WELCOME & INTRODUCTION

Chiropractic For A New Normal

2021 marks the 30th anniversary of the World Federation of Chiropractic’s Biennial Congress. Since our inaugural meeting in Toronto back in 1991, we’ve come a long way. This year, our 16th Biennial Congress, reflects an unprecedented time in our history. COVID-19 has impacted every aspect of our lives. It has presented challenges for clinicians, educators, students, and scientists within the chiropractic profession. It has also acted as a catalyst for inspiration, innovation, and opportunity.

As we emerge from the pandemic, we find ourselves in a new normal. What seems certain is that the delivery of healthcare has evolved, new methods will become accepted practices, and emerging evidence will drive methods of learning, communication, and care delivery. Patient expectations will also have changed, and expectations of evidence-based, people-centered, interprofessional and collaborative practice will drive change in the environment of this new normal.

Our 2021 Biennial Congress will showcase the leading global advances in chiropractic. With contributors from around the globe, our theme of Chiropractic For A New Normal will showcase leading contemporary issues, with outstanding keynote speakers, stimulating panel debates, groundbreaking research and inspiring workshops.

Past attendees will know that the WFC Congress has something for everyone. Whether you’re a student, early-career clinician, longstanding practitioner, educator or research scientist, our congresses uniquely bring our global community together.

This year’s event is 100% virtual and we’re partnering with the best in the business. Parker Seminars have developed a worldwide reputation for delivering outstanding online events and we’re proud to be working collaboratively to present an unmissable experience.

Richard Brown  DC, LL.M, FRCC, FICC
Secretary-General
World Federation of Chiropractic
SESSION A: NEW NORMAL - THE GLOBAL NEED FOR PEOPLE-CENTEREDNESS

08:00 Opening and welcoming address
Carlos AYRES, President, WFC
Richard BROWN, Secretary-General, WFC

08:20 Keynote address:
*Transforming Clinical Care Through a Person-Centered Research Approach*
Nakela COOK, Executive Director, PCORI (USA)

09:00 *Chiropractic’s Role in Community Healthcare: the Hands On Health Experience*
Joan VAN ROTTERDAM, Chair, Hands on Health (Australia)

09:20 *Kindness is a Blockbuster Drug!*
Jeremy HOWICK, Oxford Empathy Programme, University of Oxford (UK)

09:40 *Universal Health Coverage: Serving the Underserved*
Mufudzi CHIHAMBAKWE, Spine Health Africa (Botswana)
Steven PASSMORE, Faculty of Kinesiology & Recreation Management University of Manitoba (Canada)

10:00 REFRESHMENT BREAK, TRADE EXHIBITION & DIGITAL POSTER VIEWING

SESSION B: MANY FACES, ONE VOICE - DEI IN ACTION

10:40 *Panel Discussion: Addressing Diversity, Equity & Inclusion in Chiropractic*
Jamiu BUSARI (Chair), Dean, Horatio Oduber Hospital (Aruba)
Micheala EDWARDS, President, American Black Chiropractors Association (USA)
Philippa OAKLEY, British Chiropractic Association (United Kingdom)
David PEEACE, Past Chair, Canadian Chiropractic Association (Canada)
Ranen RAMBRIJ, Private Practice (United Arab Emirates)

11:40 REFRESHMENT BREAK, TRADE EXHIBITION & POSTER VIEWING

*All times in Central Daylight Time U.S. (UTC -5)
12:00  

**TRACK 1: ORIGINAL RESEARCH**  

*Research Platforms I*

**Chair:** Marc-André BLANCHETTE, University of Quebec at Trois Rivieres (Canada)

**James WHEDON**  
*Utilization of chiropractic care reduces use of prescription opioids among older medicare beneficiaries with spinal pain*

**Matthew FERNANDEZ**  
*GLA:D Back Australia: a feasibility study for implementation*

**Joshua PLENER**  
*Nonoperative treatment for lumbar spinal stenosis with neurogenic claudication. An updated systematic review*

**Craig MOORE**  
*The impact and public health response of chiropractors to the COVID-19 pandemic: A survey across four continents*

**Alan JENKS**  
*Spinal manipulative therapy in older adults with chronic low back pain: An individual participant data meta-analysis*

**Michele MAIERS**  
*Association between psychosocial parameters and response to chiropractic care among older adults with chronic back pain*

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**TRACK 2: PREVIOUSLY PUBLISHED RESEARCH**

*Research Platforms II*

**Chair:** Sidney RUBINSTEIN, Assoc. Professor, Vrije Universiteit Amsterdam (Netherlands)

**Kris ANDERSON**  
*Best practices for chiropractic management of patients with chronic musculoskeletal pain: a clinical practice guideline*

**Felipe DUARTE**  
*Impulse attenuates nociception and oxidative stress in the spinal cord and sciatic nerve of a rat model of neuropathic pain*

**Lise HESTBAEK**  
*Effectiveness of chiropractic manipulation versus sham manipulation for recurrent headaches in children aged 7-14 years. A randomised clinical trial*

*All times in Central Daylight Time U.S. (UTC -5)*
Hazel JENKINS
The association between guideline adherent radiographic imaging by chiropractic students and the diagnostic yield of clinically significant findings

Katherine POHLMAN
Active versus passive surveillance adverse event reporting in a pediatric chiropractic care setting: a cluster randomized controlled trial

Michael SCHNEIDER
Risk Factors Associated with Transition from Acute to Chronic Low Back Pain in US Patients Seeking Primary Care

Patricia TAVARES
Distance management of spinal disorders during the COVID-19 pandemic and beyond: evidence-based guides from the Global Spine Care Initiative

Track 3: CLINICAL SCIENCE

Essential Pain Science for Chiropractors

Romy PARKER, Dept. Anaesthesia & Perioperative Medicine, University of Cape Town (South Africa)
Demetry ASSIMAKOPOULOS, Clinical Coordinator, Comprehensive Integrated Pain Program, University of Toronto (Canada)

Track 4: PUBLIC HEALTH

Chiropractors as Public Health Advocates

Claire JOHNSON, Chair, WFC Public Health Committee (USA)
Rebekah WILKS, World Spine Day Committee (USA)
Yi Kai WONG, Chiropractic Programme Director, International Medical University (Malaysia)

*All times in Central Daylight Time U.S. (UTC -5)
13:00  TRACK 5: ORIGINAL RESEARCH

Research Platforms III

Chair: Katie POHLMAN, Director of Research, Parker University (USA)

Casper NIM
The temporal stability of self-reported back pain trajectories

Lyndon AMORIN-WOODS
The role of chiropractic care in providing health promotion and clinical preventive services for adult patients with musculoskeletal pain

Felipe DUARTE
Short-term effects of spinal manipulation with different force-magnitudes on blood biomarkers of oxidative stress and inflammation: A pilot study

Stephanie ALEXOPULOS
Tracking clinical care among patients with chronic low back pain: the utility of performance-based measures of physical function and impairment

Carol Ann WEIS
Best practices recommendations for chiropractic care for pregnant and postpartum patients: results of a consensus process

Anna-Marie ZIEGLER
Learning the neurobiology of pain: A scoping review of pain education from an instructional design perspective

TRACK 6: ORIGINAL RESEARCH

Research Platforms IV

Chair: Michael SCHNEIDER, University of Pittsburgh (USA)

Dorthe Schoeler ZIEGLER
Inequality in the treatment of disc herniation? Socio-demographic characteristics of patients undergoing first-time, single-level, simple lumbar discectomy

Hazel JENKINS
The effects of diagnostic imaging on clinical outcomes in low back pain patients presenting for chiropractic care: matched observational study

*All times in Central Daylight Time U.S. (UTC -5)
Elisa DUBUC
Chiropractic techniques and treatment modalities included in academic programs: a survey of accredited chiropractic colleges

Andrew ROMANELLI
GLA:D® at the Canadian Memorial Chiropractic College: a description of implementation and participant outcomes

Maliheh HADIZADEH
Identifying predictors of the timing of successful low back pain treatment response: A secondary RCT analysis

Lindsay GORRELL
Kinematics of the head and associated vertebral artery strains during the thrust phase of high-velocity, low-amplitude cervical spine manipulation

TRACK 7: NEUROLOGY
Emerging Themes in Functional Neurology
Matthew ANTONUCCI, Plasticity Brain Centers, Florida (USA)
Igor DIJKERS, Chair, European Academy of Chiropractic (Netherlands)

TRACK 8: INNOVATION
The Role of Telehealth in the New Normal
Bart GREEN, Stanford Health Care, California (USA)
Scott HALDEMAN, World Spine Care (USA)

14:00 OPEN DIGITAL POSTER VIEWING

*All times in Central Daylight Time U.S. (UTC -5)
SESSION C : CHIROPRACTORS AS GLOBAL TEAM PLAYERS

08:00    Keynote Address
There and Back Again: An Overview of Biopsychosocial Approaches for Spine Pain
Steven GEORGE, Director of Musculoskeletal Medicine, Duke University (USA)

08:40    Now More Than Ever: A Global Strategy of Musculoskeletal Health
Andrew BRIGGS, Curtin University, Global Alliance for Musculoskeletal Health (Australia)
Deborah KOPANSKY-GILES, Unity Health Care, University of Toronto, Canadian Memorial Chiropractic College, Global Alliance for Musculoskeletal Health (Canada)

09:00    Chiropractors Within the National Sports Care Framework
Raul CARILLO RODRIGUEZ (Mexico)

09:20    Interprofessional Care: Only Team Players Need Apply
Anthony LISI, Chiropractic Program Director, Veterans Health Administration (USA)

09:40    REFRESHMENT BREAK, TRADE EXHIBITION & DIGITAL POSTER VIEWING

SESSION D : SEEKING UNITY THROUGH COLLABORATION

10:00    Panel discussion: Shared Values - Unifying Principles in Chiropractic
William MORGAN (Chair), President Parker University (USA)
Martin CAMARA, President, Association of Professional Chiropractors of the Philippines (Philippines)
Selina SIGAFOOSE-JACKSON, Chair, International Chiropractors Association (USA)
Hayden THOMAS, President New Zealand Chiropractors Association (New Zealand)
Debbie WRIGHT, Chair, Canadian Chiropractic Association (Canada)

11:00    WFC David Chapman-Smith Honor Awards
Richard BROWN, WFC Secretary-General (United Kingdom)
David CHAPMAN-SMITH, Past WFC Secretary-General (Canada)

11:20    REFRESHMENT BREAK, TRADE EXHIBITION & DIGITAL POSTER VIEWING

*All times in Central Daylight Time U.S. (UTC -5)
12:00 **TRACK 1: ORIGINAL RESEARCH**
*Research Platforms V*

**Chair:** Keserì PADAYACHY, Durban University of Technology (South Africa)

**Casper NIM**
The need for specificity when applying spinal manipulation: Myth or reality? A systematic review

**Annemarie DE ZOETE**
Exercise for treatment of acute non-specific low back pain: update of the Cochrane review

**Morgan PRICE**
Systematic review of guideline-recommended medications prescribed for treatment of mechanical low back pain

**Aurelie MARCHAND**
Entrustable professional activities; the next step in competency-based education? Five EPAs in chiropractic paediatric education

**Katherine POHLMAN**
Supporting a culture of transparency and trust – results of an active surveillance reporting system from spinal manipulation therapy providers

**Jesper HJERSTRAND**
The Nordic Maintenance Care Program: Patient experience of maintenance care - a qualitative study

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**TRACK 2: ORIGINAL RESEARCH**
*Research Platforms VI*

**Chair:** Sheng Hui KIOH, International Medical University (Malaysia)

**Christian MANANSALA**
Predictors of non-pharmacological, non-surgical treatment utilization prior to thoracolumbar spine surgery in Manitoba: A Canadian Spine Outcomes Research Network study

**Andreas EKLUND**
Maintain, a short clinical instrument for the identification of dysfunctional patients suitable for Maintenance Care

**Christine GOERTZ**

*All times in Central Daylight Time U.S. (UTC -5)*
Managing pain better: strategies to advance integrated pain management programs

Peter EMARY

Quality of reporting in chiropractic mixed methods research: a methodological review

Anneke VERBEECK

Spinal manipulative therapy for acute and subacute low back pain: update of the Cochrane review

Stacie SALSBURY

Adapting a clinical trial protocol to support virtual chiropractic care delivery and research: planning responses to the evolving COVID-19 pandemic

TRACK 3: RADIOLOGY

Black, White and Shades of Gray: A Contemporary Approach to Chiropractic Imaging

Marshall DELTOFF, Chiropractic Radiologist, Barcelona College of Chiropractic (Spain)
Cliff TAO, Chiropractic Radiologist (USA)

TRACK 4: REGULATION

Chiropractic Regulation: Through Covid-19 and Beyond

Tim COOPER (Chair), New Zealand Chiropractic Board (New Zealand)
Nick JONES, Chief Executive & Registrar, General Chiropractic Council (United Kingdom)
Wayne MINTER, President, International Chiropractic Regulatory Society (Australia)
Leonard WONG, Hong Kong Chiropractors Council (Hong Kong)
Chris YELVERTON, Chair, Allied Health Professions Council of South Africa (South Africa)

13:00

TRACK 5: ORIGINAL RESEARCH

Research Platforms VII

Chair: Dana LAWRENCE, Parker University (USA)

Simon WANG

Discomfort, pain and stiffness: what do these terms mean to patients? A cross-sectional survey with lexical and qualitative analysis

Anke LANGENFELD

Back muscle perfusion and oxygenation during isometric back muscle exercise in patients with

*All times in Central Daylight Time U.S. (UTC -5)
chronic low back pain: A cross-sectional study

**Marc-André BLANCHETTE**

The association between characteristics of Danish chiropractors and number of referred patients from general practitioners—a cross-sectional study

**Melissa NEAVE**

Characteristics of chiropractic paediatric practice: secondary analysis of the COAST and O-COAST

**Michelle HOLMES**

Doing our best for patient safety: a qualitative analysis of provider perspectives from community-based settings offering spinal manipulative therapy

**Stephen PERLE**

Evaluation of United States chiropractic professional subgroups: a survey of randomly sampled chiropractors

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**TRACK 6: ORIGINAL RESEARCH**

Research Platforms VIII

**Chair: Stacie SALS BURY, Palmer College of Chiropractic (USA)**

**Brian COLEMAN**

Patterns of low back pain visits by patients receiving on-station healthcare in the Veterans Health Administration

**Jacqueline RIX**

Usability Testing as an Aid to Design a Person-Centred Randomised Clinical Trial

**Robert WALLACE**

Benefits and challenges of going virtual: the future of research and clinical approaches to musculoskeletal care in US military Veterans

**William BRANN**

The effectiveness of cervical spine manipulation on neck muscle activity, force output, pain and disability in participants with cervicogenic headache

**Brian GLEBERZON**

The current and future status of the chiropractic profession: A thematic analysis of interviews of 30 influential stakeholders

**Anthony LISI**

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*All times in Central Daylight Time U.S. (UTC -5)*
Assessing mechanisms of chiropractic care delivery in the US Veterans Health Administration

**TRACK 7: PEDIATRICS**

*Pediatric Care in Chiropractic: Evaluating the Evidence*

Lise HESTBAEK, University of Southern Denmark (Denmark)

Katie POHLMAN, Director of Research, Parker University (USA)

Anna PAPADOPOULOU, Private Practice, Nicosia (Cyprus)

**TRACK 8: CLINICAL PRACTICE**

*Unlocking the Mysteries of the TMJ*

Alex VIDAN, Private Practice, St Louis (USA)

14:00  **OPEN DIGITAL POSTER VIEWING**

*All times in Central Daylight Time U.S. (UTC -5)*
SESSION E: ADAPTING HEALTHCARE TO A NEW NORMAL

08:00  Gen Z: How Digital Natives Are Moving the Needle in Chiropractic
       Wren BURTON, Osher Centre for Integrated Health (USA)

08:20  The WHO Global Transformation and Key Lessons from COVID-19
       Meri ROBINSON NICOL, Unit Head, Process Efficiency Unit, World Health Organization

08:40  Adding Life to Years: Chiropractic's Contribution to Healthy Ageing
       Katie DE LUCA, Macquarie University (Australia)

09:00  Keynote address:
       Why the Decade of Healthy Ageing is Important For Us All
       Yuka SUMI, Ageing and Health Unit, World Health Organization

09:40  REFRESHMENT BREAK, TRADE EXHIBITION & DIGITAL POSTER VIEWING

SESSION F: THE FUTURE IN OUR HANDS

10:20  Knowledge Transfer in Chiropractic: Power, Advancement, Currency
       Shawn THISTLE, RRS Education (Canada)

10:40  Panel discussion
       Future Focused: Chiropractic in a Post-COVID World
       Clay McDONALD (Chair), President, Logan University, Missouri (USA)
       Keiron BOOSI, Director External Affairs, WCCS (South Africa)
       Anthony COXON, President, Australian Chiropractors Association (Australia)
       Alison DANTAS, CEO, Canadian Chiropractic Association (Canada)
       Lone KOUSGAARD JORGENSEN, President, Danish Chiropractic Association (Denmark)

11:40  REFRESHMENT BREAK, TRADE EXHIBITION & DIGITAL POSTER VIEWING

*All times in Central Daylight Time U.S. (UTC -5)
SESSION G: WFC RESEARCH AWARDS: THE VOICES OF SCIENCE

12:00  WFC NCMIC Research Awards
Christine GOERTZ, Chair, WFC Research Committee
Scott Haldeman Award for Outstanding Research
NCMIC Louis Sportelli Research Award (First Prize)
NCMIC Louis Sportelli Research Award (Second Prize)
Early Investigator Award

WFC IBCE Poster Awards

13:00  The Biennial John Sweaney Lecture
Michele MAIERS, President, American Chiropractic Association (USA)

13:40  Preview of 17th WFC Biennial Congress, Gold Coast, Queensland, Australia
2023 WFC Congress Organizing Team

13:50  Summary and Closing Remarks
Carlos AYRES, President, World Federation of Chiropractic (Peru)

14:00  END OF CONGRESS

ON-DEMAND ACCESS
In conjunction with our friends at Parker Seminars, we are offering Congress delegates On-Demand access to Chiropractic For A New Normal until December 31, 2021.

*All times in Central Daylight Time U.S. (UTC -5)
THE FOLLOWING POSTERS HAVE BEEN ACCEPTED FOR PRESENTATION AT THE 16TH WFC BIENNIAL CONGRESS

Roland Morris, Oswestry, and Quebec Back Pain Indexes: Which has better Measurement Properties in Older Adults with Low Back Pain?

Alan JENKS
A Delphi study to identify research priorities to inform a research agenda for Canadian sports chiropractors.

Alexander LEE
Chiropractic trainees adherence to imaging guidelines and utilization of diagnostic imaging for a new episode of low back pain.

Ali SMITH

Alice CADE
Utilization of Telehealth services for paediatric and adult musculoskeletal care in a chiropractic practice.

Amanda STEVENS
Chiropractic faculty and students’ perceptions of an abrupt transition to online teaching during the COVID-19 pandemic: a descriptive study.

Amberly FERGUSON
The effect of spinal manipulative therapy on pain and heart rate variability in patients with persistent or recurrent neck pain.

Anders GALAASEN BAKKEN
Does induced fatigue alter dynamic balance in athletes? A systematic review.

Andrew ROMANELLI
Do X-rays for spinal pain in patients receiving chiropractic care change patient outcomes? A pilot randomised controlled trial.

Anika YOUNG
Spinal pain in employees exposed to abusive supervision: Evidence of a sex and CRHR1 CTC haplotype interaction.

Ann-Christin SANNES
What abilities do students need to safely care for paediatric patients? A competency-based chiropractic paediatric curriculum.

**Aurelie MARCHAND**

Rapid deployment of chiropractic telehealth at 2 worksite health centers in response to the covid-19 pandemic: Observations from the field

**Bart GREEN**

An international stakeholder survey of the role of chiropractic qualifying examinations: A qualitative analysis

**Bart GREEN**

Unemployment among Southeast Minnesota refugees: Does low back pain play a role?

**Benjamin HOLMES**

A Randomized Control Trial on The Effect of Upper neck Manipulation on Head and Neck Proprioception

**Bernadette MURPHY**

PROMs needed: results of a secondary data analysis of patient-reported outcomes measures (PROMs) used in manual therapy trials with children

**Beth CARLEO**

Using natural language processing to investigate pain assessment in US Veterans Health Administration chiropractic visits

**Brian COLEMAN**

Comparing characteristics and outcomes of low back pain sufferers managed exclusively with conservative care vs other treatments

**Brian ANDERSON**

The Ontario Chiropractic Association's Evidence-Based Framework Advisory Council: A project to enhance patient care

**Brian GLEBERZON**

Adverse events from spinal manipulations in the pregnant and postpartum periods: a systematic review and update

**Carol Ann Weis**

Referral Patterns and Perceptions of General Practitioners towards Chiropractic Care in the Madibeng Municipal District, South Africa

**Caroline HAY**

Immediate changes to lumbosacral dural regions upon simultaneous bilateral compression to the parietooccipital (asterion) cranial region: A dissection study

**Marc PICK**

A survey of chiropractic students or recent graduates on their experiences in chiropractic college adjusting lab or class.

**Charles BLUM**
Attitudes towards limited drug prescription rights: A survey of South African chiropractors

Christopher YELVERTON


Christopher YELVERTON

Response of Practicing Chiropractors during the Early Phase of the COVID-19 Pandemic: A Descriptive Report

Claire JOHNSON

Manipulative and manual therapies in the management of patients with prior lumbar surgery: A systematic review

Clinton DANIELS

Veteran response to dosage in chiropractic therapy (VERDICT): study protocol of a pragmatic randomized trial for chronic low back pain

Cynthia LONG

Adverse events following the first chiropractic visit in a corporate environment

Daniel FACCHINI

Patient experience and satisfaction during chiropractic care: A Systematic Review of the Literature

Dave NEWELL

Does spinal pain in the elderly associate with depressed cognitive function? A secondary analysis of the Danish Twins Registry database

David BYFIELD

The effect of active scapular correction, cervical manipulation or a combination on pain and pain threshold with chronic neck pain

Dirkie LANDMAN

Teaching, learning, and patient care in a chiropractic teaching clinic during early stages of the COVID-19 pandemic in California, USA.

Donna H ODIERNA

Development of a consent procedure using a multi-modal delivery for a low back pain study within the VA Healthcare System

Anna WALDEN-COBB

Knowledge, awareness and attitudes of the Coronavirus (COVID-19) pandemic in undergraduate chiropractic students at a South African University

Fatima ISMAIL

Assessing attitudes of patient-centered care among chiropractic students in a South African University

Fatima ISMAIL

Characteristics of Virtual and Face-to-Face Chiropractic Visits in the Veterans Health Administration During the COVID-19 Pandemic

Gregory ROYTMAN
Chiropractic spinal manipulation increases the corticomotor excitability of lower limb muscle in people with chronic stroke.

**Imran KHAN NIAZI**

Directing specific adjusitive thrust towards a chiropractic subluxation significantly alters sensorimotor integration compared to directing thrust at a non-subluxated vertebrae.

**Imran KHAN NIAZI**

Stakeholder Involvement in the Development of Trial Material for a Clinical Trial.

**Jacqueline RIX**

Cross-cultural adaptation and validation of the Finnish version of Central Sensitization Inventory and its relationship with dizziness and postural control

**Jani MIKKONEN**

The association between chiropractors’ view of practice and patient- and treatment-level characteristics in Ontario, Canada: A cross-sectional study

**Jessica WONG**

Adoption of Telemedicine During the COVID-19 Pandemic: Perspectives of Primary Healthcare Providers

**Joe LINTZ**

Identification of Master Patient Index (MPI) Record Challenges from Healthcare Professionals' Perspectives

**Joe LINTZ**

Changes in intervertebral motion sharing after cervical spine manipulation are minimal and not correlated with patient-reported outcomes

**Jonathan BRANNEY**

The crural interosseous membrane re-visited: part II, new biomechanical concepts

**Joseph MORLEY**

Discomfort experienced during a standard and modified flexed lumbopelvic manipulation setup position: A two-part randomized crossover study

**Joshua PLENER**

A literature review of HC-PAIRS as a measure of attitudes, beliefs, and recommendations for chronic back pain patients

**Ryan D MULLER**

Piloting algorithms to identify a trial of chiropractic care for low back pain in Veterans Affairs electronic health record data

**Kelsey CORCORAN**

Are patient-centred care interventions effective for the management of chronic musculoskeletal conditions in adults? A systematic review

**Kent STUBER**
Chiropractic research into patient-centred care: a narrative review of the literature

Kent STUBER
Identification and management of patients in chiropractic clinics with hypertension or pre-diabetes to promote awareness and improve care coordination: pilot

Kris ANDERSON
Evaluating Students’ Clinical Research Literacy Attitudes, Confidence and Knowledge at the beginning and end of a Doctor of Chiropractic Program

Krista WARD
Profiling headaches in a Danish chiropractic cohort. Protocol for an upcoming project

Kristina DISSING
Self-reported management of patients with low back pain and adherence to practice guidelines by Dutch and Belgian chiropractors

Lobke DE LA RUELLE
Satisfaction with flipped learning in a chiropractic university program: a survey of students and faculty.

Luke HANSEN
Agreement with the International Clinical and Professional Chiropractic Education Position Statement: a survey of UQTR chiropractic students

Stephanie WOUTERS
Chiropractic care for patients with a cancer diagnosis: The views of members of the Evidence based Chiropractic Facebook group.

Maria LAOUDIKOU
Patients with cancer. Is there a role for chiropractic?

Maria LAOUDIKOU
Characterization of thoracic spinal manipulation and mobilization forces in older adults

Martha Funabashi
Quantification of forces at the clinician-patient and patient-table interfaces during thoracic spinal manipulation in asymptomatic adults

Thomas MURPHY
Patient satisfaction at the Durban University of Technology Chiropractic Day Clinic using a pre-validated survey

Mary Ann RUTHNAM
An international Delphi study to identify sports chiropractic global research priorities

Melissa BELCHOS
Factors associated with recording the exercise vital sign (EVS) in the electronic health records for patients in chiropractic teaching clinics
Chris DEGRAUW
Stratified care to prevent chronic low back pain in high-risk patients: TARGET trial. A multi-site pragmatic cluster randomized trial.

Michael SCHNEIDER
Concussion Knowledge Among North American Chiropractors

Mohsen KAZEMI
A Clinical Crossover Trial of the Effect of Manipulative Therapy on Pain and Range of Motion of the Painful Hip

Mohsen KAZEMI
A scoping review investigating chiropractic and manual therapy as a treatment for migraine

Peter TUCHIN
Do chiropractic educational institutions provide adequate training in mental health?

Peter TUCHIN
A proof-of-concept study assessing thoracolumbar fascia mobility using musculoskeletal ultrasound in persons with chronic low back pain

Robert VINING
Educator’s Learning Alignment Instrument (ELAI): A tool to assess aligned learning concepts within college courses

Robert VINING
Immediate effect of lower extremity joint manipulation on a lower extremity somatosensory illusion: a preliminary, randomized, crossover clinical trial

Shannon SCHEUREN
Utilization of radiographs among chiropractic interns in a chiropractic teaching clinic

Sheng Hui KIOH
Description of patient’s profile and characteristics presenting to a chiropractic teaching clinic in Malaysia

Sheng Hui KIOH
Veteran perceptions of a single-arm pilot of chiropractic care for low back pain: a qualitative analysis

Stacie SALSBURY
Defining chiropractic professional identity: A concept analysis

Tanja GLUCINA
Knowledge, Perceptions and Understanding of Telemedicine Amongst Chiropractors in South Africa in Response to COVID-19

Caroline HAY
Microbial chiropractic treatment table hygiene monitoring in a training

Mark KINGHAM
Microbial simulation as education aid for surface hygiene training of Chiropractic interns

Marlo SWANEPOEL

ATP testing to monitor Chiropractic treatment tables hygiene

Chris YELVERTON

Health literacy modules for chiropractic education

Valerie UBBES

Relationship Between Fourth and Fifth Year International Medical University Dental Students’ Ergonomic Risk Factors and Musculoskeletal Symptoms.

Yi Kai WONG

The Public Awareness of the Traditional and Complementary Medicine Law Governing Chiropractic in Klang Valley, Malaysia.

Yi Kai WONG

The Effectiveness of Orthotics in Reducing Excessive Pronation (Flat Feet) In School Children Between 7 to 10 Years Old

Ying Wei FONG

The validity of telehealth-based evaluations in musculoskeletal assessment and diagnosis in people with musculoskeletal disorders. -A structured narrative review

Zachary WILLIAMS

WE GRATIFICELY ACKNOWLEDGE THE WORK OF BRIGHTHALL INC. AND THE 2021 PEER REVIEW PANEL IN ENSURING ANOTHER OUTSTANDING WFC SCIENTIFIC MEETING

Christine GOERTZ (Chair) (USA)
Marc-André BLANCHETTE (Canada)
Mitchell HAAS (USA)
Scott HALDEMAN (USA)
Steen HARSTED (Denmark)
Anne JENSEN (Australia)
Imran KHAN NIAZI (New Zealand)
Sheng Hui KIOH (Malaysia)
Michele MAIERS (USA)

Casper NIM (Denmark)
Keser PADAYACHY (South Africa)
Isabelle PAGE (France)
Steven PASSMORE (Canada)
Katherine POHLMAN (USA)
Sidney RUBINSTEIN (Netherlands)
Stacie SALSBOURY (USA)
Michael SCHNEIDER (USA)
Matthew ANTONUCCI (USA)
Chief Clinical Officer, Plasticity Centers, Orlando, Florida

*Emerging Themes in Functional Neurology*
1:00 - 2:00 CDT, Thursday, September 23, 2021

Demetry ASSIMAKOPOULOS (Canada)
Clinical Coordinator, Integrated Pain Program, University of Toronto

*Essential Pain Science for Chiropractors*
12:00 - 1:00 CDT, Thursday, September 23, 2021

Carlos AYRES (Peru)
President, World Federation of Chiropractic

*Opening address*
08:00 - 08:20, Thursday, September 24, 2021

Marc-Andre BLANCHETTE (Canada)
Assistant Professor, Université du Québec à Trois-Rivières, Trois-Rivières

*Research Platforms III - Original Unpublished Research*
1:00 - 2:00 CDT, Thursday, September 24, 2021

Keiron BOOSI (South Africa)
Former Director of External Affairs, World Congress of Chiropractic Students

*Future Focused: Chiropractic in a Post-COVID World*
20:40 - 11:40 CDT, Saturday, September 25, 2021

Andrew BRIGGS (Australia)
Professor, Curtin University, Global Alliance for Musculoskeletal Health

*Now More Than Ever: A Global Strategy for Musculoskeletal Health*
08:40 - 09:00 CDT, Friday, September 24, 2021

Richard BROWN (United Kingdom)
Secretary-General, World Federation of Chiropractic

*Opening address*
08:00 - 08:20 CDT, Thursday, September 23, 2021
Wren BURTON (USA)
Fellow, Osher Center for Integrated Health

*Gen Z: How Digital Natives are Moving the Needle in Chiropractic*
08:00 - 08:20, Saturday, September 25, 2021

Jamiu BUSARI (Aruba)
Dean, Horatio Odubar Hospital, Aruba

*Addressing Diversity, Equity and Inclusion in Chiropractic*
10:40 - 11:40 CDT, Thursday, September 23, 2021

Martin CAMARA (Philippines)
President, Association of Professional Chiropractors of the Philippines

*Shared Values: Unifying Principles in Chiropractic*
10:00 - 11:00 CDT, Friday, September 24, 2021

Raul CARILLO RODRIGUEZ (Mexico)
National Director for Sport, Mexico

*Chiropractors Within the National Sports Care Framework*
9:00 - 9:20 CDT, Friday, September 24, 2021

David CHAPMAN-SMITH (Canada)
Immediate Past Secretary-General, World Federation of Chiropractic

*The WFC David Chapman-Smith Honor Awards*
11:00 - 11:20 CDT, Friday, September 24, 2021

Mufudzi CHIHAMBAKWE (Botswana)
Co-Founder, Spine Health Africa

*Universal Health Coverage: Serving the Underserved*
09:40 - 10:00, Thursday, September 23, 2021
**Nakela COOK (USA)**

Executive Director, Patient Centered Outcomes Research Institute (PCORI)

*Opportunities to Lead in a People-Centered World*

08:20 - 09:00, Thursday, September 23, 2021

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**Tim COOPER (New Zealand)**

Chair, New Zealand Chiropractic Board

*Chiropractic Regulation: Through COVID-19 and Beyond*

12:00 - 1:00 CDT, Friday, September 24, 2021

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**Anthony COXON (Australia)**

President, Australian Chiropractors Association

*Future Focused: Chiropractic in a Post-COVID World*

20:40 - 11:40 CDT, Saturday, September 25, 2021

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**Alison DANTAS (Canada)**

CEO, Canadian Chiropractic Association

*Future Focused: Chiropractic in a Post-COVID World*

20:40 - 11:40 CDT, Saturday, September 25, 2021

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**Katie DE LUCA (Australia)**

Post Doctoral Research Fellow, Macquarie University, Sydney, Australia

*Adding Life to Years: Chiropractic’s Contribution to Healthy Ageing*

08:40 - 09:00 CDT, Saturday, September 25, 2021

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**Marshall DELTOFF (Israel)**

Chiropractic Radiologist, Barceloona College of Chiropractic, Spain

*Black, White and Shades of Gray: A Contemporary Approach to Chiropractic Imaging*

12:00 - 1:00 CDT, Friday, September 24, 2021

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**Igor DIJKERS (Netherlands)**

Chair, European Academy of Chiropractic

*Emerging Themes in Functional Neurology*

1:00 - 2:00 CDT, Thursday, September 23, 2021
Micheala EDWARDS (USA)
President, American Black Chiropractors Association

**Addressing Diversity, Equity and Inclusion in Chiropractic**
10:40 - 11:40 CDT, Thursday, September 23, 2021

Steven GEORGE (USA)
Director of Musculoskeletal Medicine, Duke University, USA

**There and Back Again: An Overview of Biopsychosocial Approaches for Spine Pain**
08:00 - 08:40, Friday, September 24, 2021

Christine GOERTZ (USA)
Chair, WFC Research Committee

**2021 WFC Research Awards**
12:00 - 1:00 CDT, Saturday, September 25, 2021

Bart GREEN (USA)
Stanford Health Care, California, USA

**Spine Care Telehealth: Getting Started With The New Normal**
1:00 - 2:00, Thursday, September 23, 2021

Scott HALDEMAN (USA)
President, World Spine Care, USA

**Spine Care Telehealth: Getting Started With The New Normal**
1:00 - 2:00, Thursday, September 23, 2021

Lise HESTBAEK (Denmark)
Professor, University of Southern Denmark, Odense, Denmark

**Pediatric Care in Chiropractic: Evaluating the Evidence**
1:00 - 2:00 CDT, Friday, September 24, 2021

Jeremy HOWICK (United Kingdom)
Director, Oxford Empathy Programme, Faculty of Philosophy, University of Oxford

**Kindness is a Blockbuster Drug**
09:20 - 09:40, Thursday, September 23, 2021
Claire JOHNSON (USA)
Chair, WFC Public Health Committee
*Chiropractors as Public Health Advocates*
12:00 - 1:00 CDT, Thursday, September 23, 2021

Nick JONES (United Kingdom)
Chief Executive and Registrar, General Chiropractic Council (UK)
*Chiropractic Regulation: Through COVID-19 and Beyond*
12:00 - 1:00 CDT, Friday, September 24, 2021

Sheng Hui KIOH (Malaysia)
Research Department, International Medical University, Malaysia
*Research Platforms VI - Original Unpublished Research*
12:00 - 1:00 CDT, Friday, September 24, 2021

Deborah KOPANSKY-GILES (Canada)
Executive Committee Member, Global Alliance for Musculoskeletal Health
*Now More Than Ever: A Global Strategy for Musculoskeletal Health*
08:40 - 09:00 CDT, Friday, September 24, 2021

Lone KOUSGAARD JOERGENSEN (Denmark)
President, Danish Chiropractic Association
*Future Focused: Chiropractic in a Post-COVID World*
20:40 - 21:40 CDT, Saturday, September 25, 2021

Dana LAWRENCE (USA)
Associate Provost of Research and Education, Parker University, Dallas, Texas
*Research Platforms VII - Original Unpublished Research*
1:00 - 2:00 CDT, Friday, September 24, 2021

Anthony LISI (USA)
Chiropractic Program Director, Veterans Health Administration, USA
*Interprofessional Care: Only Team Players Need Apply*
09:20 - 09:40, Friday, September 24, 2021
Michele MAIERS (USA)
President, American Chiropractic Association

_The John Sweeney Lecture_
1:00 - 1:40 CDT, Saturday, September 25, 2021

Clay McDonALD (USA)
President, Logan University, Missouri, USA

_Future Focused: Chiropractic in a Post-COVID World_
20:40 - 11:40 CDT, Saturday, September 25, 2021

Wayne MINTER (Australia)
President, International Chiropractic Regulatory Society

_Chiropractic Regulation: Through COVID-19 and Beyond_
12:00 - 1:00 CDT, Friday, September 24, 2021

William MORGAN
President, Parker University, Dallas, Texas, USA

_Shared Values: Unifying Principles in Chiropractic_
10:00 - 11:00 CDT, Friday, September 24, 2021

Philippa OAKLEY (United Kingdom)
Communications Committee Member, British Chiropractic Association

_Addressing Diversity, Equity and Inclusion in Chiropractic_
10:40 - 11:40 CDT, Thursday, September 23, 2021

Keseri PADAYACHY
Research Department, Durban University of Technology, South Africa

_Research Platforms V - Original Unpublished Research_
12:00 - 1:00 CDT, Friday, September 24, 2021

Anna PAPADOPOULOU
Secretary, Eastern Mediterranean & Middle East Chiropractic Federation

_Pediatric Care in Chiropractic: Evaluating the Evidence_
1:00 - 2:00 CDT, Friday, September 24, 2021
Romy PARKER (South Africa)
Professor, Dept, Anaesthesia and Perioperative Medicine, University of Cape Town

*Essential Pain Science for Chiropractors*
12:00 - 1:00 CDT, Thursday, September 23, 2021

Steven PASSMORE (Canada)
Professor, University of Manitoba, Winnipeg, Canada

*Universal Health Coverage: Serving the Underserved*
09:40 - 10:00, Thursday, September 23, 2021

David PEEACE (Canada)
Past Chair, Canadian Chiropractors Association

*Addressing Diversity, Equity and Inclusion in Chiropractic*
10:40 - 11:40 CDT, Thursday, September 23, 2021

Katherine POHLMAN (USA)
Director of Research, Parker University, Dallas, Texas, USA

*Pediatric Care in Chiropractic: Evaluating the Evidence*
1:00 - 2:00 CDT, Friday, September 24, 2021

Ranen RAMBRIJ (United Arab Emirates)
Private Practice, Dubai, United Arab Emirates

*Addressing Diversity, Equity and Inclusion in Chiropractic*
10:40 - 11:40 CDT, Thursday, September 23, 2021

Meri ROBINSON NICOL (Switzerland)
Unit Head, Process Efficiency Unit, World Health Organization

*The WHO Global Transformation and Key Lessons from COVID-19*
08:20 - 08:40, Saturday, September 25, 2021

Sidney RUBINSTEIN (Netherlands)
Associate Professor, Vrije Universiteit, Amsterdam

*Research Platforms II - Previously Published Research*
12:00 - 1:00 CDT, Thursday, September 23, 2021
**Stacie SALSUBY (USA)**
Associate Professor, Palmer College of Chiropractic

*Research Platforms VIII - Original Unpublished Research*
1:00 - 2:00 CDT, Friday, September 24, 2021

**Mike SCHNEIDER (USA)**
Professor, University of Pittsburgh, Pittsburgh, USA

*Research Platforms IV - Original Unpublished Research*
1:00 - 2:00 CDT, Thursday, September 23, 2021

**Selina SIGAFOOSE JACKSON (USA)**
Chair, International Chiropractors Association

*Shared Values: Unifying Principles in Chiropractic*
10:00 - 11:00 CDT, Friday, September 24, 2021

**Yuka SUMI (Switzerland)**
Ageing and Health Unit, World Health Organization

*Why the Decade of Healthy Ageing is Important For Us All*
09:00 - 09:40 CDT, Saturday, September 25, 2021

**Cliff TAO (USA)**
Chiropractic Radiologist, California, USA

*Black, White and Shades of Gray: A Contemporary Approach to Chiropractic Imaging*
12:00 - 1:00 CDT, Friday, September 24, 2021

**Shawn THISTLE (Canada)**
CEO, RRS Education

*Knowledge Transfer in Chiropractic: Power, Advancement, Currency*
10:20 - 10:40 CDT, Saturday, September 25, 2021

**Hayden THOMAS (New Zealand)**
President, New Zealand Chiropractors Association

*Shared Values: Unifying Principles in Chiropractic*
10:00 - 11:00 CDT, Friday, September 24, 2021
Joan VAN ROTTERDAM (Australia)
Chair, Hands on Health Australia

Chiropractic’s Role in Community Healthcare: the Hands On Health Experience
09:00 - 09:20 CDT, Thursday, September 23, 2021

Alex VIDAN (USA)
Private Practice, St Louis, Missouri

Unlocking the Mysteries of the TMJ
1:00 - 2:00 CDT, Friday, September 24, 2021

Rebekah WILKS (USA)
World Spine Day Committee Member

Chiropractors as Public Health Advocates
12:00 - 1:00 CDT, Thursday, September 23, 2021

Leonard WONG (Hong Kong SAR)
Member, Hong Kong Chiropractors Council

Chiropractic Regulation: Through COVID-19 and Beyond
12:00 - 1:00 CDT, Friday, September 24, 2021

Yi Kai WONG (Malaysia)
Chiropractic Programme Director, International Medical University

Chiropractors as Public Health Advocates
12:00 - 1:00 CDT, Thursday, September 23, 2021

Debbie WRIGHT (Canada)
Board Chair, Canadian Chiropractic Association

Shared Values: Unifying Principles in Chiropractic
10:00 - 11:00 CDT, Friday, September 24, 2021

Chris YELVERTON (South Africa)
Chair, Allied Health Professions Council of South Africa

Chiropractic Regulation: Through COVID-19 and Beyond
12:00 - 1:00 CDT, Friday, September 24, 2021