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Investigation of Eating Behaviors in Young Wrestlers

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Abstract: The aim of this study is investigate the behaviors of young wrestlers. The scale of eating behavior was completed by 210 young wrestlers. T-test was used for statistical procedures. Average age of females were 17.52 and males were 17.90 in young wrestlers who participated in the study. There were statistically significant differences between both healthy eating behavior scores and unhealthy eating behavior scores of female and male wrestlers according to gender ($p < 0.05$). According to gender, female and male students' eating behaviors find statistically different ($p < 0.05$). Significant differences were found in healthy and unhealthy eating behavior scores of young wrestlers according to their weight reduction status ($p < 0.001$). Healthy eating behavior scores were significantly higher in those who sometimes lost weight in research than those who often lost weight. Unhealthy eating behavior is higher in those who frequently lose weight. Eating behaviors were sometimes 168.14 in those who lost weight and 143.32 in those who often lost weight. Healthy and unhealthy eating behaviors of young wrestlers change according to gender. Eating behaviors of those who have frequently lost weight are sometimes found to be worse than those who have lost weight. Support should be given to nutrition of young wrestlers, especially during the stages of weight reduction.

Keywords: *Nutrition; eating behavior; young wrestlers.*

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1. Introduction

Consumption is a ritualized but individual act. Individual consumption behaviors express the pursuit of individual loneliness by building individual identity feelings (Karakaş, 2005). Along with the postmodern period, changes in consumption styles occurred with the effect of communication factors. (Batu & Tos, 2017).

Wrestling, being an ancient form of competition, is a kind of sport requiring a maximum activity and both combat and intelligence. In today, wrestling is generally defined as specific strength endurance (Yamaner et al., 2012). Accomplishment in wrestling can be achieved by the transformation of some criteria to high performance that are physical and physiological power, technical ability, mentality tactics, experience and motivation (Soyguden & İmamoğlu, 2017). Nutritional status should be added to these factors. Coaches encourage weight reduction in order to achieve success by lowering wrestlers and judo players in a lower weight. For Athletes to lose weight in a short time; they adversely affect liver, muscle glycogen and total body protein. Nutrition is an important factor for judo and wrestlers who reduce weight before the competition in order to have a successful competition. Good nutrition in athletes; adapts to high levels of health, increased lean body mass, low fat percentage and training. However, proper nutrient selection and correct timing before, during and after the competition increases performance and facilitates recovery (Satıcı et al., 2017).

With changing intensive loads in the competition and in the training the athlete must adapt its nutrition to the training frequency. However, some individual sports have weight class divisions. This causes the athlete to forcibly reduce his body weight for each weight class. That's why the athlete should follow his nutritional plan and weight-loss plan at the same time. It is normal for athletes who do not pay attention to their diet to consume weight (Aydogan et al.,2013).

Seen in childhood and adolescents, it is important in terms of public health because all nutrition-related diseases, especially in obesity, prepare for the development of complications with chronic and metabolic diseases in the later years of life (Molnar & Livingstone, 2000). Nutritional knowledge is one of the factors affecting the nutritional status and habits of individuals, families and societies (Şanlıer & Ersoy 2005). The World Health Organization defines the 10-19 age group as an adolescent period. This period is the last phase in which lifelong eating habits and food preferences

are shaped (Spear, 2002). Nutritional status of people; it is influenced by many factors ranging from production to consumption. They can be counted as many other social and cultural features such as genetic characteristics, age, nutritional status and other forms of life, social and environmental conditions, stress, working conditions and family support (Pekcan, 2008). Balanced nutrition occurs when a person is taken in different ratios from different food ingredients to meet their energy and nutritional requirements (Padavinangadi et al., 2017). Sufficient energy should come from sources that provide carbohydrate, protein, fat and micronutrients and a wide range of foods (Potgieter et al., 2011).One of the reasons of inadequate and unbalanced nutrition during the development period is the inadequacy of nutritional knowledge. It is accepted that children's nutritional knowledge develops first in the family environment, and is formed by the influence of their teachers and environmental factors both in pre-school and school years (Baltacı et al., 2008). When nutrition information is given to children, they have information about the nutrients necessary for their growth and development (Martin & Driskell 2001). In this period, as well as unhealthy nutritional behaviors due to awareness, drinking more water, eating more fruits, less sugar and consuming less fat also develop healthy eating behaviors (Vander, 2012). Nutritional habits such as the type of food eaten, skipping meals, long or short periods between meals, and food consumption in a meal indicate that it has an impact on human metabolism and health (Elmacıoğlu, 1995). Healthy eating means to prevent the preference of energy-intensive nutrients naturally. The level of education in the literature has been reported to be effective in realizing health behaviors (Walker et al., 1988). Even personality traits change positively with education. The level of hopelessness of students may increase the stress level (İmamoğlu & Demirtaş, 2017; Koca et al., 2018). Nutrition style is the most important and modifiable lifestyle determinant of human health. Physical, biochemical, psychological and social growth, development and maturation processes are important in children's developmental period (Arlı et al., 2012; Hockenberry & Wilson 2010). Research shows that the feeding behavior gains in the children's development period continue in later ages and continue in adulthood (Neumark-Sztainer et al., 2011). In addition, both the predisposing factors that cause eating disorders in adolescents can impair the physical, mental and social health of the developing children due to other disorders and may adversely affect the academic success of the school (Vural, 2002). In Turkey, athletes can get nutritional information through training courses such as sports training centers, physical education and sports colleges / sports faculties in various provinces as well as various

courses and seminars such as coaching courses (Bilgiç et al., 2011). Nutrition is an important factor of success for wrestlers who reduce their weight before a competition. Body weight and nutrition play an important role in achieving optimal results (Aydogan et al., 2013).

2. Materials and Methods

2.1. Purpose

The aim of this study was to investigate eating behaviors in young wrestlers. In addition, eating behaviors of wrestlers were tried to be determined according to the frequency of weight reduction.

2.2. Method

Participants: In this study, questionnaires filled by 210 young wrestlers. Participants were asked how often they lost weight. Participants are 80 women and 130 men young wrestlers. The questionnaires were completed on the first day before the different competitions.

2.3. Data collecting:

In addition to personal information, eating behavior scale was applied to collect data. The questionnaires were filled on a voluntary basis. Missing questionnaires were not included in the evaluation.

Eating behavior scale: The scale was prepared to determine the eating behaviors. Scale; It was developed by Özdoğan (2013) to determine eating behaviors for the 13-19 age group. There are 58 items in the scale. There are 29 healthy eating behaviors questions and 29 unhealthy eating behaviors questions in the scale. 10-point Likert-type scale is used in the response. One of the "never (0)" and "always (10)" points or one of the numbers is marked according to the food behavior status and it is considered the number of points that are marked. The criteria for evaluating the eating behavior scale were ≤145 points poor (bad), 146-290 fair, 291-435 good, and ≥436 points very good (Özdoğan, 2013).

2.4. Statistical operations

SPSS 23.00 package program was used for statistical operations. Kolmogorov-Smirnov test was used to test whether the data were distributed normally and the data were found to be in normal distribution. Independent samples t-test was used to compare the two groups.

3. Results

Table 1. Comparison of age, height and body weights of young wrestlers according to gender

	Gender	N	Mean	St. deviation	t-test
Age (year)	Female	80	17.52	0.80	1.13
	Male	130	17.90	0.40	
Height (cm)	Female	80	156.90	8.30	-12.46**
	Male	130	167.23	9.13	
Body weight (kg)	Female	80	57.13	8.15	-11.18**
	Male	130	65.36	9.10	

**p<0,001
Source: Authors own conception

Table 2. Comparison of eating behavior scores according to gender for wrestlers

	Gender	N	Mean	St. deviation	t-test
Healthy eating behaviors	Female	80	158.14	31.41	-2.98*
	Male	130	148.74	30.84	
Unhealthy eating behaviors	Female	80	105.46	40.30	-3.12*
	Male	130	125.36	40.04	
Eating behaviors	Female	80	167.24	31.12	-2.89*
	Male	130	144.21	32.38	

*p<0.05
Source: Authors own conception

Table 3. Comparison of healthy and unhealthy nutrition scores according to Weight loss

		N	Mean	St. deviation	t-test
Healthy eating behaviors	Sometimes weight loss	85	164.92	30.43	5.63**
	Often weight	125	141.95	32.12	

	loss				
Unhealthy eating behaviors	Sometimes weight loss	85	105.31	41.30	-4.68**
	Often weight loss	125	125.50	43.05	
Eating behaviors	Sometimes weight loss	85	168.14	28.15	-5.89**
	Often weight loss	125	143.32	33.55	

* *p<0,001
Source: Authors own conception

4. Conclusion

Nutritional behavior and physical activity level control body weight. By controlling and favorably promoting these two factors, both childhood obesity and life risk factors in adults can be limited and delayed (Ortega et al., 2008). Average age of females were 16.40 and males were 16.69 in young wrestlers who participated in the study. There was no statistically significant difference between the ages of young wrestlers ($p > 0.05$), and there were statistically significant differences between height and body weights ($p < 0.001$). It is expected that male wrestlers will have higher height and body weights than female wrestlers.

Healthy eating and lifestyle habits are necessary for the protection and development of health. It has been determined that children who are overweight and obese during childhood and adolescence have health problems such as asthma, type 2 diabetes, hypertension, orthopedic and psychosocial complications, sleep apnea (Martin, 2007). In various studies, it was found that individuals consumed fast food and snack foods, foods with high fatty carbohydrate content, and did not pay attention to food variety (Howard & Reeves, 2005; Sweeting & West, 2005). In a study, nutritional knowledge of females was found to be higher than males (Beech et al., 1999). Johnson et al. (2002), in their study, stated that females have healthier eating habits than males. Şener and İmamoğlu (2018) found no significant difference between females and males in terms of meat or alternative nutrition, vegetable and fruit choices, cereal choices, mixed size and total nutrition scores according to gender in a study conducted by different university students. In our study, there were statistically significant differences between both healthy eating behavior scores and unhealthy

eating behavior scores of female and male high school students according to gender ($p < 0.05$). Demirezen and Coşansu (2005) evaluated the dietary habits of the 11-17 age group of 638 students and 99.8% of the students found different degrees of risk in terms of their dietary habits. This risk level is higher in males than females. In general, it was determined that adolescents in the study group had a risk in terms of their eating habits and the risk behaviors were higher in male students. According to Özdoğan (2013), it was determined that the difference between the average nutrition knowledge points by gender was not statistically significant. In our study, statistically significant differences were found in eating behaviors of young wrestlers (male and female) in terms of gender ($p < 0.05$). Female wrestlers have higher scores of healthy eating behaviors than male wrestlers. On the other hand, unhealthy eating behavior score of female wrestlers is lower than male wrestlers. Eating behavior scale score was 167.24 in female wrestlers and 144.21 in male wrestlers. Women's eating behavior is better than men. This may be due to a number of factors, possibly due to the fact that men are more likely to lose weight. It can be said that weight reduction in wrestlers causes unhealthy nutrition.

However, in studies on nutrition knowledge, behavior and habits 42.7% of the girls 'adolescents' nutrition information was found fair, 39.3% was poor and 16.9% was good (Önay 2002). Similarly, Şanlıer et al. 2009 studies found that female students' nutritional habits, behaviors and nutritional knowledge scores were higher than males and the difference was statistically significant. In child period, foods with high sugar and fat content and unhealthy food consumption in the package called junk food are the most frequently encountered nutritional errors (Zhang, 2015). Unhealthy food consumption is a risk factor for cardiovascular diseases, obesity and metabolic diseases in the future (Tappy, 2010). It is recommended to consume at least 5 portions of vegetables and fruits a day to reduce the risk of developing chronic diseases such as diabetes, cancer and cardiovascular disease during adulthood (Barclay, 2006). Urer (2005) in his research on nutrition knowledge and habits of students, the students' nutritional information is insufficient, however they showed that there was a slight difference in terms of nutritional knowledge and habits between those who had studied and never studied this course. Akyol and İmamoğlu (2019) in a study, found Male and female students are at high risk of eating habits. In a study conducted by İmamoğlu et al. (2010), they found differences in the nutrition scores of the students in various branches of sports who are active in physical education and evaluated this situation as the nutritional levels of

the athletes were below the required level and they had the wrong eating habits. Wrestlers should be given student or courses on nutrition.

Duman (2011) found that athletes' eating habits should be improved in his study of 10-18 age group swimmers. He also concluded that gaining healthy lifestyle habits throughout life will have positive effects both on growth and development, on health in adulthood and on their performance. Altıncı (2017), adolescent competitive wrestlers in the study of the accustomed to the study of the detection of the most of the food consumed by the canteen or outside is toast / sandwich, pastry and French fries respectively. Sport can produce differences in different areas (Çetinkaya & İmamoğlu, 2018). Nutritional status and eating habits are one of them. Satıcı et al. (2017) reported do not have the right approach to weight loss for wrestlers and judo athletes. Accurate weight reduction or weight control and nutrition awareness studies close to competitions have been recommended. Demirözü et al. (2012) found that nutritional education and training material had positive effects on nutrition knowledge and behavior. In our study, a significant difference was found in healthy and unhealthy eating behavior scores of young wrestlers according to their weight reduction status ($p < 0.001$). Healthy eating behavior scores were significantly higher in those who sometimes lost weight in research than those who often lost weight. Unhealthy eating behavior is higher in those who frequently lose weight. Eating behaviors were sometimes 168.14 in those who lost weight and 143.32 in those who often lost weight. The criteria for evaluating the eating behavior scale were 145 score bad, and 146-290 score moderate (Özdoğan, 2013). According to this assessment, eating behaviors of those who frequently lose weight are bad and those who do sometime lose weight are moderate. As a result; Healthy and unhealthy eating behaviors of young wrestlers change according to gender. Eating behaviors of those who have frequently lost weight are sometimes found to be worse than those who have lost weight. Support should be given to nutrition of young wrestlers, especially during the stages of weight reduction. In Turkey, wrestlers are forced to restrict certain nutrients in the weight reduction process. Particularly frequent weight loss stages can reveal unbalanced eating habits over time. For this reason, it is recommended that wrestlers, judo athletes, and similar combat athletes do not lose weight frequently.

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