

ing, and Bending Endurance). It can be concluded that the manifestation of motor abilities (explosive leg strength, repetitive torso strength, and coordination) significantly affect the running speed at 60m in boys of younger school age.

#### P49

##### **EFFECTS OF ACUTE B-ALANINE SUPPLEMENTATION ON COUNTERMOVEMENT JUMP PERFORMANCE**

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Beta-alanine is a nonessential amino acid produced in the liver, and when combined with L-histidine forms, a dipeptide called carnosine. Intramuscular carnosine yields the most substantial effect on regulating acidity produced during high-intensity anaerobic activities. The goal of this study is to evaluate the effect of Beta-alanine on jumping performance after strenuous exercise. Twelve healthy, physically active men volunteered for the study and signed written informed consent. A single-blind, randomized, controlled study was applied. Participants were allocated either to a placebo (inulin) or beta-alanine group (0.08gr per kg). For fatigue protocol, we implanted 4x400 meter running with 3 min pause between the repetitions. Before and after the fatigue protocol, participants performed the Bosco jump protocol. One-way repeated-measures ANOVA was applied for determining the differences within group subjects. Acute Beta-alanine supplementation revealed no statistically significant difference within subject in experimental group for CMJ1-time ( $p = 0.215$ ,  $\eta^2 = 0.29$ ) and CMJ1 height ( $p = 0.232$ ,  $\eta^2 = 0.27$ ), while in control group statistical significance remained present for both CMJ1-time ( $p = 0.017$ ,  $\eta^2 = 0.71$ ) and CMJ1-height ( $p = 0.031$ ,  $\eta^2 = 0.64$ ). Beta-alanine supplementation can enhance jumping performance after strenuous exercise. Future research should have applied longer supplemental duration and administration protocols further to identify the effect of beta-alanine on exercise performance.

#### P50

##### **CONSUMPTION EXPENDITURE ON SPORTING GOODS: EDUCATIONAL ATTAINMENT LEVEL APPROACH**

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The industry for the sports equipment production with the development of technology is growing rapidly in accordance with the preferences of consumers who are engaged in a certain type of sports activity which is non work-related in sports industry. Personalization and customization of products for performing sports activities by non-professional exercisers is becoming an imperative that must be viewed from multiple perspectives. The aim of this paper is to consider the impact of educational attainment level approach on choosing sports equipment as well as grouping European Union countries according to sporting indicators which include educational level. Accordingly, the methodological framework in this paper will be based on the application of hierarchical multiple regression as well as cluster analysis in order to group countries based on sports indicators that include educational level according to Eurostat. The expected results are based on determining the contribution of educational attainment level to the performance of sports activities and consumption expenditure on sporting goods which is non work-related. Also, the results should establish a group (cluster) of

EU countries that has an optimal ratio of sports indicators based on educational level, which leads to greater physical activity as well as higher consumption in the sports industry. The findings suggest that higher educational attainment level contributes to greater interest in playing sports as well as greater opportunities to allocate income for purchasing sporting goods.

#### P51

##### **PHYSICAL ACTIVITY AND EMOTIONAL STATE DURING CONFINEMENT IN THE COVID-19 PANDEMIC**

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Social isolation and generalized confinement in many countries has caused a decrease in physical activity (PA) and an increase in levels of stress, anxiety and depression. The objective of this work has been to evaluate the incidence of PA on the emotional state during a period of mandatory confinement due to COVID-19. 360 university students from Málaga University participated divided into three groups, control (Sedentary, Sed), and experimental (group with low physical activity, BAct, and physically active, Act). The experimental groups were conducted on a PA intervention program for 11 weeks, from the beginning to the end of the mandatory confinement. A weekly online questionnaire was collected, recording the level of PA (min / week) and the results of the PIL test (purpose in life). The level of PA decreased significantly at the beginning of the confinement and increased significantly in the flexibilization phases. PA has a positive effect on the sense of life and practicing some physical exercise on a regular basis could be a crucial tool to face a state of mandatory confinement.

#### P52

##### **SIMILARITIES AND DIFFERENCES IN EXERCISE MOTIVATION IN WOMEN OF DIFFERENT AGES**

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Physical activity has been proven to be beneficial at all stages of life. Currently, increasing the level of physical activity for the under-active adult population remains an important and open health issue. It is essential to be aware and recognize all the factors related with physical activity, including all motivational aspects. The main objective of this research study is to define the similarities and differences in motivation for physical activity with women of different age groups. Research and data was recorded on a data set of 97 examinees of age 18 years or older, of whom participate in group training at Guliver Fitness Center. All examinees were divided into three groups: younger, middle, and elderly. There are 14 factors from the questionnaire that define the sample of variables based on basic statistics. For data analysis, ANOVA and Kruskal-Wallis test were utilized. Out of the 14 isolated factors there was only one statistical outlier from the data set. The outlier corresponds with levels of motivation for physical activity to eliminate or avoid serious health conditions. The elderly subgroup shows a higher motivation level, in correspondence with the previously mentioned, compared with the two other subgroups. It is concluded, based on the data sets, that the elderly subgroup dedicates more attention to their health. In result, it is assumed that this subgroup is more aware of their health since