," says Kosny.

"In these types of cases, many employers felt like they were excluded or left in the dark, and were unable to get important information about workers' abilities or limitations." This sense of exclusion fuelled the suspicion among some employers that some workers "cheat the system" by using their doctors to delay return to work, she says.

Strategies for greater control

The study team also heard about strategies used by employers to exert greater control over the RTW process. Some offer to accompany injured workers to their medical appointments or to pay doctors to take part in joint case conferences. Others lay out return-to-work plans, task analyses or work modification options that injured workers can then take to their physicians.

Some employers establish a relationship with medical clinics that have an understanding of workers' compensation claims and ask injured workers to use those clinics. Some large organizations employ an in-house doctor whose role includes liaising with injured workers' treating physicians.

Finally, some employers request injured workers be assessed in independent medical exams (IMEs), a step that also signals to both the insurer and the treating physician that the employer is unhappy with the way return to work is being managed. Kosny notes that IMEs can be difficult for injured workers and costly for the workers' compensation system.

Differences and similarities with Canada

The workers' compensation system in Victoria, Australia, differs from those in many jurisdictions in terms of the role played by health-care providers, Kosny notes. For a compensation claim to proceed in that state, a certificate of capacity is required. These certificates detail doctors' recommendations regarding task limitations, start and end dates and so on, and these recommendations are binding.

Nevertheless, the many similarities between workers' compensation systems in Victoria and the Canadian provinces make the study relevant to workplace parties in this country. "Both here and in Victoria, having a worker off work is costly to the employer in terms of premiums," says Kosny. The issues facing health-care providers are similar as well. "Issues such as patient confidentiality, burdensome and time-consuming workers' compensation forms and a lack of understanding of the workplace cut across jurisdictions," Kosny adds.

Kosny notes that the study participants were likely a select group. They were so-called "model citizens" who were engaged and interested in RTW. "We know from research that some employers pressure injured workers not to report injuries or provide them with misinformation about workers' compensation," she says. "We don't know if those employers took part in this study."

Kosny is now doing related research in four Canadian provinces. She's studying the role and perception of health-care providers in the return to work and workers' compensation process in British Columbia, Manitoba, Ontario and Newfoundland and Labrador. ■

Tapping into personal networks to share research and improve evidence uptake

Stakeholder networks play a key role in the dissemination and uptake of IWH research

As an occupational therapist providing services on return-to-work issues to employers, Gabriele Wright strives as much as possible to base her processes and recommendations on research evidence. That's why she values her involvement in the Institute for Work & Health (IWH)'s Educationally Influential Network for Occupational Therapists.

Once a year, the network gets together to hear IWH research teams present findings and share lessons learned from their projects. Network members are then asked for their perspectives as practitioners on a range of issues—from how to convey study results to what research questions should be explored in future work.

What she values most about her involvement in the network is “being informed of the high quality research and evidence around work-related functioning issues,” says Wright, referring to both the research conducted at IWH and the scientific evidence from elsewhere that is evaluated and synthesized in IWH systematic reviews.

If it weren't for these meetings, she adds, she might not have access to the research evidence she needs in her work. “It has been a long time since I've been in a post-secondary academic environment,” says Wright. “As a health professional, it behooves me to reference research and evidence as much as I can, and combine that with my clinical experience.”

Research uptake a social process

Research organizations are increasingly recognizing that interpersonal relationships and networks play an important role in knowledge dissemination. According to this thinking, research uptake is a social process, and the interpersonal connections between people can be key to whether research makes an impression and becomes integrated into people's understanding

and practices. And as most people move in many overlapping networks, they often will take a learning they've gained from one network and pass it along to another.

At the Institute, networks are in place to help disseminate IWH research to almost every stakeholder group that might use it. (These networks are in addition to the multi-stakeholder advisory committees that are formed for discrete research projects.) All the



Dr. Ron Saunders

networks share a common purpose: to promote evidence-informed policy and practice in the prevention of work injury and disability.

For clinical professionals, five “educationally influential” (EI) networks for occupational therapists, physiotherapists, ergonomists, kinesiologists and chiropractors have been meeting for over 10 years. For workplace injury or disability prevention professionals, the Disability Managers Network has been meeting since 2011, and the newly formed Occupational Health and Safety Professionals Network had its first meeting in December 2015.

In addition to these, IWH maintains two networks dedicated to workplace parties, the Labour Forum and the Employer Forum, both established in 2013. The Institute also hosts a network of prevention system representatives, the Prevention Knowledge Exchange Group (PKEG), which brings together representatives from IWH, the Centres for Research Expertise (for musculoskeletal disorders, occupational disease and occupational cancer), the

Ministry of Labour, the Workplace Safety and Insurance Board and the six health and safety associations in Ontario. (The latter comprises four sector-based associations—Infrastructure Health & Safety Association, Public Services Health & Safety Association, Workplace Safety & Prevention Services and Workplace Safety North—as well as the Occupational Health Clinics for Ontario Workers and the Workers Health & Safety Centre.)

In 2015, the Institute launched a network of “influential knowledge users” (IKUs). These are non-academic stakeholders who value work and health research, actively promote the use of evidence to inform policy or practice in their or other organizations, and are able to influence policy or practice. The group meets twice a year to share ideas about improving knowledge transfer and exchange across all the organizations represented.

“We've tried to develop networks that relate to almost all of our key types of

IWH NETWORKS AT A GLANCE

The Institute for Work & Health maintains networks for four groups of stakeholders.

For clinical practitioners:

- Educationally influential networks for occupational therapists, physiotherapists, chiropractors, ergonomists and kinesiologists

For workplace injury and disability prevention professionals:

- Disability Managers Network
- Occupational Health and Safety Professionals Network

For workplace parties:

- Labour Forum
- Employer Forum

For prevention system partners and policy-makers:

- Prevention Knowledge Exchange Group
- Influential Knowledge Users Network

stakeholders,” says Dr. Ron Saunders, director of knowledge transfer and exchange at IWH. “We invariably find the meetings helpful. At virtually every network meeting we are either learning something new about stakeholder priorities or stakeholder practices that we didn’t know, or the stakeholders are learning something about our research that make them interested in knowing more and potentially using it.”

The networks also help inform IWH’s research planning so that Institute projects stay relevant, adds Saunders. “Through our relationships we learn about research opportunities and about research priorities in our stakeholder networks. We make connections that help us engage individual stakeholders in our research projects, and we increase the chances that the work we do will be seen as useful and will be used.”

EI members nominated by peers

Most of the members in these various groups are recruited through personal contact and other networks. “We reach out to people who have demonstrated an interest in the use of research in their practice,” says Sara Macdonald, a knowledge exchange associate who coordinates some of the networks.

Because the five educationally influential networks are designed to bring together people who are considered by others in their respective professions to be mentors or opinion leaders, their members are chosen somewhat differently, Macdonald adds. EI members are identified through a process of nomination: a survey is sent out to members of professional associations asking recipients to identify practitioners who enjoy teaching others, who take the time to share what they know, who care about patients, to name just a few criteria.

As expected, the sharing of evidence doesn’t stop at the network meetings. When Wright receives a newsletter from IWH or comes across an article on research relevant to her work, she takes the time to send out

an e-mail to her contacts about it, highlighting relevant articles for them. She does this, she says, because of her involvement in the EI network.

“Because I’ve been named a third time, it’s now taken on a life of its own where I feel even more my responsibility to share research information,” says Wright. “It’s the right thing to do—even if it means I have to make the time.”



Guelph, Ont.-based Gabriele Wright is a member of the Institute for Work & Health’s Educationally Influential Network for Occupational Therapists

Network members, in turn, also benefit. When Wright is helping employers solve health and safety issues, she can confidently refer to research evidence when making her recommendations. For example, when employers come to her to help address an ongoing musculoskeletal disorder (MSD) issue, Wright can walk them through the research on a participatory ergonomics approach, which she learned about through the EI network.

“I can say to them, ‘This is what the evidence is saying as most likely to result in an optimal outcome.’ I bring in one of the summaries for them to read about the participatory approach,” says Wright. She does

it with confidence, she adds, which in turn leads to greater buy-in from employers.

At the Labour Forum, network member Alec Farquhar also makes it a point to share research that he finds inspiring with the 200 to 300 people in his personal contact list. “There’s a multiplicative effect,” says Farquhar, director of the Office of the Worker Advisor, a Ministry of Labour agency that provides advice and representation to

injured workers on workplace insurance matters. “It goes way beyond the participants at that table, and that probably goes for everyone there, who tend to be opinion leaders. If there’s something extremely valuable at that network, in a day or two, it’s everywhere.”

For Farquhar, the value of the network meetings also goes beyond what he learns about research findings. “I’ve benefited

greatly, not just from learning leading-edge results, but also from the dialogue with front-line colleagues and researchers—which has often generated new ideas, areas to be explored and promising collaborations,” Farquhar says.

“Practitioners are often isolated in the organizations within which they work, and it’s difficult to break out of old patterns and ways of working,” he adds. “Being drawn into collaborative discussions helps practitioners go back to their organizations with new ideas.”

To learn more about the IWH’s networks, go to: <http://www.iwh.on.ca/knowledge-transfer-exchange>. ■

PREMUS 2016 keynote speakers tackle leading-edge issues in MSD prevention

Topics include the risks of prolonged sitting or standing, the application of a gender lens, the role of safety climate and the risk factors for carpal tunnel syndrome

Much progress has been made in the understanding and prevention of work-related musculoskeletal disorders (MSDs). But new questions continue to arise to challenge work health researchers. These new questions are sometimes the result of new ways of looking at the existing body of evidence; other times, they arise in response to workplace practices that continue to change.

The keynote remarks at PREMUS 2016, the 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders, represent a mix of both types of research questions. The conference, organized by the Institute for Work & Health (IWH), will take place over four days in Toronto, from June 20 to 23, 2016. The Institute looks forward to welcoming more than 400 delegates from over 40 countries: scientists, students, practitioners in occupational health and safety, epidemiologists, ergonomists, industrial engineers, clinicians and policy-makers.

One keynote lecturer they will hear from is **Dr. Bradley Evanoff**, whose remarks will be about the evidence to date on carpal tunnel syndrome. Most studies of carpal tunnel syndrome among workers are limited by small sample sizes or are restricted to a small subset of jobs. The pooling of data from six research centres in what's known as the NIOSH Upper Limb Consortium has led researchers to some clear findings about the risk factors for carpal tunnel syndrome.

Evanoff, who holds the Richard A. and Elizabeth Henby Sutter Chair in Occupational and Environmental Medicine at Washington University in St. Louis, will share those findings and discuss what's next in the effort to turn this evidence into workplace interventions to prevent the disorder.

Keynote speaker **Dr. Linda M. Goldenhar** will discuss the role of safety climate, safety culture and safety leadership as part

of a larger safety program to reduce or eliminate MSDs. Goldenhar, a behavioural scientist who is the director of research and evaluation at the Silver Spring, Md.-based CPWR – The Center for Construction Research and Training, will discuss her study on company stretch and flex programs, and how it led her to the insight that safety climate may be an important factor.

“The results of that study indicated that, while companies believe that stretching and flexing is important, they also reported other benefits more related to safety climate, such as getting the crew together in the morning to stretch,” says Goldenhar.

“These findings emphasized to me that reducing or eliminating MSDs and other adverse safety and health outcomes using control measures is critical, and that we also need to consider how elements of safety climate and safety culture factor into the equation,” she says.

Goldenhar will also share the research that led to a safety climate leading indicator workbook and measurement tool, which contractors, safety and health professionals and others can use to reduce MSDs and other work-related injuries in the construction sector and beyond.

Another keynote lecturer conference attendees will hear from is **Dr. Jack Callaghan**, a long-time researcher on the link between sitting and low-back pain who now finds himself in sudden demand, with the surge in interest in the negative health outcomes of prolonged sitting.

“There has been a whole movement of what I would describe as demonizing sitting. People in the workplace are all of a sudden on a big kick of, ‘We shouldn't be sitting,’” says Callaghan, University of Waterloo kinesiology professor and Canada Research Chair in Spine Biomechanics and Injury Prevention. “But as ergonomists and musculoskeletal disorder prevention

people know, there are also negative outcomes of prolonged standing.”

Callaghan's talk will cover ways to integrate sitting and standing at work, as well as the research challenge in determining the optimal mix between the two.

The fourth keynote speaker is **Dr. Julie Côté**, who will discuss how sex and gender differences can provide a useful lens for understanding MSDs. Côté, who holds a Research Chair in Gender Work & Health sponsored by CIHR and the Institut recherche Robert-Sauvé en santé et en sécurité du travail (IRSST), will challenge the audience to think about differences between men and women that go beyond stature.

“It used to be thought that men and women move the same way,” says Côté, also associate professor at McGill University's Department of Kinesiology and Physical Education and lab director of the university's Occupational Biomechanics and Ergonomics Lab (OBEL) in Laval, Que.

“We are beginning to understand now that men and women may even be different in the way they move, how they respond to and compensate for muscle fatigue, and how they respond to work exposures.” Understanding these differences, she adds, may lead to important changes in how we develop interventions to prevent work-related MSDs.

PREMUS, the primary conference of the Musculoskeletal Disorders Scientific Community of the International Commission of Occupational Health (ICOH), has been taking place every three years since 1992. The 2016 conference is being put on by IWH with the support of a number of partners, including: the Canadian Institutes of Health Research (CIHR) Institute of Musculoskeletal Health and Arthritis, the CIHR Institute of Gender and Health, Ontario's Ministry of Labour and the Provincial Building & Construction Trades Council of Ontario. ■

New review finds motor control exercise reduces low-back pain, disability among sufferers

New review by Cochrane Back and Neck Review Group broadens options for people with low-back pain

Exercise focused on improving motor skills may work as well as other types of physical activity for easing lower back pain, a recent research review suggests.

According to a new Cochrane review, exercises that target the core muscles supporting the spine can reduce pain and disability among sufferers.

These exercises, called motor control exercises, are aimed at restoring control and improving coordination of the deep trunk muscles that support the spine. Patients are asked to practice using these muscles through isolated muscle contractions. As they become more adept, the exercises become more complex, progressing to more functional tasks that patients need to perform in their work or leisure activities.

For example, patients might start off working on balance and flexibility and then progress to more complex exercises that involve lifting, pushing, pulling and rotating the body. These exercises are initially done in one-on-one settings, with the therapist monitoring and correcting the patient for muscle engagement, posture, movement patterns and breathing.

“Targeting the strength and coordination of muscles that support the spine through motor control exercises offers an alternative approach to treating lower back pain,” says review lead author and physiotherapist Bruno Saragiotto of the George Institute at the University of Sydney, Australia.

“We can be confident that motor control exercises are as effective as other types of exercise, so the choice of exercise should take into account factors such as patient and therapist preferences, cost and availability,” he adds.

29 studies synthesized

Low-back pain is one of the leading causes of disability and doctor visits for adults

worldwide, and has a significant economic impact in lost wages and productivity. The new review, which was published early January in the *Cochrane Database of Systematic Reviews* (doi:10.1002/14651858.CD012004) synthesized data from 29



Photo ©lolostock/iStockphoto.com

randomized control trials involving a total of 2,431 men and women between 22 and 55 years old.

The trials examined the impact of motor control exercises when compared to other forms of exercise or no intervention at all. The review found people who used motor control exercises experienced improvements in pain and disability compared with no intervention. When compared with other types of exercise, motor control exercise produced similar results for pain and disability three to 12 months after the intervention.

The review was conducted by the Cochrane Back and Neck Review Group, one of more than 50 groups that make up Cochrane, a global health research network dedicated to the gathering and summarizing of the best evidence on health-care topics. The Cochrane Back and Neck Review Group, hosted by the Institute for

Work & Health (IWH) in Toronto, coordinates the publication of systematic reviews on the diagnosis, prevention and treatment of neck and back pain and other spinal disorders (except inflammatory diseases and fractures).

“There is tremendous variety out there in the types of exercises therapists use to help treat low-back pain. Inevitably, that diversity gives rise to some debate about

the effectiveness of this or other exercise programs,” says Dr. Andrea Furlan, one of the co-ordinating editors of the Cochrane Back and Neck Review Group.

“This review should provide both patients and clinicians the reassurance to consider this type of exercise among the other options.”

Although the findings add to a growing body of evidence for the importance of physical activity

to treat low-back pain, more research is still needed to determine which workout routines might be best suited to specific patients or injuries, Saragiotto and colleagues concluded.

“At present, we don’t really know how motor control exercise compares with other forms of exercise in the long term,” says Saragiotto. “It’s important we see more research in this field so that patients can make more informed choices about ongoing treatment.”

Find it at
www.iwh.on.ca

Interested in more systematic reviews from Cochrane Back and Neck Review Group? Look for them at:
<http://back.cochrane.org>

AT WORK

At Work is published by:

Institute for Work & Health
Editor: Uyen Vu
Communications Manager: Cindy Moser
Director, KTE: Ron Saunders
President: Cameron Mustard
Issue #83 / Winter 2016 / ISSN # 1261-5148
© Copyright 2016

INSTITUTE FOR WORK & HEALTH

481 University Avenue, Suite 800
Toronto, Ontario M5G 2E9
Phone: 416.927.2027 Fax: 416.927.4167
E-mail: atwork@iwh.on.ca

MISSION

The Institute for Work & Health promotes, protects and improves the safety and health of working people by conducting actionable research that is valued by employers, workers and policy-makers.

BOARD OF DIRECTORS

CHAIR

Kevin Wilson
Former Assistant Deputy Minister, Policy
Ontario Ministry of Labour

VICE-CHAIR

Lisa McCaskell
Senior Health and Safety Officer
Ontario Public Service Employees Union

DIRECTORS

Melissa Barton
Director, Organizational Development
& Healthy Workplace
Mount Sinai Hospital

David Clements

Director, Communications and Outreach
Canadian Institute for Health Information (CIHI)

Mark Dreschel

Vice-President, Health, Safety & Environment
Bird Construction

Lewis Gottheil

Former Director, Legal Department, Unifor

Kelly Jennings

Senior Consultant, Korn Ferry Hay Group

Melody Kratsios

Director, Business Development, KSH Solutions Inc.

Louise Lemieux-Charles

Professor Emeritus, Institute of Health Policy,
Management & Evaluation, University of Toronto

Cameron Mustard

President & Senior Scientist
Institute for Work & Health

Norman Rees

Former Chief Financial Officer, Public Health Ontario

Emily A. Spieler

Chair, IWH Scientific Advisory Committee
Former Dean and Edwin Hadley Professor of Law
Northeastern University School of Law (Boston)

Michael Wolfson

Canada Research Chair, Population Health Modelling
University of Ottawa



The Institute for Work & Health operates with the support of the Province of Ontario. The views expressed in this publication are those of the Institute and do not necessarily reflect those of the Province of Ontario.

Study finds link between depressive symptoms and work status after injury

continued from page 1

it, in order to prevent mental health problems in the future.”

While there has been other research showing high levels of depressive symptoms among those who have been injured at work, this research is the first to explore how symptoms of depression evolve over 12 months after a work-related injury.

In an earlier paper to come out of this work, the team had looked at the trajectory of depressive symptoms over a six-month period. This new paper builds on that to report on depressive symptoms and return-to-work outcomes one year after the injury.

To conduct the study, the research team recruited people who had made a lost-time claim for a work-related musculoskeletal injury with Ontario's Workplace Safety and Insurance Board from 2005 to 2007. Eligible participants had to be off work at least five days, though many were off for longer. The researchers included only those people who reported no physician-diagnosed depression during the year before their injury.

Through phone interviews conducted one month, six months and 12 months after the injury, the researchers asked participants about their pain levels, depressive symptoms (20 in all, including sadness, poor appetite, difficulty concentrating, restless sleep, crying spells, to name a few), as well as their work status and return-to-work experience. Of more than 600 workers who took part in the first one-month interview, 344 completed all three follow-up interviews. Of those, 12 were excluded because they had been diagnosed with depression prior to the injury, leaving 332 people in the final sample.

The team found:

- About half of the workers in the study frequently felt symptoms of depression at some point in the 12 months following the injury. About 15 per cent reported high levels of depressive symptoms at all three interviews. Almost one in 10 were diagnosed by a physician with depression during this period.

- The mental health of most participants improved over time during the 12 months after injury. Only one in 10 workers worsened in terms of their depressive symptoms over the 12-month period.
- Most people (82.9 per cent) who reported low levels of depressive symptoms at one month continued to experience low levels of symptoms at six and 12 months.
- Among the four in 10 who had high levels of depressive symptoms at the one-month mark, half reported high levels at six months. And of that latter group, seven in 10 continued to experience depressive symptoms 12 months after the injury.

Carnide's study also found a link between course of depressive symptoms over time and work status. It found workers who had difficulty going back to work were much more likely to report depressive symptoms at some point in the year. Half of those not working one year after the injury reported high depressive symptom levels. In comparison, just under 20 per cent of those working at 12 months reported such symptoms.

Among workers who had high levels of depressive symptoms throughout the year, only 10 per cent were able to go back to and remain at work. The other nine in 10 either had not gone back to work, or went back to work with recurring work absence.

Due to the design of the study, the team couldn't determine whether the depressive symptoms resulted in the poorer return-to-work outcomes or vice versa.

“We can't really untangle the relationship between the two,” says Carnide. “But it's likely an interplay between both factors. If you're having a hard time returning to work, that probably has an impact on your mental health. And if you're feeling unwell mentally, it would also likely affect your ability to return to work and stay at work.”

Future research is needed, she adds, to tease out the causal relationship between the two, and to explore whether early screening and intervention before six months could benefit workers' future mental health. ■