



Research Article

Planning for a well-being future: Emerging insights for and from an empowered future leadership volunteer program

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ABSTRACT

The second BRICS (Brazil, Russia, India, China, and South Africa) Council of Exercise and Sport Science (BRICSCESS) Conference and the first World Congress of the Future Leader/Volunteer (WCFLV 2019) with 200 delegates from more than 50 countries presenting new research and best practice experiences are presented in this manuscript. The description of conference events provides an approach that is useful in guiding the development of health and well-being policies with consideration given to local and global contingencies. Insights generated from a qualitative analysis of focused group discussions are addressed in the broader framework of the United Nations (UN) sustainable development goals (SDGs). Using this framework allowed the formulation and refinement of strategies useful for developing broad wider health policies. The BRICSCESS and WCFLV 2019 conferences gathered global experts with interdisciplinary expertise in health and well-being. The conference structure serves as a model for the future forums and conferences. This gathering of diverse individuals who presented different health and well-being perspectives serves as a platform for highlighting future leadership programming and the promotion of emerging new evidence-based information with practical actionable steps that are useful for developing health and well-being policy.

Keywords: Well-being, SDG goals, Health, Physical activity, Technology nexus, Future leaders

INTRODUCTION

The BRICS (Brazil, Russia, India, China, and South Africa) Council of Exercise and Sport Science (BRICSCESS) is a professional organization established in recognition of the BRICS countries' effort to support and improve the health,

well-being, and quality of life of citizens in times of rapid and turbulent social change. BRICSCESS was conceived during the 18th International Scientific Congress in Kazakhstan in 2014 and was formally established in 2015 during the seventh Asia Pacific Conference on Exercise and Sport Science in India (Chin *et al.* 2019). Influencing the formation of BRICSCESS were several global symposia and conferences (USA, 2010; Germany, 2012; South Africa, 2014; and Turkey, 2016) organized, supported, and implemented by the Global Forum for Physical Education Pedagogy (GoFPEP). GoFPEP is a

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series of global meetings first established in 2010 to reform and renew ways school PE and health programs are offered. Both GoFPEP and BRICSCESS were established to bring together professionals such as scientists, professors, academics, junior scholars, and institutions representing the field of physical activity (PA), exercise, and sport sciences. While GoFPEP was a series of meeting, BRICSCESS is a professional organization fostering an interdisciplinary approach for promoting health and wellness in academic institutions, public and private schools, and community settings. The expertise within BRICSCESS encompasses the following scientific areas: Exercise physiology, health and fitness, biomechanics, psychology, nutrition, medicine, kinanthropometry, rehabilitation sciences, pedagogy, management, social science, history, PA, adaptive physical activity (APA), PE, leisure and wellness, sports training, technology, and dance. BRICSCESS is built on core pillars: (i) An interdisciplinary approach to PA and exercise sciences, (ii) sport science and well-being; (iii) networking between established professors and junior scholars; and (iv) establishing links between educational institutions and other relevant areas of PA and exercise science, sport science, and health science organizations (Uvinha *et al.* 2018; Chin *et al.* 2019).

GoFPEP and the first BRICSCESS conferences used prioritized interdisciplinary approaches with greatest success achieved by the BRICSCESS inaugural conference in Sao Paulo, Brazil 2017. Individuals from 30 countries were present and shared science and best practice experiences (Uvinha *et al.* 2018). This model was replicated in 2019 during the second BRICSCESS conference as well as the first World Congress of Future Leaders/Volunteers (WCFLV 2019) and was organized by North-west University and held in conjunction with the 2019 South African Sports Medicine Association (SASMA) Conference, Cape Town, South Africa. These cosponsored meetings were significant in promoting holistic health through PA and sport, and health. MA most important outcome was the establishing of a conference for the future leader volunteer program (FLV) which is one of the core pillars of BRICSCESS.

PURPOSE

This paper presents a useful approach for policy makers developing health and well-being practices and policies with consideration given to both local and global contingencies. Insights generated from a qualitative analysis are addressed in the broader framework proposed by the United Nations (UN) sustainable development goals (SDGs) (UNESCO, 2022). Use of this framework allows the formulation and refinement of strategies useful for wider policy objectives.

With these conceptualizations in mind, this article has a dual purpose. The first purpose is to provide background information regarding the role of the FLV program in

establishing a healthy active lifestyle by drawing on the UN SDGs, specifically Goals 3 and 4. This information provides insights regarding policy development for the future initiatives might be considered and enacted in local and global context. The second purpose is to briefly discuss the qualitative findings of the second BRICSCESS Conference (2019) and the first World Congress of Future Leaders/Volunteers (WCFLV 2019) held in conjunction with the 2019 SASMA Conference (2019). Specifically, this second purpose is to report on data collection and analyzed from discussion groups focusing on five major topics. Each topic is potentially worthy of consideration for wider policy development and the bridging of the health and PA/technology nexus (link or connection). The five major topics are:

1. Individualized technology supported processes for the measurable performance-based goals tied to UN SDG 3.
2. Use of technology to accentuate learning opportunities linking practice with theory.
3. Promotion and implementation of a holistic approach to health programs that advocates, educates, and develops healthy and active lifestyles.
4. Promotion of an active students-centered learning orientation in school and university curricula that will empower individuals to develop healthy lifestyles.
5. Identification of the next steps to encourage effective implementation of UN SDG 3 holistic health and well-being.

Backgrounding the Future Leader Volunteer Program (FLV)

FLV program was created in 2013 during the sixth Asia-Pacific Conference on Exercise and Sports Science (APCESS 2013) held at the Chinese Culture University, Taipei. The broad vision for this program is to provide junior scientists and scholars with a platform to develop their fullest potential, learn and collaborate with experienced scientists, share and exchange scientific information and ideas, and contribute to making global and local change. Program aims are to empower junior professionals to act within a scholarly network, advocate and be ambassadors for healthy and active lifestyles, and to educate and empower children, adults, and individuals having special needs with evidence-based actionable knowledge (Chin *et al.* 2019). Junior scholars participating in the FLV program engage with a designated professional mentor, initiate, lead, and participate in collaborative projects, make professional decisions, solve problems, and gain experience in their communities by promoting holistic learning through active healthy lifestyles. A prime focus of FLV's activities is the promotion of holistic learning through active healthy lifestyles which strongly aligns with UN SDGs especially Goals 3 and 4: Good health, well-being, and quality education.

The UN SDGs provide direction to BRICSCESS activities, specifically in establishing links between educational

institutions and other organizations working in the areas of PE, PA, and sport sciences. To enhance BRICSCESS’s effectiveness, a partnership was established with the Foundation for Global Community Health (GCH) which evolved from GoFPEP. The GCH is a public charity created to develop best practices based on research evidence for school well-being programs. These programs are accessed through <http://www.gchfoundation.org/index.html#intro>.

FLVs were involved in two projects with BRICSCESS and GCH p that specifically evolved from the UN SDGs. The first project is in collaboration with the United States Center for Disease Control and Prevention (CDC) with a focus on UN SDG 3. This project utilizes the whole school, whole community, and whole child framework (CDC, 2022) which has a primary goal of designing model schools based on holistic and active learning.

The second project aligning with the UN SDGs is the HOPSport® Active Break project. PA is considered an essential factor for improving quality of life, adding to a healthy lifestyle, and reducing chronic disease risk such as obesity, hypertension, and diabetes (Anderson and Durstine, 2019; Zhou *et al.* 2021). The brain break physical activity solution is a classroom-based technology supported intervention combining movement, technology, music, dance, and sport in short 3–5 min active video breaks. With this specific project, FLVs have the role of creating videos, sharing the project activities across their communities, and developing scientifically design research studies to determine the scientific evidence regarding the impact of this intervention. (Bakasekaran *et al.* 2021; Bonnema *et al.* 2020; Glapa *et al.* 2018; Hajar *et al.* 2020; Popeska *et al.* 2018; Rizal *et al.* 2020). FLVs also serve as national ambassadors for their respective country, especially considering that each video contains traditional and cultural sports, games, and dances.

A key aspect of both FLV collaborative projects involves the utilization of technology which is an important motivating mechanism in promoting children daily activity, facilitating learning, and is an effective means for measuring and monitoring student progress. Technology supported PA to promote healthy living is a question for discussion at BRICSCESS, GCH, and previous GoFPEP conferences.

Reporting on the Second BRICSCESS (2019) and First WCFLV (2019)

BRICSCESS and WCFLV (2019) combined conference is characterized by sharing innovative approaches and actionable strategies to promote and advance health enhancing practices that are conducive to achieve UN SDG 3 across diverse physically active groups. This conference achieving these actions through formal presentations, moderated group discussions, formal and informal delegate dialogue, and group interactions/reflections. This approach and these

procedures align with the work of Menne *et al.* (2020) and are supported by evidence-based approaches and practices using interdisciplinary approaches. Group discussions in particular sought to gain an in-depth understanding of factors that influence implementation strategies (Allen, 2017; Morgan 1997; Nyumba *et al.* 2018). This conference brought together 52 delegates from 20 countries/regions representing 35 different universities, schools, government, cultural centers, and academic institutions (shown in Table 1). Areas of participant expertise and experience included community-building, cultural studies, PA and exercise science, health, international relations, leisure studies, pedagogy, PE, sociology, sustainability, technology, and tourism.

After expert speaker presentations, nine discussion groups were established. Each group had at least one FLV and one invited international expert. Individual groups were led by an FLV, who were responsible for chairing the discussion, facilitating data collection, data analysis, and participation in compiling a final report. Each FLV was supported by an FLV supervisor/mentor, usually a university professor or established professional who assisted in data collection and analysis. Groups were given questions based on the topics outlined above before the conference. The topics and corresponding focused questions were pre-prepared and cocreated by the invited conference speakers (Allen, 2017) based on expertise and previous global forum involvement (Edginton *et al.* 2011; 2012; 2014; 2016; Naul *et al.* 2012), past research, and the book Physical Education and Health: Global Perspectives and Best Practice (Chin and Edginton, 2014). Groups spent 3 h discussing and exploring potential evidence-based strategies on the following five questions.

1. Can we use technology to support individualized processes and assessment based on appropriate measurable performance-based goals tied to the UN SDG 3 objectives related to physical activity and holistic health and well-being which promote accountability?
2. Can we use technology to accentuate learning opportunities which link practice to theory to promote physical activity and holistic health and well-being?
3. Can we promote a holistic approach to implement a holistic

Table 1: Distribution of participants per country

Geographic area	Countries
Africa	Zimbabwe and South Africa
Asia	Philippines, Hong Kong, and Singapore
Europe	Czech Republic, Macedonia, Slovakia, Luxembourg, Bulgaria, Romania, Poland, Turkey, and Spain
North America	USA
Oceania	New Zealand
South America	Brazil

health program within your community which serves to advocate, educate, and develop individuals to incorporate physical activities into their daily live through formal and informal education which promotes cultural competence and role modeling?

4. Can we redesign our holistic health and well-being in university curriculum to promote an active student-centered learning orientation which empowers individuals to develop healthy active lifestyles, and which requires the integration of skill development, physical fitness, health literacy, nutrition, and leisure processes to support the implementation of UN SDG 3?
5. What should the next steps be taken from the world community to encourage more effective implementation in UN SDG 3 holistic health and well-being?

At the conclusion of group discussions, each group prepared a report that was presented to all delegates in a plenary session. Following the plenary session, each group prepared a formal report, group reports were collected, a joint data file created, and analyzed using qualitative methodologies. The analysis was completed separately for each question. All qualitative data were coded and sorted into coherent themes that were analyzed and discussed by the researchers. In addition, a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) was made for each question (Gurel and Tat, 2017). Analyzed answers were further supplemented with best practice examples and experiences as recorded in each group's report. Emerging from this process was a catalogue of strategies and corresponding specific action steps for each question. This catalogue was used to identify emerging insights which will be briefly discussed.

Emerging Insights

Emerging insights from the data analyzed are offered for brief discussion.

Technology, active lifestyles, and UN SDG 3

Arising from the qualitative analysis is four key aspects related to the above emerging insights. These insights are: Advantages in the use of technology; limitations in the use of technology; technology and UN SDG 3; and how to make technology more applicable.

The use of technology as a tool for learning and assessment is strongly supported for personal health awareness and enhancement in both formal and informal settings, tracking movement patterns, daily PA levels, and as a mechanism for PA motivation. These insights align with Edginton *et al.* (2014) who reported that technology used for assessment and measurement of PA and for promoting health is identified as best practice in sport pedagogy by GoFPEP (2014) delegates. Furthermore, the present research literature has documented that interactive video games, smartphone movement applications, and smart watches increase adults and youth interest in daily PA (Gao

et al. 2019; Gonzales *et al.* 2016; Hall *et al.* 2015). Edginton (2014) further argues that the employment of such devices is an effective pedagogical tool.

Examples presented by conference delegates provide evidence of best practice using technology to promote PA. China, for instance, makes use of pedometers in schools to measure PA levels and have found that PA levels increase as the school week progresses. In Russia, subway ticket machines give away free tickets if an individual performs physical exercises in front of the monitoring camera. United Kingdom school students are required to walk outside for a stipulated time before being allowed to take recess. In Poland and New Zealand, technology is firmly integrated into the health and PE curricula. For example, the New Zealand PE curriculum has an achievement standard required for each age range (5–17) that specially is focused on science and technology relating to movement concepts and motor skill.

When focusing on the school environment, delegates highlighted the best practice promoted by the use of videos such as Brain Break platform. International studies conducted in eight countries (Croatia, Lithuania, Macedonia, Poland, Romania, Serbia, South Africa, and Turkey) confirm the benefits of technology supported and classroom based active breaks and video effects for promoting movement habits, PA level, holistic learning, and self-efficiency (Mok *et al.* 2020). These results are also confirmed in studies evaluating the effects of brain break PA classroom videos of children in Turkey (Uzunoz *et al.* 2017), Poland (Glapa *et al.* 2018), Macedonia (Popeska *et al.* 2018), Malaysia (Hajar *et al.* 2020; Hidrus *et al.* 2020; Rizal *et al.* 2019), South Africa (Bonnema *et al.* 2020), and China (Zhou *et al.* 2021).

In reference to the limitations experienced with technology to promote active lifestyles, conference delegates identified a range of diverse constraints. These limitations include geographical locations (rural and urban environments), limited access to information technology tools, lack of skills and knowledge, different cultural, economic, societal settings and needs, limited resources, and escalating financial costs. Furthermore, delegates highlighted constraints related to low accuracy in measurement and the lack of an information technology tool that can measure cognitive function. In addition, some delegates identified the administrative difficulty and additional work required of teachers to obtain permissions from and beyond school authorities.

Specific examples that conference delegates highlighted were many Brazil PE teachers refuse to use technology as these teachers are more oriented toward traditional forms of pedagogy. In Bulgaria, most teachers do not use technology to enhance learning as permission to use this technology that is too difficult to obtain because of the skepticism that exists

over the pedagogical/technology nexus. In many rural areas of South Africa, Zimbabwe, and Turkey, internet access and reliable sources of electric power for using the technology have created significant challenges.

The coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus that swept the world in January 2020. The pandemic has amplified the importance of developing a strong and well-organized program aimed at the health and well-being of adults and children throughout the world and has impacted the populations in all countries. Using technology can have a significant impact on one's health and well-being (Ammar *et al.* 2021; Orben and Przybylski. 2019). To illustrate, the recent COVID-19 pandemic has necessitated global use of school online learning or virtual learning. Online learning has now become a reality and attitudes and competence have moved in a positive direction. Notwithstanding, the changes brought about by COVID-19, Korcz *et al.* (2021) involving six European countries (Poland, Macedonia, Croatia, Turkey, Bulgaria, and Kosovo) found the use of technology in PE classes still encounter difficulties related mainly to lack of proper technology training, lack of equipment, and the adequacy of resources.

One most important aspect emerging from data analysis is the relationship that technology has with the UN SDG 3 - health and well-being. While all delegates were not overly familiar with the UNs 17 SDGs, discussion emphasized the importance of governmental commitment to well-being and implementation of the SDGs. Delegates also stressed the importance of acknowledging national culture diversity, and the need for taking actions in diverse ways, and in a culturally sensitive manner. Observing cultural sensitivities and actively engaging with diverse populations on well-being, as promoted by UN SDG 3, require in-depth cultural knowledge. Understanding holistic well-being is deeply rooted in the interconnectedness of the past to the present, the spiritual with the temporal, and the land with its people. The importance of the land extends to all cultural practices, including health, PA, games, and sport (Culpan *et al.* 2008). For some, the land is a source of spiritual sustenance, and consequently, the land, along with the environment, spirituality, language, traditional customs, and practices is essential parts of individual and collective well-being (Bishop *et al.* 2007). These circumstances are particularly so in New Zealand where the national government consults widely on well-being and the implementation strategies to ensure that all individuals are included in this important SDG.

Making the technology/health nexus more user-friendly and applicable requires the identification of actionable steps that are accessible while being innovative. Many of the points emerging in this analysis are applicable to overcoming the limitations highlighted above. However, a key dimension highlighted was the UN SDG 4 relating specifically to

education. Understanding, accepting, and implementing a coherent strategy focused on the technology/health nexus requires innovative/futuristic education. In this regard, the future actions should involve education focusing on the benefits and advantages of technology to enhance lifestyle. Lifestyle programming focusing on the use of information technology for skill development was identified as a clear need. Ethical and responsibility issues were also pinpointed in the discussion, and soon became clear that ethical aspects, when using technology, should be emphasized. Especially, the right of personal data protection, intellectual property protection, and issues surround risk of technology dehumanizing users. This point of dehumanizing was a recurrent issue. The need for human-to-human engagement and the consequential forming of relationships are important determinants of health and are foundational in any health, well-being initiative (Sadeghi and Heshmati, 2019). Drawing on Lawson's (1992) socio-ecological perspective, mindfulness needs are given to broader social, cultural, physical, emotional, political, and economic influences in the way people gain a better understanding for health and PA related behaviors. By acknowledging these dimensions of "being human," the use of technology is enhanced in the quest for promoting well-being. Furthermore, recognizing and making use of this socioecological appreciation often leads to the acceptance of appropriate accountability, monitoring, and assessment of performance goals (Lawson, 1992). In the context of young people, delegates suggested that technology is best utilized when traditional games, pastimes, and outdoor activities have a focus on fun and enjoyment. Furthermore, evidence from behavioral sciences indicates that changing behaviors to ensure PA adherence are often more easily achieved when a reward system is in place (Ahn *et al.* 2019).

While the analysis identified technology, PE, active lifestyle, and UN SDG 3 as an emerging insight, delegates agreed that positive and enabling practices throughout the world are occurring. However, in some instances, caution surfaced around matters which required detailed and in-depth pedagogical thought. Such caution expressed in recognizing cultural sensitivities, increased pedagogical/technology professional development, and ethical matters focused on ensuring that technology does not supersede the humanness of learning (O'Neill and Jolley, 2004) to lead an active lifestyle.

Learning, technology, and the practice theory nexus

While all delegates agreed that technology is an important mechanism to enhance learning opportunities, emphasis was given to the complexities associated with learning. Furthermore, the analysis revealed that technology cannot drive learning alone – what drives learning is the human. The connection with the machine or technology is but the facilitator (O'Neill and Jolley, 2004). Delegates agreed that using technology to enhance PA and well-being behaviors and

practices necessitated the technology/well-being/PA nexus and is conceptualized as continuous human learning encounters that required careful pedagogical navigation (Tinning, 2010). In particular, emerging insight is founded in the argument that to change people's mind-sets, beliefs, and practices, a knowledge of learning theory(ies) and associated pedagogies is mandatory. Human learning is seen as a strategic challenge. Emerging insights suggested that contemporary knowledge of learning and effective approaches to utilize this knowledge (pedagogy) has much to offer. In this regard, two theoretical positions, behavioral and constructivism, were identified as being relevant and helpful (Olson and Hergenbahn, 2009). Both positions identify actionable steps that facilitate the learning process. These steps include: The learner actively responding to stimuli, actions being observable, the learner self-paces, the learner is held accountable through testing, the learner receives immediate feedback, the learning content is structured into small, scaffolded progressions, learning content is repetitious, and the learner constructs a schema for content and interacts with the social and physical environment (Culpan and Scott, 2005). From these important principles, the learning process focuses on achieving a change in behavior and a change in personal meaning. From these actionable learning principles, the learning/technology/practice/theory/nexus is accentuated. Clearly, contemporary technology learning apps have built into their programming many of the above steps. A key point in developing learning a physical active lifestyle, the learner must make sense of the learning through meaning making and interactions with the environment (Olson and Hergenbahn, 2009). Meaning making is facilitated through fun and enjoyment (Stevens, 2017). In this regard, the delegates highlighted examples such as using cartoon apps, gaming programs, apps with appropriate role models, facetime calls, and programs that set realistic challenges and goals. All of which assist in both intrinsic and extrinsic motivation.

While the above has highlighted the bridging of the learning/technology/practice/theory nexus, the overriding consideration emerging from the analysis was the importance of the teacher/learner relationship. Here, delegates identified the teacher's attitude toward the learner, the technology, their skill, and ability to engage with students in meaningful and positive ways. These humanistic traits are deemed as important facilitators of learning by the delegates.

Holistic health

Delegates argued that the concept of holistic health is encapsulated in the term well-being and when conceptualizing well-being, appreciation is given to the multiple dimensions that contribute to this concept (Tasker, 2004). Consideration is given to the physical, social, mental, emotional, and spiritual dimensions. The well-being dimension of the land also needs attention (Bishop *et al.* 2007). Such positioning of well-being aligns with the WHO's (2017) conceptualization

and to the corresponding health determinants of: Culture; education; employment and working conditions; gender; health services; income and social status; personal behavior and coping skills; physical environment; and social support. This insight emphasized the need to move beyond dominant deficit models of health and well-being practices to a holistic growth and development approach advocated by the WHO (2017). Such a move reinforces Lawson's (1992) argument for a socioecological perspective of modeling, and emphasizing the fun aspects of PA and games, in efforts to change behaviors. The fun, enjoyment, creativity, spontaneity, and interactive engagement dimension to healthy active lifestyles are deemed a key in developing momentum within community initiatives (Stevens, 2017). Both advocacies align with the United States Center for Disease Control and Prevention's Whole School, Whole Community, and Whole Child framework (Centre for Disease Control and Prevention, 2021).

Emerging from our analysis was the recognition that community life often determines individual and community health behaviors and needs. Community environments are allied with disparate well-being outcomes. Attention to local and regional factors, such as cultural practices, housing, living arrangements and ethnic demographics, is important considerations when implementing effective community programs to promote successful holistic well-being (Machado, 2017). Schultz (2018) posited that an advantage is gained when the community's ability to prioritize problems is understood, implement action plans, develop community leaders and role models, and constantly monitor and evaluate community progress. Aligning with the above, delegates gave importance to the need for the formation of networks, and the compiling of comprehensive data to generate practical information for the planning and monitoring of well-being programs. These suggestions align with Soril (2018) who argued the need for evidence-based policy decisions so that a practical user-friendly approach to using low-cost technologies to improve the quality of health care would eventuate.

In providing actionable and pragmatic steps to implement best practice in achieving holistic well-being, delegates identified the importance of common actions of educational institutions, local communities, government, and non-government bodies, and religious organizations. In Macedonia, for example, green and open spaces provided by the government and corporates are utilized by community groups and schools on a coordinated basis. Similarly, in New Zealand after devastating earthquakes, urban renewals have seen road and rail rebuilt with specific ways that encourage PA. Another example is found in the city Christchurch New Zealand. Here after, earthquakes, numerous plots of land, and previously zoned for commercial high-rise buildings are now dedicated to open green space for recreation such as children's playgrounds, dance squares, climbing apparatus, and community gardens. The New Zealand

government is working alongside numerous organizations and institutes to implement a comprehensive well-being policy, aligning with several UN SDGs. New Zealand's stated that aim is to be the best place in the world for young people to grow. Other examples include the United States, who have developed a National Physical Activity Health Plan and complemented this plan with an across the country safe cycle track. Delegates argued that such a coordinated approach is influential and provided good strategic coherence and aligns with Lawson's (1992) socioecological perspective. Role modeling was also identified as an important advocacy tool for holistic health. To maximize this strategy, the social learning work of Bandura (2006) used parents, family members, significant others, and recognized community members plays an important part in setting a "good" example.

Data analysis clearly support that clear coherent and coordinated initiatives for developing holistic well-being on a large scale, require documented, and agreed on strategies. Such strategies necessitated comprehensive training of health promoters with on-going funding to address operational costs.

Role of the university

A very clear emerging insight from this analysis is that universities have a critically important role in promoting well-being. Delegates highlighted that while universities have multiple functions, primacy is given to student education and to new knowledge creation. Thomas (2012) argued that as educational establishments, a university's function is to develop able and self-directed learners that are independent and confident, and who will go out into society and give to back to society by providing leadership that facilitates the delivery of civic duties. As knowledge generators, major universities are research institutions existing to provide new knowledge, to change paradigms, to aid society in developing, and in meeting new challenges as universities and cultures move forward.

The specifics of "aiding society are in its development and in meeting new challenges as they come along" (Thomas, 2012). Many delegates argued that universities are not completing these functions. Delegates felt that universities need to be more responsive to new realities and challenges that are presently confronting immediate, local, regional, and national communities. Of relevance here is the development of student and community well-being with particular emphasis on the development of healthy active lifestyles. Delegates stressed that health and well-being practices must be at the core of the university experience if universities are to maximize their stated functions. While acknowledging the complexities associated with keeping pace with rapid change, many delegates argued that some university culture and academic practices generally struggled to keep abreast of societal needs. This issue is also an example of universities possibly losing touch with the realities of a contemporary world.

To rectify this problem, delegates argued for systemic change. Bawa (2017) posits, to facilitate change, an open and explicit agenda would necessitate the establishment of enduring connections within the local context. However, given the sensitivities associated with health and well-being, humanistic understanding is needed as the under-pinning driver. For universities to address change in this manner, Bawa (2017) argues a need for more responsiveness to new realities and challenges within local contexts. Aligning the role of the university to contemporary issues of holistic health, converging with the current transformations in the ways of life, the labor market, and the new professional skills and competences necessary for a sustainable world are a fundamental needed action albeit a complex one. Consequently, contemporizing the university curricula to prepare skillful graduates, acting in a sustainable manner, and avoiding future economic, social, and health crises are required. However, change is not straightforward and requires a collective effort between students, teachers, and administrators giving attention to academic, technical, cultural, social, and political factors (Menne *et al.* 2020). The emergent argument stresses that if well-being and active healthy lifestyle habits are not effectively incorporated into university life, all potential community leaders cannot be expected to integrate well-being practices in life. In more practical terms, delegates identified several key approaches that would enhance active lifestyles within university settings. University personnel must role model for active healthy lifestyles, and university curricula need to integrate health enhancing practices into course offerings, extra-curricular sport, and physically active programs. Another component is the integration of holistic well-being practices as part of every student experience. In suggesting these approaches, delegates provided some specific examples. These included were compulsory academic, well-being and PE courses, extra credits for PA-related courses, free access to gym and recreation facilities, wholesome foods in university cafes, integrated health services that move beyond the medical model of health, and open green spaces across the university campus to encourage PA. Delegates urged universities to accept this challenge and systematically work toward addressing the present local health-related concerns.

Practical application

One emerging insight was for practical application highlights the need to bridge the chasm between rhetoric and action. Shared professional experience from international delegates gives practical direction to the implementation of well-being enhancing technologies, the promotion of holistic health, and how universities can participate in these processes. Emerging from this process is a blueprint for the development of contextual guidelines or starting points for the creation of evidence-based policy. Implementation strategies for UN SDG 3 give some direction and provide a baseline for effective

future work. A most important consideration emerging from these gathering is the modeling of a functioning FLV program. The development of this model is timely given recent global events involving the voice of the junior faculty. The support and empowerment of coming generation of junior scholars are becoming a global movement. Empowering junior scholars to bridge the practice-theory abyss and challenge orthodox thinking and practice is revolutionary. Most important is the development of the next generation of professionals and training these individuals to participate in social action at local, regional, national, and global levels. The FLV program focuses on preparing the next generation of professional scientists and educators by enhancing their health behaviors in the development of policy initiatives.

CONCLUSION

BRICSCESS and WCFLV 2019 programming provided unique opportunities for mentoring junior scholars/professionals working in holistic well-being settings to come together for discussions, sharing of knowledge, and experience on issues that are globally concerning. These issues are framed within the parameters of the UN's 17 SDGs with emphasis on SDG 3 health and well-being. Formal and informal dialogues regarding global concerns and differences were used to identify emerging insights, characterized by practical implementation strategies to bridge the theory to practice nexus. Evolving from this process was the identification of following considerations. First, the need for a sociological perspective where governments take the lead in embodying the UN SDGs into policy with in collaborations involving schools, universities, local community groups, corporates, organizational groups, non-government organizations, and governmental institutions to ensure personal and collective well-being issues such as of person-to-person interrelatedness, natural and social environments, technology, and specific health related needs are addressed. A second consideration was the identification of a nexus that underscores the need for policy makers to draw on contemporary understandings of human learning principles and pedagogical learning approaches. The need for policy and programs to be culturally responsive and competent cannot be over stressed.

Another unique aspect of the BRICSCESS and WCFLV 2019 programming is the role that the FLV played in leading the above processes. By empowering these junior scholars to perform on a global stage, a succession plan for global well-being in the future that is worthy of dissemination must be established. This plan is based on evidence-based healthy active lifestyles and involves the use of technology relationships to PA, culture, and education gives the program relevancy and currency. All nations are being forced to cope with the COVID-19 pandemic in varying degrees (Bond, 2020). This virus is malignant, stealthy, elusive, and highly

infectious. The pandemic has tested our resilience, created fear, caused panic, and uncertainty (Hansbrough, 2021). As in any epidemic, people worry about self, family, and neighbors developing symptoms and increasing the likelihood of disease transmission (Wahl, 2020). Without question the COVID-19, virus has disrupted all major life events. We are confined to our homes, in some cases resulting in a loss of livelihood, and changes in livability. COVID-19 are having a significant impact on social, physical, psychological, economic health, and the well-being of individuals while creating great amounts of stress (Brose, 2020; Behar-Zusman, 2020; Ding *et al.* 2021a; Ding *et al.* 2021b; Mjali and Alghazo, 2021; Zenkar *et al.* 2020).

The insights emerging from BRICSCESS and WCFLV do have the risk of being disruptive to present policy. A need for universities to have health and well-being as a core for student learning experiences and for the university to be more responsive to the realities and complexities of contemporary living was identified.

In closing, it is important to reiterate that the integration of the UN SDGs framework with an innovative FLV program collaborating with experienced experts is worthy of replication. The replication could serve as a useful scaffold for effective policy development and enactment.

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REFERENCES

1. Ahn SJ, Johnsen K, Ball C. Points-based reward systems in gamification impact children's physical activity strategies and psychological needs. *Health Educ Behav* 2019;46:417-25.
2. Allen M. *The SAGE Encyclopedia of Communication Research*. London: SAGE Publications; 2017.
3. Ammar A, Bouaziz B, Trabelsi K, Glenn JM, Zmijewski P, Müller P, *et al.* Applying digital technology to promote active and healthy confinement lifestyle during pandemics in the elderly. *Biol Sport* 2021;38:391-6.
4. Anderson E, Durstine JL. Physical activity, exercise, and chronic diseases: A brief review. *Sports Med Health Sci* 2019;1:3-10.
5. Balasekaran G, Ibrahim AA, Cheo NY, Wang PK, Kuan G, Popeska B, *et al.* Using brain-breaks® as a technology tool to increase attitude towards physical activity among students in Singapore. *Brain Sci* 2021;11:784.
6. Bandura A. Toward a psychology of human agency. *Perspect Psychol Sci* 2006;1:164-80.
7. Bawa A. *Redesigning the Curriculum for the 21st century*. Global University Network for Innovation's; 2017. Available from:

- <https://www.universityworldnews.com>
8. Behar-Zusman V, Chavez J, Gattamorta K. Developing a measure of the impact of COVID-19 social distancing on household conflict and cohesion. *Family Pract* 2020;59:1045-59.
 9. Bishop R, Berryman M, Cavanagh T, Teddy L. *Te Kotahitanga Phase 3 Whānaukatanga: Establishing a Culturally Responsive Pedagogy of Relations in Mainstream Secondary School Classrooms*. Wellington, New Zealand: Ministry of Education; 2007.
 10. Bond M. Social psychologists grapple with the COVID-19 pandemic: How are we in Asia distinctive? *J Soc Psychol* 2021;24:18-22.
 11. Bonnema J, Coetzee D, Lennox A. Effect of a three-month HOPSports Brain Break® intervention programme on the attitudes of Grade 6 learners towards physical activities and fitness South Africa. *J Phys Educ Sport* 2020;20:196-205.
 12. Brose A, Banke E, Schmiedek F, Kramer A, Schmidt A, Neubauer A. Change in mental health symptoms during the COVID-19 pandemic: The role of appraisals and daily life experiences. *J Pers* 2020;89:1-15.
 13. Centers for Disease Control and Prevention. *Whole School, Whole Community, Whole Child*. Atlanta, Georgia: Centers for Disease Control and Prevention; 2022. Available from: <https://www.cdc.gov/healthyschools/wscc/index.htm> [Last accessed on 20 Jan].
 14. Chin MK, Anderson E, De Ridder JH, Uvinha RR, Durstine JL. BRICS to BRICSCESS: A perspective for practical action in the promotion of healthy lifestyles to improve public health in five countries. *J Sport Health Sci* 2019;8:520-3.
 15. Chin MK, Edginton CR. *Physical Education and Health: Global Perspectives and Best Practice*. United States: Sagamore Publishing; 2014.
 16. Culpan I, Bruce J, Galvan H. Toward a bicultural view of Olympism within New Zealand physical education: An emerging journey. In: Ren H, Da Costa L, Miragaya A, Jing N, editors. *Olympic Studies Reader: A Multidisciplinary and Multicultural Research Guide*. Vol. 1. China: Beijing Sport University Press; 2008. p. 129-46.
 17. Culpan I, Scott Learning Theories. Unpublished Paper, Christchurch: University of Canterbury, NZ; 2005.
 18. Ding K, Yang J, Chin MK, Sullivan L, Demirhan G, Violant-Holz V, *et al.* Mental health among adults during the COVID-19 pandemic lockdown: A cross-sectional multi-country comparison. *Int J Environ Res Public Health* 2021a;18:2686.
 19. Ding K, Yang J, Chin MK, Sullivan L, Durstine JL, Violant-Holz V, *et al.* Physical activity among adults residing in 11 countries during the COVID-19 pandemic lockdown. *Int J Environ Res Public Health* 2021b;18:7056.
 20. Edginton CR, Chin MK, Geadelmann P, Ahrabi-Fard I. Global forum for physical education pedagogy 2010 (GoFPEP 2010): Health and physical education pedagogy in the 21st century—a statement of consensus. *Int J Phys Educ* 2011;48:33-41.
 21. Edginton CR, Chin MK, Naul R. The global forum for health and physical education pedagogy: A new social movement. *Int J Phys Educ* 2012;49:31-9.
 22. Edginton CR, Chin MK, De Ridder JH, Moss SJ. Global forum for physical education pedagogy 2014 (GoFPEP 2014) physical education and health: global perspectives and best practice. *Int J Phys Educ* 2014;51:29-40.
 23. Edginton CR, Chin MK, Demirhan GI, Aşçi F, Bulca YE, Erturan ÖE. Global forum for physical education pedagogy 2016—technology, networking and best practice in physical education and health: Local to global. *Int J Phys Educ* 2016;53:28-48.
 24. Gao Z, Lee JE. Emerging technology in promoting physical activity and health: Challenges and opportunities. *J Clin Med* 2019;8:1830.
 25. Głapa A, Grzesiak J, Laudanska-Krzeminska I, Chin MK, Edginton CR, Mok MM, *et al.* The impact of brain breaks classroom-based physical activities on attitudes toward physical activity in Polish school children in third to fifth grade. *Int J Environ Res Public Health* 2018;15:368.
 26. González CZ, Gómez N, Navarro V, Cairos M, Quirce C, Toledo P, *et al.* Learning healthy lifestyles through active videogames, motor games and the gamification of educational activities. *Comput Hum Behav* 2016;55:529-51.
 27. Gurel E, Tat M. SWOT Analyses: A theoretical review. *J Int Soc Res* 2017;10:994-1006.
 28. Hajar MS, Rizal H, Muhamad AS, Kuan G. The Effects of Brain-breaks on Short-term Memory among Primary School Children in Malaysia. *Lecture Notes in Bioengineering*; Berlin, Germany: Springer Science and Business Media LLC; 2020. p. 493-502.
 29. Hall CM, Bierman KL. Technology-assisted interventions for parents of young children: Emerging practices, current research, and future directions. *Early Child Res Q* 2015;33:21-32.
 30. Hansbrough C, Cook M, Widner A. Health benefits of leisure responses during COVID-19. *Hong Kong Recreat Rev* 2021;33:11-20.
 31. Hidrus A, Kueh YC, Bachok N, Norsaadah B, Chang YK, Hung TM, *et al.* Effects of brain breaks videos on the motives for the physical activity of Malaysians with Type-2 Diabetes Mellitus. *Int J Environ Res Public Health* 2020;17:2507.
 32. Korcz A, Krzysztozek J, Lopatka M, Popeska B, Podnar H, Filiz B, *et al.* Physical education teachers' opinion about online teaching during the COVID-19 pandemic comparative study of European countries. *Sustainability* 2021;13:11730.
 33. Lawson H. Toward a socio-ecological conception of health. *Quest* 1992;44:105-21.
 34. Machado J, Martins WJ, Souza M, Fenner A, Silveira M, Machado A. Healthy and sustainable territories: Contribution to collective health, sustainable development and territorial governance. *Comemciên Saúde* 2017;28:243-9.
 35. Majali SA, Alghazo EA. Mental health of individuals who are deaf during COVID-19: Depression, anxiety, aggression and fear. *COVID. J Community Psychol* 2021;46:1-10.
 36. Menne B, De Leon EQ, Bekker M, Mirzakashvili N, Morton S, Shriwise A, *et al.* Health and well-being for all: An approach to accelerating progress to achieve the sustainable development goals (SDGs) in countries in the WHO European Region. *Eur J Public Health* 2020;30:i3-9.
 37. Mok MM, Chin MK, Korcz A, Popeska B, Edginton CR, Uzunoz FS, *et al.* Brain breaks® physical activity solutions in the classroom and on attitudes toward physical activity: A randomized controlled trial among primary students from eight countries. *Int J Environ Res Public Health* 2020;17:1666.
 38. Morgan DL. *Focus Group as Qualitative Research*. Qualitative Research Series. Vol. 16. United States: SAGE Publications; 1997.
 39. Naul R, Edginton CR, Chin MK. Global forum for physical education pedagogy. *Glob J Health Phys Educ Pedagog* 2012;1:166-8.

40. Nyumba T, Wilson K, Derrick C, Mukherjee N. The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods Ecol Evol* 2018;9:20-32.
41. Olson MH, Hergenhahn BR. *An Introduction to Theories of Learning*. Upper Saddle River, NJ: Pearson/Prentice Hall; 2009.
42. O'Neill AM, Jolley S. The technology curriculum: Commercializing education for mindless consumption. In: McNeill A, Clark J, Openshaw R, editors. *Reshaping Culture, Knowledge and Learning*. Palmerston North, NZ: Dunmore Press; 2004. p. 177-201.
43. Orben A, Przybylski AK. The association between adolescent well-being and digital technology use. *Nat Hum Behav* 2019;3:173-82.
44. Popeska B, Jovanova-Mitkovska S, Chin MK, Edginton CR, Mok MM, Gontarev S. Implementation of Brain Breaks in the classroom and effects on attitudes toward physical activity in a Macedonian school setting. *Int J Environ Res Public Health* 2018;15:1127.
45. Rizal H, Hajar MS, Muhamad AS, Kueh YC, Kuan G. The effect of brain breaks on physical activity behaviour among primary school children: A transtheoretical perspective. *Int J Environ Res Public Health* 2019;16:4283.
46. Wellbeing RC. *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University; 2017.
47. Sammut-Bonnici T, Galea D. SWOT analyses. In: *Wiley Encyclopedia of Management*. New York: John Wiley and Sons, Ltd., Publisher; 2015.
48. Sadeghi R, Heshmati H. Innovative methods in teaching college health education course: A systematic review. *J Educ Health Prom* 2019;8:103.
49. Schultz JA, Collie-Akers VL, Fawcett SB, Strauss WJ, Nagaraja J, Landgraf AJ, *et al.* Association between community characteristics and implementation of community programs and policies addressing childhood obesity: The healthy community's study. *Pediatr Obesity* 2018;13:93-102.
50. Soril L, Seixas B, Mitton C, Bryan S, Clement F. Moving low value care lists into action: Prioritizing candidate health technologies for reassessment using administrative data. *Pediatr Obes* 2018;18:640.
51. Stevens S. *The Joy of Movement in Physical Education: The Enfleshed Body*. Christchurch: University of Canterbury; 2017. Available from: <https://ir.canterbury.ac.nz/handle/10092/14910> [Last accessed on 2022 Jan 05].
52. Tasker G. Health education: Contributing to a just society through curriculum change. In: McNeill A, Clark J, Openshaw R, editor. *Reshaping Culture, Knowledge and Learning*. Palmerston North, NZ: Dunmore Press; 2004. p. 203-24.
53. Thomas E. *University, Leadership, and Management*. Higher Education. London: Epigeum Ltd.; 2012.
54. Tinning R. *Pedagogy and Human Movement: Theory, Practice, Research*. London: Routledge; 2010.
55. UNESCO. *United Nations Sustainable Development Goals*. UNESCO; 2022. Available from: <https://www.un.org/sustainabledevelopment/sustainable-development-goals> [Last accessed on 2022 Jan 13].
56. United Nations. *United Nations: Sustainable Development Goals*; 2015. Available from: <https://www.un.org/sustainabledevelopment/sustainable-development-goals> [Last accessed on 2021 Dec 27].
57. Uvinha RR, De Oliveira NR, De Ridder JH, Chin MK, Durstine JL. The BRICS council for exercise and sport science (BRICSCESS): A new era has dawned. *J Sport Health Sci* 2018;7:425-8.
58. Uzunoz FS, Chin, MK, Mok MM, Edginton CR, Podnar H. The effects of technology supported brain breaks on physical activity in school children. In: Dumon D, Hofmann AR, Diketmuller R, Koenen K, Bailey R, Zinkler C, editors. *Passionately Inclusive: Towards Participation and Friendship in Sport*. Munster, NY: Festschrift fur Gudrun Doll-Tepper; 2017.
59. Wahl J, Lee S, Jamal T. Indigenous heritage tourism in a post COVID world: Towards social justice at little bighorn battlefield national monument, USA. *Sustainability* 2020;12:1-23.
60. World Health Organization. *World Health Organization Health Determinants*. Geneva; World Health Organization; 2017. Available from: <https://www.who.int/news-room/q-a-detail/determinants-of-health> [Last accessed on 2021 Dec 20].
61. Zhou Y, He S, Zhou K, Kuan G, Chin MK, Kueh YC, *et al.* Psychometric properties of the Chinese-language attitude toward physical activity scale: A confirmatory study on Chinese children. *Int J Environ Res Public Health* 2021;18:9253.
62. Zhou K, He S, Zhou Y, Popeska B, Kuan G, Chen L, *et al.* Implementation of brain breaks® in the classroom and its effects on attitudes towards physical activity in a Chinese school setting. *Int J Environ Res Public Health* 2021;18:272.