CHIROPRACTIC AND THE OPIOID PANDEMIC - STRATEGIES TO MITIGATE HARM AND PROMOTE EVIDENCE-BASED CARE (PART 2: SUMMARY)

Gregory Parkin-Smith, MTech(Chiro), MBBS, MSc(Clin Neuro), DrHC, FRCC(UK), CertEM⁽¹⁾⁽²⁾

Lyndon Amorin-Woods, B AppSci (Chiropractic), MPH⁽¹⁾⁽²⁾

Michael Shobbrook, BSc (Anatomy), MChiro, AM (1)(3)(4)(5)

Barrett Losco, MChiro, MPA (2)

⁽¹⁾Private practice, Australia,

⁽²⁾College of Science, Health, Engineering and Education, Discipline of Chiropractic, Murdoch University, Perth, Western Australia

⁽³⁾Director, Council on Chiropractic Education International (CCEI)

⁽⁴⁾Deputy Chair, Council on Chiropractic Education Australasia (CCEA)

⁽⁵⁾Deputy Chair Health Professions Accreditation Collaborative Forum

Corresponding Author:

Lyndon Amorin-Woods Murdoch University 4/90 South St, Murdoch, Western Australia L.Woods@murdoch.edu.au

Chiropractic and Opioid Crisis 2 Parkin-Smith et al

CHIROPRACTIC AND THE OPIOID PANDEMIC - STRATEGIES TO MITIGATE HARM AND PROMOTE EVIDENCE-BASED CARE (PART 2: SUMMARY)

ABSTRACT

This paper summarises the current opioid crisis in Australia and offers recommendations and strategies where chiropractic, on both an individual practitioner and professional level, can engage with the problem, with a view to mitigating the risks of harm of opioid overuse. The authors also describe how engaging with the opioid crisis may indeed assist in promoting and lobbying for evidence-based, guideline-concordant management for non-cancer spinal pain.

Keywords: Opioid Crisis, Chiropractic, Back Pain, Evidence-based Practice, Guideline Adherence

INTRODUCTION

A full description of the opioid pandemic has been provided in a separate paper (Part 1), the main consequences being (1, 2):

- On average, every day in Australia 3 people die and 150 are hospitalised because of harm from opioids, with most of these being pharmaceutical opioids;
- Opioids can be an effective component of the management of various forms of pain, but the problem of overuse, misuse and overdose (typically accidental) has been characterised as a public health crisis;
- Opioids carry significant risk of harm around 80% of people taking opioids for 3 months or more experience harms, which range from mild through to severe or fatal.
- Effects of opioids include unwelcome neuroplastic changes such as tolerance, dependence, sensitisation, hyperalgesia, adaptation, and addiction (3).

Further to the crisis, pharmaceutical opioids are often used for non-cancer musculoskeletal pain, for which there is equivocal research evidence and where effectiveness is unpredictable (4). Consequently, many treatments and services for non-cancer spinal pain, are non-concordant with known international clinical guidelines (5).

Chiropractors, as primary contact providers offering non-pharmacological, non-surgical, evidence-based management for people with spinal pain, such as spinal manipulation, exercise prescription, counselling and general health/wellness promotion including optimal dietary advice (6-9), play an important role in mitigating the consequences of inappropriate opioid use and promoting the use of guideline-concordant care. We emphasise that prescribing opioids or even recommending a patient discontinue taking prescribed opioids is clearly outside the scope of chiropractic practice (SOCP). Nevertheless it is important for chiropractors to contribute and comment on this topic since they are experts in diagnoses and management of non-cancer pain, especially pain of the spinal and peripheral joints of (neuro)musculoskeletal (NMSK) origin.

We also draw the attention of readers to examples of numerous recent studies that have found that implementation of chiropractic care greatly reduces the use of opioid painkillers; patients with spinal pain who saw a chiropractor had half the risk of filling an opioid prescription:

- 1. Among those who saw a chiropractor within 30 days of diagnosis, the reduction in risk was greater as compared with those with their first visit after the acute phase (10).
- 2. A higher per-capita supply of chiropractors and Medicare spending on CMT were inversely associated with younger, disabled Medicare beneficiaries obtaining an opioid prescription (11).
- 3. Where chiropractic is offered in the military system, 59% reported a reduction in narcotic painkillers use (12).
- 4. For those patients with pain scores by modality, the largest portion (between 32-100%) had unchanged pain scores, with the exceptions of chiropractic, massage, recreational therapy, superficial heat, and ultrasonography, where veterans experienced a decrease in pain scores. (13).
- 5. Nearly one-third of veterans receiving chiropractic services also received an opioid prescription, yet the frequency of opioid prescriptions was lower after the index chiropractic visit than before (14).
- 6. Initial visits to chiropractors or physical therapists were associated with substantially decreased early and long-term use of opioids (15);.

7. A recent systematic review/meta-analysis found in a random-effects analysis, chiropractic users had 64% lower odds of receiving an opioid prescription than nonusers (16).

The key features of how individual chiropractors or professional organisations may engage with the opioid problem are thus (17, 18);

•Continued professional development to enhance the knowledge and skills of chiropractors related to pain management;

• Promotion of evidence-based chiropractic care for non-cancer musculoskeletal spinal pain;

•Educating and informing healthcare practitioners and patients about opioids and alternatives;

• Support for multi-disciplinary care;

- •Ongoing lobbying for funding, rebates and health system collaboration; and
- •Investment or participate in in research.

We distilled insights from various papers and authors (5, 17-21), to inform the following recommendations:

•Commission high-quality research and clinical trials in treatment and therapies for non-cancer spinal pain;

•Incentivise funding of evidence-based, guideline-concordant care and lobby for appropriate funding;

•Identify and re-orientate workforce to support guideline-concordant care;

•Optimise front-line evidence-based care by improving health providers' knowledge and skill in providing evidence-based management;

•Improve on multi-disciplinary approaches for healthcare providers interested in this approach to practice;

•Invest in and incentivise eHealth and Telehealth care, where amenable and appropriate; and

•Inform the public about appropriate management and improve their health literacy.

With these recommendations, all stakeholders from practising chiropractors to professional organisations, educators, researchers and commercial enterprises can plan and engage with this sector of healthcare with greater knowledge, confidence and influence.

Strategies for Participation and Delivery

We further propose that with coordinated efforts, at the individual practitioner and at a chiropractic professional level, targeting specific aspects of the health system, change is possible.

Individual practitioner level:

- 1. Expand on knowledge and management skills of acute and chronic pain, and be aware of current evidence-based clinical guideline recommendations;
- 2. Be proactive in health promotion and patient education;
- 3. Offer patients with non-cancer spinal pain evidence-based care and management strategies;
- 4. Develop further knowledge and skills in working in multi-disciplinary settings;
- 5. Be open to inter-disciplinary and multi-disciplinary communication and collaboration;
- 6. Support professional initiatives that promote better management of acute and chronic non-cancer pain; and
- 7. Support research through participation and/or donations.

Professional and Organisational level:

- 1. Offer continued professional development, through training and learning opportunities, to enhance the knowledge and skills of chiropractors related to pain, pain management and multi-disciplinary cooperation;
- 2. Advocate and promote evidence-based chiropractic care with relevant third-party payers and national health services to fund and incentivise evidence-based care;
- 3. Promote chiropractic care and multi-disciplinary approaches to the public for noncancer spinal pain; and
- 4. Support and invest in relevant research activities.

Our tabulated recommendations for chiropractors and chiropractic organisations for participation and delivery are stated below, based on frameworks suggested in healthcare literature (4, 5) are;

Issue/Topic	Barrier	Action or Solution
Misunderstandings and misconceptions about non-cancer spinal pain and the role of opioids.	Insufficient understanding by healthcare providers and need for training/learning.	Individual chiropractor: Attend CPD-approved training courses on topics of pain, evidence-based care for non-
	Deficient public health literacy and knowledge about spinal pain and opioid use.	cancer spinal pain, and principles of shared decision- making. For those chiropractors interested, further training in multidisciplinary working for spinal pain care. Create and implement patient education and health literacy opportunities in clinical practice
	Unsatisfactory shared decision-making and adherence to evidence- based care related to non- cancer spinal pain.	

		Encourage shared decision-
		making between clinician and patient, promote health and wellness, and assist patients in making informed decisions about their health conditions, particularly spinal pain.
		Participate in local pain groups and networks to increase participation and shared evidence-based strategies to manage spinal pain.
		Professional organisations: Increase learning and training opportunities for chiropractors and other stakeholders in the topics such as pain, evidence- based pain management, health promotion, shared decision-making and multi- disciplinary working.
		Create marketing and media campaigns informing the public about self-management of spinal pain, access to appropriate healthcare providers, when to seek care and how to identify incorrect treatment claims.
		Create health literacy programmes about spinal pain and disorders, e.g. podcasts, pamphlets, consumer group presentations.
	Clinicians often under time pressure to do full assessment and care for spinal pain.	Individual chiropractor: Update themselves on evidence-based management of spinal pain and chronic pain.
Implementation of evidence-based care for spinal pain, health promotion and multidisciplinary working.	Clinicians may need additional skills and knowledge regarding pain management and guideline- concordant care.	For those chiropractors interested, participate in learning training courses on shared decision making and multi-disciplinary learning working for spinal pain care.
	The public (patients) and other healthcare providers need to know how to access appropriate care, including spinal manipulation and	Encourage shared decision- making between clinician and patient on care, which can also increase informed decision-

	other services provided by	making for other health
	other services provided by chiropractors.	making for other health conditions.
		Participate in local pain groups or networks and gain
		experience in group working
		and shared learning.
		Professional organisations:
		Increase learning and training
		opportunities for chiropractors and other stakeholders in the
		topics such as pain, evidence-
		based pain management,
		health promotion, shared
		decision-making and multi- disciplinary working.
		Individual chiropractor:
	Inadequate early referral for nonpharmacological treatment for those at risk of a poor outcome; Insufficient marketing and lobbying of non-	Participate in local pain groups
		and networks to increase participation and share
		evidence-based strategies to
		manage spinal pain. Encourage
		referral.
		Lobbying local health networks/
Access to non-		alliances and government
pharmacological care		services.
	pharmacological care, including manual and	Professional organisations:
	manipulative therapy.	Provide locally relevant care pathways for spinal pain;
		Lobbying health
		networks/alliances and government services and
		government.
	Limited access to	Individual chiropractor:
	coordinated, evidence-based healthcare;	Require regular health technology assessments and
	nealtricare,	reassessments of health
	Physical and psychological	services for low spinal pain
Prioritising care for	therapies for spinal pain may	Due ferencie de la superiora dia superior
initial and ongoing management/care –	be unaffordable;	Professional organisations: Enhance and market the role of
both pharmacological	Evidence-based	chiropractors in primary care as
and non-	nonpharmacological	providers for spinal pain,
pharmacological.	treatment for low spinal pain is poorly integrated with	especially care where there is less reliance on opioids (16).
	medical care;	
		Identifying the appropriate
	Lack of time and training for	healthcare providers and
	healthcare providers.	workforce re-orientation

		towards providers of evidence-
		based care for spinal pain.
Vested interests and funding arrangements	Public or private insurance schemes reimburse patients for spinal pain care that is not concordant with guidelines. Funds often go to treatment that is non-concordant with guidelines, implying maldistribution and waste of funding.	based care for spinal pain.Individual chiropractor:Reinforce the cost-effectivenessand value-for-money ofevidence-based care for spinalpain with patients and at localpain groups/networks.Professional organisations:Design frameworks ofreimbursement of chiropractorsfor the expertise and servicesneeded to manage patients withcomplex chronic spinal pain;Lobby and petition for fundprogrammes for guideline-adherent non-pharmacologicaltreatment for spinal pain, e.g.those at risk of chronic pain.Petition to limit or removeexpensive, non-evidence-basedtreatments for spinal pain fromfunding schedules and privatehealth insurance;Campaign to have indicationsfor health-carecoverage/funding tightened orremoved, e.g. only fundtreatments for spinal pain wherethere is evidence for clear
		benefit or, if there is absence of evidence.
Research	Slow progress in research into non-pharmacological interventions for spinal pain, including public health and cost evaluation research.	evidence.Individual chiropractor:Participate in or support/donateto local and national researchprogrammes or studies.Contribute to research byparticipating in practice-basedresearch or data collection.Professional organisations:Assess the cost-effectivenessof using healthcarepractitioners, such aschiropractors, who couldprovide equivalent spinal paincare to medical practitioners;Encourage evaluations,embedded in routine care, of

the cost– effectiveness of any new model of spinal pain care
Research into quality of life outcomes using evidence- based principles of health promotion and wellness.
Research into identifying the appropriate healthcare providers and workforce re-orientation for spinal pain.
Further research testing manual manipulative therapies and comparing effectiveness for spinal conditions.

CONCLUSION

This paper offers a summary (as a supplement to our previous Part 1 paper in this issue) of the opioid epidemic and ways in which chiropractors and the chiropractic profession may help to mitigate the problems associated with opioid misuse and abuse. Chiropractic also has an existential opportunity to participate in and deliver evidence-based, guideline-concordant management of spinal and musculoskeletal pain, thereby expanding on its current role in the healthcare system.

DECLARATIONS

Acknowledgements

We acknowledge the Australian Chiropractors Association (ACA) for funding the original white paper which was the genesis of this work however the ACA had no input or influence on this paper.

Competing Interests

The authors declare that they have no competing interests.

Funding:

The study received no external funding, with the project completed at the authors' expense.

REFERENCES

1. Nicholas R. Pharmaceutical opioids in Australia: A double-edged sword 2019 April 19th 2020. Available from:

http://nceta.flinders.edu.au/files/2415/4960/5275/Pharmaceutical_opioids_in_Australia_A_do uble-edged_sword.pdf.

2. Australian Institute of Health and Welfare 2018. Opioid harm in Australia and comparisons between Australia and Canada. Cat. no. HSE 210.Canberra AIHWApril 19th 2020. Available from: <u>https://www.aihw.gov.au/reports/illicit-use-of-drugs/opioid-harm-in-australia/contents/summary</u>.

3. Kanjhan R. Opioids and pain. Clin Exp Pharmacol Physiol. 1995;22(6-7):397-403.

4. Buchbinder R, van Tulder M, Oberg B, Costa LM, Woolf A, Schoene M, et al. Low back pain: a call for action. Lancet. 2018;391(10137):2384-8.

5. Traeger A, Buchbinder R, Elshaug AG, Croft PR, Maher CG. Care for low back pain: can health systems deliver? . Bull World Health Organ. 2019;97(6):423.

6. Xue C, Zhang A, Lin V, Myers R, Polus B, Story D. Acupuncture, chiropractic and osteopathy use in Australia: a national population survey. BMC Public Health. 2008;8(1):105.

7. Brown BT, Bonello R, Fernandez-Caamano R, Eaton S, Graham PL, Green H. Consumer characteristics and perceptions of chiropractic and chiropractic services in Australia: results from a cross-sectional survey. J Manipulative Physiol Ther. 2014;37(4):219-29.

8. Adams J, Lauche R, Peng W, Steel A, Moore C, Amorin-Woods LG, et al. A workforce survey of Australian chiropractic: the profile and practice features of a nationally representative sample of 2,005 chiropractors. BMC Complement Altern Med. 2017;17(1):14.

9. Amorin-Woods LG, Parkin-Smith GF, Nedkoff L, Fisher C. Outcomes of a pilot study in chiropractic practices in Western Australia. Chirop Man Ther. 2016;24(1):34.

10. Whedon JM, Toler AWJ, Kazal LA, Bezdjian S, Goehl JM, Greenstein J. Impact of chiropractic care on use of prescription opioids in patients with spinal pain. Pain Med. 2020.

11. Weeks W, Goertz C. Cross-sectional analysis of per capita supply of doctors of chiropractic and opioid use in younger Medicare beneficiaries. J Manipulative Physiol Ther. 2016;39(4):263-6.

12. Herman P, Sorbero M, Sims-Columbia A. Complementary and alternative medicine services in the military health system. J Altern Complement Med. 2017;23(11):837-43.

13. Vanneman M, Larson M, Chen C, Adams R, Williams T, Meerwijk E, et al. Treatment of low back pain with opioids and nonpharmacologic treatment modalities for Army veterans. Med Care. 2018;56(10):855-61.

14. Lisi AJ, Corcoran KL, DeRycke EC, Bastian LA, Becker WC, Edmond SN, et al. Opioid use among veterans of recent wars receiving Veterans Affairs chiropractic care. Pain Med. 2018;19(suppl_1):S54-s60.

15. Kazis LE, Ameli O, Rothendler J, Garrity B, Cabral H, McDonough C, et al. Observational retrospective study of the association of initial healthcare provider for newonset low back pain with early and long-term opioid use. BMJ Open. 2019;9(9):e028633.

16. Corcoran KL, Bastian LA, Gunderson CG, Steffens C, Brackett A, Lisi AJ. Association between chiropractic use and opioid receipt among patients with spinal pain: A systematic review and meta-analysis. Pain Med. 2020;21(2):e139-e45.

17. Maiers M, Agaoglu M, Brown R, Cassirer C, DaSilva K, Lystad RP, et al. Chiropractic in global health and wellbeing: a white paper describing the public health agenda of the World Federation of Chiropractic. Chirop & Man Ther. 2018;26(1):26.

18. CCA. A Better Approach to Pain Management: Responding to Canada's Opioid Crisis: Canadian Chiropractic Association; 2016 [Available from: <u>https://www.chiropractic.ca/wp-content/uploads/2016/11/A-Better-Approach-to-Pain-Management-in-Canada3-1.pdf</u>.

19. Evans Jr MW, Rupert R. The Council on Chiropractic Education's New Wellness Standard: A call to action for the chiropractic profession. Chiropractic & Osteopathy. 2006;14(1):23.

20. Campbell G, Lintzeris N, Gisev N, Larance B, Pearson S, Degenhardt L. Regulatory and other responses to the pharmaceutical opioid problem. Med J Aust. 2019;210(1):6-8.e1.

21. Kaye AD, Jones MR, Kaye AM, Ripoll JG, Galan V, Beakley BD, et al. Prescription opioid abuse in chronic pain: An updated review of opioid abuse predictors and strategies to curb opioid abuse: Part 1. Pain Physician. 2017;20(2s):S93-s109.