

## Editorial

This issue seeks to highlight the research that, from an inter- and transdisciplinary perspective, contribute to the discussions related to the main themes of the journal *Revista de Investigación Cuerpo, Cultura y Movimiento* (Body, Culture and Movement Research Journal). To this end, research professors Paula Janyn Melo Buitrago, General José María Córdova Military School of Cadets (Esmic) research coordinator, and Laura Elizabeth Castro Jiménez, research professor at Universidad Santo Tomás, were invited as editors, who contributed to the first part of the publication with articles on physical education seen from its curricular component. In addition, the director of the Master's Degree in Physical Activity for Health of the USTA, Cindy Joulieth Castro Ramírez, contributed in the second part of the issue with articles resulting from research on physical activity as a tool for health promotion and disease prevention.

The first part of the 2019-2 issue has as main theme the formative research projects of the different higher education institutions, whose work was developed in academic cooperation with the Faculty of Military Physical Education of the Esmic and the Faculty of Physical Culture, Sport and Recreation of the USTA.

The proposal of this issue was to gather works that addressed the results of research in the areas of physical education and sports carried out from the formative research actions, in order to strengthen and make visible the students' processes and their applicability in the area. In this regard, the call was made to receive articles from different areas such as: development of the curriculum in the area of physical education, teaching methodology, attitudes, interests and motivations of students, the study of gender in physical education, development of didactic materials, introduction to sports practice, sociological characteristics of sports facilities, planning and development of activity programs, impact on health and quality of life of the practice of physical and sports activities, specific sport problems (school, university, federated), sports education, the impact of sports competition on health in childhood and adolescence, sports management and administration styles, habits of sports practice of the population, biomechanical and kinesiological studies of movement, physiology of physical activity and

sport, biochemistry of the human movement, anthropometric analysis and effects of physical exercise on these variables.

The topics addressed in the approved articles were the development of the curriculum in the area of physical education and the methodologies for the improvement of physical qualities in the student population. In the first one, the authors presented the results by identifying the peculiarities of the educational task of physical education as a school subject in some formal institutions of Bogotá, in light of the specific competences proposed by Document No. 15 of the Ministry of National Education, which are: motor competence, expressive body competence and axiological body competence, through a qualitative methodology. Researchers found that the educational task is centered on the motor competence, with less work on the other two competences. However, this can reorient its educational impact from the recognition of students as active beings in the social bed, making them aware that they are a body that is built and constituted through movement and its relationship with the other.

The second article is based on the Fifa 11+ warm-up program, developed by the Fifa Medical Assessment and Research Centre (F-MARC), which is composed of plyometric training, balance and agility with dynamic and specific exercises. Based on this training, the authors applied it for 10 weeks, 3 times a week, in an experimental group of V-semester students of the Faculty of Military Physical Education (FMPE) at the Esmic and compared the results with a control group. A 67.9% improvement was reported compared to 8.2% with the control group (conventional warm-up). Researchers concluded that the Fifa 11+ warm-up program is effective in improving flexibility, with a future impact on the school by helping to reduce the presence of musculoskeletal injuries.

The published research shows the tendencies of the universities' formative research, in which it is observed how the Universidad Pedagógica wagers on its professional work and the social impact that the Physical Education graduate must have; and, on the other hand, the Military School of Cadets seeking alternatives to strengthen the physical condition of the military in training, highlighting physical culture as one of the pillars of their military training process.

Finally, we highlight the importance of continuing to work in the training of researchers from higher education institutions, thinking about the

publication of their achievements as a way to visualize to the academic community the research efforts that unquestionably generate change and progress of a country. We expect a greater participation from the different universities in future editions.

The second part of the 2019-2 issue has as main theme physical activity as a tool for health promotion and disease prevention. Accordingly, research was collected that showed the contribution of physical activity as a tool that helps reduce risk factors for noncommunicable diseases (NCDs) and is adapted according to the type of population. All these works were presented at the VII International Seminar on Physical Activity for Health, event led by the Universidad Santo Tomás, the Colombian Association of Physical Educators and Related Professions (COLEF) and the District Institute of Recreation and Sports (idrd).

The studies compiled below are framed in three thematic lines developed in the event. Line 1, *Physical activity and NCD*, presents two studies in which risk factors are observed and the importance of physical activity as a tool for health promotion and disease prevention. Line 2, *Physical activity adapted for diversely skilled population*, in which an investigation is conducted with sitting volleyball athletes. Finally, line 3, *Fitness trends*, with a study that makes visible a control method of periodization of the new training modalities in fitness.

We begin with the article *Burden of mortality attributable to physical inactivity*, Colombia 2015 (Chaparro, 2019) as an opening of this compilation, in order to demonstrate the importance of physical activity as a tool for health promotion and prevention of NCDs, by presenting the burden of mortality due to NCDs attributable to physical inactivity (PI) in people aged 25 to 64 during the year 2015 in Colombia. The study calculated the prevalence of PI and the population attributable risk (%) (PAR%). It was demonstrated that PI is a risk factor for developing NCDs and the public health problem it represents in the country was evidenced, concluding that in Colombia, in 2015, 50.1 % of mortality due to NCD was attributable to PI with a higher PAR% for ischemic heart disease, diabetes mellitus and colon cancer in people aged 25 to 64 years.

After addressing the importance of physical activity as a promotion and prevention tool, we move on to the article *Correlation: trunk strength and body composition of men from Bogotá* (Uscátegui, Rodríguez and

Gutiérrez, 2019), in which the correlation between the variables trunk flexion strength and body composition in men from Bogotá was established. Their results indicate that there is a moderate negative correlation observed between the percentage of fat mass and the trunk flexion strength, and indicate that the higher the fat percentage, the lower abdominal strength in flexion. This demonstrates the importance of making physical activity from aerobic and strength training, as other studies suggest, in order to reduce a risk factor in NCD as is the percentage of fat mass.

After going through the strength training suggested by the previous article, we will approach flexibility training, now in a diversely skilled population, continuing with the research *Flexibility training in sitting volleyball* (Cantillo and Camargo, 2019), which shows the effects of a flexibility training program in the posterior muscle chain on the functional scope and execution of the forearm pass in a group of sitting volleyball players from the Bogota league. This study showed the statistical significance in the results of the flexibility tests and changes at clinical level, which demonstrates the adaptability of physical activity and its positive influence at clinical level.

We conclude with the article *Quantifying functional training by evaluating the perceived exertion in physically active subjects* (Bustos-Viviescas, Arévalo Contreras, Acevedo-Mindiola, and Castellanos Jiménez, 2019), which determined the relationship between the session rating of perceived exertion (RPE) and the Edwards Index (EI) to quantify the internal load based on the heart rate in high-intensity functional training with physically active subjects. Among the main findings of this research, a positive and very significant relationship between EI and the RPE was observed, being considered a viable, economic and easily applied method to quantify the internal load in high-intensity functional training.

This compilation demonstrates the importance of implementing systematized physical activity as a tool for health promotion and disease prevention, by counteracting the effects generated by the PI - as one of the causes of mortality due to NCDs - and by intervening in the decrease of risk factors for NCDs, such as the percentage of fat mass. Because of its effectiveness and efficiency, such implementation constitutes a means to attack the current public health problem. Likewise, it shows the physical activity's ability to adapt, according to the type of population and its importance as an aide in the improvement of the clinical condition. This is what the results of the

research carried out with sitting volleyball athletes and physically active subjects refer to, based on the application of methods that allow periodization control in high-intensity functional training, such as RPE.

The last article of the issue is a work from a guest who addresses the body mass index compared to the concept of body self-image in esthetic professionals in the city of Bogotá. A descriptive cross-sectional study was conducted, with a survey in an individual interview, to inquire about the perception of body image. Anthropometric measurements of height and weight were taken, and body mass index (BMI) was calculated. Statistically significant differences were found between the self-perception of body silhouette and the body mass index perception compared to that evaluated in the workers of the esthetic center.

To conclude, we hope all the articles presented in this issue will encourage the academic community to continue studying, deepening, researching and innovating in the benefits of the systematic practice of physical education and physical activity, in order to contribute to well-being and quality of life.

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