Discourse

Pain Assessment and Management in Canada: We've Come a Long Way But There Are Challenges on the Road Ahead

Michael H. McGillion, Judy Watt-Watson

Canada has a rich history in the interprofessional study and treatment of pain. Seminal work by the pre-eminent Canadian scientists Melzack and Wall (1965) advanced our understanding of pain as a complex, subjective, and multidimensional experience. Their contributions laid the foundation for exceptional Canadian researchers and clinicians to engage in world-leading research and education, over the last four decades, on acute and persistent pain mechanisms and the implications for assessment and management. A major challenge that has driven the research and education agenda is the ubiquity of pain-related misbeliefs — that is, beliefs that persist despite evidence — which preclude effective pain assessment and management (Carr, 2009; Furstenberg et al., 1998; Lebovitz et al., 1997; Lin, Alfandre, & Moore, 2007; McGillion, Watt-Watson, Kim, & Graham, 2004; Strong, Tooth, & Unruh, 1999; Watt-Watson, 1992; Ying, Schulman-Green, Czaplinski, Harris, & McCorkle, 2007).

Despite evidence to the contrary, health-care professionals (HCPs) across health-care sectors routinely believe that pain is directly proportionate to the degree of tissue injury, that patients must demonstrate severe pain before receiving medication, that observable signs are the most reliable indicators of pain, and that patients should be encouraged to endure as much pain as possible before using an opioid analgesic (Carr, 2009; Furstenberg et al., 1998; Lebovitz et al., 1997; Lin et al., 2007; McGillion et al., 2004; Strong et al., 1999; Watt-Watson, 1992; Watt-Watson, Chung, Chan, & McGillion, 2004). Other misbeliefs, held by HCPs and patients alike, include the common notion that enduring pain is an expectation following surgery and that one pain-management strategy at a time is sufficient (Watt-Watson, 1992). These barriers to effective pain management are compounded by the fact that many

patients do not admit to having pain and are reluctant to ask for help (Watt-Watson, Clark, Finley, & Watson, 1999).

As a profession, nursing has played a major role in the efforts of the international pain community to institute change. In terms of pre-licensure education, the International Association for the Study of Pain (IASP) recognized the problem of pain misbeliefs over 20 years ago when it published its first core curriculum, laying the foundation for educational initiatives such as the University of Toronto Centre for the Study of Pain-Interfaculty Pain Curriculum (UTCSP-IPC), founded in 2002 (Hunter et al., 2008; Watt-Watson, Hunter, et al., 2004). The UTCSP-IPC continues to bring together students from six health sciences faculties (in 2014, a total of 947 students) to take part in a mandatory 20-hour curriculum targeting pain misbeliefs and optimal interprofessional pain assessment, care planning, and management practices. In 2012 the IASP approved an interprofessional pain curriculum based on the original tenets of its core curriculum and developed by a subgroup of its Education Initiatives Working Group (International Association for the Study of Pain, 2012). This curriculum now provides a means for health professions to learn a common language and to develop a basic understanding of pain mechanisms and biospsychosocial concepts fundamental to competent practice, grounded in the recognition of adequate pain relief as a fundamental human right.

In the practice arena, advances in the development of clinical practice guidelines (CPGs) have also been made. For example, the Registered Nurses Association of Ontario Guidelines for Pain Assessment and Management, now in its third edition, has led the way in providing interprofessional care teams with evidence-based recommendations for assessing and managing people with, or at risk for, any type of pain (Registered Nurses Association of Ontario, 2013). Promulgation of these CPGs, among others, has been made possible by a swell of intervention research in this country over the last four decades — much of it led by nurses. Because of the work of Canadian nurse leaders, we now have a strong foundation for understanding ways to optimize pain assessment and management for hospitalized infants and their families (Stevens et al., 2011; Stevens et al., 2014), an area of practice that was particularly lacking in the past. Concerted effort has also led to greater understanding of factors that confer vulnerability on the transition from acute to persistent pain following surgery (Choinière et al., 2014; McGillion et al., 2012), as well as to effective educational interventions that improve clinicians' knowledge and behaviour with regard to pain (McGillion et al., 2011; Parry et al., 2010; Watt-Watson, Carr, & McGillion, 2011; Watt-Watson, Stevens, et al., 2004). Cutting-edge work has advanced the delivery and international uptake of pain self-management education for both adolescent and adult

populations suffering from complex forms of persistent pain (LeFort, Gray-Donald, Rowat, & Jeans, 1998; McGillion et al., 2014; McGillion, LeFort, Stinson, 2008; McGillion, Watt-Watson, et al., 2008; Stinson et al., 2014).

Without question, the advances made by the international and national pain communities are to be celebrated, as are the contributions of nurse leaders who have helped to make such advances possible. Yet recognition of our achievements must be balanced with awareness of the new and ongoing challenges that we face. Our work is far from over.

We now possess the knowledge and the technology to manage pain effectively, yet alarming numbers of Canadians are still left in pain after surgery, even in our top hospitals. Evidence suggests that only 30% of analgesic medication ordered is actually administered in hospital and that up to 50% of patients report pain in the moderate-to-severe range following surgical procedures (Choinière et al., 2014; Watt-Watson, Stevens, et al., 2004). Left untreated, acute post-operative pain leads to persistent pain in 10% to 50% of patients who undergo common procedures, including inguinal hernia repair, mastectomy and wedge lumpectomy, cardiac and thoracic surgery, and major joint replacement (Kehlet, Jensen, & Woolf, 2006). Such pain challenges are not limited to the hospital setting. One in five Canadian adults report persistent pain that imposes significant activity limitation, difficulty at work, and financial hardship due to increased reliance on health services not covered by public healthinsurance plans (Moulin, Clark, Speechley, & Morley-Forster, 2002; Schopflocher, Taenzer, & Jovey, 2011). The prevalence of persistent pain also increases with age, with rates as high as 65% among communitydwelling seniors and 80% among seniors living in long-term-care facilities (Hadjistavropoulos et al., 2009). The situation is no better among Canadian children and adolescents; like adults, one in five suffer persistent forms of pain, with an estimated 5% to 8% enduring pain that is severe enough to interfere with school work, social development, and physical activity (Huguet & Miró, 2008; Stanford, Chambers, Biesanz, & Chen, 2008).

Our way forward must be paved with the clear understanding that, despite the gains we have made, wide gaps persist between best evidence and clinical practice. Sound pain care in Canada is still threatened by pain-related misbeliefs and outdated management approaches (Lynch, 2011). Overlying these ongoing (and all too familiar) challenges is the contemporary controversy surrounding opioid analgesics (Lynch, 2013). Central to the debate is mounting public concern over prescription opioid analgesic (POA) use and misuse. As nurses with a vested interest in doing our utmost to ensure that our patients receive adequate pain

relief, we must continue to do what we have always done: turn to, and be clear on, the evidence.

There is no question that both the misuse and the non-medical use of POAs have resulted in unintended mortality (Lynch, 2013). However, the constant focus of the media — print, broadcast, and social — on opioid abuse, as opposed to the need for a balanced approach to the therapeutic use of POAs, has resulted in limited access to analgesics for those who legitimately need them. Recent research based on data from the Ontario Drug Benefit Plan indicates that 91.6% of deaths involving opioids also involve other substances, such as alcohol, benzodiazepines, or tricyclic antidepressants, suggesting that these agents are being used not necessarily for pain but for other reasons, such as addiction (Dhalla et al., 2009). Amidst the controversy, a major advance in promoting appropriate prescribing practices with safeguards has been the Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain (Canada: National Opioid Use Guideline Group, 2010). These CPGs may have contributed to the recent decrease in non-medical use of POAs in Canada — the estimated prevalence of POA use to get "high" is now 0.4% (Lynch, 2013). Recent legislative changes in some provinces have extended the scope of practice for nurse practitioners to include prescription of controlled drugs and substances. It is paramount, therefore, that nurses continue to stay abreast of controversies as well as the latest developments in order to ensure safe prescribing practices.

As we continue to advocate for change, it is important to remember that the landscape of pain-related care and debate is changing rapidly. Traditionally, patients have tended to trust that clinicians are using evidence-based knowledge as a foundation for their clinical actions, even in cases where delivery of suboptimal pain relief has been the norm (Watt-Watson & Murinson, 2013). Today, patients and families are no longer passive recipients of health care; they bring their own information and beliefs to pain management (Watt-Watson & Murinson, 2013). The rise in uptake of social media and communication technologies, leading to a more engaged public, requires that HCPs also stay informed and continue to advocate for sound, evidence-informed practice. We remain accountable, to the public and ourselves, to lead and manage practice change.

New challenges, such as those born of the POA controversy (Lynch, 2013), give rise to new opportunities for research, such as the need to better understand the influence of media-related uptake on clinician and patient beliefs and their treatment-related preferences and values. Nurses can also be leaders in interprofessional pain curricula by promoting a focus on development of media-related competencies for best practice. Rising to such challenges is critical if we are to continue to be leaders in

Pain Assessment and Management in Canada

Michael H. McGillion, Judy Watt-Watson

pain research, education, advocacy, and practice. Considering what we have achieved over the last 40 years, there is no doubt that when it comes to the challenges that lie on the road ahead, we have what it takes to lead the way.

References

- Canada: National Opioid Use Guideline Group. (2010, April 30). Canadian guideline for safe and effective use of opioids for chronic non-cancer pain. Hamilton: McMaster University. Retrieved February 25, 2015, from: http://nationalpaincentre.mcmaster.ca/opioid/.
- Carr, E. (2009). Barriers to effective pain management. In F. Cox (Ed.), *Perioperative pain management* (pp. 45–63). Oxford: Wiley-Blackwell.
- Choinière, M., Watt-Watson. J., Victor, C., Baskett, R. J. F., Bussières, J. S., Carrier, M., . . . Talliefer, M. C. (2014). Prevalence of and risk factors for persistent postoperative nonanginal pain after cardiac surgery: A 2-year prospective multicentre study. *Canadian Medical Association Journal*, 186(7), E213–E223. doi:10.1503/cmaj.131012
- Dhalla, I. A., Mamdani, M. M., Sivilotto, M. L. A., Kopp, A., Qureshi, B. A. O., & Juurlink, D. N. (2009). Prescribing of opioid analgesics and related mortality before and after the introduction of long-acting oxycodone. *Canadian Medical Association Journal*, 181(2), 891–896.
- Furstenberg, C. T., Ahles, T. A., Whedon, M. B., Pierce, K. L., Dolan, M., Roberts, L., & Silberfarb, P. M. (1998). Knowledge and attitudes of health-care providers toward cancer pain management: A comparison of physicians, nurses, and pharmacists in the state of New Hampshire. *Journal of Pain Symptom Management*, 16(5), 335–349.
- Hadjistavropoulos, T., Marchildon, G. P., Fine, P. G., Herr, K., Palley, H. A., Kaasalainen, S., & Béland, F. (2009). Transforming long-term care pain management in North America: The policy-clinical interface. *Pain Medicine*, 10(3), 506–520. doi:10.1111/j.1526-4637.2009.00566.x
- Huguet, A., & Miró, J. (2008). The severity of chronic pediatric pain: An epidemiological study. *Journal of Pain*, 9(3), 226–236.
- Hunter, J., Watt-Watson, J., McGillion, M., Raman-Wilms, L., Cockburn, L., Lax, L., . . . Salter, M. (2008). An interfaculty pain curriculum: Lessons learned from six years experience. *Pain*, 140(1), 74–86. doi:10.1016/j.pain. 2008.07.010
- International Association for the Study of Pain. (2012, January 1). *IASP curricula*. Washington: Author. Retrieved February 25, 2015, from http://www.iasp-pain.org/Education/CurriculaList.aspx?navitemNumber=647.
- Kehlet, H., Jensen, T. S., & Woolf, C. J. (2006). Persistent postsurgical pain: Risk factors and prevention. *Lancet*, *367*(9522), 1618–1625.
- Lebovitz, A. H., Florence, I., Bathina, R., Hunko, V., Fox, M. T., & Bramble, C. (1997). Pain knowledge and attitudes of health care providers: Practice characteristic differences. *Clinical Journal of Pain*, 13(3), 237–243.

Pain Assessment and Management in Canada

Michael H. McGillion, Judy Watt-Watson

- LeFort, S., Gray-Donald, K., Rowat, K. M., & Jeans, M. E. (1998). Randomised controlled trial of a community based psychoeducation program for the self-management of chronic pain. *Pain*, 74(2–3), 297–306.
- Lin, J. J., Alfandre, D., & Moore, C. (2007). Physician attitudes toward opioid prescribing for patients with persistent noncancer pain. *Clinical Journal of Pain*, 23(9), 799–803. doi:10.1097/AJP.0b013e3181565cf1
- Lynch, M. (2011). The need for a Canadian pain strategy. Pain Research and Management, 16(2), 77–80.
- Lynch, M. (2013). Nonmedical use of prescription opioids: What is the real problem? *Pain Research and Management*, 18(2), 67–68.
- McGillion, M., Arthur, H. M., Cook, A., Natarajan, M., Gunn, E., Watt-Watson, J., . . . Cosman, T. (2012). Nonischemic chest pain following successful PCI at a regional referral centre in southern Ontario. *Canadian Journal of Cardiology*, 28(2 Suppl), S60–S69. doi:10.1016/j.cjca.2011.10.017
- McGillion, M., Dubrowski, A., Stremler, R., Watt-Watson, J., Campbell, F., McCartney, C., . . . Silver, I. (2011). The Post-operative Pain Assessment Skills Pilot Trial. *Pain Research and Management*, 16(6), 401–406.
- McGillion, M., LeFort, S., & Stinson, J. (2008). Chronic pain self-management. In S. Rashiq, D. Schopflocher, & P. Taenzer (Eds.), *Chronic pain: A health policy perspective* (pp. 167–176). Weinheim: Wiley–VCH Verlag.
- McGillion, M., O'Keefe-McCarthy, S., Carroll, S., Victor, J. C., Cosman, T., Cook, A., . . . Arthur, H. M. (2014). Impact of self-management interventions on stable angina symptoms and health-related quality of life: A meta-analysis. *BMC Cardiovascular Disorders*, 14(14). doi:10.1186/171-2261-14-14
- McGillion, M. H., Watt-Watson, J. H., Kim, J., & Graham, A. (2004). Learning by heart: A focused groups study to determine the psychoeducational needs of chronic stable angina patients. *Canadian Journal of Cardiovascular Nursing*, 14(2), 12–22.
- McGillion, M., Watt-Watson, J., Stevens, B., LeFort, S., Coyte, P., & Graham, A. (2008). Randomized controlled trial of a psychoeducation program for the self-management of chronic cardiac pain. *Journal of Pain and Symptom Management*, 36(2), 126–140. doi:10.1016/j.jpainsymman.2007.09.015
- Melzack, R., & Wall, P. (1965). Pain mechanisms: A new theory. *Science*, 150(3699), 971–979.
- Moulin, D. E., Clark, A. J., Speechley, M., & Morley-Forster, P. K. (2002). Chronic pain in Canada — prevalence, treatment, impact and the role of opioid analgesia. *Pain Research and Management*, 7(4), 179–184.
- Parry, M., Watt-Watson, J., Hodnett, E., Tranmer, J., Dennis, C. L., & Brooks, D. (2010). Pain experiences of men and women after coronary artery bypass graft (CABG) surgery. *Journal of Cardiovascular Nursing*, 25(3), e9–e15. doi: 10.1097/JCN.0b013e3181cd66be
- Registered Nurses Association of Ontario. (2013, January 1). Assessment and management of pain (3rd ed.). Toronto: Author.
- Schopflocher, D., Taenzer, P., & Jovey, R. (2011). The prevalence of chronic pain in Canada. *Pain Research and Management*, 16(6), 445–450.

- Stanford, E. A., Chambers, C. T., Biesanz, J. C., & Chen, E. (2008). The frequency, trajectories and predictors of adolescent recurrent pain: A population-based approach. *Pain*, 138(1), 11–21.
- Stevens, B. J., Abbott, L. K., Yamada, J., Harrison, D., Stinson, J., Taddio, A., . . . CIHR Team in Children's Pain. (2011). Epidemiology and management of painful procedures in children in Canadian hospitals. *Canadian Medical Association Journal*, 183(7), E403–E410. doi:10.1503/cmaj.101341
- Stevens, B. J., Yamada, J., Estabrooks, C. A., Stinson, J., Campbell, F., Scott, S. D., . . . CIHR Team in Children's Pain. (2014). Pain in hospitalized children: Effect of a multidimensional knowledge translation strategy on pain process and clinical outcomes. *Pain*, 155(1), 60–68. doi:10.1016/j.pain.2013.09.007
- Stinson, J. N., Lalloo, C., Harris, L., Isaac, L., Campbell, F., Brown, S., . . . Karim, A. (2014). iCanCope with PainTM: User-centred design of a Web- and mobile-based self-management program for youth with chronic pain based on identified health care needs. *Pain Research and Management*, 19(5), 257–265.
- Strong, J., Tooth, L., & Unruh, A. (1999). Knowledge of pain among newly graduated occupational therapists: Relevance for curriculum development. *Canadian Journal of Occupational Therapy*, 66(5), 221–228.
- Watt-Watson, J. (1992). Misbeliefs about pain. In J. Watt-Watson & M. Donovan (Eds.), *Pain management: Nursing perspective* (pp. 36–58). St. Louis: Mosby.
- Watt-Watson, J., Carr, E., & McGillion, M. (2011). Moving the pain education agenda forward: Innovative models. *Pain Research and Management*, 16(6), 401–406.
- Watt-Watson, J., Chung, F., Chan, V., & McGillion, M. (2004). Pain management following discharge after ambulatory day surgery. *Journal of Nursing Management*, 12(3), 153–161.
- Watt-Watson, J. H., Clark, J. A., Finley, G. A., & Watson, C. P. N. (1999). Canadian Pain Society position statement on pain relief. *Pain Research and Management*, 4(2), 75–78.
- Watt-Watson, J., Hunter, J., Pennefather, P., Librach, L., Raman-Wilms, L., Schreiber, M., . . . Salter, M. (2004). An integrated undergraduate pain curriculum, based on IASP curricula, for six health science faculties. *Pain*, 110(1–2), 140–148.
- Watt-Watson, J., & Murinson, B. B. (2013). Current challenges in pain education. *Pain management*, *3*(5), 351–357. doi:10.2217/pmt.13.39
- Watt-Watson, J., Stevens, B., Katz, J., Costello, J., Reid, D., & David, T. (2004). Impact of a pain education intervention on postoperative pain management. *Pain*, 109(1–2), 73–85.
- Ying, X., Schulman-Green, D., Czaplinski, C., Harris, D., & McCorkle, R. (2007). Pain attitudes and knowledge among RNs, pharmacists, and physicians on an inpatient oncology service. Clinical Journal of Oncology Nursing, 11(5), 687–695.

Michael H. McGillion, RN, PhD, is Assistant Professor and Heart and Stroke Foundation/Michael G. DeGroote Endowed Chair of Cardiovascular Nursing Research, School of Nursing, McMaster University, Hamilton, Ontario, Canada. Judy Watt-Watson, RN, PhD, is Professor Emeritus, Lawrence S. Bloomberg Faculty of Nursing, University of Toronto, Ontario.