

Commentary

The Opioid Pendulum and the Need for Better Pain Care

Conflicts of interest: The author is a founding director of a small start up company researching nonpsychotropic cannabinoid formulations for treatment of pain and inflammation Panag Pharma Inc.

The Pendulum Has Swung Too Far

There is a growing and disturbing trend against the use of medical opioids in the developed world. The fear of addiction continues to contribute to the under treatment of pain and further stigmatization of people living with chronic pain conditions.

This fear has recently been fueled by reports of increasing opioid related deaths in a context of what came to be known as nonmedical prescription opioid use (NMPOU) [1]. A number of publications left the impression that the general medical use of opioids was the problem, leading to overly simplistic analyses and interventions that would limit the availability of and access to opioid medications [2,3]. In addition, the media have published articles that are unbalanced, using headlines that exaggerate and polarize the issue and ignore the contribution of other medications [4]. For example, a recent study has identified that the rate of overdose death among those also receiving a benzodiazepine was 10 times higher [5]. This has not been helpful in finding solutions to a complex problem and may have contributed to a fear among physicians of prescribing opioids. In fact, as presented below, the evidence from national surveys supports that since 2011 in the United States and Canada, the general use of opioids has decreased to a significant degree such that those of us on the front lines of pain management are finding that patients are experiencing difficulty accessing opioids when they are medically appropriate. In addition, the negative attention to “pain killers” has further stigmatized and harmed people suffering with pain [6]. The pendulum has swung too far and it is critical to bring a balanced perspective to this complex issue so that effective solutions can be put into place and the collateral damage to people with pain can be stopped.

A Patient's Story

My patient, Adrian, is a former physical trainer who sustained several herniated discs in his lumbar spine,

caused by a lifting and twisting incident at work. His severe, sharp, shooting back and leg pain continued in spite of maximal medical and surgical treatment. Adrian was placed on a combination of a continuous release opioid and an analgesic anticonvulsant and started a back pain program. During this time, he heard a report on the radio about misuse of opioids, and concluded that he was a “junkie” (as he described it).

Without discussion with his physician he checked into a detox program and discontinued his opioid. He was discharged home. Within 3 days he made the decision that he could not live with the excruciating pain. The following day when his partner had left for work, he climbed into the bathtub, slashed both wrists and waited to die. When Adrian did not answer his phone, his partner went home immediately and arrived in time to save his life.

After being resuscitated he was admitted to the acute psychiatric unit. A consultation was sent to the pain service, and I went to see Adrian. I found him lying prone on a yoga mat, as this was the only position in which he could obtain some comfort. Adrian had no history of drug misuse or abuse. I told Adrian that he was not a “junkie,” restarted his medications, and engaged him in interdisciplinary pain treatment. Adrian is putting his life back together.

The Collateral Damage

Adrian is not alone. Many clinicians reading this story will have patients with similar experiences. A recent qualitative study exploring the experience of adults using prescription opioids to manage chronic pain found that, although the patients were benefiting from the medication, they experienced significant stigma related to the use of opioids [6]. This opioid related stigma adds to the stigmatization associated with chronic pain and creates a double jeopardy. Indeed, this study found that most of the negative aspects reported by people using long-term opioids for chronic noncancer pain were socio-culturally induced, such as feeling judged by others or experiencing guilt for using an opioid.

Update on Prescription Opioid Use, Nonmedical, and “Use to Get High” from National Surveys

Although it is true that the general use of opioids was climbing between 2002 and 2010, recent national surveys in North America have identified a significant decline. The Canadian Alcohol and Drug Use Monitoring Survey (CADUMS) found that general use of pain relievers in the past year decreased from a high of 20.6% in 2010 to 14.9% in 2013. In 2009, CADUMS included a question regarding “use to get high.” Use to get high was reported by 0.4% of people using opioids in 2009 with subsequent years reporting 0.2%, 0.3%, 0.3%, and 0.2% respectively [7]. The rate of “use to get high” has remained relatively stable even in the face of a significant decline in general use, suggesting that a decrease in general use and availability of opioids will not stop those who abuse opioids.

The United States National Survey on Drug Use and Health (NSDUH) [8] inquires about nonmedical use, which is defined as use without a prescription or for the feeling caused. The rate of nonmedical use of pain relievers declined among 12–17-year-olds from 3.2% in 2002 to 1.7% in 2013. Most had received the medication from a friend or family member. Several United States studies have examined the motivation for NMPOU in adolescents and young adults and have found the main reason for “misuse” is for the relief of pain [9–11]. Converging data from the RADARS system in the United States, which collects information from drug diversion investigators, poison centers, substance abuse treatment centers, and college students, has found that between 2002–2010, rates of diversion and abuse climbed, while from 2011–2013 the rates have flattened and decreased. A similar pattern was found for opioid related deaths [12].

Substitution Effect

Recent studies have identified that introduction of abuse-deterrent forms of prescription opioids have led to a substitution effect among individuals with opioid dependence. Many have moved on to heroin because it is more easily available and cheaper, thus posing a greater overall risk to public health [13]. There is evidence that some users are switching to injectable opioids and heroin with associated HIV outbreaks in areas where needles are in short supply [14].

Building on the Success of Programs to Address Substance Use Disorders and Addictions

There is a longstanding problem with drug abuse in our society and it is important to continue to address this problem through public education and provision of appropriate services for people struggling with addictions and substance use disorders. There is some good news on this front in that key national surveys such as CADUMS (now Canadian Tobacco, Alcohol and Drugs Survey [CTADS]) and NSDUH have

documented decreases in the use of illicit substances other than cannabis. Illicit substances include cocaine, crack, amphetamines, hallucinogens, ecstasy and heroin. In Canada there has been a reduction to 1.6% in 2013 as compared to 3.0% in 2004. In the United States there have been similar trends with reductions in both use of illicit substances and the nonmedical use of prescription opioids (See NSDUH 2013 Summary Figures 5.6 and 7.5) [8].

Substance use disorders remain a serious public health problem. The cause is multifactorial and the treatment must involve an interdisciplinary team addressing the complexity of addiction. As presented above, we have learned that simplistic solutions that demonize opioids and crudely aim to decrease supply will not solve the problem and will lead to collateral damage.

The Continued “Tragedy of Needless Pain”

A quarter of a century ago *Scientific American* published an article by Dr. Ron Melzack titled “The Tragedy of Needless Pain” [15]. Melzack described how the under-treatment of pain can be fueled by the fear of addiction. His description that “society’s failure to distinguish between the emotionally impaired addict and the psychologically healthy pain sufferer has affected every segment of the population” is as true now as it was 25 years ago.

Massive ignorance regarding the appropriate assessment and treatment of pain prevails. Studies from North America, the United Kingdom, and Norway have identified that health care professionals receive woefully inadequate training [16–19], and under-treatment of postsurgical pain [20–22] and emergency room pain continues even in our top hospitals [23,24]. Children are at especially high risk of receiving inadequate analgesia in the emergency department [25]. This is also the case in Neonatal Intensive Care Units where numerous skin puncture procedures are done daily for intensive care and basic analgesic approaches are not being used [26]. In children recovering from surgery postoperative medication is being withheld because of fears of addiction [27].

In addition to all of the reasons presented by Melzack in 1990 as to why it is critical to treat acute pain we now understand better that untreated acute pain puts people at high risk of going on to develop chronic pain. For example, the well documented association between higher pain levels post surgery and increased risk of persistent post-operative pain [28,29]. Again, our youngest are at highest risk. Complex pain sensing systems are in place in neonates and inhibitory systems are not yet fully developed with potential for increased pain related to tissue damage. Their systems are undergoing a critical period of rapid development with potential to affect future pain responses, brain development and autoimmune phenomena [30].

As medical technology improves many people are surviving illnesses and injuries that would have been fatal

previously. The prevalence of painful HIV neuropathy is rising [31] and there is an increasing cohort of cancer survivors with undertreated pain [32–34].

Forging Ahead

Chronic pain is a growing public health problem with inadequate access to care. Training in the assessment and management of pain should be a key component in the training of all health care professionals, yet as presented above there are major gaps in pain education. Acute pain is not adequately treated, prevention strategies for chronic pain are not being practiced and timely care for chronic pain is lacking. In many nations there are long waits for care and vast areas with no access to appropriate care, thus patients experience a significant deterioration in health-related quality of life and psychological well-being while waiting for care [35].

There is a connection between inadequate access to interdisciplinary care for chronic pain and overreliance on opioid use. We see it in patients referred to our pain clinic when the front line community practitioners have little or no access to allied health services such as physiotherapy, psychology and complementary therapies. In Australia, the Pain and Opioids Treatment (POINT) study, a two-year prospective study of 1500 people using strong opioids for chronic non-cancer pain, has identified that many experienced barriers to care. For example, one-third were unable to afford other pain treatments such as physiotherapy, counseling, or massage [36]. The POINT study also found that people prescribed strong opioids for chronic pain are very complex with regards to demographic and clinical profiles, with significant divergence in mental health and disability, thus emphasizing the need for access to health care approaches that address the numerous comorbidities in this group.

The Solution

In summary, we are dealing with two separate issues: first, that some people will abuse drugs, and need treatment; second, that many pain sufferers lack access to appropriate pain care.

The obvious solution is to provide better care for pain while continuing to enhance excellent programs for treatment of addiction. This includes better treatment of acute pain in an effort to prevent the onset of chronic pain, as well as timely appropriate care for chronic pain. To accomplish this goal will require each nation to develop and implement a national strategy that is comprehensive and addresses pain prevention, management, education and research. The IASP has published guidance on desirable characteristics of national pain strategies on the website <http://www.iasp-pain.org/DCNPS?navItemNumber=655>. Several nations including the United States http://iprcc.nih.gov/National_Pain_Strategy/NPS_Main.htm are moving forward but there is still much work to be done. It is critical that pain clinicians and scientists around the world unite in

advocating for better pain care for all people. This is the best way we can assure the translation of decades of excellent pain science.

MARY LYNCH, MD, FRCPC

*Department of Anesthesia, Pain Medicine,
Perioperative Care and Psychiatry and Pharmacology,
Dalhousie University, Halifax, Nova Scotia, Canada*

References

- 1 Shield KD, Jones W, Rehm J, Fischer B. Use and nonmedical use of prescription opioid analgesics in the general population of Canada and correlations with dispensing levels in 2009. *Pain Res Manage* 2013;18:69–74.
- 2 Dhalla IA, Mamdani MM, Gomes T, Juurlink DN. Clustering of opioid prescribing and opioid related mortality among family physicians in Ontario. *Can Fam Physician* 2011;57:e92–6.
- 3 Gomes T, Juurlink DN, Dhalla IA, Mailis-Gagnon A. Trends in opioid use and dosing among socio-economically disadvantaged patients. *Open Med* 2011; 5(1):213–22.
- 4 Weeks C. Staggering number of chronic opioid patients dying according to new study. Toronto, Ontario: The Globe and Mail; 2015.
- 5 Dasgupta N, Funk MJ, Proescholdbell S, et al. Cohort study of the impact of hi-dose opioid analgesics on overdose mortality. *Pain Med* 2016;17: 85–98.
- 6 Brooks EA, Unruh A, Lynch ME. Exploring the lived experience of adults using prescription opioids to manage chronic noncancer pain. *Pain Res Manage* 2015;20:15–22.
- 7 Government of Canada. Canadian Tobacco, Alcohol and Drug Use Monitoring Survey: Detailed tables for 2013. Available at: <http://healthycanadians.gc.ca/science-research-sciences-recherches/data-donnees/ctads-ectad/tables-tableaux-2013-eng.php#t9> (accessed April 12, 2016).
- 8 Substance Abuse and Mental Health Services Administration. Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-48, HHS Publication No. (SMA) 14-4863. Rockville, MD: U.S. Department of Health and Human Services, 2014. Available at: <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFHTML2013/Web/NSDUHresults.pdf> (accessed April 12, 2016).

Lynch

- 9 McCabe SE, Boyd CJ, Cranford JA, Teter CJ. Motives for nonmedical use of prescription opioids among high school seniors in the United States; self treatment and beyond. *Arch Pediatr Adolesc Med* 2009;163:739–44.
- 10 McCabe SE, Cranford JA, Boyd CJ, Teter CJ. Motives, diversion and routes of administration associated with nonmedical use of prescription opioids. *Addict Behav* 2007;32:562–75.
- 11 Boyd CJ, MS E, Cranford JA, Young A. Adolescents motivations to abuse prescription medications. *Pediatrics* 2006;118:2472–80.
- 12 Dart RC, Surratt HL, Cicero TJ, et al. Trends in opioid analgesic abuse and mortality in the United States. *NEJM* 2015;372:241–8.
- 13 Cicero TJ, Ellis MS. Effect of an abuse deterrant formulation of OxyContin. *New Engl J Med* 2012; 367:187–9.
- 14 Strathdee SA, Beyrer C. Threading the needle-how to stop the HIV outbreak in rural Indiana. *NEJM* 2015;373:397–9.
- 15 Melzack R. The tragedy of needless pain. *Sci Am* 1990;262:27–33.
- 16 Watt-Watson J, McGillion M, Hunter J, et al. A survey of pre-licensure pain curricula in health science faculties in Canadian universities. *Pain Res Manage* 2009;14:439–44.
- 17 Briggs EV, Carr ECJ, Whittaker MS. Survey of undergraduate pain curricula for healthcare professionals in the United Kingdom. *Eur J Pain* 2011;15:789–95.
- 18 Mezei L, Murinson BB. Team JHPCD. Pain education in North American medical schools. *J Pain* 2011;12:1199–208.
- 19 Leegaard M, Valeberg BT, JHaugstad GK, Utne I. Survey of pain curricula for healthcare professionals in Norway. *Nurs Sci* 2014;34:42–5.
- 20 Buvanendran A, Fiala J, Karishma AP, et al. The incidence and severity of postoperative pain following inpatient surgery. *Pain Med* 2015;16:2277–83.
- 21 Watt-Watson J, Choiniere M, Costello J, et al. Prevalence, characteristics and risk factors of persistent post-operative pain after cardiac surgery. The 13th International Association for the Study of Pain Congress Proceedings, Montreal, Canada; August 29–September 2, 2010. 2010:Poster 336.
- 22 Watt-Watson J, Stevens B, Katz J, et al. Impact of preoperative education on pain outcomes after coronary artery bypass graft surgery. *Pain* 2004;109: 73–85.
- 23 Todd KH, Ducharme J, Choiniere M, et al. Pain in the emergency department: Results of the Pain and Emergency Medicine Initiative (PEMI) Multicentre Study. *J Pain* 2007;8:460–6.
- 24 Albrecht E, Taffe P, Yersin B, et al. Undertreatment of acute pain (oligoanalgesia) and medical practice variation in prehospital analgesia of adult trauma patients: A 10 year retrospective study. *Br J Anaesthesia* 2013;110:96–106.
- 25 Ali S, Chambers A, Johnson DW, Amanda S, Vandermeer B. Reported practice variation in pediatric pain management: A survey of Canadian pediatric emergency physicians. *CJEM* 2014;16: 352–60.
- 26 McNair C, Campbell Yeo M, Johnston C, Taddio A. Nonpharmaceutical management of pain during common puncture procedures in infants: Current research evidence and practical considerations. *Clin Perinatol* 2013;40:493–508.
- 27 Twycross A, Finley GA. Children's and parents' perceptions of postoperative pain management: A mixed methods study. *J Clin Nurs* 2013;22: 3095–108.
- 28 Kehlet H, Jensen TS, Woolf CJ. Persistent postsurgical pain: Risk factors and prevention. *Lancet* 2006;367:1618–25.
- 29 Choiniere M, Watt-Watson J, Victor C, et al. Prevalence of and risk factors for persistent postoperative nonanginal pain after cardiac surgery: A 2-year prospective multicentre study. *CMAJ* 2014; 186:E213–E23.
- 30 Beggs S. Long term consequences of neonatal injury. *Can J Psychiatry* 2015;60:176–80.
- 31 Phillips TJC, Cherry CL, Moss PJ, Rice ASC. Painful HIV-associated sensory neuropathy. *Pain Clin Updates* 2010;XVIII(3):1–8.
- 32 Moryl N, Coyle N, Essandoh S, Glare P. Chronic pain management in cancer survivors. *J Natl Compr Canc Netw* 2010;8(9):1104–10.
- 33 Levy MH, Chwistek M, Mehta RS. Management of chronic pain in cancer survivors. *Cancer J* 2008;14 (6):401–9.

- 34 Deandrea S, Montanari M, Moja L, Apolone G. Prevalence of undertreatment of cancer pain. *Ann Oncol* 2008;19:1985–91.
- 35 Lynch ME, Campbell FA, Clark AJ, et al. Waiting for treatment for chronic pain: A survey of existing benchmarks: Towards establishing evidence based benchmarks for acceptable waiting times. *Pain Res Manage* 2007;12:245–8.
- 36 Campbell G, Nielsen S, Bruno R, et al. Pain and opioids in treatment study: Characteristics of a cohort using opioids to manage chronic non-cancer pain. *Pain* 2015;156:231–42.