

## White Paper

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# **NATUROPATHIC MEDICINE APPROACH TO PAIN MANAGEMENT: AN INTEGRATIVE PERSPECTIVE FOR VIRGINIA**

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## **OVERVIEW**

Virginia is in the midst of an opioid crisis, similar in scope to the national crisis. In 2017 in the Commonwealth there were 14.8 deaths per 100,000 persons (1,241 people) and nationally there were 14.6 deaths per 100,000 persons involving opioids (See figure 1).<sup>1</sup> Naturopathic doctors are key allies and an important part of the solution to address the complexity of this issue. Their formal medical training, ability to identify the root cause of symptoms and disease, and gentle, effective, evidence-informed approaches are key ingredients in the ongoing battle to overcome the opioid crisis. This paper provides information about the naturopathic approach to pain management and adds impetus to pass legislation for the licensing of naturopathic doctors in Virginia. A collective and diverse team of qualified providers is necessary to address the current opioid epidemic in the Commonwealth.

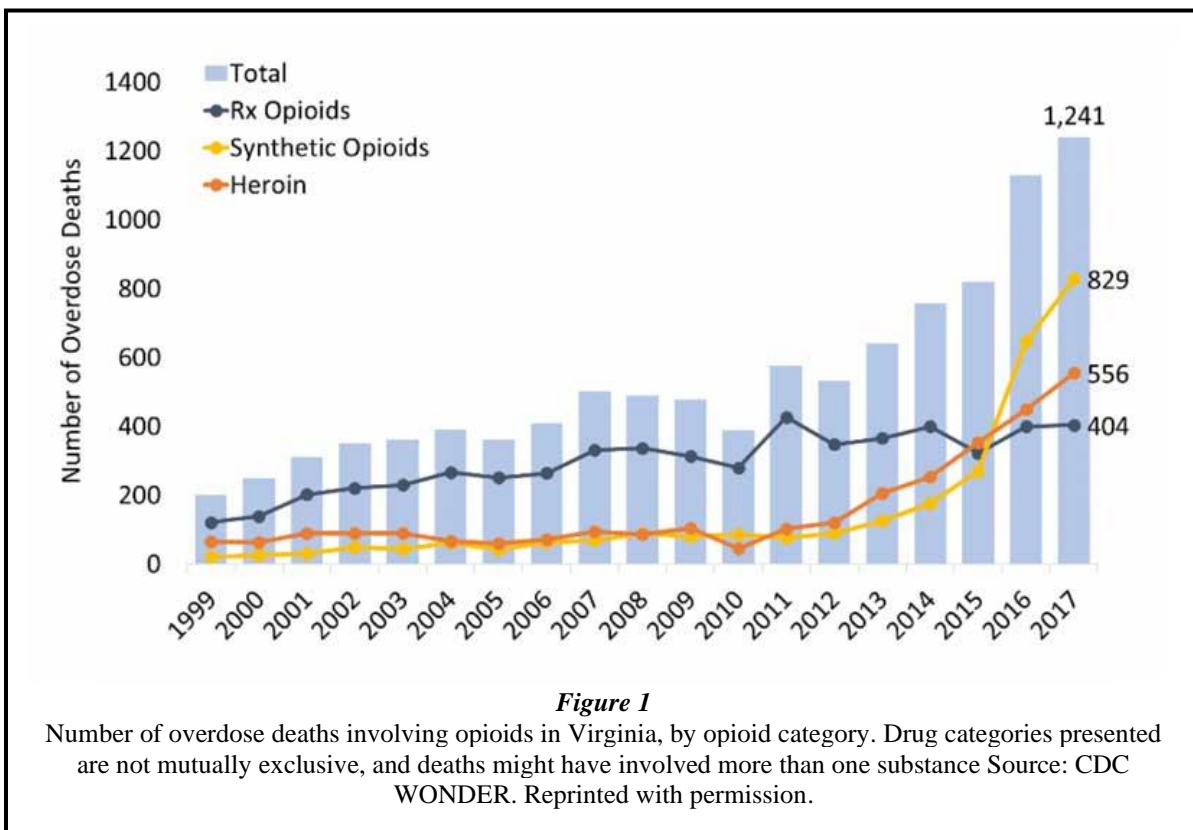
The Drug Enforcement Agency (DEA) recently released a database that tracks the exact number of opioid medications made and sold in the United States. Norton, Virginia, the smallest city in the Commonwealth with approximately 4,000 residents, is an exemplar of how rural areas are the most adversely affected by the opioid crisis.<sup>2</sup> The DEA data shows that between the years 2006 to 2012, an estimated 306 opioid pills were prescribed per person per year, compared to the national average of 26 pills per person during that same time frame.<sup>2,3</sup> Some of the hardest hit areas of Virginia have been within rural areas that already lack access to basic health services.<sup>4,5</sup> In fact, a total of 1,393,361 of 8,382,003 Virginians live in areas designated as primary care shortage areas with 9% of Virginians lacking health insurance.<sup>6,7</sup> Failure to provide access to wellness care, preventative services, and therapies beyond pharmaceutical medication for pain, significantly contributes to the opioid crisis nationwide.<sup>8</sup> Norton, Virginia is not an exception.

There is clear evidence that pharmaceutical approaches alone are not sufficient to manage chronic non-cancer pain and often result in undesirable, negative side effects.<sup>9</sup> In early 2017, the American College of Physicians (ACP) published evidence-based guidelines regarding treatment of low back pain. For acute or sub-acute low back pain, the ACP strongly recommends non-pharmacologic treatment with superficial heat, massage, acupuncture, or spinal manipulation, and non-steroidal anti-inflammatory drugs or skeletal muscle relaxants. For chronic low back pain, the ACP also strongly recommends initial treatment with select non-drug therapies including: exercise, multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction, yoga, low level laser therapies, and other non-drug approaches.<sup>10</sup>

There is currently a statewide and national call to offer alternatives to opioids for prescribers and patients. Despite the Center for Disease Control (CDC) 2016 guidelines to minimize opioid prescription, there remains a need for more comprehensive alternatives for pain management, which must be balanced and include appropriate diagnosing, treatment and pain control.<sup>9</sup>

“The biopsychosocial model has led to the development of the most therapeutic and cost-effective interdisciplinary pain management programs and makes it far more likely for the chronic pain patient to regain function and experience vast improvements in quality of life.”<sup>11</sup> A naturopathic approach is a biopsychosocial model. This model best considers the patient’s pain

condition by viewing pain as a dynamic interaction between their unique biological, psychological and social factors.<sup>11,12</sup> A naturopathic approach to pain management includes: a complete review of medical history and lifestyle; patient education; mindfulness and motivational counselling; clinical nutrition; physical medicine that includes soft tissue manipulation, osseous manipulation, physiotherapy, hydrotherapy, and exercise therapeutics; botanical strategies; and collaboration with patient’s medical team.<sup>13</sup> This multidimensional approach leads to a greater and better understanding of a patient’s unique pain condition and provides a personalized and comprehensive treatment plan that addresses and facilitates a return to functional daily living.<sup>11,12</sup>



## ACUTE AND CHRONIC PAIN

There are two categories of pain, acute and chronic. The onset of acute pain is sudden and typically has a clear cause, such as injury or trauma, and resolves after weeks to months. Chronic pain persists for weeks, to months, to years and is often associated with underlying health issues.<sup>14</sup> Despite the differences, acute and chronic pain are both affected by psychological and environmental factors, which provide additional challenges and necessitate an integrative approach to treatment (see Table 1).<sup>13,14</sup>

Most of us have or will experience pain at some point in our lives. Currently nearly 100 million US adults suffer with chronic pain.<sup>15</sup> Additionally, chronic pain has a negative economic impact. Individuals with severe pain have greater expenditure on health care and disability than those with less severe pain.<sup>16</sup>

**Available Pain Management Approaches**

<b>Pharmaceutical</b>	<b>Complementary Non-Drug Therapies</b>
<ul style="list-style-type: none"> <li>• Non-prescription analgesics</li> <li>• Non-opioid analgesics</li> <li>• Prescription opioids</li> <li>• Topical analgesics</li> </ul>	<ul style="list-style-type: none"> <li>• Physical therapy</li> <li>• Psychological counselling</li> <li>• Social support</li> <li>• Exercise</li> <li>• Multidisciplinary rehabilitation</li> <li>• Acupuncture</li> <li>• Massage</li> <li>• Mindfulness-based stress reduction</li> <li>• Spinal manipulation/ chiropractic</li> <li>• Clinical nutrition</li> <li>• Botanical medicine</li> <li>• Multi-disciplinary Collaboration</li> </ul>

*Table 1*

Summary of available pain management approaches from pharmaceutical, complementary non-drug therapies.<sup>13,14</sup>

In 2012 Virginia physicians prescribed opioids at a rate of 79.6 per 100 patients and in 2017 at a rate of 52.9 per 100 patients.<sup>1</sup> Despite the approximate 25% drop in opioid prescribing in Virginia the number of deaths has increased since 2012. “The greatest increase was among deaths involving synthetic opioids other than methadone (mainly fentanyl) with a nearly tenfold increase from 89 reported deaths in 2012 to 829 deaths in 2017”.<sup>1</sup>

While many doctors struggle to help patients access alternative treatments for opioids, naturopathic doctors (NDs) are comprehensively trained and well suited to address pain using safe and effective non-pharmaceutical approaches.<sup>17</sup> There are many effective methods of treating pain, but far too often patients and their practitioners find that their choices are limited by hurdles such as insurance, cost or policy decisions.<sup>14</sup>

An opioid-only approach may be the right choice in some instances, however, in most others, alternative therapies should be available for practitioners and their patients. An overreliance on a pharmaceutical approach to pain, combined with underfunding for addiction prevention and treatment has intensified problems with drug abuse and addiction. However, there are still insufficient non-opioid options available to prescribers and patients.<sup>14</sup>

## NATUROPATHIC DOCTORS PROVIDE A SOLUTION

Naturopathic doctors (NDs) are trained to identify and treat the root causes of symptoms and disease. Addiction is a complex disease process with multiple underlying factors that range from a history of mental, physical, psychological abuse and trauma, social isolation, including unrecognized and untreated depression and anxiety, chronic pain, and unresolved grief and additional life stressors as well as intergenerational imprints.<sup>13</sup> Identification of the underlying factors is essential to determine the appropriate treatment. Naturopathic doctors are trained to efficiently integrate personalized, effective, and evidence-informed approaches to this complex disease (see Table 2).

<i>Naturopathic Doctors: Therapeutic Toolbox for Pain Management</i>	
<b>Modality</b>	<b>Description</b>
Complete Review of Medical History and Lifestyle	A standard initial naturopathic visit includes a complete review of medical history and lifestyle. The process uncovers significant details and reveals the underlying root cause(s) of symptoms, such as pain.
Patient Education	Taking time to educate patients about the root cause(s) of their symptom helps to empower patients and motivate them to take charge of their health.
Motivational Counselling and Mindfulness	Negative emotions, attitudes, and behavioral patterns contribute to both health and disease. Motivational and mindfulness tools, such as: meditation, deep breathing, guided imagery, and additional behavioral health resources or referrals contribute to a patient's whole health.
Clinical Nutrition	Nutrient deficiencies, functional requirements for specific nutrients, epigenetic variants, disease states, and environmental burden can all adversely impact health and contribute to inflammation and pain.
Botanical Medicine	Botanical medicine draws from traditional knowledge, accumulated over millennia and continues to be validated by medical science. Many botanicals can be used to address the underlying aspects of the pain process and have multimodal actions, beneficial to managing pain.
Physical Modalities	Physical modalities including: soft tissue manipulation, osseous manipulation, physiotherapy, hydrotherapy, and exercise therapeutics, help to restore balance, provide symptom relief, and/ or reduce inflammation.
Collaboration	Naturopathic doctors recognize that a multidisciplinary, biopsychosocial approach to pain is necessary and therefore make referrals to other providers as needed for both diagnostic and treatment support.
<p><i>Table 2</i>            Summary of modalities utilized by naturopathic doctors.</p>	

There is an abundance of evidence in the medical literature that demonstrates efficacy of these integrative, non-pharmaceutical modalities improving pain and conditions that lead to pain. The biopsychosocial approach to chronic pain, inherent to naturopathic medicine, is widely considered to be the most successful and well researched model available.<sup>11,18,19</sup> Additionally, there are



several studies on the naturopathic approach, which, show similar pain relief to conventional approaches, with an increase in the quality of life, lower cost for care, and fewer missed workdays for patients.<sup>20</sup> In one trial, naturopathic therapies were estimated to save nearly \$1,000 per patient with low back pain. Importantly, missed work due to illness diminished by 6.7 days, leading to return on investment of 7.9%.<sup>21</sup> In a complementary and alternative medicine pain clinic, naturopathic doctors achieved a 60% pain reduction over a three month course of treatment.<sup>22</sup> In a randomized controlled trial (RCT) study on rotator cuff tendinitis in postal workers, therapies administered by naturopathic doctors decreased pain by over 54 percent, better than other arms in the trial, and with diminished disabilities.<sup>23</sup> In another RCT, naturopathic therapies were compared to standard therapies for low back pain and were found to significantly benefit patients, both in decreasing pain and increasing range of motion, and were comparable to standard therapies, yet without the use of prescription medications. In addition, quality of life improved significantly.<sup>24</sup> In a pilot clinical trial at a Health Management Organization, naturopathic care showed significant decrease in temporomandibular jaw pain as compared to standard care.<sup>25</sup>

## **OPENING THE DOORS TO NATUROPATHIC PAIN MANAGEMENT**

Naturopathic doctors have the desire and training to be part of the solution in providing the integrated pain management services needed in Virginia. "Licensed Naturopathic Doctors collaborate with other professional organizations to modify national prescribing habits to limit opioid prescription. Essentially, the concept is to move integrative approaches from "last resort / when all else fails" to earlier, first line treatment".<sup>17</sup> We must take on the challenge of creating an environment in the Commonwealth of Virginia that enables patients' safe access to naturopathic care in addition to the integrative pain management approaches that naturopathic medicine provides. Licensing naturopathic doctors is the pre-requisite that will enable patients to access naturopathic care.

For more information on naturopathic medicine in Virginia please visit [WWW.VAANP.ORG](http://WWW.VAANP.ORG)

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## REFERENCES

1. Abuse NI on D. Virginia Opioid Summary. <https://www.drugabuse.gov/opioid-summaries-by-state/virginia-opioid-summary>. Published March 30, 2019. Accessed July 24, 2019.
2. Horwitz S, Rich S, Higham S. Opioid Death Rates Soared in Communities Where Pain Pills Flowed. *The Washington Post*. [https://www.washingtonpost.com/investigations/opioid-death-rates-soared-in-communities-where-pain-pills-flowed/2019/07/17/f3595da4-a8a4-11e9-a3a6-ab670962db05\\_story.html?utm\\_term=.056d4343a619](https://www.washingtonpost.com/investigations/opioid-death-rates-soared-in-communities-where-pain-pills-flowed/2019/07/17/f3595da4-a8a4-11e9-a3a6-ab670962db05_story.html?utm_term=.056d4343a619). Published July 17, 2019. Accessed August 2, 2019.
3. Achenbach J. A Remote Virginia Valley had Been Flooded by Prescription Opioids. *The Washington Post*. [https://www.washingtonpost.com/national/a-remote-virginia-valley-has-been-flooded-by-prescription-opioids/2019/07/18/387bb074-a8ca-11e9-9214-246e594de5d5\\_story.html?noredirect=on&utm\\_term=.f18fb54b7813](https://www.washingtonpost.com/national/a-remote-virginia-valley-has-been-flooded-by-prescription-opioids/2019/07/18/387bb074-a8ca-11e9-9214-246e594de5d5_story.html?noredirect=on&utm_term=.f18fb54b7813). Published July 18, 2019. Accessed August 2, 2019.
4. Merwin E, Snyder A, Katz E. Differential access to quality rural healthcare: professional and policy challenges. *Fam Community Health*. 2006;29(3):186-194.
5. Rural health for Virginia Introduction. Rural Health Information Hub. <https://www.ruralhealthinfo.org/states/virginia>. Published April 3, 2019. Accessed August 2, 2019.
6. Primary Care Needs Assessment. Virginia Department of Health. <http://www.vdh.virginia.gov/content/uploads/sites/76/2016/05/Primary-Care-Needs-Assessment-OHE.pdf>. Accessed August 2, 2019.
7. What is Shortage Designation? | Bureau of Health Workforce. <https://bhw.hrsa.gov/shortage-designation/what-is-shortage-designation>. Published July 2019. Accessed August 2, 2019.
8. Jonas W, Schoemaker E, Marzolf J, Gaudet T. Finding the Cause of the Crises: Opioids, Pain, Suicide, Obesity, and Other “Epidemics.” *NEJM Catal*. May 2019. <https://catalyst.nejm.org/cause-crises-whole-health-whole-person/>. Accessed August 2, 2019.
9. CDC Guideline for Prescribing Opioids for Chronic Pain | Drug Overdose | CDC Injury Center. <https://www.cdc.gov/drugoverdose/prescribing/guideline.html>. Published April 17, 2019. Accessed July 24, 2019.
10. Qaseem A, Wilt TJ, McLean RM, Forciea MA, Clinical Guidelines Committee of the American College of Physicians. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. 2017;166(7):514-530. doi:10.7326/M16-2367
11. Gatchel RJ, PhD, ABPP, Howard KJ, PhD. The Biopsychosocial Approach. *Practical Pain Management*. <https://www.practicalpainmanagement.com/treatments/psychological/biopsychosocial-approach>. Accessed September 7, 2019.
12. Gatchel RJ, Maddrey AM. The biopsychosocial perspective of pain. In: *Handbook of Clinical Health Psychology: Volume 2. Disorders of Behavior and Health*. Washington, DC, US: American Psychological Association; 2004:357-378. doi:10.1037/11589-011

13. Chandiramani R. A naturopathic approach to treatment | Addiction Professional. Addiction Professional. <https://www.addictionpro.com/article/naturopathic-approach-treatment>. Published October 5, 2011. Accessed July 24, 2019.
14. A Call for Understanding and Greater Access to Balanced Pain Management. Alliance for Balanced Pain Management. <http://alliancebpm.org/a-call-for-understanding-and-greater-access-to-balanced-pain-management/>. Published May 17, 2016. Accessed July 25, 2019.
15. Institute of Medicine (US) Committee on Advancing Pain Research, Care, and Education. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington (DC): National Academies Press (US); 2011. <http://www.ncbi.nlm.nih.gov/books/NBK91497/>. Accessed July 25, 2019.
16. Chronic Pain: In Depth. NCCIH. <https://nccih.nih.gov/health/pain/chronic.htm>. Published November 21, 2011. Accessed July 25, 2019.
17. Herscu P. Naturopathic Doctors Approaches to Prevention/Treatment of Opioid Addiction. January 2017.
18. Gatchel R, Kishino ND. The Biopsychosocial Approach to Pain Management. In: ; 2008.
19. Kamper SJ, Apeldoorn AT, Chiarotto A, et al. Multidisciplinary biopsychosocial rehabilitation for chronic low back pain: Cochrane systematic review and meta-analysis. *The BMJ*. 2015;350. doi:10.1136/bmj.h444
20. Herscu P. Naturopathic Doctors and Pain Relief. January 2017.
21. Herman P, Szczurko O, Cooley K, Mills E. Cost-effectiveness of naturopathic care for chronic low back pain. *Altern Ther Health Med*. 2008;14(2):32-39.
22. Secor E, Markow M, Mackenzie J, Thrall R. Implementation of outcome measures in a complementary and alternative medicine clinic: evidence of decreased pain and improved quality of life. *J Altern Complement Med*. 2004;10(3):506-513.
23. Szczurko O, Colley K, Mills E, Zhou Q, Perri D, Seely D. Naturopathic treatment of rotator cuff tendinitis among Canadian postal workers: a randomized controlled trial. *Arthritis Rheum*. 2009;61(8):1037-1045.
24. Szczurko O, Cooley K, Busse J, et al. Naturopathic Care for Chronic Low Back Pain: A Randomized Trial. *PLoS One*. 2007;2(9):e919.
25. Ritenbaugh C, Hammerschlag R, Calabrese C, et al. A pilot whole systems clinical trial of traditional Chinese medicine and naturopathic medicine for the treatment of temporomandibular disorders. *J Altern Complement Med*. 2008;14(5):475-487.