FOUNDATION for the Royal College of Chiropractic Sport Sciences (Canada) announces their 2024 Research Awards Winners

The FOUNDATION is pleased to announce the following awards

2024 Dr. Rocco Guerriero Research Funding Grant	**Dr. Gabriella DeBono**
Dr. David Gryfe Academic Achievement Scholarship Award	**Dr. David Oh**
Academic Achievement Scholarship Award:	**Dr. Andrew Parks**
Award of Excellence – Student Category	**Mr. Kaleb Dahlgren**
Outstanding Paper	**Dr. Cam Borody**
Outstanding Paper	**Dr. Scott Howitt**
Outstanding Paper	**Dr. Andrew Parks**

The following are the abstracts (where available) and descriptions of the awards and the award winners.

Dr. Gabriella DeBono

Winner of the 2024 Dr. Rocco Guerriero Research Funding Grant - Sports healthcare providers' perspectives of working with chiropractors managing elite athletes: A qualitative study

Abstract

Background: Sports teams use interprofessional healthcare teams to optimize the health and performance of athletes. Studies have explored the value of including sport chiropractors within such teams from the perspective of athletes, coaches, and team staff, but few from the perspective of non-chiropractic sports healthcare providers.

Objective: To investigate the perspectives of sports healthcare providers who interact with chiropractors within the context of supporting elite athletic management.

Methods: A professionalization theoretical framework examined through an interpretive phenomenological lens will be used to explore the perspectives of sports healthcare providers working with chiropractors in elite sport. This approach provides a comprehensive understanding of sports healthcare providers' experiences in relationship to their professional reality.

Participants (medical doctors, physiotherapists, and athletic therapists in sports healthcare environments) will be purposively recruited and supplemented by snowball sampling.

An interview guide will be developed using theory, previous research, and with input from sport experts. Semi-structured interviews will be conducted and, with consent, recorded on Zoom. Interviews will be transcribed verbatim and reviewed for accuracy. An interpretive analysis will be conducted to produce a rich, contextualized exploration of the sports healthcare providers' perspective of working and interacting with sports chiropractors. Codes will be developed inductively and deductively and evolve as the research progresses. The text will be divided into meaning units, condensed into codes, and accordingly organized into representative themes. Reflective practices will be used during data collection and analysis.

Anticipated Outcome: This project will advance our understanding of the interprofessional dynamics of integrating chiropractors into sports healthcare teams to support elite athletic management. It directly investigates the top Canadian sports chiropractic research priorities outlined in 2021; those being research regarding intervention and performance outcome, and interprofessional sports healthcare team dynamics.

Dr. Gabriella DeBono Biography



Dr. Gabriella DeBono earned a Bachelor of Arts with Honors in Kinesiology from Western University in 2018. She developed a passion for sports healthcare through her experiences as a competitive athlete in her teenage years and in being a student athletic therapist during university. She graduated Summa Cum Laude from the Canadian Memorial Chiropractic College in 2023 and is in the process of completing in the Sports Sciences RCCSS(C) Residency Program (at CMCC). Her current research focuses on the qualitative perspectives of other sports healthcare practitioners regarding how chiropractors manage elite athletes.

Dr. Andrew Parks

Winner of the 2024 Academic Achievement Scholarship Award - Autonomic Nervous System Dysfunction in Pediatric Sport-Related Concussion: A Systematic Review

And

Winner of the 2024 Outstanding Paper Award - Autonomic Nervous System Dysfunction in Pediatric Sport-Related Concussion: A Systematic Review

2024 Academic Achievement Scholarship Award - Autonomic Nervous System Dysfunction in Pediatric Sport-Related Concussion: A Systematic Review

These scholarships are open to members of the Royal College of Chiropractic Sports Sciences (Canada) [RCCSS(C)] who have recently conducted scholarly written requirements as part of their Canadian Chiropractic Sports Sciences Residency Program (SSRP).

Abstract

Concussion is a complex and multifactorial health condition, frequently attended to by sports chiropractors. Children have the highest incidence rate of concussion with 692 out of every 100,000 individuals suffering a concussion at some point, with adolescent concussions accounting for 3-8% of all sport related emergency department visits. The identification of concussion and other forms of TBI in pediatric populations differs from that of adults due to neurodevelopmental and physiological variances in the nervous system that exist during different stages of maturation. Thus, identifying these physiological differences becomes important during assessment and re-assessment following injury. The quantification of the autonomic nervous systems function gives clinicians objective data to appreciate these differences with reference to physiological norms in the presence of a suspected head injury. Our systematic review identified, synthesized and appraised the existing evidence suggesting autonomic nervous system disturbance in pediatric sport-related concussion. Using a robust search strategy, we found significant support that concussions do, in fact, disrupt normal physiology within the nervous system resulting in varying degrees of dysautonomia in pediatric individuals. This paper provides a detailed overview of the autonomic nervous system while also educating and informing clinicians about the importance of using objective biometric data in the assessment of concussion as well as during the decision-making progress for return to play. It also highlights the need for continued research into the assessment and quantification of the physiological changes that occur following sport related concussion.

2024 Outstanding Paper Award - Autonomic Nervous System Dysfunction in Pediatric Sport-Related Concussion: A Systematic Review

This award is open to all members (Fellows, Residents and Members) of the RCCSS(C) and is meant to recognize and assist with knowledge transfer of a published work judged to have an excellent contribution to sports-focused research.

Abstract

***Objective*:** To identify, appraise and synthesize the evidence of autonomic nervous system (ANS) dysfunction following sport-related concussion in pediatric populations.

Methods: A literature search was conducted using MEDLINE (Ovid), SportDiscus (EBSCO), CINAHL (EBSCO), EMBASE (Ovid) and PsycINFO (Ovid). Studies were selected and appraised using the Joanna Briggs Institute (JBI) critical appraisal tools. Data was extracted from the included studies and qualitatively synthesized.

Results: Eleven studies were included in the synthesis. There was variability in the methods used to measure ANS function between studies, and sample populations and time to assessment following concussion varied considerably. There was also variability in the direction of change of ANS function between some studies.

Conclusion: This systematic review identifies that concussion is associated with dysregulation of ANS function in pediatric athletes. We identified some weaknesses in the extant literature which may be due to existing logistical and financial barriers to implementing valid ANS measurements in clinical and sports settings.

Dr. Andrew Parks Biography



Andrew is Fellow of the RCCSS(C) from Orillia Ontario where he practices privately. A large proportion of his private practice includes the management of sports injuries, concussions and other neurological based disorders. He also serves as a performance coordinator and has a passion for health advocacy and education to promote healthy aging in his patient population and beyond. He has published independent research, most recently a systematic review on dysautonomia in pediatric sport-related concussion. He currently serves on the RCCSS(C) conference committee and has been responsible for arranging the speaker line-up for this upcoming conference weekend. He is grateful for the recognition from the Foundation and for this award.

Dr. David Oh

Winner of Dr. David Gryfe Academic Achievement Scholarship Award - Association of early vs. late care seeking for sport-related concussion in adolescent athletes: A historical cohort study

These scholarships are open to members of the Royal College of Chiropractic Sports Sciences (Canada) [RCCSS(C)] who have recently conducted scholarly written requirements as part of their Canadian Chiropractic Sports Sciences Residency Program (SSRP).

Abstract

This study was the first to use a propensity score model to model the question, “do adolescent athletes who present earlier for care following SRC, recover faster?” This is a difficult question to answer using observational studies due to may confounding variables and a phenomenon called immortal time bias. Propensity score methodology can better balance participants making groups more comparable. We carefully selected time points including time from SRC to assessment and time from assessment to recovery to ensure that our study did not fall into the immortal time bias as other related studies often do. Considering other methodological improvements, we also included censored data from incomplete subjects helping to present a more accurate reflection of the question compared to using only subjects with complete data.

The results showed that early presenters had a faster median recovery time of 18 days compared to 22 days for late presenters. Cox proportional hazards regression indicated that early presentation was associated with a faster recovery (HRR 1.23). The study's findings support the notion that early care after SRC is associated with faster recovery times, though the results were more modest compared to other literature. These findings emphasize the importance of timely care for improving SRC outcomes.

This study is crucial for the broader sports healthcare community as it highlights the importance of timely management in sport-related concussions (SRC). By demonstrating that early care leads to faster recovery, the study emphasizes the need for prompt medical attention, potentially influencing protocols and policies to ensure athletes receive immediate care. This contributes to the evidence base supporting current concussion management guidelines, reinforcing the necessity of early assessment and intervention.

Additionally, the study can enhance educational efforts by providing concrete evidence of the benefits of early care, targeting athletes, coaches, parents, and healthcare providers. Improved awareness and recognition of concussion symptoms can lead to faster action and better protection of athletes' health. Understanding the benefits of early care can also influence resource allocation within sports programs and healthcare systems, promoting investments in training, rapid assessment tools, and access to specialized concussion clinics.

Moreover, emphasizing early intervention can help reduce the long-term effects of concussions, such as cognitive impairments and emotional difficulties, by ensuring timely treatment. Healthcare providers and sports administrators can use these findings to make informed decisions about concussion management, particularly in developing return-to-play protocols that prevent athletes from resuming activities before fully recovering.

Finally, the study's empirical support can influence policy development at various levels, from local sports clubs to national organizations, mandating immediate evaluation and treatment for suspected concussions. This comprehensive approach ensures enhanced athlete safety across all levels of sport. In summary, this study provides essential evidence to drive improvements in concussion management, education, policy, and resource allocation, ultimately leading to better health outcomes for athletes. This study was selected for poster presentation at the 6th Concussion in Sport Conference in Amsterdam (2022).

Dr. David Oh Biography



Dr. David Oh holds his DC (Summa Cum Laude) and his Sports Specialist Graduate Degree from the Canadian Memorial Chiropractic College. He was awarded Resident of the Year in 2022. David is also a clinical instructor at CMCC in the departments of Clinical Diagnosis. He is also the research coordinator of SERCH, helping to advance sports chiropractic research. David is currently in private practice in Mississauga and involved as an inter-professional HUB team member in the concussion ECHO with the University Health Network.

Kaleb Dahlgren

Winner of the 2024 Award of Excellence – Student category

Awards of Excellence are meant to recognize the outstanding achievement conducted by chiropractic students, RCCSS(C) sports residents and RCCSS(C) Fellows.

Kalleb Dahlgren Biography



Kaleb Dahlgren's relentless dedication to sports, healthcare, and community has established him as an emerging leader in the sports world. Diagnosed with Type 1 Diabetes at just four years old, Kaleb defied the odds to build an impressive hockey career, eventually becoming a standout off-ice leader on York University's U-Sports Varsity Hockey team. His passion for supporting others led him to found Dahlgren's Diabeauties in 2017, a mentorship program for young athletes with Type 1 Diabetes, offering guidance and inspiration to children facing similar challenges. At York University, Kaleb not only thrived academically, earning a Bachelor of Commerce degree with Magna Cum Laude, but also distinguished himself as Class Valedictorian and 2021 Most Outstanding Male Graduate for Varsity Athletics. His influence extended beyond the rink and classroom with the release of his memoir Crossroads, which became a #1 National Bestseller and chronicles his journey of resilience, health advocacy, and community involvement. As a sought-after international keynote speaker, Kaleb shares his insights on health, wellness, leadership, and mental resilience, addressing audiences from professional sports organizations such as the Toronto Maple Leafs, to corporate groups such as Google.

Currently, in his fourth year at Canadian Memorial Chiropractic College (CMCC), Kaleb was awarded the Entrance Scholarship for achieving the first/second-highest admission scores. Now an intern, he has already made a significant impact in the sports chiropractic field. As president of the RCCSS(C) CMCC Club in both his third and fourth years, Kaleb organized events with prominent figures and launched a podcast featuring elite athletes and experts in sports chiropractic, offering unique insights to the student body. His hands-on experience is extensive, including internships at the Winnipeg Jets NHL Training Camp, the Utah Hockey Club (formerly the Arizona Coyotes) NHL Development Camp, Sports Chiropractic Ireland, and sideline support for junior and professional teams. In recognition of his community leadership, Kaleb was named one of YU's Top 30 Under 30 Changemakers in 2022 and received the 2023 Queen Elizabeth II Platinum Jubilee Medal for Community Impact. Kaleb's passion for sports chiropractic, combined with his exceptional blend of athletic desire, community service, healthcare leadership, and advocacy drives positive change in every field he touches. He is extremely honoured, humbled, and grateful to be recognized as a recipient of the RCCSS(C) Annual Award of Excellence.

Dr. Scott Howitt

Winner of the 2024 Outstanding Paper Award - Retrospective analysis of chiropractic care in a multidisciplinary sports healthcare environment – A descriptive survey of Canadian National Team athletes

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RCCSS(C) and is meant to recognize and assist with knowledge transfer of a published work judged to have an excellent contribution to sports-focused research

Abstract

Objective: The purpose of this study was to describe the utilization of health team practitioners among national-level athletes and report their injury profile as well as access to and knowledge of chiropractic care.

Methods: This study was a retrospective analysis of non-identifiable, cross-sectional survey data that were previously collected from members of the AthletesCAN organization who voluntarily completed a web-based, bilingual survey in July or August 2017. The sport of the athlete, number of years on a national team, number and type of injuries, health care practitioners visited, and specific details on chiropractic care were collected. Descriptive statistics were performed to summarize the responses in terms of frequencies and percentages.

Results: There was an 11% response rate (198/1733), with 67 unique sports identified (21 winter sports [50 athletes] and 46 summer sports [148 athletes]). Athletics and swimming were the sports with the most respondents. Fewer than half (43.9%) of the 198 respondents were members of AthletesCAN for 2 to 5 years. Seventy percent reported 1 to 5 injuries over their career, with ankle, low back, and shoulder the most likely body parts affected. A majority of athletes (93.4%) reported visiting multiple practitioners, including medical physicians, physiotherapists, athletic therapists, massage therapists, and chiropractors. Two-thirds (67%) of athletes sought chiropractic treatment, most typically for neck or back pain (81.3%), despite nearly half (45.7%) being unsure about access to chiropractic care.

Conclusion: This sample of Canadian national team athletes who experience an injury may seek care from multiple types of health care providers and include chiropractic as part of their approach to health care. (J Manipulative Physiol Ther 2023;46;182-189) Key Indexing Terms: Athletic Injuries; Delivery of Health Care, Integrated; Patient Care Team; Chiropractic; Sports Medicine; Health Care Surveys

Dr. Scott Howitt Biography

Dr. Howitt holds an Honors Baccalaureate degree in Physical Education from the University of Western Ontario and a Masters degree in Human Health and Nutritional Sciences from the University of Guelph. He graduated from the Canadian Memorial Chiropractic College, and completed a two-year post-graduate residency in Sports Sciences, a three-year post-graduate program in Rehabilitative Sciences, and a two-year course in acupuncture. Dr. Howitt was a member of the core medical team for the 2015 Canadian Pan Am team and works with various amateur and professional sports including the Men's National Soccer team. Dr. Howitt has a special interest in endurance athlete performance and co-ordinates the medical coverage for the Toronto Triathlon Festival. He has created content for sports medicine courseware, has published numerous research papers, and is a lecturer for undergraduate and post-graduate sports medicine, rehabilitation, nutrition, and fitness. Dr. Howitt is the Past-President of the RCCSS(C), and the Co-Chair for the National Advisory Council of EIMC.



Dr. Cam Borody

Winner of the 2024 Outstanding Paper Award - Attitudes towards chiropractic: a survey of Canadian sport and exercise medicine physicians

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RCCSS(C) and is meant to recognize and assist with knowledge transfer of a published work judged to have an excellent contribution to sports-focused research

Abstract

Background: Previously studied medical specialties have revealed diverse attitudes towards chiropractic. Several authors and professional chiropractic associations have long advocated for increased opportunities for chiropractors to work with medical doctors in order to increase exposure and collaboration to improve understanding of chiropractic and its value for patient care. Few medical specialties in Canada have had more exposure to chiropractic than sports and exercise medicine physicians as chiropractors have been well integrated into sports medicine for more than 30 years.

Objective: To determine the attitudes of Canadian sport and exercise medicine physicians (CSPs) toward chiropractic and its use for treatment of athletes and/or Canadians who are participating in sports or exercise (ACSE).

Study Design: Online survey.

Subjects: Active physician members of the Canadian Academy of Sport and Exercise Medicine (CASEM).

Intervention: An invitation to complete the survey was included in the monthly newsletter emailed to all CASEM members in March and April 2023 and attendees of the 2023 CASEM symposium.
Outcome Measures: The survey included a 20-item section, referred to as the Chiropractic Attitude Questionnaire (CAQ), which allowed respondents to indicate their attitudes towards chiropractic care for ACSE using a 5-point Likert scale. The responses to the CAQ were the primary outcome measure.

Results: Seventy CSPs completed the survey (response rate: 11%). Overall, the summed CAQ scores ranged from 0 to 68 with a mean of 39.03 and a standard deviation of 15.3. When compared to family physicians (2010 and 2019) and obstetricians the mean CAQ is almost identical – 39.03 compared to 40.45, 41.7 and 41.2. Those CSPs who worked with a chiropractor in a multidisciplinary setting hold a more positive opinion of chiropractic. An independent samples t-test indicated that there was a significant difference between CAQ scores for those with experience of working with a chiropractor ($M=42.03$, $SD=14.99$) and those without ($M=29.41$, $SD=13.10$); $t(58) = 3.286$, $p < 0.05$.

Conclusions: CSPs attitudes toward chiropractic and its use for treatment of ACSE were overall positive and similar to those of previously surveyed medical specialties. CSPs who reported to have worked with a chiropractor in a sports medicine setting have more positive attitudes than those that have not.

Dr. Cam Borody Biography

After earning an undergraduate degree in Science at the University of Winnipeg, Dr. Borody went on to complete the Doctor of Chiropractic program at the Canadian Memorial Chiropractic College graduating in 2001 and attained his Fellowship with the RCCSS(C) in 2004. Dr. Borody is currently a Resource Clinician and Assistant Professor at CMCC. He is a member of the IST for Volleyball Canada (beach) and was the medical lead for the Toronto 6ix of the Premier Hockey Federation. He maintains an active practice at the Cleveland Clinic Canada and is actively engaged in multiple research projects. His most recent passion is coaching both of his sons' minor hockey teams.

