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# ABSTRACTS OF ACC CONFERENCE PROCEEDINGS

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## Peer Review Information and Acknowledgments for ACC-RAC 2012

*Claire Johnson*

## PLATFORM PRESENTATIONS

The chiropractic care of children in Europe: results from a practice-based research network:

*Joel Alcantara, Jeanne Ohm*

Prevalence of chronic non infectious diseases among elderly patients who seek chiropractic care:

*Lucia Maria Andreis, Thiana Paula Schmidt dos Santos, Marta Casagrande Saraiva*

Effect of treatment dosage on the therapeutic efficacy of spinal manipulation for low back pain (lbp): a systematic review:

*Brian Arthur, Jeffrey Quon, Paul Bishop*

Publication rates of abstracts presented at Association of Chiropractic Colleges/Research Agenda Conference meetings between 2002 and 2008:

*Barclay Bakkum, Cynthia Chapman*

Sonographic assessment of the normal suprascapular nerve and inferior belly of the omohyoid muscle:

*Patrick Battaglia, Daniel Haun*

Is interprofessional education a common factor in chiropractic continuing education?

*Edward Bednarz, Anthony Lisi*

Investigating high quality interactive applications for value added teaching:

*Judy Bhatti, Mary Frost, Elissa Twist*

Self-perceived skills confidence: a follow-up study of chiropractic students in the early phases of a college's clinic program:

*Debra Bisiacchi, Dovid White*

Trunk neuromuscular responses to a single whole-body vibration session in patients with chronic low back pain: a cross-sectional study:

*Jean-Alexandre Boucher, Jacques Abboud, Jean-Daniel Dubois, Elise Legault, Martin Descarreaux, Yves Henchoz*

Non-physician screening of low back or low back related leg pain patients referred for surgical assessment: a survey of Canadian spine surgeons:

*Jason Busse, John Riva, Jennifer Nash, Sandy Hsu, Charles Fisher, Eugene Wai, David Burnarski, Jeffrey Quon, Brian Drew, Stephen Walter, Paul Bishop, Raja Rampersaud*

Impact of guideline dissemination strategies among chiropractors enlisted in a provider network in the United States: interrupted time series with segmented regression analysis:

*André Bussi eres, Anne Sales, Timothy Ramsay, Steven Hilles, Jeremy Grimshaw*

Ethnicity differences in serum levels of 25-hydroxyvitamin D and parathyroid hormone and bone mineral density among healthy individuals:

*Weiwen Chai, Robert Davidson, Martha Kaeser, Norman Kettner*

Complying with CCE meta-competencies 6 and 7 through the development of an EBCP educational module with an emphasis on a comparative analysis of two systematic reviews:

*Gregory Cofano, Kimberly Keene, Heather Bowyer, Edward Pappagallo, Jacqueline Beres*

Utilizing learner response systems to enhance student learning and retention in the basic science classroom:

*Alena Coleman, Shahla Abghari*

How reliable are manual therapists' procedures in detecting positional asymmetry of the PSISs?

*Robert Cooperstein*

Intraexaminer reliability of compressive leg checking and correlation with the sit-stand test for anatomic leg length inequality:

*Robert Cooperstein, Morgan Young, Baljinder Gill*

The correlation of the arm-fossa test with other sacroiliac findings: A feasibility study:

*Robert Cooperstein, Charles Blum, Elaine Cooperstein*

Impact of the implementation of evidence-based guideline in a university outpatient chiropractic clinic:

*Genevieve Cote, Jean-Daniel Dubois, Alexandra Ladouceur, Martin Descarreaux*

Zygapophyseal joint space gapping in low back pain patients following spinal manipulation:

*Gregory Cramer, Jerrilyn Cambron, Joe Cantu, Jennifer Dexheimer, Judith Pocius, Douglas Gregerson, Michael Fergus, Ray McKinnis, Thomas Grieve*

Muscle activation onset timing recorded during HVLA spinal manipulation – a methodological comparison:

*Stuart Currie, Casey Myers, Brian Enebo, Bradley Davidson*

Utilization of non-surgical spinal decompression therapy in a chiropractic college outpatient teaching clinic:

*Dwain Daniel, Michael Ramcharam, Amy Wright*

A pilot survey of chiropractors' attitudes toward and use of radiography in clinical practice:

*Lydia Dever, Michael Tomasello, Rueben Carter*

School bags and musculoskeletal health in secondary school children: A cross sectional cohort study:

*Morna Dodd, James O'Dell, Adrian Hunnisett, Christina Cunliffe*

Surveys as a method for informing a chiropractic technology program curriculum:

*Cathy Eberhart, Stacie Martel*

Mechanical behavior of sacral and iliac cartilage under compression:

*Dennis Enix, Douglas Smith*

Lumbar spine analogues data repeatability under biomechanical testing:

*Martha Funabashi, Gregory Kawchuk, Mojtaba Azadi*

The effect of single session of muscle-biased therapy on pain sensitivity: a systematic review of randomized controlled trials:

*Charles Gay, Meryl Alappattu, Mark Bishop*

Feasibility study evaluating a checklist tool for simulation:

*Dominic Giuliano, Marion McGregor*

Frequency of use of diagnostic and manual therapeutic procedures of the spine taught at the Canadian Memorial Chiropractic College: A preliminary survey of chiropractors. Part 2 – procedure usage rates:

*Brian Gleberzon, Kent Stuber*

The effect of a semi-customized, dual-contoured pillow on muscle activation, posture and contact pressures of the head and neck:

*Diane Grondin, John J. Triano, Steven Tran*

Assessing critical thought in a chiropractic program:

*Joseph Guagliardo*

Instantaneous rate of loading during manual high velocity low amplitude spinal manipulations:

*Maruti Ram Gudavalli*

Sonography of the injured anterior talofibular ligament:

*Daniel Haun, Eve Bonic, Norman Kettner*

Rubric referenced self-assessment vs. traditional way in students' anatomy laboratory learning:

*Xiaohua He, Ali Rabatsky*

- GPA as a predictor of performance on a high stakes comprehensive competency assessment:  
*Glori Hinck, Thomas Bergmann, Brent Leininger*
- Altered brain morphometry in carpal tunnel syndrome is associated with peripheral nerve pathology:  
*Norman Ketner, Yumi Maeda, James Sheehan, Jieun Kim, Steve Cina, Christina Malatesta, Jessica Gerber, Claire McManus, Pia Hugus*
- A proposed bioethics curriculum for accredited chiropractic colleges:  
*Stuart Kinsinger*
- Continuing education for professionals on ethics and boundaries: a survey of the chiropractic profession:  
*Stuart Kinsinger*
- Promoting health in the third world through very low-cost, open-access, online education: an innovative learning methodology:  
*Ron Kirk*
- Development and implementation of a web-based learning management system at a complementary and alternative health sciences university:  
*Anupama Kizhakkeveetil, Kevin Rose, Michael Rocke*
- An ultrasound-kinematic based system for spinal deformity assessment:  
*Terry Koo, Jingyi Guo*
- Perspectives on complementary therapies on sports injuries: A retrospective survey of UK triathletes:  
*Linda Kuhlmann, Adrian Hunnisett, Christina Cunliffe*
- iPilots, digital natives and digital immigrants: a pilot project using iPads in a chiropractic college setting:  
*Dana Lawrence, Rita Nafziger, Dan Weinert*
- Differences in clinical approach between dentists and chiropractors analysing the same set of temporomandibular joint dysfunction cases:  
*Alexander Lee, Wendy Mok, Katherine Siu, Hilary Kwan, Linda Li*
- Predictors of National Board of Chiropractic Examiners (NBCE) performance:  
*Angela Reeves McCall, Richard Harvey*
- Impact of provincial subsidy changes on chiropractic utilization in Canada:  
*Emily McManus, Silvano Mior*
- Management of patients with sacroiliac joint pain: a prospective observational cohort study:  
*Donald Murphy, Eric Hurwitz*
- The use of cervical manipulative therapy in the presence of spinal cord compression: a case series:  
*Donald Murphy, Eric Hurwitz, Rick Morris*
- A case-based approach to pharmacology using wikis as a collaborative tool:  
*Lia Nightingale*
- Utilization of an iPad throughout a nutrition curriculum:  
*Lia Nightingale*
- Physiological responses to spinal manipulation therapy: are electromyographic responses related to peak force?  
*François Nougrou, Constance Deslauriers, Claude Dugas, Martin Descarreaux*
- Using educational videos to teach spinal manipulation:  
*Karen Numeroff, Linda Mullin, Susan Esposito*
- What happened to the DREEM? – A follow up of the educational environment:  
*Per J. Palmgren, Gunnar Nilsson, Klara Bolander Laksov*
- The impact of lumbar spinal stenosis on lower extremity motor control: using movement to measure function:  
*Steven Passmore, Valerie Pelleck, Alyson Gysel, Michael Johnson, Dean Kriellaars, Cheryl Glazebrook*
- Long-term study of chiropractic care for older adults: a report on feasibility and baseline characteristics:  
*Mark Pfefer, Richard Strunk, Stephan Cooper, Derrick Dube*

Changes in vertebral artery blood flow following various head positions and manipulation:

*Jairus Quesnele, John Triano, Greg Wells*

The Chiropractic Hospital-based Interventions Research Outcomes (CHIRO) study – part 2: the consistency of outcomes between chiropractors treating patients with acute lower back pain:

*Jeffrey Quon, Paul Bishop, Brian Arthur*

The effect of prolonged waiting times on improvement after operative treatment of sciatica due to acute lumbar disc herniation:

*Jeffrey Quon, Boris Sobolev, Adrian Levy, Charles Fisher, Jacek Kopec, Marcel Dvorak, Martin Schechter*

Pain assessment preference among Latinos:

*Michael Ramcharan*

Appropriate ordering of diagnostic imaging studies for specific conditions amongst DCs: A pilot study:

*Joshua Rhodes, Kathleen Linaker*

The use of debate as an active learning strategy in a chiropractic classroom:

*Drew Rubin, Lisa Rubin*

Maintaining significant partnered relationships in a chiropractic educational setting:

*Lisa Rubin*

Asymmetry of vertical ground reaction forces during walking in adults with chronic low back pain, before and after chiropractic care:

*Brent Russell, Mark Geil, Jianhua Wu, Kathryn Hoiriis*

Doctors of chiropractic self-reported practice patterns and attitudes toward interdisciplinary co-management of older adults with back pain:

*Stacie Salsbury, Kevin Lyons, Cynthia Long, Maria Hondras, Robert Vining, Lisa Killinger, Christine Goertz*

Is an interview enough? Using competency based assessment as part of faculty clinician selection at a chiropractic college:

*David J Schimp, Barry C Wiese*

Predictors of performance of students in biochemistry in the doctor of chiropractic program:

*Kathryn Shaw, Christopher Meseke, Veronica Dishman*

Patient and payment sources of Palmer College of Chiropractic's teaching clinics:

*Gregory Snow, Makani Lew*

The impact of the 2012 Arctic Winter Games on athletes' health behaviours: a cross-sectional survey:

*Brynne Stainsby, Steven Piper*

Does muscular strength and power of second year chiropractic students correlate with peak force-production during a maximal effort bilateral hypothenar contact manipulation? A pilot study:

*David Starmer, Robert Morano, Ashley Sweeney, Peter Miele, Sean Netley*

Participation strategies and student performance: a case study:

*David Starmer, Sean Duquette, Loretta Howard*

Does soft tissue compliance of thoracic para-spinal musculature change based on body type?

*David Starmer, Sean Duquette, Brynne Stainsby*

Clinical, demographic, and geographic determinants of variation in chiropractic episodes of care for adults using the 2005-2008 Medical Expenditure Panel Survey:

*Joel Stevans, Marc Zodet*

Student perceptions on the effectiveness of clinical reasoning teaching strategies:

*Dorrie Talmage, Nancy Peterson, Steve Foster*

Modification of a computer-based patient simulation program: expanding case learning options in a chiropractic curriculum:

*Dorrie Talmage, Jeffrey Weiss, John Mrozek*

Differences between Learning and Study Strategies Inventory subtest and factor scores and grade point averages for chiropractic students tested in trimesters one and seven:

*Rodger Tepe, Christine Schutz, Leanne Dalton*

The effects of dietary modification and whole food supplements on cardiovascular disease risk factors in overweight and obese adults with total cholesterol over 180:

*Rodger Tepe, Robert Davidson*

Pilot study on the impact of student feedback using in-depth interviews on assessment and achievement of student learning outcomes:

*Noni Threinen, Mike Sackett, Victoria Hamdi, Jenna Uyeno, Samaneh Sadri*

Student iPad use in a neuromusculoskeletal diagnosis course: The influence of iPads on course grades and student opinions and attitudes toward iPads in the classroom:

*Michael Tunning, Christopher Roecker, Robert Rowell, Michael VanNatta*

Prevalence of radiographic findings in a chronic low back pain population:

*Robert Vining, Eric Potocki, Ian McLean, Michael Seidman, Paige Morgenthal, James Boysen, Christine Goertz*

Systematic review of the use of complementary and alternative medicine by non-Hispanic blacks:

*John Ward, Carol Webb, Kelley Humphries*

Acute cardiovascular response to atlas manipulation:

*John Ward, Jesse Coats, Ken Tyer, Shauna Weigand, Gabby Williams, Danielle Cockburn*

Thoracolumbar spinal manipulation impact on exercise performance:

*John Ward, Jesse Coats, Michael Ramcharan, Kelley Humphries, Tammy Tong, Cheuk Chu*

Immediate effects of anterior upper thoracic spine manipulation on cardiovascular response:

*John Ward, Jesse Coats, Ken Tyer, Shauna Weigand, Gabby Williams*

Plantar fascia dynamics in runners and walkers:

*Aaron Welk, Daniel Haun, Thomas Clark, Norman Kettner*

Trends in the use and cost of chiropractic spinal manipulation under Medicare Part B:

*James Whedon, Yunjie Song, Matthew Davis*

Within-day and between-day reliability of spinal stiffness measurements using a mechanical indentation device in individuals with and without low back pain:

*Arnold Wong, Gregory Kawchuk, Eric Parent, Narasimha Prasad*

The development of a critical appraisal tool for the quantitative assessment of case reports:

*Shari Wynd, Kent Stuber, Eric Hurwitz, Al Adams, Nancy Petersen*

Test anxiety and academic performance in chiropractic students:

*Niu Zhang, Charles Henderson*

The 2008 prevalence of chiropractic use in the United States adult population:

*Marc Zodet, Joel Stevans*

## **POSTER PRESENTATIONS**

Musculoskeletal physical outcome measures in individuals with tension-type headache: A review:

*Jacques Abboud, Andrée-Anne Marchand, Karin Sorra, Martin Descarreaux*

The use of Patient Reported Outcomes Measurement Information System (PROMIS) to determine the quality of life of pregnant patients presenting for chiropractic care within a practice-based research network:

*Joel Alcantara*

Autonomic modulation from hemispheric designed chiropractic receptor-based manipulative therapies: a case study:

*Derek Barton, David Rosenthal, Benjamin Behrendt*

Case-based discussion: enhancing student learners' clinical reasoning through a work-based assessment tool:

*Victor Benavides, Amy Wright*

- A retrospective file review on the possible effectiveness of the Advanced Orthogonal Procedure in the care of patients with headaches:  
*Aaron Bernard, Joel Alcantara, George Stanford Pierce, George Stanford Pierce Jr*
- A retrospective file review on the possible effectiveness of the Advanced Orthogonal Procedure in the care of patients with low back pain:  
*Aaron Bernard, Joel Alcantara, George Stanford Pierce, George Stanford Pierce Jr*
- Chiropractic and dentistry- the need for mutual understanding of tmd co-treatment: a case report:  
*Charles Blum, Rebecca Griffiths*
- A comprehensive learning series on yellow flags for the DC and DC student:  
*Teresa Brennan*
- Medicare beneficiary double lumbar spinal surgical intervention cost comparison with positive outcome measures using a chiropractic manual medicine management approach:  
*Thomas Brodar, Eric Gren*
- The use of chiropractic manipulation in the post-surgical spine:  
*Christopher M. Coulis, Anthony J. Lisi*
- Changes in symptomatological intensity in women with primary dysmenorrhea after chiropractic spinal manipulation treatment:  
*Fábio Dal Bello, Ricardo Fujikawa, Ricardo Souza de Carvalho*
- Congenital spinal anomalies-a comparative study:  
*Eva Elsangak, Kathleen Linaker*
- The use of vestibular rehabilitation therapies in traumatic brain injury to improve balance, station and gait:  
*Susan Esposito, Linda Mullin, Frederick Carrick*
- Sitting disc technique and the relationship to the straight leg raise: A retrospective case series of thirty patients:  
*Harvey Getzoff*
- Identification of suspicious skin lesions in chiropractic practice: A cross sectional study:  
*Sara Glithro, David Newell, Adrian Hunnisett, Christina Cunliffe*
- Avulsion fracture of the iliac crest apophysis in a 15 year-old football player:  
*Stephen Grand, Matthew Richardson*
- Evaluation of transcutaneous electrical nerve stimulation (TENS) vs. biofreeze in the treatment of back pain:  
*Jay Greenstein, Barton Bishop, Jena Etnoyer, Robert Topp*
- Association between heart rate variability and novel pulse rate variability methods:  
*John Hart*
- Is Collaborative practice a feature of chiropractic education? A baseline survey:  
*Navine Haworth, Barry Draper*
- Prevalence of non-musculoskeletal versus musculoskeletal cases in a chiropractic student clinic:  
*Bruce Hodges, Jerrilyn Cambron, Rachel Klein, Dana Madigan*
- Case report: A patient with low back pain and somatic referred pain concomitant with intermittent claudication in a chiropractic practice:  
*Kathryn Hoiriis, Brent Russell*
- Defining and measuring quality in chiropractic health care: toward six sigma success:  
*Nicole Homb, Shayan Sheybani*
- Diagnosis and serial sonography of a proximal fifth metatarsal stress fracture:  
*Martha Kaeser, Patrick Battaglia, Norman Kettner*
- Thyroid carcinoma: incidental finding while assessing cervical lymphadenopathy:  
*Martha Kaeser, Jinpu Li, Norman Kettner*
- Proximal tibiofibular ganglion cyst in a recreational runner : a case report:  
*Ismat Kanga, Paula Stern, Dominic Giuliano*

Resolution of hearing loss after chiropractic manipulation:

*Kimberly Keene, Melissa Ferranti, Chelsea Prothero*

The Khmer translation and cross-cultural adaptation of the Patient-Reported Outcome Measurement Information system (PROMIS) global health survey:

*Kim Khauv, Maliny Taing*

Coiling and kinking of internal carotid arteries in upper cervical area - a case report:

*Pil-Woo Kim, Kathryn Hoiriis*

Integrative complementary and alternative medical care for low back pain: a systematic review:

*Anupama Kizhakkeveetil, Kevin Rose, Gena Kadar*

Attitudes towards vaccination: A follow up survey of students at the Canadian Memorial Chiropractic College:

*Marlee Lameris, Catherine Schmidt, Brian Gleberzon, Jillian Ogrady*

A rare case of a large dermoid cyst and staghorn calculi:

*Melissa Loschiavo, Marni Capes, R. Bruce Fox*

The use of social media among a random sample of Ontario chiropractors:

*Stephen Malone, Brian Gleberzon, Marc Cerulli, Thomas Osmond*

Essential literature for the chiropractic profession:

*Barbara Mansholt, John Stites, Dustin Derby, Ron Boesch*

A pediatric case of McCune-Albright syndrome in a 5 year old female at a chiropractic teaching clinic:

*Kenice Morehouse, Stephen Grand*

Successful management of chronic shoulder impingement syndrome with multi-modal chiropractic care and home exercise: a case report:

*Adam Morrell*

Salter Harris II fracture of second proximal phalanx of toe: a chiropractic perspective:

*Mark Murdock*

Utilization of diagnostic ultrasonography in the evaluation of osseous fractures of the appendicular skeleton: a review of literature:

*Stephanie Mussmann*

Knowledge of assessment and management of headaches: a survey of chiropractic interns:

*Mark Pfefer, Stephan Cooper, Jon Wilson, Derrick Dube, Richard Strunk*

Acute spinal cord compression resulting in myelomalacia: a case report:

*Steven Piper, Janet Walters, Glen Harris*

Tibial plateau fracture following ACL reconstruction: co-management of a rare complication:

*J. Ali Rabatsky*

The sonographic squeeze test: assessing reliability of the of the dorsal scapholunate ligament:

*Kenneth Reckelhoff, Thomas Clark, Norman Kettner*

Chiropractic management of trigeminal neuralgia: a case study:

*Robert Rectenwald*

The association between body mass index and response to spinal manipulation for patients with subacute and chronic low back pain:

*Christopher Roecker, Joel Pickar, Dana Lawrence, Robert Vining, Cyndy Long*

A case of breech repositioning unresponsive to Webster Technique: coexistence of oligohydramnios:

*Christopher Roecker*

Comminuted scapular body fractures: a report of three cases managed conservatively in chiropractic settings:

*Julie Scarano, Matthew Richardson, John Taylor*

The role of chiropractic in collective health: the perspective of chiropractors:

*Thiana Paula Schmidt dos Santos, Lucilda Selli, Marta Casagrande Saraiva*

- Pregnancy, sacroiliac joint laxity, and the SOT category two pelvic distortion: A case series:  
*Rodney Shelley, Charles Blum*
- An integrated approach to the management of temporal mandibular dysfunction: a case study:  
*Peter James Shipka*
- Does participating in a simulated cardiac arrest scenario, using high fidelity manikins, improve an intern's technical emergency care skills? A case study:  
*David Starmer, Sean Duquette, Dominic Giuliano, Kevin Finn, Andrew Miners, Anthony Tibbles*
- The effects of multimodal chiropractic care on pain and disability in a patient diagnosed with benign joint hypermobility syndrome and chronic pain: A case report:  
*Richard Strunk, Mark Pfefer, Curtis Fletcher*
- Patient perceptions of access and benefits of chiropractic: A qualitative study:  
*Shelagh Taggart, Adrian Hunnisett, Christina Cunliffe*
- A survey of chiropractic physicians' practices for patient history, physical exam, and diagnosis:  
*Rodger Tepe, Chabha Tepe*
- A single blind one group pretest-posttest pilot study of the effects of active release technique on cervical and thoracic range of motion:  
*Rodger Tepe, Lindsay Roseman, Hans Hengel, Jane Oschner-Ndessokia, Daniel Jablonski*
- An observational study of "normal" and "best" posture in normal weight, overweight, and obese chiropractic college students:  
*Rodger Tepe, Deborah England, Holly Tucker, Sara Jerman, Jacquelyn Bowman-Garrett*
- A case study: Gonstead chiropractic care in a patient with brachial plexus dysfunction:  
*Michael Tomasello*
- Treatment of a patient with post cortical atrophy with chiropractic manipulation and dynamic neuromuscular stabilization (DNS): A case report:  
*Michael Tunning, Vinicious Francio, Ron Boesch*
- The association between low back pain and bowel and bladder dysfunction: a narrative review:  
*Anna Walden*
- Comparison of other palpation techniques of the thoracic spine to the motion palpation technique: a pilot study:  
*Paul Wanlass, Anupama Kizhakkeveetil, Kevin Rose, Gina Hamilton, Mark Losack, Jeremy Summers, Beth Dominicus*
- Chiropractic management of an equestrian athlete with sacroiliac dysfunction and muscle imbalance: a neurotensegrity approach:  
*David Ward, Tasmin Fanning*
- Lumbar spine manipulation impact on VO<sub>2</sub>max:  
*John Ward, Jesse Coats, Michael Ramcharan, James Zuniga, Cheuk Chu*
- Pilot study of the impact sacroiliac joint manipulation has on leg length inequality:  
*John Ward, Jesse Coats, Ken Sorrels, Matthew Walters, Trevor Williams*
- Resolution of migraine headaches with a comprehensive care plan: a case report:  
*Howard Wasdin, Catherine O'Neill*
- A survey of current attitudes among chiropractic students and clinical faculty:  
*Jon Wilson, Mark Pfefer, Stephan Cooper, Richard Strunk*
- Changes in clinical and radiographic parameters after a two-week regimen of chiropractic manipulation combined with soft tissue therapy and neuromuscular rehabilitation in 7 adult patients with idiopathic scoliosis:  
*Alan Woggon, Daniel Martinez*
- Delivering quality chiropractic care to a cerebral palsy patient in an outpatient teaching clinic: a case report:  
*Amy Wright, Victor Benavides*