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DIETARY SUPPLEMENTS SELECTED BY YOUNG PEOPLE EXERCISING IN FITNESS ROOMS IN KRAKÓW AND ENVIRONS

SUPLEMENTY WYBIERANE PRZEZ MŁODZIEŻ ĆWICZĄCĄ W SIŁOWNIACH W KRAKOWIE I OKOLICY

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In this study, 81 % of the population used some form of dietary supplement; nutritional supplements were used by 21% of women and 60 % of men, and were used most frequently by young people 21-25 years of age. The most popular supplements were creatine, (20%) and HMB- beta-hydroxy-betamethylbutyrate (19%).

Key words: exercising, dietary supplements, questionnaires

Słowa kluczowe: ćwiczenia fizyczne, suplement diety, ankiety

INTRODUCTION

In recent years a considerable growth of popularity of strength sports has been observed in Poland. This finds its reflection in new fitness clubs and gyms being established across the country.

In the 1990s it became fashionable in Poland to keep a good, healthy figure and keep fit. This trend had positive effects as it diminished the risk of circulatory system dysfunctions [10].

Recently many researchers reported that dietary supplements are widely used by people exercising in fitness rooms [1, 4, 5, 7, 8, 11].

The most common supplements included creatine [3, 9, 14, 18,]; HMB [5, 17]; vitamins [2, 4, 7] and proteins [10,12].

MATERIAL AND METHODS

The material for the present study comprised the questionnaires (n= 150) distributed among athletes exercising in fitness rooms, customers of the dietary supplements shop for athletes, pharmacy customers as well as selected passers-by encountered in Sienna Street in Krakow, who answered the question “Do

you exercise in a fitness club or a gym?" in the affirmative. All the respondents were thus the people who worked out or exercised sports at any time in order to improve their figure or for some other reasons.

The group under investigation was differentiated for gender: women (n= 37), men (n= 113); it also had four age brackets: under 16, 16-20, 21-25, and over 25.

The original questionnaires were distributed anonymously in the period from January 2005 to May 2005.

The respondents answered questions whether they used any methods of aiding their physical strength, such as dietary supplements. The questions and sought responses also aimed at determining which of the supplements were most frequently selected by athletes, and thus what kind of preparations enjoyed the greatest popularity on the Polish market. The subjects answered questions regarding their practices and use of nutrition supplements. The data was collected from 150 athletes (25% female, 75 % male).

The questionnaires were distributed in five venues:

1. The shops selling and distributing nutritional supplements for athletes located at ul. Starowiślna 97 in Krakow (n= 61)
2. The NFZ (state-owned) pharmacy at Krakowska 31, 32-700 Bochnia
3. The private pharmacy at Chorągwica 140, 32-020 Wieliczka (n= 10)
4. Fitness room for amateurs at Raciborsko 225, 32-020 Wieliczka (n= 33)
5. Athletes selected randomly among passers-by at Sienna Street in Krakow (n= 27)

The results database was made and the questionnaire analysis was performed by means of the statistical and graphic procedures available from "STATISTICA 5,1 PL" software by StatSoft, Polska, Sp z o.o.

RESULTS

It turns out that as many as 121 respondents - 81% used various kinds of supplements, and only 29 respondents- 19% used a normal, traditional diet (Figure 1).

Have you used any dietary or nutritional supplements?

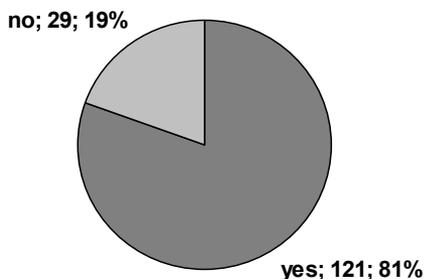


Fig. 1 The frequency with which the respondents used different methods of supporting their strength, called dietary or nutritional supplements.

Creatine has the greatest popularity on the market with 20% of all the preparations used, followed by HMB with 19% and the carbohydrate and protein combinations with 16%. The lower positions in the ranking are taken by testosterone preparations with 10%, fat burners with 9%, and vitamins and amino acids with 8%. The respondents who used the supplements

Table I. Percentages, which supplements enjoy the greatest recognition among the respondents.

Supplement	Percentage of use
creatine	20 %
HMB	19 %
carbohydrates/proteins	16 %
fat burners	9 %
amino acids	8 %
vitamins	8 %
carbohydrates	6 %
proteins	4 %

available on the market least frequently chose the strict protein (4%) or carbohydrate preparations (6%) (Table I).

With regards to age differences among the subjects using nutritional supplements, it was concluded that they were most frequently used by young people of 21-25 years of age. With age the number of nutritional supplements decreased. It can also be observed that younger users of the fitness clubs took many various supplements, while older people selected one or two supplements only.

In as many as 93 cases out of 121 of those using supplements, i.e. 76,8%, noticed a considerable growth in body strength. A large number of respondents, i.e. 59-48,7%, observed a growth in muscle mass, while nearly the same number, 48 respondents - 39,6%, observed the change in the overall body mass. Only in 9 cases out of 121, i.e. 7,4%, the respondents noticed undesirable changes, while 6 respondents (4,9%) did not observe any changes at all as a result of dietary supplementation.

The majority of the respondents (71 persons) took into consideration the opinions of their fellow body builders who had earlier come into contact with dietary supplements.

The advertisements came second in the ranking (26 cases).

The third largest group of respondents considered their doctor's opinion (17 respondents). 15 respondents admitted consulting the type of supplement with a pharmacist, while 13 mentioned other types of information.

CONCLUSIONS

The detailed analysis of the results of the questionnaires distributed among 150 respondents, including young people exercising in fitness rooms and customers of dietary supplement shops for athletes, allowed the following conclusions to be drawn:

1. The use of dietary supplements is widespread among young body builders, since as many as 81% reached for them.
2. Among the supplements available on the market, creatine, HMB and complex protein-carbohydrate preparations enjoyed the greatest popularity
3. With regards to age differences among the subjects using nutritional supplements, it was concluded that they were most frequently used by young people of 21-25 years of age.
4. Only 14% of the respondents asked for the opinion of qualified personnel, such as doctors, pharmacists or dieticians.

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Summary

The purpose of this study was to determine the prevalence of the use of dietary supplements among the young people exercising in fitness rooms in Kraków and environs. In this study, 81 % of the population used some form of dietary supplement; nutritional supplements were used by 21% of women and 60 % of men, and were used most frequently by young people 21-25 years of age. The most popular supplements were creatine, (20%) and HMB- beta-hydroxy-beta-methylbutyrate (19%). Only 14% of the respondents asked for the opinion of qualified personnel, such as doctors, pharmacists or dieticians.

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Streszczenie

Celem pracy była ocena częstości stosowania suplementów diety przez młodzież ćwiczącą w siłowniach na terenie Krakowa i okolic. Przeprowadzono badanie ankietowe wśród 150 osób. Aż 81 % badanych osób regularnie przyjmowało różne formy suplementów diety. Najczęściej używano kreatynę, HMB (beta-hydroksy-beta metylomaślan) oraz preparaty zawierające aminokwasy i białka. Wiedzę na temat działania i stosowania poszczególnych preparatów ankietowani czerpali głównie od współćwiczących. Jedynie 14 % ankietowanych zwracało się po fachową poradę do lekarzy lub farmaceutów.

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