



## **Emmanuel Herrera González, MA**

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### **Biography**

Emmanuel Herrera González got his Physical Education, Sports and Recreation Bachelor's Degree at the National University of Costa Rica (UNA). He also got a degree in Science of Sports with an Emphasis in Health (UNA). Afterwards, a master's degree in Educational Psychology at the State University of Costa Rica (UNED). Currently, he is a doctoral student in "Science of Human Movement" at the University of Costa Rica and the National University of Costa Rica.

By the year 2007, he began working in the field of teaching and researching at the School of Human Movement Sciences and Quality of Life at the National University of Costa Rica, in 2010 he assumed the position of coordination of the PSICOMI research program. Nowadays, he is the Co-Coordinator of the Central American Network of Applied Research in childhood and adolescence movement, psychomotricity and health (REDCIMOMI). Furthermore, he has publications in the field of motor, social-emotional, and health in children and perceptual motor diagnostics. Today as a Professor, he teaches courses related to volleyball, baseball, motor development at the School of the Human Movement Science and Quality of Life at the National University of Costa Rica.

### **Abstract**

**OVERWEIGHT, OBESITY, LEVELS OF PHYSICAL ACTIVITY AND SELF-ESTEEM OF CENTRAL AMERICAN CHILDREN: COMPARATIVE ANALYSIS BETWEEN COUNTRIES**

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The purpose of this investigation was to compare the prevalence of overweight, obesity, levels of physical activity and self-esteem of Central American children with the objective of collaborating in the reconsideration of strategies and actions that contribute to the reduction of this problem at school level in the region. This comparative cross-sectional study of random probabilistic sample by conglomerates evaluated 5291 students matriculated in fourth, fifth and sixth grade, 52.3% girls and 47.7% boys from 74 schools in Guatemala, Honduras, El Salvador, Costa Rica, Nicaragua and Panama with an average age of  $10.90 \pm 1.13$ . In all the countries the weight and height to calculate the body mass index, the Physical Activity Questionnaire for Children (PAQ-C) and Lawrence's Self-Esteem Questionnaire (LAWSEQ). The results suggested a prevalence of overweight and obesity of 25%, a low level of physical activity in 35.1% and a low self-esteem in 44.3%. Also, when analyzing the interaction of the variables according to country and sex, it was found that El Salvador presented the highest average body mass index and the lowest level of physical activity compared to Honduras and Panama. In the area of self-esteem, only Costa Rica and Guatemala presented an average classification. This shows that the public health situation experienced by Central American children is a problem that must be guided in an integral manner.

## Engagement with ILSI

At the moment a II stage of REDCIMOVI was proposed to ILSI Mesoamerica, let's remember that REDCIMOVI is a project that integrates applied research efforts among Central American Universities. In the first stage, research units were developed in the participating universities, which carried out diagnoses in the Central American primary schools on the variables of BMI, physical activity and self-esteem, in order to visualize future components of a model that responds to the different results of the Central American countries. In this second stage, the research units of each country, together with the Ministries of Health and the Central American Ministries of Education, intend to develop and implement a human movement promotion model that contributes to generating active lifestyles and environments of peace in the school environment. As an indispensable input, the results of the state of the situation of the children of the region developed in the first phase of this network will be used. Additionally in this phase, it is intended to strengthen the links developed with the Ministries of Education and Ministries of Health of the area, in order to contribute to developing public policy in environments of movement and peace.