TYPE A PERSONALITY AND NUTRITIONAL BEHAVIOURS OF COMPETITIVE BASKETBALL PLAYERS

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Received: 21.06.2023
Revised: 11.07.2023
Accepted: 20.08.2023
Published: 31.08.2023

Citation:
Gacek M, Wojtowicz A, López Sánchez GF: Type a Personality And Nutritional Behaviours of Competitive Basketball Players. Journal of Kinesiology and Exercise Sciences. 2023;103(33)
Abstract

Introduction. Type A personality pattern (TAPP) is related to, among others, strong rivalry and struggle for achievements, which are features that fit into sports competition. One of the determinants of sports success is a proper diet. The aim of the study was to assess the relationship between the level of type A personality behavioural pattern and nutritional behaviours of basketball players.

Materials and Methods. The study was conducted among 165 high-level basketball players. An author-designed nutritional behaviour questionnaire (according to the recommendations of the Food Pyramid for Swiss Athletes) and the Framingham Score in the Polish adaptation were used. Spearman's rank correlation and the Mann-Whitney U tests were applied for the analysis of the results.

Results. The study confirmed that along with the increase in TAPP, the healthy eating behaviour index among basketball players increased, although it did not reach the level of statistical significance ($p=0.080$). Comparison of TAPP levels between groups that adhered to or disregarded particular nutritional recommendations showed that athletes limiting the consumption of non-recommended products (sweetened carbonated and non-carbonated beverages, energy drinks, fast food, and sweet and salty snacks) demonstrated a higher level of type A behaviours than those who did not follow these recommendations ($p<0.001$). At the same time, however, athletes consuming fish at the recommended frequency and taking care of adequate hydration during training had lower levels of TAPP than those who did not follow these recommendations ($p<0.05$).

Conclusions. A positive relationship was found between the intensity of TAPP and the healthy eating behaviour index (without the level of statistical significance), but the results were not entirely unambiguous, which suggests the validity of further research.

Keywords: basketball players, type A personality pattern, nutritional behaviour
Introduction

A varied and balanced diet that meet the increased physiological needs of athletes promote the improvement of health and exercise capacity, while accelerating the rate of post-exercise recovery [1, 2]. The current canon of healthy sports nutrition is described, among others, by the Swiss pyramid, in which proper hydration and daily intakes of products with high nutritional density (vegetables, fruits, whole grain cereals and dairy products) are recommended. Attention is also drawn to the consumption of other protein sources (fish, eggs, lean meat) and limiting animal fats, sweets, and fast food [3].

Increased nutritional needs also apply to athletes training basketball competitively, whose training effectiveness depends on the level of various motor characteristics, including endurance, strength, speed [4-9], and psychological predispositions [10]. Recent meta-analyses have confirmed that the quality of exercise-based nutrition among basketball players is important for their rate of recovery [11], hence the growing interest in products dedicated to athletes [12].

In the literature, it is shown that nutritional behaviour is determined by various environmental and personality-related factors [13, 14]. There are studies on the relationship between personal resources (including a sense of optimism and generalised effectiveness, and locus of control) and the nutritional behaviours of athletes [15-18]. New studies look at the relationships between the personality traits in the Big Five model and the quality of diet and nutritional behavior of team athletes [19, 20]. However, there is no research on the relationship between personality types (understood as behavioural patterns) and the nutritional behaviours of athletes. Meanwhile, the behaviour patterns described in the literature (A, B, C, D) may be predictors of health, its determinants, and threats [21-23]. In German studies conducted among older athletes, the presence of dyslipidemia (a risk factor for atherosclerosis) was found in men with more severe type A personality patterns (TAPP) [24].

The construct of the type A behavioural pattern, formulated by Californian cardiologists as a risk factor for coronary heart disease, seems to be cognitively interesting, not only within the context of the risk of developing degenerative cardiovascular diseases. Type A behaviour, related to the constant pursuit of various goals within a short time frame, is defined as a lifestyle characterised by strong competition, struggle for achievement, aggressiveness, excitability, excessive vigilance, an explosive manner of speaking, facial muscle tension, a sense of time pressure, and excessive responsibility [21, 25]. Type A individuals also exhibit desirable traits and healthy behaviours that can be reinforced [25]. In one of the popular methods used to measure the type A pattern of behaviour (Jenkins Scale), several basic aspects defining this
pattern were distinguished, including responsible and conscientious fulfilment of one's duties, the need to compete, high professional activity as well as high dynamics and formal characteristics of behaviour (speed, impatience, mobility) [21].

Within the context of the aforementioned type A characteristics, one can point to its significance among athletes who have a tendency towards strong competition and struggle for achievements that determine sports success. The study confirmed that students of physical education (with increased physical activity due to their university major) were characterised by a higher level of type A behavioural pattern characteristics than students of other faculties. Physical education students often participate in sports competitions, often fierce, which is one of the key aspects of the type A personality pattern [26]. Also, in studies of runners, it was indicated that athletes with a history of injuries (especially women) were characterised by more severe features of the type A pattern than those who had not suffered injuries in the past. The authors interpreted these relationships, among others, as the fact that athletes with stronger traits of the type A behavioural pattern were more involved in vigorous training, which generated greater loads. They were characterised by greater motivation to undertake effort and attitudes towards strong competition, which are integral components of type A personality [27]. Furthermore, a study of US Army soldiers showed that men with higher results on the Jenkins Activity Survey coped better with physical exertion [28]. Furthermore, in a study on a different pattern of behaviour (type D), it was shown that type D personality was associated with an increased level of perceived stress and eradication of ineffective coping strategies (focused on emotions and avoidance) and lower physical performance [29].

Due to the lack of studies on the predictive role of type A personality in relation to the diet of people involved in high-level physical activity in the literature, research was undertaken on the significance of this psychological feature for the implementation of nutritional recommendations among athletes. The study covered professional basketball players because athletes of this sport constitute a group that has not been studied in this area of research [11, 30].

The aim of the study was to assess the relationship between the intensity of the type A personality pattern and the nutritional behaviours of Polish basketball players. The level of TAPP and the index of healthy food choices, and differences in the level of the type A behaviour pattern in the groups of athletes implementing and not implementing individual recommendations of healthy nutrition for athletes were also assessed.
Material and Methods

Participants
Research was carried out among 165 professional basketball players aged 20 to 37 years (23.4±3.7) (top, first, and second league players). The basic criterion for the open selection of participants was playing professional sports for at least 3 years. The participants' sports experience was between 3 and 20 years (11.3±3.7). The research study was performed in accordance with the 1964 Declaration of Helsinki, after participants provided written informed consent. The research protocol was approved by the Bioethics Committee at the Regional Medical Chamber in Krakow, Poland (No. 105/KBL/OIL/2021).

Instruments
To assess the diet, the author's original nutritional behaviour questionnaire comprising 20 statements (referring to the recommendations of the Food Pyramid for Swiss Athletes) was used. Individual statements were answered "Yes" (1 point) or "No" (0 points). Based on the sum of points for all items, the variable "Proper eating behaviour" was created (0-20 point scale, with an increase in the number of points denoting greater implementation of nutritional recommendations). The statements concerned proper fluid replenishment during training, the preference for water and other unsweetened beverages for hydration, consumption of vegetables and fruits (3-5 times a day), vegetables (at least twice a day), raw vegetables (at least once a day), cereals (during main meals), whole grain cereals (at least twice a day), dairy products (at least twice a day), other protein products (approx. 150 g, 2-3 times a week), fish (1-2 times a week), limiting animal fats, daily consumption of vegetable fats, reducing carbonated and non-carbonated sweetened beverages, energy drinks, fast food and salty and sweet snacks, as well as regular consumption of the recommended number of meals (at least three), a varied diet and eating the most caloric meal after training/competitions. The performed validation procedure demonstrated a very strong relationship between the test and retest results, and thus, high repeatability of the results (Chi²: p>0.05 and Phi: p>0.05).

The Polish adaptation of the A-Framingham Score [22] was used to measure the type A behavioural pattern. The type A scale contains 10 statements about the features and characteristics typical of an individual, feelings at the end of an average day, and time pressure. It is a self-report tool. The overall score on the scale is the average of all ratings and ranges from 0-1. Scores closer to 1 indicate type A personality, while scores closer to 0 indicate type B behaviour. The scale includes two factors that characterise type A (haste and competition). The reliability of the Polish version of the type A Scale is 0.62 (Cronbach's alpha), and the test stability index is 0.85. The scale does not have any standards [22].
Statistical analyses

Spearman's rank correlation and the Mann-Whitney U test were used in the analysis of the results. Due to the lack of normal distribution, the median is the measure of central tendency regarding quantitative variables. The relationships between the psychological variable (TAPP) and eating behaviours were assessed using Spearman's rank correlation coefficient. Differences in the level of the type A behaviour pattern depending on the implementation (“Yes” vs. “No”) of individual nutritional recommendations, were assessed using the Mann-Whitney U test. The analyses were performed using Statistica software, with a significance level set at \( p<0.05 \).

Results

The median level of the type A behavioural pattern among the basketball players studied (on a scale of 0 to 1) was 0.63, and the median of the index for proper eating behaviours (on a scale of 0 to 20), was 14.00 (Table. 1).

Analysis of the relationship between the intensity of type A personality and the level of healthy eating behaviours showed that with the increase in GA, the index of healthy eating behaviours increased but this relationship did not reach the level of statistical significance \( (p=0.080) \). Similarly, the correlations between the two components of the TAPP (haste and competition) and the healthy eating behaviour index did not reach the level of statistical significance \( (p>0.05) \) (Table. 2).

Table 1. The level of TAPP (and its components) and the index of healthy eating behaviours among Polish basketball players (descriptive statistics)

<table>
<thead>
<tr>
<th>Analysed variables</th>
<th>Descriptive statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
</tr>
<tr>
<td>TAPP</td>
<td>0.63</td>
</tr>
<tr>
<td>TAPP Haste</td>
<td>2.34</td>
</tr>
<tr>
<td>TAPP Competition</td>
<td>4.00</td>
</tr>
<tr>
<td>Healthy Eating Behaviours (index)</td>
<td>14.00</td>
</tr>
</tbody>
</table>

Me- median, Q25-lower quartile, Q75-upper quartile

Table 2. Relationships between the level of the TAPP (and its components) and the index of healthy eating behaviours among Polish basketball players (Spearman's R correlation coefficient)

<table>
<thead>
<tr>
<th>Analysed variables</th>
<th>Spearman’s R correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
</tr>
<tr>
<td>TAPP &amp; Healthy Eating Behaviours</td>
<td>0.14</td>
</tr>
<tr>
<td>TAPP Haste &amp; Healthy Eating Behaviours</td>
<td>0.08</td>
</tr>
<tr>
<td>TAPP Competition &amp; Healthy Eating Behaviours</td>
<td>0.11</td>
</tr>
</tbody>
</table>
The level of features of the TAPP was also compared in the groups of players who adhered or did not to individual dietary recommendations. Table 3 presents statistically significant results. It was found that athletes who limited the intake of carbonated beverages and energy drinks, and avoided fast food and sweet and salty snacks in their diets had a higher level of TAPP than those who did not follow these recommendations. At the same time, athletes who consumed fish at the recommended frequency and who ensured adequate hydration during training had lower levels of the TAPP than those who did not comply with these recommendations (Table 3). In the case of the remaining dietary recommendations, no statistically significant differences were found in the level of TAPP between players who complied or did not with the recommendations.

Table 3. Level of TAPP among basketball players depending on the implementation of nutritional recommendations (Mann-Whitney U test)

<table>
<thead>
<tr>
<th>Dietary recommendations</th>
<th>TAPP mean group 1</th>
<th>TAPP mean group 2</th>
<th>U</th>
<th>Z</th>
<th>p</th>
<th>N group 1</th>
<th>N group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish 1-2 times a week</td>
<td>0.57</td>
<td>0.65</td>
<td>2693.5</td>
<td>2.31</td>
<td>0.021</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td>Proper hydration during training</td>
<td>0.60</td>
<td>0.66</td>
<td>1375.0</td>
<td>-2.15</td>
<td>0.032</td>
<td>138</td>
<td>27</td>
</tr>
<tr>
<td>Limiting sweetened carbonated and non-carbonated beverages</td>
<td>0.65</td>
<td>0.52</td>
<td>1445.0</td>
<td>4.59</td>
<td>&lt;0.001</td>
<td>120</td>
<td>45</td>
</tr>
<tr>
<td>Avoiding energy drinks</td>
<td>0.65</td>
<td>0.54</td>
<td>1783.0</td>
<td>-4.57</td>
<td>&lt;0.001</td>
<td>59</td>
<td>106</td>
</tr>
<tr>
<td>Avoiding fast food products</td>
<td>0.65</td>
<td>0.55</td>
<td>1986.5</td>
<td>3.67</td>
<td>&lt;0.001</td>
<td>109</td>
<td>56</td>
</tr>
<tr>
<td>Avoiding sweet and salty snacks</td>
<td>0.67</td>
<td>0.54</td>
<td>1737.0</td>
<td>5.36</td>
<td>&lt;0.001</td>
<td>90</td>
<td>75</td>
</tr>
</tbody>
</table>

Group 1: Athletes following recommendations; Group 2: Athletes not following recommendations

The level of TAPP components (haste and competition) was also compared in the groups of players who adhered or did not to individual dietary recommendations. Tables 4 and 5 show only statistically significant results. It was found that athletes who had meals regularly (every 3-5 hours), consumed fish 1-2 times a week, cereal products in every meal, and were adequately hydrated during training, had lower levels of haste than those who did not adhere to these recommendations. At the same time, athletes who limited sweetened and energy drinks as well as fast food products, and sweet and salty snacks, had higher levels of haste than those who did not follow these recommendations (Table 4).

With regard to the competition component of the TAPP, it was found that athletes who consumed meals regularly, at least 2 servings of dairy products daily, while limiting sweetened
beverages and energy drinks, as well as sweet and salty snacks in their diets, showed higher levels of competition than non-compliant athletes. At the same time, players consuming cereal products during every meal, fish 1-2 times a week and vegetable fats every day, demonstrated lower levels of competition than athletes who did not follow these recommendations (Table 5). The implementation of the remaining dietary recommendations did not indicate any significant relationships with the level of haste and competition among basketball players.

Table 4. Level of the Haste TAPP component among basketball players depending on the implementation of nutritional recommendations (Mann-Whitney U test)

<table>
<thead>
<tr>
<th>Nutritional recommendations</th>
<th>Mean Haste Group 1</th>
<th>Mean Haste Group 2</th>
<th>U</th>
<th>Z</th>
<th>p</th>
<th>N Group 1</th>
<th>N Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consuming meals every 3-5 hours</td>
<td>2.33</td>
<td>2.65</td>
<td>2321.0</td>
<td>-1.96</td>
<td>0.049</td>
<td>115</td>
<td>50</td>
</tr>
<tr>
<td>Cereal products in each main meal</td>
<td>2.29</td>
<td>2.52</td>
<td>2381.5</td>
<td>-2.94</td>
<td>0.003</td>
<td>66</td>
<td>99</td>
</tr>
<tr>
<td>Eating fish 1-2 times a week</td>
<td>2.29</td>
<td>2.57</td>
<td>2710.5</td>
<td>2.26</td>
<td>0.024</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td>Proper hydration during training</td>
<td>2.34</td>
<td>2.90</td>
<td>1122.0</td>
<td>-3.26</td>
<td>0.001</td>
<td>138</td>
<td>27</td>
</tr>
<tr>
<td>Limiting sweetened carbonated and non-carbonated beverages</td>
<td>2.61</td>
<td>1.94</td>
<td>1616.0</td>
<td>3.96</td>
<td>&lt;0.001</td>
<td>120</td>
<td>45</td>
</tr>
<tr>
<td>Avoiding energy drinks</td>
<td>2.53</td>
<td>2.24</td>
<td>2255.0</td>
<td>-2.96</td>
<td>0.003</td>
<td>59</td>
<td>106</td>
</tr>
<tr>
<td>Avoiding fast food products</td>
<td>2.68</td>
<td>1.94</td>
<td>1775.5</td>
<td>4.39</td>
<td>&lt;0.001</td>
<td>109</td>
<td>56</td>
</tr>
<tr>
<td>Avoiding sweet and salty snacks</td>
<td>2.74</td>
<td>2.06</td>
<td>2097.5</td>
<td>4.18</td>
<td>&lt;0.001</td>
<td>90</td>
<td>75</td>
</tr>
</tbody>
</table>

Group 1: Athletes following recommendations; Group 2: Athletes not following recommendations

Table 5. Level of the Competition TAPP component among basketball players depending on the implementation of nutritional recommendations (Mann-Whitney U test)

<table>
<thead>
<tr>
<th>Nutritional recommendations</th>
<th>Mean Competition Group 1</th>
<th>Mean Competition Group 2</th>
<th>U</th>
<th>Z</th>
<th>p</th>
<th>N Group 1</th>
<th>N Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularity of meals</td>
<td>3.84</td>
<td>3.33</td>
<td>2246.0</td>
<td>2.01</td>
<td>0.044</td>
<td>117</td>
<td>48</td>
</tr>
<tr>
<td>Consuming meals every 3-5 hours</td>
<td>3.86</td>
<td>3.32</td>
<td>2227.5</td>
<td>2.29</td>
<td>0.022</td>
<td>115</td>
<td>50</td>
</tr>
<tr>
<td>Cereal products in each main meal</td>
<td>3.46</td>
<td>3.85</td>
<td>2534.0</td>
<td>-2.44</td>
<td>0.015</td>
<td>66</td>
<td>99</td>
</tr>
<tr>
<td>Dairy products at least 2 times a day</td>
<td>3.93</td>
<td>3.40</td>
<td>2474.5</td>
<td>-2.90</td>
<td>0.004</td>
<td>73</td>
<td>92</td>
</tr>
<tr>
<td>Eating fish 1-2 times a week</td>
<td>3.45</td>
<td>3.94</td>
<td>2594.5</td>
<td>2.63</td>
<td>0.008</td>
<td>82</td>
<td>83</td>
</tr>
</tbody>
</table>
Table 1: The level of TAPP and healthy eating behaviours

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Mean (SD)</th>
<th>Median (IQR)</th>
<th>p-value</th>
<th>Group 1 (n=112)</th>
<th>Group 2 (n=53)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable fats every day</td>
<td>3.55 (0.41)</td>
<td>3.20 (0.40)</td>
<td>0.008</td>
<td>112</td>
<td>53</td>
</tr>
<tr>
<td>Limiting sweetened carbonated and non-carbonated beverages</td>
<td>3.87 (0.34)</td>
<td>3.37 (0.37)</td>
<td>0.001</td>
<td>120</td>
<td>45</td>
</tr>
<tr>
<td>Avoiding energy drinks</td>
<td>3.99 (0.32)</td>
<td>3.71 (0.34)</td>
<td>&lt;0.001</td>
<td>59</td>
<td>106</td>
</tr>
<tr>
<td>Avoiding sweet and salty snacks</td>
<td>4.01 (0.33)</td>
<td>3.81 (0.35)</td>
<td>&lt;0.001</td>
<td>90</td>
<td>75</td>
</tr>
</tbody>
</table>

Group 1: Athletes following recommendations; Group 2: Athletes not following recommendations

Discussion

The results of our research showed the average levels of TAPP and healthy eating behaviours, a relationship between the levels of TAPP and healthy eating behaviours, and differences in the level of TAPP (and its components) between the groups of basketball players adhering to and not meeting individual dietary recommendations.

The observed level of TAPP in the surveyed athletes was higher than in other groups of people representing increased physical activity - physical education students (0.48±0.28) [26], which indicates the presence of TAPP features in the personality of competitive basketball players. This corresponds to the nature of the professional activity of professional athletes, which includes features that are elements of the TAPP such as speed, mobility, haste, strong motivation to compete (team games), and a high need for achievements (sports successes).

The average level of the healthy eating behaviour index observed among the examined basketball players indicates a limited scale of implementing qualitative nutritional recommendations for people undertaking increased physical activity included in the canon of the Swiss pyramid. It may be concluded that the limited scope of healthy nutrition among basketball players can reduce the nutritional and health values of the diet. Incomplete implementation of nutritional recommendations for athletes and imbalances in the diet have also been described in other studies of players of team sports in various countries [18-20, 31-38].

The results of our research also indicated a positive (although statistically insignificant) relationship between the intensity of TAPP and the index of healthy eating behaviours, which was confirmed by a higher level of TAPP among players who followed nutritional recommendations to limit the consumption of products contraindicated in a healthy diet (carbonated and non-carbonated sweetened beverages, energy drinks, fast food products, and sweet and salty snacks). These types of trends concerned 4 out of 20 aspects of the studied diet.
Different patterns were found for the relationship between TAPP and healthy behaviour in terms of fish consumption and proper hydration during exercise (in the group following these recommendations, a lower level of TAPP was observed). Other analysed eating behaviours (14 out of 20 aspects) did not show any significant correlations with the level of TAPP among the basketball players studied.

The obtained tendencies can be interpreted within the context of characteristics regarding this personality dimension. A high tendency towards competition and striving for sports success requires, inter alia, a high level of exercise capacity, which is enhanced not only by strength and conditioning training but also by healthy food choices adapted to high training loads [2]. Limitation of sweetened and energy drinks, as well as sweets and fast food in competitors with a higher level of TAPP, affects the lower supply of simple sugars and atherogenic trans isomers, which increases the health value of the diet. This is also important within the context of current studies in which the negative impact has been confirmed regarding the excessive supply of sucrose on the composition of the intestinal microflora in high-class athletes of endurance sports [39]. At the same time, however, the consumption of marine fish (rich in omega-3 PUFAs) and proper fluid replenishment during exercise are also important areas of healthy food choices [3]. Therefore, the obtained results do not provide a clear answer regarding the predictive role of TAPP in relation to the quality of food choices among basketball players. The observation of ambiguity in the analysed relationships also applies to the components of TAPP. It was found that a higher TAPP Haste item favoured the reduction of products not recommended in the diet, but at the same time, a lower level of this feature was found, among others, when consuming fish and properly hydrating during exercise. On the other hand, the higher level of TAPP Competition favoured the regularity of meals, the consumption of dairy products, and the reduction of non-recommended products but, at the same time, the lower level of this feature was favourable, among others, when basketball players studied consumed cereal products, fish, and vegetable fats.

In other studies (Caerphilly) on the relationships between the type A behavioural pattern and the diet of professionally active men (45-59 years), it was shown that individuals with a more severe type A behaviour had a higher percentage of energy from sugars in their diet and less from starch and polyunsaturated fatty acids. Low PUFA supply may indicate insufficient consumption of marine fish, which are one of their food sources [40]. In this respect, the results of our research seem to be consistent with the results of Caerphilly's research. Also, the results of research among physical education and sociology students showed that a higher score on one of the TAPP scales (competition) was a predictor of a higher level of healthy behaviours,
including healthy eating habits. On the other hand, a high score on the haste scale intensified the unhealthy behaviours of students [26]. It is possible that, similarly to the group of physical education students, the high need for achievement and the high level of competition (especially in sports) in the group of basketball players led to the adherence to the principles of a healthy lifestyle, including healthy nutrition. To some extent, these tendencies may also explain the ambiguity of the results in the group of basketball players. More unequivocal results were obtained in previous trials by other authors. In these studies, it was shown that TAPP was associated with lower physical activity, unhealthy diet, and metabolic syndrome, with the predictive role of TAPP in relation to healthy behaviours and health status, which differed by age [41].

The results obtained for basketball players may also be interpreted within the context of the positive correlation found in our research (unpublished) between TAPP and the level of internal health control of athletes (R=0.30, t=3.97, p<0.001). The internal locus of health control favours more health-promoting behaviours. Internalised locus of health control is related to the belief of an individual that s/he has control over her/his health and has a direct influence on it [22]. Within this context, players more convinced of the possibility of having an active and conscious impact on health (including exercise capacity) and more convinced of the effectiveness of their impact (including health) may present a more health-promoting model of nutrition. Previous studies have shown that basketball players characterized by high internal health control had more regular meals, more often preferred water for hydration, and more often consumed fruit and vegetables, which is the basis of a healthy diet [20]. Previous studies have confirmed the predictive importance of internal control for more healthy food choices among athletes of team sports [42]. Other studies have also found that internal locus of control had a positive effect on the self-regulation of eating habits within the context of social interactions of athletes [43].

The discussed research showed the partial predictive importance of the TAPP in relation to the quality of food choices among Polish basketball players. It should be noted, however, that the trends in the discussed research were not fully unambiguous in all areas, which suggests the need for further exploration, the more so that the diagnosis of personality determinants of eating behaviours may favour the individualisation of educational interactions and rationalisation of diet for athletes. At the same time, by referring to the limitations of the present study, it is necessary to point out the legitimacy of further research on the psychological determinants of eating behaviours among athletes, taking various sports and a broader spectrum of psychological and nutritional analyses into account.
Conclusions

1. Among Polish basketball players, the average level of type A personality (TAPP) and of healthy eating behaviours were shown in relation to the recommendations of the Food Pyramid for Swiss Athletes.

2. A positive relationship was found between the TAPP and the indicator of healthy eating behaviours, additionally confirmed by the higher level of TAPP in the group of basketball players implementing the recommendations regarding the limitation of consuming non-recommended products (sweetened and energy drinks as well as sweets and fast foods). The results, however, were not unequivocal, as the players who followed the recommendations regarding the consumption of fish and adequate hydration had a lower level of TAPP.

3. The ambiguity of these results also concerned the relationship between the two components of the TAPP (Haste and Competition) with the implementation of healthy eating recommendations, which indicates the legitimacy of further research on the psychological determinants of diets for athletes.

Funding information: No funding reported.

Conflict of interest: None declared.

Institutional Review Board Statement: The research project was approved by the Bioethics Committee of the District Medical Chamber 105/KBL/OIL/2021.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

References


