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SELECTED OCCUPATIONAL HISTORY

Clinic Director/Chiropractor, Lenexa Spine Center, Lenexa, Kansas, 2003 - Present

Credentialed Chiropractor, Blue Valley Hospital, Overland Park, Kansas, 2016 - 2020

Associate Doctor, Harding and Associates, Kansas City, Kansas, 2001 - 2003

EDUCATION AND LICENSURE

Doctor of Chiropractic, Licensed in the State of Kansas, License # 01-04715, 2001-Present

Doctor of Chiropractic, Licensed in the State of Missouri, License # 2018030026, 2018-2020

Doctor of Chiropractic, Licensed in the State of South Dakota, License # 1254, 2013-Present, Inactive

Doctorate of Chiropractic, Cleveland Chiropractic College, Kansas City, Missouri, 2001

Internship, Cleveland Chiropractic College, Kansas City, Missouri, 1999 - 2000

National Board of Chiropractic Examiners, Part I, 1999

National Board of Chiropractic Examiners, Part II, 1999

National Board of Chiropractic Examiners, Part III, 2000

National Board of Chiropractic Examiners, Part IV, 2000

National Board of Chiropractic Examiners, Physiotherapy, 2000

Bachelor of Science in Human Biology, Cleveland University, Kansas City, Missouri, 2000

Undergraduate Studies in Biology, South Dakota State University, Brookings, South Dakota, 1995 - 1997

Combat Medical Course, EMT 91B / Nursing 91C, Academy of Health Science Ft. Sam Houston, TX and Madigan Army Medical Center Ft. Lewis, WA 1993 - 1995

SELECTED POST-GRADUATE EDUCATION, CERTIFICATIONS AND DIPLOMATES

Primary Spine Care 10, *Trends in Spinal Healthcare, Analyzing spinal healthcare trends in both utilization and necessity and understanding the marketplace and how a level of clinical excellence is reflected in a doctors' documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics.* Academy of Chiropractic Post-Doctoral Division, Cleveland University - Kansas City, Long Island, NY, 2021

Primary Spine Care 10, *MRI Spine Interpretation, An evidence-based understanding of time-related etiology of disc pathology considering the American Society of Neuroradiology's designation of protrusion, extrusion, and sequestration of spinal discs, Considering the signal intensity of discs in age-dating pathology and acquisition protocols for advanced spinal imaging.* Academy of Chiropractic Post-Doctoral Division, Cleveland University - Kansas City, Long Island, NY, 2021

Primary Spine Care 10, *Spinal Biomechanics; A Literature Perspective, An evidenced-based model for spinal biomechanical engineering and pathobiomechanics considering the pathophysiological limits in translations, angular deviation, and rotational planes. Utilizing the Cartesian system in plotting vertebral points to demonstratively conclude an accurate diagnosis, prognosis and biomechanical treatment plan with the consideration of long-term care in the non-specific mechanical spine pain patient when necessary.* Academy of Chiropractic Post-Doctoral Division, Cleveland University - Kansas City, Long Island, NY, 2021

Primary Spine Care 10, *Case Management of Mechanical Spine Pathology, Clinical*

Grand Rounds of herniated, protruded, extruded, sequestered, and bulging discs. Differentially diagnosing vascular vs. mechanical spinal lesions and the necessity for urgent vascular, neurological intervention, Collaborating in a team environment utilizing a neuroradiologist, electrophysiologist, and neurosurgeon with the chiropractor as the primary spine care provider. Academy of Chiropractic Post-Doctoral Division, Cleveland University - Kansas City, Long Island, NY, 2021

Primary Spine Care 5, *Evidenced Based Care in a Collaborative Setting; Primary Spine Care 5, A literature based model for collaborating with hospitals, medical primary care providers and specialists. Reviewing the documentation requirements to communicate the diagnosis, prognosis and treatment plans with medical entities and having the evidence as a basis for those recommendations.* Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY, 2021

Primary Spine Care 5, *Current Literature Standards of MRI Spine Interpretation; Primary Spine Care 5, MRI Spine Interpretation of the spine. How to triage a trauma and non-trauma with advanced imaging and document the necessity. We will also cover the basics of MRI Spine Interpretation inclusive of all types of herniations, bulges* Academy of Chiropractic Post-Doctoral Division, University- Kansas City, Long Island, NY, 2021

Primary Spine Care 5, *Spine Brain Connection in Pain Pathways; Primary Spine Care 5, MRI Spine The spine-brain connection in managing chronic pain patients. Understanding how chronic pain negatively effects brain morphology and potential pathology as sequella. The role of chiropractic in preventing the loss of gray matter and the most recent evidence as outlined in indexed peer reviewed literature over the last 10 years verifying chiropractic's role.* Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY, 2021

Primary Spine Care 5, *Bio-Neuro-Mechanical Mechanism of the Chiropractic Spinal Adjustment; Primary Spine Care 5, The biological, neurological and mechanical mechanisms and pathways from the thrust to the dorsal horn and brain connection and how the brain processes the chiropractic spinal adjustment based upon the literature. Care paths of chiropractic and physical therapy from an outcome basis.* Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY, 2021

Chiropractic Diagnosis and Management of the Pre-Surgical Patient - outline and analysis of spinal biomechanical parameters in a whole spine model of care, *Review of the details of measuring Pelvic Incidence and discussion of history of its analysis. Outline of movement from a regional model of spine including muscle movement*

patterns, segmental mobility, spinal curvature and rotation in the coronal, sagittal and axial planes was presented. National Spine Management Group, LLC, Federation of Chiropractic Licensing boards - PACE. State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, 2021

Spinal Biomechanical Engineering, *Cartesian System, The Cartesian Coordinate System from the history to the application in the human body. Explanation of the x, y and z axes in both translation and rotations (thetas) and how they are applicable to human biomechanics.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanical Engineering, *Cervical Pathobiomechanics, Spinal biomechanical engineering of the cervical and upper thoracic spine. This includes the normal and pathobiomechanical movement of both the anterior and posterior motor units and normal function and relationship of the intrinsic musculature to those motor units. Nomenclature in reporting normal and pathobiomechanical findings of the spine.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanical Engineering, *Lumbar Pathobiomechanics, Spinal biomechanical engineering of the lumbar spine. This includes the normal and pathobiomechanical movement of both the anterior and posterior motor units and normal function and relationship of the intrinsic musculature to those motor units. Nomenclature in reporting normal and pathobiomechanical findings of the spine.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanics in Trauma, *To utilize whiplash associated disorders in various vectors of impact and whiplash mechanisms in determining pathobiomechanics. To clinically correlate annular tears, disc herniations, fractures, ligament pathology and spinal segmental instability as sequellae to pathobiomechanics from trauma. The utilization of digital motion x-ray in diagnosing normal versus abnormal facet motion along with case studies to understand the clinical application.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanical Engineering & Organizational Analysis, *Integrating spinal biomechanics and pathobiomechanics through digitized analysis. The comparison of organized versus disorganized compensation with regional and global compensation. Correlation of the vestibular, ocular and proprioceptive neurological integration in the righting reflex as evidenced in imaging. Digital and numerical algorithm in analyzing a spine.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanical Engineering, *Cervical Digital Analysis, Digitizing and analyzing the cervical spine in neutral, flexion and extension views to diagnose pathobiomechanics. This includes alteration of motion segment integrity (AMOSI) in both angular and translational movement. Ligament instability/failure/pathology are identified all using numerical values and models. Review of case studies to analyze pathobiomechanics using a computerized/numerical algorithm.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanical Engineering, *Lumbar Digital Analysis, Digitalizing and analyzing the lumbar spine images to diagnose pathobiomechanics. This includes anterior and posterior vertebral body elements in rotational analysis with neutral, left and right lateral bending in conjunction with gate analysis. Ligament instability/failure/pathology is identified all using numerical values and models. Review of case studies for analysis of pathobiomechanics using a computerized/numerical algorithm along with corrective guidelines.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Spinal Biomechanical Engineering, *Full Spine Digital Analysis, Digitalizing and analyzing the full spine images to diagnose pathobiomechanics as sequellae to trauma in relation to ligamentous failure and disc and vertebral pathology as sequellae. This includes anterior and posterior vertebral body elements in rotational analysis with neutral, left and right lateral bending in conjunction with gate analysis. Ligament instability/failure/pathology is identified all using numerical values and models. Review of case studies for analysis of pathobiomechanics using a computerized/numerical algorithm along with corrective guidelines.* ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Stroke Anatomy & Evaluation for Chiropractors and Manual Medicine Specialists, *Stroke Anatomy and Physiology: Brain Vascular Anatomy, The anatomy and physiology of the brain and how blood perfusion affects brain function. A detailed analysis of the blood supply to the brain and the physiology of ischemia.* Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Stroke Anatomy & Evaluation for Chiropractors and Manual Medicine Specialists, *Stroke Anatomy and Physiology: Stroke Types and Blood Flow, Various types of stroke identifying ischemia, hypoperfusion, infarct and penumbra zones and emboli. Cardiac etiologies and clinical features as precursor to stroke with associated paradoxical emboli and thrombotic etiologies. Historical and co-morbidities that have etiology instroke inclusive of diabetes, coagulopathy, acquired and hereditary deficiencies.* Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Stroke Anatomy & Evaluation for Chiropractors and Manual Medicine Specialists, *Stroke Principles of Treatment an Overview for the Primary Care Provider, Stroke type and treatments performed by vascular specialists. The goals of treatment with the physiology of the infarct and penumbra zones and the role of immediate triage in the primary care setting. Detailing the complications of stroke and future care in the chiropractic, primary care or manual medicine clinical setting.* Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Stroke Anatomy & Evaluation for Chiropractors and Manual Medicine Specialists, *Clinical Evaluation and Protocols for Identifying Stroke Risk, The neurological history and examination for identifying stroke risks with a focus on supra and infratentorial regions, upper and lower motor lesions, cranial nerve signs, spinal cord pathology, motor and sensory pathology and gait abnormalities. Examining genetic and family histories along with dissection risk factors. Stroke orthopedic testing and clinical guidelines pertaining to triage for the primary care provider.* Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2020

Triaging The Trauma and Non-Trauma Patients, *Correlating clinical findings and the patient history in determining the correct course of care in triaging the patient*

utilizing orthopedic and neurological evaluations in the clinical setting. Understanding the parameters for immediate referrals vs. following the continuum of care to determine the necessity for referrals. Cleveland University, Long Island, NY, 2019

Primary Spine Care 2:, *Spinal Trauma Pathology, Morphology of healthy and traumatized connective tissue and the permanency implication of adhesions, spinal disc morphology in the healthy and pathological patient as sequella to trauma in relationship to bulges, herniations, protrusions, extrusions and sequestrations. Aberrant spinal biomechanics and negative sequella to trauma.* Texas Chiropractic College, Setauket, NY, 2019

Primary Spine Care 2: *Utilizing Research in Trauma, The ability of your electronic health records to convey tissue pathology while documenting case studies, field experiments, randomized trials and systematic literature reviews. Introducing evidence based macros in documentation to support the literature and necessity of care.* Texas Chiropractic College, Setauket, NY, 2019

Primary Spine Care 2: *Chiropractic Evidence, Analyzing segmental pathology, adjusting vs. mobilization with cervicogenic headaches, Opioid alternatives and case management of mechanical spine pain base upon outcome studies.* Texas Chiropractic College, Setauket, NY, 2019

Primary Spine Care 2: *Chiropractic Spinal Adjustment Central Nervous System Processing, Literature reviews of mechanoreceptor, proprioceptor and nociceptor stimulation of lateral horn gray matter with periaqueductal stimulation affecting the thalamus and cortical regions with efferent distribution in disparate regions of the body in both pain and systemic stimulation.* Texas Chiropractic College, Setauket, NY, 2019

Neuroimaging of Central Pain, *Understanding of how pain is processed by and within the CNS, How pain processing is distributed and engages multiple brain regions during the pain experience.* American Academy of Integrative Pain Management, 2018

The Future of Pain Management, *The role of self care in patient outcomes, Importance of integrative collaboration in pain management.* American Academy of Integrative Pain Management, 2017

Manipulation Under Anesthesia (MUA)/Medication Assisted Manipulation (MAM), *MUA/MAM, Historical background and use of MUA, Science of MUA/MAM with*

reference backing in an evidence based format. Clinical considerations and objectives for proper patient selection, Relationship to Pain Management and how it fits into the Pain Management algorithm. Proper work-up, Past Medical History, and Examination of MUA/MAM patients. Pharmacological Intervention by Anesthesiologist, Proper Environment where procedure occurs, Proper Procedural Techniques in classroom and on live patients in a surgical setting. Post Procedural Therapy, Proper Documentation. Certification in Manipulation Under Anesthesia, Southern California University of Health Sciences, Paterson, New Jersey, 2016

Utilization of Research in the Clinical Setting, *Utilizing peer reviewed scientific literature in creating a diagnosis, prognosis and treatment plan for the chronic and acute patient. How to implement and stay current on techniques and technology in healthcare.* Academy of Chiropractic Post Doctoral Division, Long Island, NY, Kansas, 2015

MRI Interpretation, *Spinal Anatomy, Protocols and Disc Pathology, Normal anatomy of axial and sagittal views utilizing T1, T2, gradient and STIR sequences of imaging. Degeneration and annular fissuers of discs in both trauma and non-trauma patients and the biochemical properties of joints in age dating pathology. Disc bulges from degenerative and sequalla to osseous issues, herniation pathology and protrusion, extrusion, migrated and sequestered variations. Clinical scenarios as sequella to disc and pre-existing pathologies.* Academy of Chiropractic Post Doctoral Division, 2015

Patient Intake, History and Physical Examination, *Determining the etiology of the patient's complaints in a traumatic or non-traumatic scenario. Analyzing the patient's past history and review of systems along with the performance of a complete orthopaedic, neurological and clinical examination to correlate both past, current and causality issues to formulate an accurate diagnosis, prognosis and treatment plan. There is an emphasis on triaging both the trauma and non-trauma patients.* Academy of Chiropractic Post Doctoral Division, Long Island, NY, Kansas, 2015

Stroke and Transient Ischemic Attack (TIA), *Overview of common risk factors in our patient population, Identification and warning signs of TIA and Stroke, Diagnosis and treatment of TIA and stroke patients.* American College of Physicians (ACP), 2015

Preventing Medical Errors in a Clinical Setting, *Recognize the magnitude and far reaching effects of medical error; Categorize factors contributing to the occurrence of medical error; Describe the healthcare professional's role in identifying error prone situations; Explain the importance of reporting medical error; Specify at least two recommended practice modifications to promote safety and reduce the incidence of medical error; Review the processes of root cause analysis and failure mode and effects analysis when analyzing error.* American Academy of Integrative Pain

Management, Lenexa, Kansas, 2013

SELECTED MEMBERSHIPS

National Spine Management Group, 2020 - Present
Academy of Chiropractic, 2019 - Present
American Academy of Integrative Pain Management, 2013 - 2019