## Brent da Silva Russell, MS, DC

Curriculum Vitae (v. 2.21.24)



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HIGHLIGHTS	<ul> <li>Research professor (see Research Publications, Publications in Progress, and Conference Presentations, below.)</li> </ul>
	<ul> <li>Advisor, Research Track alternative curriculum for students in Life University's College of Chiropractic (competitive application process)</li> </ul>
	Chair, Life University Institutional Review Board (research ethics committee.)
	<ul> <li>Member, Life University Research Advisory Council (internal funding for research and scholarly activity.)</li> </ul>
	<ul> <li>Member, Life University Research Leadership Council (interdepartmental coordination and communications.)</li> </ul>
	<ul> <li>Manuscript reviewer for Journal of Manipulative and Physiological Therapeutics, Journal of Chiropractic Medicine, Journal of Chiropractic Education, Chiropractic &amp; Manual Therapies, and Gait &amp; Posture.</li> </ul>
	Editorial Board Member, Journal of Chiropractic Education
	<ul> <li>Abstract peer reviewer for the annual Association of Chiropractic Colleges Research Agenda Conference (ACC-RAC.)</li> </ul>
PROFESSIONAL	Georgia Chiropractic Association
MEMBERSHIPS	Chiropractic Educators Research Forum
EDUCATION	<ul> <li>Life University, College of Chiropractic, Marietta, Georgia. DC degree (Doctor of Chiropractic); 1983.</li> </ul>
	<ul> <li>Georgia State University, Atlanta, Georgia. MS Exercise Science, Biomechanics Concentration; 2011.</li> </ul>
	<ul> <li>Georgia Southern University, Statesboro, Georgia. BA; 1978.</li> </ul>
PAST ACADEMIC EMPLOYMENT, LIFE UNIVERSITY	<ul> <li>Lead instructor RSCH 2501, Introduction to Research Methods (2008-2021): fundamental concepts, evidence-based practice, types of peer-reviewed publications, literature search, common statistics in clinical research.</li> </ul>
	<ul> <li>Instructor, ANLS 5815, Selected Topics in Biomechanics: mechanical properties of biological tissues and other topics in clinically-related biomechanics relevant to spinal adjustment and to neuromusculoskeletal dysfunction and pathology.</li> </ul>
	<ul> <li>Faculty Clinician, Life University outpatient and student clinics: 1984-89 and 1991–1995.</li> </ul>

	<ul> <li>Lab instructor DIAG 2730, Orthopedic Diagnosis, DIAG 2740, Neurological Diagnosis, and CLET 3102 Clinical Skills. Lecture &amp; lab CPRO 2301, Clinic Proficiency.</li> </ul>
PROFESSIONAL PRACTICE highlights	<ul> <li>2000 – present: part-time home-office practice</li> <li>1998 – 2000: Essential Healing: multi-disciplinary group practice offered chiropractic, nutritional counseling, massage therapy, and wellness education.</li> <li>1992 – 1997: part-time home-office practice</li> <li>1987 – 1992: Phoenix Healing &amp; Learning Institute: multi-disciplinary center offered chiropractic, medical care, psychiatry, psychology, nutritional counseling, massage therapy, &amp; wellness education.</li> </ul>
RESEARCH PUBLICATIONS	<ul> <li>Russell BS, Owens EF, Hosek RS, Dever L, Weiner MT. Assessment of forces during side-posture adjustment with the use of a table-embedded force plate: reference values for education. <i>Journal of Chiropractic Education</i>. 2023; 37(2): 73-81.</li> </ul>
	<ul> <li>Russell BS, Keller M, Wynd SE, Hosek RS, Owens EF, Hoiriis KT. Angular kinematics of chiropractic supine cervical manipulation: rotational measures and comparisons to doctor and patient perceptions. <i>Journal of Manipulative &amp; Physiological Therapeutics</i>, 2022;45(7):497-507.</li> </ul>
	<ul> <li>Bryson JD, Bryson LB, Russell BS. Styles and features of backpacks used by chiropractic students. <i>Journal of Contemporary Chiropractic</i>. 2022;5(1):259– 263. https://journal.parker.edu/index.php/jcc/article/view/245.</li> </ul>
	<ul> <li>Herzog W, Kevorkian P, Russell BS, Alcantara J. Comparison of Forces Exerted by a Chiropractor on Children and Adults During High-Speed, Low-Amplitude Spinal Manipulations: A Feasibility Study. <i>Journal of Manipulative &amp; Physiological Therapeutics</i>. 2022;45(6):389-399.</li> </ul>
	<ul> <li>Weiner MT, Russell BS, Mullin LE, Owens EF, Hosek RS, Kelly G. Spinal kinematic assessment of chiropractic side posture adjustments: development of a motion capture system. <i>Journal of Manipulative &amp; Physiological Therapeutics</i>. 2022;45(4):298-314.</li> </ul>
	<ul> <li>Owens EF, Dever L, Hosek RS, Russell BS, Sullivan SGB. Development of a mannequin lab for clinical training in a chiropractic program. <i>Journal of Chiropractic Education</i>. 2022;36(2):147-152.</li> </ul>
	<ul> <li>Owens EF, Hosek RS, Russell BS. Mechanical properties of a thoracic spine mannequin with variable stiffness control. <i>Journal of Chiropractic Education</i>. 2021;35(1):1-7.</li> </ul>
	<ul> <li>Russell BS, Muhlenkamp-Wermert KA, Hoiriis KT. Measurement of Lumbar Lordosis: A Comparison of 2 Alternatives to the Cobb Angle. <i>Journal of Manipulative &amp; Physiological Therapeutics</i>. 2020;43(8):760-767.</li> </ul>
	<ul> <li>Minicozzi SJ, Russell BS. Increased low back pain in performance of a pelvic tilt maneuver: a short report of 2 cases. <i>Journal of the Academy of Chiropractic</i> <i>Orthopedists</i>. 2019;16(1):3-17.</li> </ul>
	<ul> <li>Russell BS, Hosek RS, Hoiriis KT, Drake ED. A case study involving Chronic Progressive External Ophthalmoplegia and Bilateral Vestibular Hypofunction:</li> </ul>

- balance, gait, and eye movement, before and after multimodal chiropractic care. *Journal of Chiropractic Medicine*. 2019;18(2):144-154.
- Russell BS, Hoiriis KT, Hosek RS. Walking gait before and after chiropractic care following fifth metatarsal fractures: a single case kinetic and kinematic study. *Journal of Chiropractic Medicine*. 2018;17(2):106-16.
- Owens EF, Russell BS, Hosek RS, Sullivan SGB, Dever LL, Mullin LE. Changes in adjustment force, speed, and direction factors in chiropractic students after 10 weeks undergoing standard technique training. *Journal of Chiropractic Education*. 2017 Mar;32(1):3-9.
- Minicozzi SJ, Russell BS. On-site chiropractic care as an employee benefit: a single location case study. *Journal of Chiropractic Medicine*.2017;16(3):183-8.
- Owens EF, Hosek RS, Mullin L, Dever L, Sullivan SGB, Russell BS. Thrust magnitudes, rates, and 3-dimensional directions delivered in simulated lumbar spine high-velocity, low amplitude manipulation. *J Manipulative Physiol Ther*. 2017;40(6):411-9.
- Minicozzi SJ, Russell BS, Ray KJ, Shen A, Owens EF. Low back pain response to pelvic tilt position: an observational study of chiropractic patients. *Journal of Chiropractic Medicine*. 2016; 15: 27-34.
- Owens EF, Hosek R, Sullivan S, Russell BS, Mullin L, Dever L. Developing training targets for lumbar spine HVLA adjustments in a chiropractic program. *Journal of Chiropractic Education*. 2016; 30(1):7–13.
- Russell BS. Letter to the Editor concerning "High-heeled-related alterations in the static sagittal profile of the spino-pelvic structure in young women" by Min Dai et al. European Spine Journal. 2015;24(8):1826-7.
- Hoiriis KT, Russell BS. Case report: a patient with low back pain and somatic referred pain concomitant with intermittent claudication in a chiropractic practice. *Topics in Integrative Health Care*. 2014;5(1):ID 5.1004.
- Russell BS, Hoiriis KT, Guagliardo J. Correlation between student performances on course level integrated clinical skills examinations and Objective Structured Clinical Examinations in a chiropractic college program. *Journal of Chiropractic Education*. 2012 Fall;26(2);138-45.
- Russell BS, Muhlenkamp KA, Hoiriis KT, DeSimone CM. Measurement of lumbar lordosis in static standing posture, with and without high-heeled shoes. *Journal* of Chiropractic Medicine. 2012;11(3):145-53.
- Russell BS. The effect of high-heeled shoes on lumbar lordosis: a narrative review and discussion of the disconnect between Internet content and peerreviewed literature. *Journal of Chiropractic Medicine*. 2010;9(4);166-73.
- Russell BS. Carpal tunnel syndrome and the "double crush" hypothesis: a review and implications for chiropractic. *Chiropractic & Osteopathy*. 2008, Apr 21;16:2.
- Russell BS, Hoiriis KT. Conference on the Biology of Manual Therapies: a special report. *Journal of Vertebral Subluxation Research*. 2006;18.
- Russell BS. A suspected case of ulnar tunnel syndrome relieved by chiropractic extremity adjustment methods. *Journal of Manipulative & Physiological Therapeutics*. 2003;26(9):602-7.

## RESEARCH IN PROGRESS

- Keller M, Russell BS, Owens EF, Hosek R. Angular kinematic measures of chiropractic supine cervical thrusts performed on mannequins. *In review* with the Journal of Chiropractic Education.
- Russell BS, Owens EF, Hosek R, Keller M. Thrust force measurement of chiropractic supine cervical adjustments. *In review* with the Journal of Contemporary Chiropractic.
- Bryson LB, Bryson JD, Russell BS, Hosek RS. Kinematic evaluation of walking while wearing internal frame and frameless backpacks. *In review* with the Journal of Chiropractic Medicine.
- Ziegler AMS, Russell BS, Hosek RS. Angular kinematics of pianists during performance of a scale-based exercise: typical movement patterns. In revision.
- Weiner MT, Russell BS, Mullin LE, Owens EF, Hosek RS, Kelly G. Extremity kinematic assessment of chiropractic side posture adjustments: development of a motion capture system. Manuscript in preparation.
- Ziegler AMS, Russell BS, Hosek RS. Angular kinematics of pianists during performance of a scale-based exercise: inter-trial variability of movement patterns. Manuscript in preparation.

## CONFERENCE PRESENTATIONS

- Russell BS, Owens EF, Dever L, Hosek RS, Tran K. Measuring adjustment forces: applied compared to transmitted loads. [abstract]. ACC-RAC 2024.
- Russell BS, Keller M. Kinematically-determined rotational duration in supine cervical manipulative thrusts. [abstract]. ACC-RAC 2023.
- Maysonet C, Russell B, Hayes K. Arm swing symmetry in walking with induced lower limb asymmetry. [abstract] ACC-RAC 2023.
- Hosek R, Russell B, Maysonet C. Analysis of coordination between contralateral arm and thigh movements during walking. [abstract] ACC-RAC 2023.
- Keller M, Russell BS, Owens EF, Hosek R. Rotational magnitudes of supine cervical thrusts performed on mannequins [conference abstract]. J Chiropr Educ. 2022; 36(1).62.
- Russell BS, Maysonet C, Hayes K, Hosek R. Assessment of inter-limb symmetry in walking: establishment of methods. [abstract]. ACC-RAC 2022.
- Russell BS, Keller M, Hosek R, Wynd SE, Owens EF. Angular kinematics of supine cervical spine adjustment: phase 2 [abstract]. ACC-RAC 2021.
- Owens EF, Hosek RS, Salman M, Russell BS. Padding on the support table affects spinal posterior-to-anterior stiffness measurements [abstract]. American Society of Biomechanics annual meeting (ASB), 2020.
- Salman M, Owens EF, Hosek RS, Russell BS. Harmonic excitation approach to determine system identification of a mannequin [abstract]. ASB annual meeting, 2020.
- Lunsford B, Russell BS, Hosek RS, Owens EF, Jr. Reproducibility of a prescriptive force for adjustive thrust characteristics of chiropractic faculty professors [abstract]. ACC-RAC 2020
- Owens EF, Russell BS, Hosek RS, Sullivan SGB. Development and testing of a lumbar spine palpation training device [abstract]. ACC-RAC 2020.

- Sullivan SGB, Russell BS, Hosek RS, Owens EF, Seckington A, Drake ED. A model for chiropractic research designed to move the healthcare dialogue toward a development-of-health model [abstract]. ACC-RAC 2020.
- Russell BS, Wynd SE, Hosek RS, Owens EF, Hoiriis KT. Rotational kinematics of supine cervical spine manipulation: a pilot study [abstract]. Congress of the World Federation of Chiropractic and European Chiropractors' Union, 2019.
- Owens EF, Hosek RS, Russell BS. Mechanical properties of a thoracic spine mannequin with variable stiffness control [abstract]. ACC-RAC 2019.
- Weiner MT, Russell BS, Mullin LE, Owens EF, Hosek RS, Kelly G. Assessment of hip and shoulder kinematics of a chiropractor during performance of side posture adjustments: data from a pilot study [abstract]. ACC-RAC 2019.
- Weiner MT, Russell BS, Mullin LE, Owens EF, Hosek RS, Kelly G. Posture
  assessment of a chiropractor performing side posture adjustments: a pilot study
  using an inertial measurement unit system [abstract]. ASB annual meeting,
  2018.
- Weiner MT, Russell BS, Mullin LE, Owens EF, Hosek RS. Kinematic assessment of a chiropractor performing side posture adjustments: a pilot study using a motion capture system [abstract]. ACC-RAC. 2018.
- Russell BS, Wynd SE, Hosek RS, Owens EF, Hoiriis KT. Patient and practitioner perceptions of osteokinematics and kinetics of supine cervical spine manipulation: a pilot study [abstract]. ACC-RAC 2018.
- Schmidt AM, Russell BS, Hosek RS. Kinematics of piano performance [abstract].
   ASB, 2018.
- Schmidt AM, Russell BS, Hosek RS. Analysis of kinematic variability in pianists: a pilot study [abstract]. ACC-RAC 2018.
- Owens EF, Hosek RS, Russell BS. Mechanical properties of a lumbar spine manneguin with variable stiffness control [abstract]. ACC-RAC 2018.
- Schmidt AM, Russell BS, Hosek RS. Kinematics of piano performance: a feasibility study [abstract]. National Conference of Keyboard Pedagogy 2017.
- Schmidt AM, Russell BS, Hosek RS. Kinematics of piano performance: a feasibility study. International Conference for Research and Philosophy (IRAPS), Sherman Chiropractic College 2017.
- Owens EF, Russell BS, Weiner MT, Mullin LE, Hosek RS. Amplitude and speed of Gonstead technique side-posture lumbopelvic adjustments in humans [DC-2017 conference abstract]. J Chiropr Educ. 2017; 31(1).
- Herzog W, Kevorkian P, Russell BS, Alcantara J. The forces exerted by chiropractors on pediatric patients during high-speed low amplitude spinal manipulative treatments [DC-2017 conference abstract]. J Chiropr Educ. 2017; 31(1).
- Owens EF, Hosek RS, Mullin L, Dever L, Sullivan S, Russell BS. Changes in adjustment force, speed and direction factors in chiropractic students after 10 weeks undergoing standard technique training [conference abstract]. J Chiropr Educ. 2016; 30(1): 63. doi: http://dx.doi.org/10.7899/JCE-15-22.

- Capes M, Russell BS, Oz M, Hosek RS. Kinetic gait assessment before and after chiropractic lower extremity adjustments [conference abstract]. J Chiropr Educ. 2016; 30(1): 54.
- Weiner MT, Russell BS, Bishop A, Hosek RS. Motion capture analysis of students performing side posture set up and thrusts on a mannequin: a pilot study [conference abstract]. J Chiropr Educ. 2016; 30(1): 67-8.
- Bryson JD, Bryson LB, Russell BS. Kinematic evaluation comparing internal frame and frameless backpacks: a pilot study [conference abstract]. J Chiropr Educ. 2016; 30(1): 53.
- Russell BS, Hosek R, Hoiriis KT. Kinetic gait evaluation of three patients with foot and ankle injuries, before and after a limited protocol of chiropractic care [conference abstract]. J Chiropr Educ. 2015; 29(1): 103. DOI 10.7899/JCE-14-34.
- Owens EF, Hosek R, Mullin L, Dever L, Sullivan S, Russell B. Thrust magnitudes, rates and 3-dimensional directions delivered in simulated lumbar spine HVLA adjustments. [poster presentation, 2015 World Federation of Chiropractic 13th Biennial Congress.]
- Russell BS, Hosek R, Hoiriis KT, Linkhorn AE. Kinetic evaluation of gait in an injured football player before and after chiropractic care [conference abstract].
   J Chiropr Educ 2014;28(1):97.
- Russell BS, Geil MD, Wu J, Hoiriis KT. Variability of vertical ground reaction forces in adults with chronic low back pain, before and after a limited protocol of chiropractic care [conference abstract]. Annual meeting of the American Society of Biomechanics, 2013.
- Russell BS, Muhlenkamp Wermert KM, Hoiriis KT. Measurement of lordosis by the Spinal Mouse as compared to lateral lumbar radiographs [conference abstract]. Proceedings of the World Federation of Chiropractic, 12th Biennial Congress, 2013: 216.
- Russell B, Geil M, Wu J, Hoiriis K. Asymmetry of vertical ground reaction forces during walking in adults with chronic low back pain, before and after chiropractic care [conference abstract]. J Chiropr Educ 2013;27(1):78.
- Russell BS, Geil MD, Wu J, Hoiriis KT. Variability of vertical ground reaction forces in patients with chronic low back pain, before and after chiropractic care [conference abstract]. J Chiropr Educ 2012;26(1):108.
- Minicozzi SJ, Russell BS, Ray KJ. Low back pain response to pelvic tilt position: practice-based research, phase 2 [conference abstract]. J Chiropr Educ. 2011;25(1):91.
- Russell BS, Muhlenkamp KM, Hoiriis KT. Evaluation of lumbar lordosis with and without high-heeled shoes [conference abstract]. Annual Meeting for the American Society of Biomechanics, 2009.
- Minicozzi SJ, Russell BS. Low back pain response to pelvic tilt position: a preliminary report [conference abstract]. J Chiropr Educ. 2008; 22(1):70-1.
- Russell BS. Gait analysis of patients with low back pain, before and after spinal manipulation: a preliminary report [conference abstract]. J Chiropr Educ. 2007; 21(1):120.

	<ul> <li>Russell BS. Documenting gait changes in patients with low back pain, before &amp; after spinal manipulation. Southeast Biomechanics Conference, Georgia Institute of Technology, 2006.</li> </ul>
NON-PEER- REVIEWED PUBLICATIONS	<ul> <li>Minicozzi SJ, Khajavi K, Hutchinson A, Russell BS. Case study: chiropractic and surgical interprofessional consultation in an adolescent patient undergoing lumbar fusion. Chiropractic Economics. 2017, August 28: https://www.chiroeco.com/interprofessional-consultation/</li> <li>Russell BS. Somnambulance and other surprises. Hektoen International Journal of Medical Humanities. 2018 Winter: Available at: https://hekint.org/2018/03/27/somnambulance-and-other-surprises/</li> </ul>
FUNDING & AWARDS	<ul> <li>2021 Association of Chiropractic Colleges Research Agenda Conference research award.</li> <li>Research awards, Life University: annually, 2007 – 2021.</li> <li>2017: \$1,000 travel stipend as representative for Life University at the <i>Process of Integrating Evidence</i> conference, Northwestern Health Sciences University; funding from the National Center for Complementary &amp; Integrative Heath and NCMIC Foundation.</li> </ul>
	<ul> <li>2013: \$1,000 travel stipend as representative for Life University at the <i>Teaching and Practicing Evidence-Based Chiropractic</i>, University of Western States, Portland, Oregon. funding from the National Center for Complementary &amp; Alternative Medicine.</li> <li>2010, funding by NCMIC Foundation for the project, "Variability of vertical ground reaction forces in patients with chronic low back pain, before and after chiropractic care." Funded total: \$5,000.</li> </ul>
SELECTED OTHER PROJECTS, ETC.	<ul> <li>Institutional Review Board: CITI course training in Biomedical Basic, IRB Member, IRB Chair, and IRB Administration.</li> <li>Supervision of Research Track scholarship students, Mackenzie Keller (present),</li> </ul>
	<ul> <li>Eric Merritt (2018-19), Michael Jendzruski (2017-19), and Anna-Marie Schmidt Ziegler (2016-18.)</li> <li>Supervision of RISE Scholarship students Kevin Tran (2023-present), Claude Maysonet (2020-2023), Mackenzie Keller (2020-21); and Research Scholarship students Jonathan and Lori Beth Bryson (2016-18), Michael Weiner (2015-17), Kathryn Ray (2010-12), Kimberly Muhlenkamp (2008-09), Nangyali Amin (2005-06), and Andrea Samuels (2001-02.)</li> <li>Representative for Life University for the Consortium of Evidence-Informed</li> </ul>
	<ul> <li>Practice Educators (CEIPE), 2015-20.</li> <li>Life University representative for the conference, <i>The Biology of Manual Therapies</i>, held at the NIH's National Center for Complementary and Alternative Medicine, 2005.</li> </ul>
PERSONAL	<ul> <li>Married since 1980 to Katharine Durham Russell, graphic design manager with the Georgia Tech Communications &amp; Marketing department (retired); we have one daughter (Elizabeth) and one granddaughter (Ava.)</li> </ul>