



Opinion

The BRICS Council for Exercise and Sport Science (BRICSCESS) — A new era has dawned

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1. Introduction

BRICS is the acronym for an international association of 5 major emerging national economies: Brazil, Russia, India, China, and South Africa.¹ According to the World Economic Forum, the BRICS economies are the most competitive among all countries and are distinguished by their significant regional and global influence. The health and wellness of the people within these countries is a primary agenda item of these governments for connecting their fast economic growth and the need to provide a better quality of life. As of 2015, BRICS countries represent >3.6 billion people or one-half of the world population. All 5 countries are members of the top 25 countries of the world by population and 4 of these countries make the top 10 on this list.

A phenomenal and rapid development in the fields of exercise, physical activity, and sports science has taken place in the world. The BRICS Council of Exercise and Sports Science (BRICSCESS) was founded to address the specific concerns of these countries with respect to the health and wellness of the people in BRICS countries. One recognized overwhelming need is the development of future leaders/volunteers (FLVs). Thus the purpose of BRICSCESS is to promote communication, interaction, and cooperation among research institutes, universities, scientists, and FLVs in the field of exercise, physical activity, and sports sciences. In BRICS countries, a growing need exists for the educational development of young professionals to meet the scientific mission to better promote health and wellness in these countries. BRICSCESS seeks to promote and facilitate communication among FLVs and senior researchers in BRICS countries with the overall goal to

enhance the quality of life by the promotion of exercise, physical activity, and sport.

Thus the purpose of this opinion statement is to present a model for the continued development and evolution of BRICSCESS FLVs who are better prepared to make contributions to the scientific literature and professional organizations and to develop a mentoring program for junior scientists, graduate, and undergraduate students to better equip these young professionals with the necessary tools to be successful within their profession.

2. BRICSCESS: A historical perspective

BRICSCESS was first conceived during the 18th International Scientific Congress held in Kazakhstan in 2014. Under the combined international leadership of Dr. Ming-Kai Chin (Hong Kong, China), Dr. J. Hans de Ridder (South Africa), and Dr. Ricardo Ricci Uvinha (Brazil), BRICSCESS was conceived. During the 4th International Conference of Physical Education and Sports Science held in Indonesia in 2015, these same individuals with the addition of Dr. Gulshan Khanna (India) and Dr. Elena Istiagina-Eliseeva (Russia) began the process of formulating the BRICSCESS constitution and bylaws, a scientific board, and the implementation of biennial meetings. Ming-Kai Chin, interim BRICSCESS President, set priorities for constructing an organizational structure and to begin preparation for a founding meeting that was held at the 7th Asia Pacific Conference on Exercise and Sports Science in 2015 in India. At this founding meeting, Dr. Ming-Kai Chin was elected as the first BRICSCESS President and Dr. J. Hans de Ridder was elected as the Vice President and the Secretary General/Treasurer. The Association Headquarters was placed at North-West University in Potchefstroom, South Africa, and a BRICSCESS constitution was finalized and adopted.

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3. BRICSCESS 2017: The inaugural conference

The inaugural BRICSCESS conference was held in Brazil December 2017. The theme of the conference was *Sports Mega Events and Health Promotion: Policies and Legacies in Exercise and Sports Science*. Brazil has gained worldwide attention and developed a legacy by accommodating the needs of 7 sporting mega events within a decade: Pan American Games Rio (2007), the Parapan American Games Rio (2007), the 5th International Military Sports Council World Games (2011), the Fédération Internationale de Football Association (FIFA) Confederations Cup (2013), the FIFA World Cup (2014), the Olympic Games Rio (2016), and the Paralympic Games Rio (2016), but the legacy of successfully hosting multiple mega events has positively impacted various Brazilian economy sectors.² Most notable are those sectors related to leisure and tourism by generating infrastructure development, jobs creation, family income, and promoting Brazil's image as a global tourist destination. One estimate is the 2014 Brazil FIFA World Cup event added approximately 1832 billion Reais to the Brazilian economy. Of these monies, 475 billion Reais were applied to building infrastructure with incremental expenses for tourism.³ The most visible example is the 2016 Summer Olympics held in Rio de Janeiro, the first time the Summer Olympics were held in South America.⁴

Hosting 7 mega events in 1 decade provided tremendous opportunities that benefited all Brazilians. Global mega events stimulate new sports, physical activity, and exercise programming, and these new activities require new leisure programs with a need for new policies. Local representatives, town halls, convention centers, district associations, labor unions, and state park administrations were used to develop policy around these new programming opportunities. As a result, sports mega events were found to offer a unique opportunity to promote public health and improve the awareness of the benefits of exercise, physical activity, and leisure time sports.⁵ As these opportunities were evolving, a need was recognized for future leaders in these areas.

The first BRICSCESS scientific program is a product of these 7 mega events and opportunities created by the activities. This 2.5-day conference brought together scientists, educators, practitioners, and FLVs from 5 continents. Presentations consisted of keynotes lectures, invited lectures, workshops, and scientific oral and poster presentations. The conference provided a forum for scientists, clinicians, practitioners, sports professionals, and FLVs to discuss the increasing role of exercise, physical activity, and sport in promoting better health for BRICS countries. In this regard, the aims of the inaugural conference were to:

- Promote and strengthen communication, interaction, and cooperation among research institutes, universities, scientists, practitioners, FLVs, and other professionals in the field of exercise, physical activity, and sports;
- Promote debate and comparisons regarding the culture of health and quality of life in the BRICS countries and make comparisons with developed practices in other countries; and

- Reflect on the impact that recent mega sporting events have had in Brazil, participate in developing legacies around these mega events, and learn lessons from these events so as to facilitate future positive growth.

4. Developing policies and legacies

The founding BRICSCESS members intended for this new organization to foster an interdisciplinary approach in the promotion of health and wellness into academic institutions, schools, and communities by promoting and implementing theory into practice. To achieve this goal, the following scientific areas (but not limited to just these areas) were included: exercise physiology, health and fitness, biomechanics, psychology, nutrition, medicine, kinanthropometry, rehabilitation sciences, pedagogy, management, social science, history, physical education, adaptive physical activity, leisure and wellness, sports training, technology, traditional sport, and dance.⁶

BRICSCESS aims to serve as a network for such tasks as:

- Promote collaborative research and teaching by facilitating exchange between international scientists and FLVs and to assist these junior scholars in conducting applied exercise, physical activity, and sports science research;
- Organize conferences, seminars, workshops, symposiums, round-table discussions, and training courses;
- Publish resources related to exercise, physical activity, and sports science;
- Establish links between institutions and organizations;
- Establish an active and sustainable FLV program; and
- Promote multi-interdisciplinary approach for developing holistic health.

In September 2015, the United Nation held the Sustainable Development Summit and at the end of this conference, a final document containing 17 Sustainable Development Goals (SDGs) was approved. These goals have since been adopted by 193 countries and are summarized as a means for ending poverty, protecting the planet, and ensuring prosperity for all.⁷ Of importance to BRICSCESS is SDG objective 3, which is to ensure healthy lives and promote well-being for all at all ages as an important overall goal.⁸ The main theme of the 6th International Conference of Ministers & Senior Officials Responsible for Physical Education and Sports held in Russia (2017)⁹ was to link physical education and sports policy with the United Nations 17 SDGs. Because Russia is a BRICS country, the founding BRICSCESS members decided to support the promotion and implementation of these 17 SDGs, especially SDG objective 3, which has a focus on health and wellness.

5. Developing FLVs

The FLV program was initially implemented at the 6th Asia Pacific Conference on Exercise and Sports Science meeting in Taiwan, China, in 2013 and has been an important part of 7 other international meetings, including the recent inaugural BRICSCESS (2017) meeting in Brazil. FLVs must be actively involved in promoting health and wellness in their community

by working closely toward the goals of the Foundation for Global Community Health to implement the SDGs. A recent report from the World Health Organization provides added support to the Foundation for Global Community Health initiative for the implementation of the SDGs. The World Health Organization encourages the private sector to provide sustainability in financing and to share knowledge, expertise, and technology by providing service to social programs as the SDGs relate to chronic disease. Both the Foundation for Global Community Health and the World Health Organization initiatives provide added support for FLVs completing projects in their respective countries.¹⁰ Currently, FLVs from 16 countries—namely, Brazil, Bulgaria, the Czech Republic, Indonesia, the Republic of Korea, Macedonia, Malaysia, New Zealand, Philippines, Poland, Romania, South Africa, Spain, the United States, Turkey, and Zimbabwe—are actively engaged in this program.

The FLV program was developed in recognition of the importance of mentoring emerging young scholars who are dedicated to research, committed to the development of their profession, passionate about serving local and global communities, chosen for their innovative and interdisciplinary abilities, and actively participating in active and healthy living strategies. The program's vision is to empower young professionals to advocate and live a healthy active lifestyle while serving as ambassadors of change and to educate and empower children, adults, and all special needs individuals with evidence-based knowledge. Part of each FLV's experience is the inclusion of a holistic, innovative, and cultural-sensitive experiences that are designed to improved overall health status and quality of life in BRICS countries. The FLV program allows the young scholar to discover differences in culture while taking leading roles in decision making, problem solving, critical thinking, and action planning, and participating in collaborative projects.

One example of an FLV project is the Global Research on Wellbeing program (GRoW) directed by Dr. Elena Carrillo Alvarez, Universitat Ramon Llull, Spain. The main objective of GRoW is to enhance individual health and well-being by facilitating knowledge transfer pertaining to health promotion, disease prevention, and disease treatment using an interdisciplinary approach from various health professionals. By connecting relevant stakeholders to improve health, the following areas of interest were incorporated into GRoW: active and healthy living for children and youth, women's health, healthy aging, health inequalities, and social determinants of health. A second example is a project managed by Dr. Susannah Stevens, University of Canterbury Child Well-being Research Institute in New Zealand. The purpose of this program is to advance interdisciplinary research to enhance the learning success and holistic health and well-being of children and young adults.

Other FLV ongoing projects include:

- The promotion of healthy lifestyles in social exclusion contexts (Spain),
- Inclusion of children with disabilities into the public learning system using Brain Breaks (Romania),
- Brain Breaks in a Brazilian High School (Brazil),

- Be SMART and FIT, modern technologies in physical activity (Poland),
- The promotion of music-based physical educational program in kindergartens (Czech Republic),
- Traditional movement games at physical education classes (Macedonia), and
- Making a bridge through culture, sport, and science between Europe and Asia.

As part of the evolving FLV program development, the first World Conference for FLV (WCFLV 2019) is being planned in conjunction with the second BRICSCESS conference in South Africa (2019). This international meeting is being jointly organized by the faculty from the North-West University and the South African Sports Medicine Association. The theme is *Holistic Health, Sports Science and Sustainability: The Way Forward*. Incorporated into this conference is an interdisciplinary approach for promoting holistic global health through exercise, physical activity, and sports sciences in BRICS countries. A primary objective of WCFLV 2019 is for FLVs to have ownership and provide greater participation in oral and poster presentations. In addition to further enhancing their learning experience, a portion of the program is being planned where FLVs will have primary leadership roles in developing working discussion groups for gaining insight into the future direction of physical activity, exercise, and wellness for the betterment of health and the prevention and treatment of chronic diseases. At the heart of this discussion is the United Nations SDG Objective 3, which is to *ensure healthy lives and promote wellbeing for all at all ages*.⁸

6. Conclusion

BRICSCESS in conjunction with the FLV program are in part assembled to foster the development and evolution of junior professionals with respect to the health and wellness of people. As is the case with all successful professional development programming, mentoring and equipping undergraduate and graduate students, postdoctoral fellows, and junior scientists with the necessary tools to actively make contributions and to properly mentor the next generation of scholars is a most important goal.

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Authors' contributions

RUR developed and wrote the section concerning the BRICSCESS 2017 inaugural conference and legacies; NRCdO contributed to the development and writing of the section concerning the BRICSCESS 2017 inaugural conference and legacies; JHdR developed and wrote the introduction and contributed to the development and to the writing for the section regarding the BRICSCESS a historical perspective; MKC developed and wrote the section pertaining to developing BRICSCESS policies, contributed to the section regarding the

BRICSCESS a historical perspective section, and contributed to the section pertaining to developing future leader/volunteers (FLVs); JLD developed and wrote the summary section, contributed to the introduction, contributed to the section pertaining to developing FLVs, and was responsible for the overall editorial development. All authors have read and approved the final version of the manuscript, and agree with the order of presentation of the authors.

Competing interests

The authors declare that they have no competing interests.

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