

## 2024 NBCE Award-winning Essay Summaries

The following are abstracts of the four award winning essays for the 2024 NBCE Scholarship Essay Competition. The selection of the essay as an award winner shall not constitute or be deemed to constitute any representation by the NBCE or Brighthall. The views expressed within the essays are solely those of the authors and do not necessarily reflect the opinions of the NBCE or Brighthall.

### **Integrating Artificial Intelligence in Chiropractic Practice: Advancements, Challenges, and Future Prospects** **Zelin Zhou, Life University**

Artificial intelligence (AI) simulates human intelligence in machines programmed to think and learn like humans. AI is improving diagnostic accuracy, optimizing treatment plans, and enhancing patient care. The applications of AI in chiropractic are extensive; it has the potential to improve diagnostic processes and enhance therapeutic interventions, promising to elevate the field to new heights. The integration of AI in chiropractic care, similar to its application in other medical fields, brings forth significant ethical and privacy concerns that must be addressed. In the age of AI, chiropractic care is on the brink of a transformative shift. By incorporating AI technologies, chiropractors can improve the accuracy of their diagnoses, tailor treatment plans to individual patients, and enhance overall patient care.

### **The History of Motion Palpation Institute and Dr. Leonard Faye's Discovery of Joint Complex Dysfunction** **Rebecca Patterson, Parker University**

Dr. Faye's biomechanical approach to joint dysfunction has become a cornerstone of modern chiropractic care, offering a more comprehensive understanding of joint functions beyond the traditional subluxation model. The Motion Palpation Institute was founded in 1981 with the mission of improving chiropractors' ability to diagnose and treat joint dysfunction using dynamic palpation techniques. Faye proposed that dysfunction did not just involve bone misalignment, but rather the entire joint complex, including muscles, ligaments, tendons, and the neurological feedback mechanisms that control joint movement and stability. This model suggested that dysfunction in any of these areas could lead to impaired motion, pain, and broader clinical symptoms. By shifting the focus from purely structural issues to a more functional perspective, Faye helped usher in a new era of chiropractic care that focused on neuromechanical and biomechanical principles. The Joint Complex Dysfunction Theory is a critical framework in modern chiropractic care.

### **The Mitigation of the Opioid Epidemic via Chiropractic Care** **Mary Medovich, National University of Health Sciences- Florida**

The United States has witnessed a staggering increase in opioid prescriptions, contributing to over 932,000 overdose deaths between 1999 and 2020. In light of this crisis, the medical community has been searching for alternative care to manage lower back pain and other musculoskeletal issues. Pain, specifically chronic pain, has been a leading cause of treatment with opioids. Chiropractic care may mitigate the lasting effects of opioid use on the general population. Chiropractic spinal manipulation excites mechanoreceptors, and proprioceptors, and can potentially activate the descending inhibitory pain pathways. Activating proprioceptors through spinal manipulation can help improve motor control and coordination, potentially leading to better posture, movement patterns, and overall functions. Thus, instead of just offering pain relief, chiropractic care can potentially provide long-term healing by targeting the root cause of the pain.

### **The Biopsychosocial Model and the Role of Chiropractors in Holistic Healthcare** **Mary Kampa, University of Western States**

The biopsychosocial model represents a shift from traditional biomedical approaches, which prioritize physical symptoms and biological processes. Addressing psychosocial factors—such as emotional well-being, mental health, and social support—is crucial in the management and prevention of chronic pain. Chiropractors, with their holistic approach and unique position in the healthcare system, can play a vital role in addressing these psychosocial dimensions, thereby improving patient outcomes, and reducing the overall burden on healthcare systems. As the healthcare landscape continues to evolve, chiropractors must remain adaptable and proactive in addressing the challenges posed by chronic pain and its psychosocial dimensions. By embracing the principles of the biopsychosocial model, chiropractors can position themselves as leaders in holistic patient care.