

## ANALYSIS OF BEHAVIORS OF COMPETITIVE ATHLETES IN RELATION TO THE USE OF SPECIALIZED DIETARY SUPPLEMENTS DESIGNED FOR PROFESSIONAL ATHLETES

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**Introduction.** Competitive sport entails constant demands on the body to take on physical and mental exertions on a level far exceeding the average demand in relation to the general population. Only with the right combination of diet and food products could an athlete's body be able to protect against the negative balance of calories. Therefore, supplementation is necessary, as a complement to a balanced diet. The choice of supplementation depends on the characteristics of physical activity. The aim of this study was to analyze the behaviors of athletes in competitive sports, in relation to the use of specialized dietary supplements designed for professional athletes.

**Test material and test methods.** Respondents were selected at random among a select group of athletes professionally practicing basketball in the I and II league, Ukrainian and Polish. The numeric state of respondents was as follows: Segment: "entire population"; 154 respondents in total, including 60 female and 94 male athletes; Segment: "Poland": total 78; 27 female athletes; 51 male athletes; Segment: "Ukraine": total 76; 33 female players; 43 male players.

The data obtained from the survey were analyzed with the use of R 3.2.2 statistical software package (R Development Core Team (2009)). A p-value of 0.05 was required for statistical significance.

**Results.** In taking protein preparations, statistically significant differences were found in the segment "entire population" and the other two segments ("Ukraine" and "Poland"), between the age range 18–21 years and 30–35 years and groups representing training experience of 0–2 years and above 10 years. Also found were statistically significant differences in the use of carbohydrate preparations between respondents representing the "Ukraine" and "Poland" segments and significantly higher consumption of carbohydrate bars for male athletes compared to female athletes (this was recorded in the case of the "entire population" segment and "Ukraine" and "Poland" segments). Despite globalization, results indicate that there are specific characteristics of dietary supplementation with athletes in different countries. It leads to taking this fact into account in creating various product offers for various parts of the world.

**Keywords:** supplementation, basketball players, behavior analysis.