

**FUTBOL OKULLARINA GİDEN ÇOCUKLARIN BESLENME
DAVRANIŞLARI VE SAĞLIKLI YEME ÖZ-YETERLİKLERİNİN
İNCELENMESİ**

**EXAMINATION OF NUTRITIONAL BEHAVIORS AND HEALTHY
EATING SELF-EFFICACY OF CHILDREN ENROLLED IN FOOTBALL
SCHOOLS**

Gönderilen Tarih: 04/10/2024
Kabul Edilen Tarih: 05/12/2024

Sema ARSLAN KABASAKAL
Yalova University, Faculty of Sports Science, Yalova, Türkiye
Orcid: 0000-0002-4552-9640
Şeyma Öznur GÖKŞİN
Yalova University, Faculty of Sports Science, Yalova, Türkiye
Orcid: 0000-0002-1402-7728
Seda TOK
Yalova University, Faculty of Sports Science, Yalova, Türkiye
Orcid: 0009-0003-7193-7423
Samet AKSU
Yalova University, Faculty of Sports Science, Yalova, Türkiye
Orcid: 0009-0008-7550-0831
Burçak KESKİN
Yalova University, Faculty of Sports Science, Yalova, Türkiye
Orcid: 0000-0003-4313-7720

* Corresponding Author: Sema ARSLAN KABASAKAL, Yalova University, Yalova, E-mail: sema.kabasakal@yalova.edu.tr

* The preliminary study of this study was presented as an oral presentation at the 16th National Sports Sciences Student Congress on 22nd-24th May 2024.

Futbol Okullarına Giden Çocukların Beslenme Davranışları ve Sağlıklı Yeme Öz-Yeterliklerinin İncelenmesi

ÖZ

Bu çalışma ile futbol okullarına kayıtlı çocukların beslenme davranışları ve sağlıklı yeme öz yeterlikleri arasında ilişki olup olmadığının belirlenmesi ve bu faktörlerin lisans durumu ve süresine göre değişip değişmediğinin ortaya konulması amaçlanmaktadır. Çalışmaya futbol okullarına kayıtlı toplam 300 çocuk dahil edilmiştir. Katılımcıların 139 lisanslı, 161 lisansı değil iken, yaş ortalamaları $11,61 \pm 2,14$ 'tür. Çalışmada veri toplama aracı olarak Katılımcı değerlendirme formu, Beslenme Davranış Ölçeği (BDÖ) ve Çocuklar için Sağlıklı Yeme Öz Yeterlik Ölçeği (SYÖYÖ-Ç) kullanılmıştır. Verilerin analizinde tanımlayıcı istatistikler, çarpıklık ve basıklık değerleri, Bağımsız Örneklem T Testi, Tek yönlü ANOVA ve çoklu karşılaştırma testleri kullanılmıştır. İstatistiksel olarak anlamlılık $p < 0,05$ olarak kabul edilmiştir. Çalışma kapsamında futbol okullarına kayıtlı çocukların lisanslarının olup olmasına göre BDÖ puan yüzdelerinde anlamlı bir farklılığa rastlanılmıştır ($p < 0,05$). Ancak SYÖYÖ-Ç puanlarında anlamlı farklılık bulunamamıştır ($p > 0,05$). Lisans süresine göre BDÖ puan yüzdelerinde ve SYÖYÖ-Ç puanlarında istatistiksel olarak anlamlı farklılık tespit edilememiştir. BDÖ puan yüzdeleri ve SYÖYÖ-Ç arasındaki ilişki incelendiğinde BDÖ puan yüzdeleri ve SYÖYÖ-Ç puanları arasında pozitif yönlü orta düzey bir ilişki olduğu belirlenmiştir ($p < 0,05$). Sonuç olarak futbol oynayan çocukların sağlıklı yeme öz yeterlilikleri arttıkça sağlıklı beslenme davranışları da artmaktadır. Futbol okullarına kayıtlı çocukların lisanslı olarak bu branşa katılmaları sağlıklı beslenme davranışlarını etkilemektedir. Ancak lisans süresi beslenme davranışları ve sağlıklı yeme öz yeterliliklerini etkilememektedir. Lisans sürelerinin beslenmelerine etki etmeme sebebi çocukların sporcu beslenmesiyle ilgili eğitimler almamasından kaynaklanıyor olabilir. Bu doğrultuda futbol okullarına kayıtlı çocukların sporcu beslenmesi konusunda bilgilendirilmesi önerilir.

Anahtar Kelimeler: Beslenme davranışı, sağlıklı yeme öz yeterliliği, sporcu beslenmesi, çocuk, futbol

Examination of Nutritional Behaviors and Healthy Eating Self-Efficacy of Children Enrolled in Football Schools

ABSTRACT

This study aims to determine whether there is a relationship between eating behaviors and self-efficacy for healthy eating among children enrolled in football schools and whether these factors differ according to their having sports licensed status and licensed duration. A total of 300 children enrolled in football schools were included in the study. Of the participants, 139 were licensed and 161 were not, with a mean age of 11.61 ± 2.14 years. The data collection instruments used in the study were the Participant Evaluation Form, the Food Behavior Scale (FBS), and Healthy Eating Self Efficacy Scale (HESECS). Descriptive statistics, skewness, and kurtosis values, independent samples T-test, one-way ANOVA, and Post-hoc tests were used for data analysis. Statistical significance was set at $p < 0.05$. The study found a significant difference in FBS percentile scores according to whether children enrolled in football schools were sports licensed or not ($p < 0.05$), but no significant difference in HESECS scores ($p > 0.05$). No statistically significant difference was found in the FBS percentage scores and HESECS scores according to the license duration. When the relationship between FBS percentage scores and HESECS scores was examined, a positive moderate relationship was found between FBS percentage scores and HESECS scores ($p < 0.05$). As a result, the healthy eating self-efficacy of children who play football increases and so does their healthy eating behavior. The fact that children enrolled in football schools participate in this sport as licensed athletes influences their healthy eating behavior. However, the duration of the license does not influence food behavior and self-efficacy for healthy eating. The reason why the length of the license does not affect their nutrition may be that the children do not receive education about sports nutrition. In this regard, it is recommended that children enrolled in football schools be informed about sports nutrition.

Keywords: Nutritional behavior, healthy eating self-efficacy, sports nutrition, child, football

INTRODUCTION

Weight problems have become common during childhood due to unhealthy nutrition and lack of physical activity. As indicated by data from the World Health Organization (WHO) in 2022, over 390 million children and adolescents aged 5-19 globally are overweight, and 160 million are affected by obesity¹. This situation represents a significant public health concern for children and adolescents, as it increases the risk of developing chronic diseases. Nutritional habits exert a profound influence on the health, well-being, and overall development of this age group.

Nutritional behaviours in children have a significant impact on growth, development and long-term health outcomes. The role of parents, family environment and social surroundings in shaping children's nutritional habits has been demonstrated by numerous studies^{2,3}. For instance, parents who exemplify healthy eating behaviours can positively influence their children to adopt similar habits, which can have a beneficial impact on their long-term nutritional practices⁴. Furthermore, external factors such as media, peers, and the school environment are also among the crucial elements affecting children's nutritional behaviours².

The term "healthy eating self-efficacy in children" is used to describe a child's confidence in their ability to adopt and maintain healthy eating habits. This concept is of critical importance in the development and maintenance of healthy eating behaviours. The development of healthy eating self-efficacy can contribute to the prevention of nutrition-related health issues, such as obesity, by facilitating the formation of more conscious and confident food choices among children. A study by Geller and Dziewaltowski (2012)⁵ indicates that enhancing children's healthy eating self-efficacy can be an efficacious strategy for improving their eating habits and preventing obesity. Research demonstrates a robust relationship between healthy eating self-efficacy and children's nutritional habits.

Physical activity encompasses both spontaneous exercises related to daily life activities and planned exercises, which have been demonstrated to have a significant impact on energy balance^{6,7}. The first encounter with physical activity for children occurs during their primary school years, particularly through physical education classes. These classes dedicate a greater proportion of time to physical activities and result-oriented games compared to other subjects⁸. For children who are physically active, proper nutrition is crucial not only for their growth and development but also for achieving success in sports. This underscores the importance of carefully planned nutritional strategies to enhance athletes' performance and maintain their overall health⁹. Studies have demonstrated that imparting nutritional knowledge to athletes can positively influence the development of good eating habits and improve sports performance¹⁰.

The popularity of children's football is a global phenomenon, with millions of young people participating in the sport regularly. It has been demonstrated that participation in this activity can positively impact both physical development and social skills. The nutritional behaviors of young football players have a significant impact on their growth, development, and sports performance. Considering that athletes need to adopt healthy lifestyles in order to maintain their health and performance¹¹, it is very important for athletes to gain healthy eating habits. The available evidence suggests that young athletes frequently have inadequate energy and carbohydrate intake, although their

protein and fat intakes are sufficient¹². Furthermore, the intake of vitamins and minerals has been identified as being below the recommended levels. Enhancing the nutritional awareness of young football players has the potential to positively influence their performance and general well-being¹³. For example, Trakman et al. (2016)¹⁰ demonstrated that providing athletes with nutritional information has a positive effect on the development of healthy eating habits and the improvement of sports performance. Indeed, there is a consensus that nutritional education can assist young athletes in developing and maintaining healthy eating habits. Moreover, it is recommended that families, schools, and communities collaborate to foster healthy eating habits in children³. In this context, it is crucial to assess the nutritional behaviors and nutritional self-efficacy of athletes. In the light of this information, the aim of our study is to elucidate the relationship between the food behaviors and self-efficacy of healthy eating for children enrolled in football schools and to ascertain whether these differ according to their licensing status and duration.

MATERIAL AND METHODS

Procedure

The research project was approved by the Ethics Committee of XXX University (protocol number 2023/202) on 9 January 2024. Following the granting of ethical approval, data were collected utilizing an appropriate sampling method. Participants were informed about the study and signed a voluntary consent form indicating their willingness to participate. As part of the research, participants completed a demographic form and scales. The time taken for a participant to complete the administered scales was approximately 15 minutes.

Participant

Table 1. Demographic Information about The Participants

Variables		n	%
Gender	Girl	15	5.00
	Boy	285	95.00
Status of Having Sports License	Yes	139	46.30
	No	161	53.70
	Not Licensed	105	35.00
Duration of License	1 year	64	21.30
	2 years	78	26.00
	3 years and over	53	17.70

A total of 300 children registered in football schools in the Marmara Region participated in the study. Of these, 139 (46.3%) were licensed, while 161 (53.7%) were not licensed. To be included in the study, participants had to meet the following criteria: they had to be registered in football schools in the Marmara Region, they had to be between the ages of 7 and 15, they had to have no physical or neurological disabilities, and they had to be actively participating in the football branch. Those who were excluded from the study did so of their own volition and/or failed to comply with the requisite procedures. The mean age of the participants was 11.61 ± 2.14 years; the mean weight was 43.03 ± 12.02 kg; the mean height was 151.49 ± 13.66 cm; the mean duration of licensing was 2.70 ± 1.34 years; and the mean duration of football participation was 3.93 ± 2.34 years. The frequency distributions of the remaining demographic information are provided in Table 1 for reference.

Data Collection Instruments

Participant Demographic Form, Healthy Eating Self-Efficacy for Children Scale (HESECS), and Food Behavior Scale (FBS) were used to collect data in the study.

Participant Demographic Form

The Participant Demographic Form was used to collect information about the participants' age, gender, weight, height, whether they had a license, year of license, and duration of playing football.

Food Behavior Scale (FBS)

The scale was developed within the scope of the "Child and Adolescent Trial for Cardiovascular Health Behavior Questionnaire"¹⁴. There are no sub-dimensions in the scale. The scale consists of 14 items with pictures of low-fat/salty and high fat/salty food options to determine the children's food consumption. The scale items have a value of -1 for unhealthy food and +1 for healthy food, with a total score between -14 and +14. Children were shown comparable foods within the scale and asked which of the two foods they eat more (often). A high total score on the scale indicates healthy eating habits. Cronbach's alpha for the scale is 0.68¹⁵, and in the current study it was found to be 0.65.

Healthy Eating Self-Efficacy for Children Scale (HESECS)

The original designation of the scale developed by Story et al. (2003)¹⁶ was "Self-Efficacy for Healthy Eating." The scale was developed to assess children's self-efficacy about healthy eating. The validity and reliability of the scale were evaluated by Kabasakal et al. (2020)¹⁷ in both male and female subjects. It comprises nine items and is a three-point Likert-type scale with a single dimension. A total score between 0 and 18 is obtained on the scale. An increase in the scale score indicates an increase in self-efficacy for healthy eating (Kabasakal et al., 2020). Cronbach's alpha for the scale is 0.72¹⁷, and in the current study it was found to be 0.70.

Statistical analysis

The data from the study were analyzed using the SPSS 26 package program. The skewness and kurtosis values were between (-1.5)-(1.5) indicating that the data were normally distributed, so parametric tests were preferred¹⁸. The following statistical methods were used: descriptive statistics, Independent Samples T-Test for comparing scale scores according to license status, ANOVA test for comparing scale scores according to license duration, and Pearson correlation analysis for examining the relationship between scale scores. The level of statistical significance was set at $p < 0.05$.

RESULTS

Table 2. Scale Score Means

Scales	N	Min.	Max.	Mean	SD.
FBS Percentage of Total Score	300	14.29	92.86	57.48	15.87
HESECS Total score	300	6.00	18.00	13.83	2.70

Table 2 presents the percentage of FBS scores, and the mean scores of children enrolled in football schools within the scope of the study. The mean percentage of participants' FBS total scores was found to be 57.48 ± 15.87 , and the mean total score

of the HESECS was found to be 13.83 ± 2.70 . The results indicate that participants maintained healthy eating behaviors at a rate exceeding 50%.

Table 3. Scale Total Score Differences According to “Status of Having Sports License”

Scales	Status of Having Sports License	N	Mean	SD.	t	df	p
FBS Percentage of Total Score	Yes	139	59.97	14.51	2.552	298	0.011*
	No	161	55.32	16.70			
HESECS Total Score	Yes	139	14.12	2.55	1.727	298	0.085
	No	161	13.58	2.81			

*p<0.05

As illustrated in Table 3, while no statistically significant difference was observed in the total scores of the HESECS between children enrolled in football schools with and without a license ($p>0.05$), a statistically significant difference was identified in the percentages of FBS scores ($p<0.05$). The FBS score percentages of athletes with a license were higher.

Table 4. Scales Total Score Differences According to “Sports License Duration”

Scales	Sports License Duration	N	Mean	SD.	F	df	p
FBS Total Score	Not Licensed	105	54.42	16.82	3.036	2	0.05
	0-2 years	144	59.08	15.60			
	3 years and over	55	59.24	13.80			
HESECS Total score	Not Licensed	105	13.42	2.81	2.644	2	0.071
	0-2 years	144	13.92	2.66			
	3 years and over	55	14.45	2.50			

*p<0.05

The results of the analysis of variance indicated that there was no statistically significant difference in the FBS score percentages and HESECS scores according to the duration of being licensed ($p>0.05$) (Table 4).

Table 5. The Relationship Between the Total Score of the HESECS and the Percentage of FBS

Scales	FBS Percentage of Total Score	HESECS Total score
FBS Percentage of Total Score	r	1
	p	0.346
HESECS Total score	r	0.346
	p	0.000*

*p<0.05

Table 5 shows that there is a moderate positive correlation between the HESECS total score and the percentage of the total FBS score ($r=0.346$, $p<0.001$).

DISCUSSION

The aim of this study is to examine the nutritional behaviors and healthy eating self-efficacy of children attending football schools. Healthy eating is of great importance for children to stay healthy, to protect themselves from chronic diseases, and for their growth and development¹⁹. Nowadays, unhealthy diets and insufficient physical activity lead to many health problems such as obesity¹. It is believed that instilling healthy eating habits in children can significantly contribute to their physical and cognitive

development and prevent potential health problems²⁰. Studies have shown that participation in "competitive" sports promotes better eating habits and emphasizes the need to direct adolescents toward competitive sports to combat the obesity epidemic^{21,22}. Meyer and Perrone (2008)²³ also stated that children should be encouraged to participate in sports to maintain their health by preventing diseases caused by a sedentary lifestyle. Murathan (2023)²⁴ showed in his study that regular physical activity is an important factor in developing healthy eating habits. Football, in particular, is a popular branch that can be easily accessed by individuals from all walks of life and classes, and it attracts the attention of many children during childhood. Nutrition is important for children who play sports as well as for children who playing football. Proper nutrition for children who play sports improves their athletic performance and helps prevent sports injuries^{25,26}. Therefore, it is essential to instill healthy eating behaviors in children who engage in sports. Healthy eating self-efficacy plays a crucial role in the formation of these behaviors²⁷.

In the current study, it was found that there is a relationship between healthy eating behaviors and healthy eating self-efficacy in children who playing football. This finding indicates that increasing healthy eating self-efficacy is an important factor in promoting healthy eating behaviors in children who playing football. A study conducted by Al-Ghanim and Alkazemi (2021)²⁸ among adolescent girls in Kuwait found a relationship between self-efficacy and healthy eating behaviors. Silva et al. (2023)²⁹ showed that self-efficacy plays an important role in regulating eating behavior. In the same study, healthy eating self-efficacy in children was found to be positively associated with healthy eating self-regulatory processes and declarative healthy eating knowledge and attitudes. In a study conducted on overweight and obese children, a positive relationship was found between eating self-efficacy, eating attitudes and eating behavior, indicating a correlation between healthy eating self-efficacy and eating behavior³⁰. Çeltik Orhan et al. (2022)³¹ also found a positive relationship between eating behavior and healthy eating self-efficacy in children. The results of the current study are consistent with the literature. Demonstrating the relationship between healthy eating behavior and healthy eating self-efficacy in children who playing football is a novel finding. The study found that whether children enrolled in football schools were licensed or not did not change their healthy eating self-efficacy. However, it was found that children who play licensed football maintain healthier eating behaviors. This finding suggests that children who play licensed football are more aware of their nutrition and may be more knowledgeable about sports nutrition. Walter et al. (2018)³² showed that sports nutrition education had a positive impact on the nutrition behaviors and knowledge of adolescent athletes. It is possible that the healthier eating behaviors of the licensed athletes in the current study could be due to the sports nutrition education they received. However, because the current study did not assess whether participants received nutrition education, this cannot be definitively determined. This is a limitation of the study. A review of the literature shows that studies of athletes generally focus on measuring the level of nutrition knowledge. Miškulin et al. (2019)³³ found that both professional and non-professional athletes had an inadequate level of nutrition knowledge, highlighting the need for nutrition education for both groups. Wardenaar (2017)³⁴ reported that having a sports license did not affect the level of nutrition knowledge. Göral et al. (2010)³⁵ found that both amateur and professional football players had inadequate nutrition knowledge levels. Because the current study did not determine sports nutrition knowledge levels, we are unable to examine how athlete licenses affect this and its relationship to nutrition behaviors. This is another

limitation of the study. Therefore, we recommend that future studies measure levels of sports nutrition knowledge in addition to dietary behaviors.

According to another finding of the current study, healthy eating self-efficacy and nutritional behaviors do not differ according to sports license duration. Gacek and Popek (2019)³⁶ reported that athletes' nutritional behaviors differ according to their level of sport, with competitive volleyball players showing better adherence to dietary recommendations compared to amateur players. The lack of differences observed in the current study may be due to the lack of detail in the nutritional education provided to athletes based on the duration of their eligibility. Future studies are recommended to determine how nutrition education provided to athletes affects their dietary behaviors and healthy eating self-efficacy. In addition, whether these factors differ based on the sports license duration should be investigated.

CONCLUSION

In conclusion, having sports licensed is an important factor in the acquisition of healthy eating behaviors among children enrolled in football schools. In addition, there is a direct relationship between healthy eating behaviors and healthy eating self-efficacy in these children. To increase healthy eating behaviors in children who playing football, it is necessary to develop their healthy eating self-efficacy. Furthermore, in addition to interventions aimed at improving nutritional behaviors and increasing healthy eating self-efficacy among children enrolled in football schools, it is recommended to employ motivational and awareness strategies independent of factors such as eligibility and duration of eligibility. Foremost among these strategies are sports nutrition education programs. Regular nutrition education sessions for children involved in sport should emphasize the importance of healthy eating and its benefits in sport. Such interventions can be considered an important strategy to improve the overall health and performance of young athletes. Future studies should measure not only the healthy eating behaviors and self-efficacy of athletes, but also their level of nutrition knowledge.

KAYNAKLAR

1. World Health Organization (WHO). (2024). Obesity and overweight. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>. [Date of access: 21.04.2019]
2. Patrick H., Nicklas TA. (2005). A review of family and social determinants of children's eating patterns and diet quality. *Journal of the American College of Nutrition*. 24(2), 83-92.
3. Savage JS., Fisher JO., Birch LL. (2007). Parental influence on eating behavior: conception to adolescence. *The Journal of Law, Medicine and Ethics*. 35(1), 22-34.
4. Birch LL., Ventura AK. (2009). Preventing childhood obesity: what works?. *International Journal of Obesity*. 33(1), 74-81.
5. Geller KS., Dziewaltowski DA. (2012). Longitudinal and cross-sectional influences on youth fruit and vegetable consumption. *Nutrition Reviews*. 70(3), 151-161.

6. Caspersen CJ., Powell KE., Christenson GM. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Reports*. 100(2), 126-131.
7. Moschonis G., Trakman GL. (2023). Overweight and obesity: the interplay of eating habits and physical activity. *Nutrients*. 15(13), 1-4.
8. Bergeron MF., Mountjoy M., Armstrong N., Chia M., Côté J., Emery CA., Faigenbaum A., Hall Jr G., Kriemler S., Léglise M., Malina RM., Pensgaard AM., Sanchez A., Soligard T., Sundgot-Borgen J., Mechelen W., Weissensteiner JR., Engbretsen L. (2015). International Olympic Committee consensus statement on youth athletic development. *British Journal of Sports Medicine*. 49(13), 843-851.
9. Ørntoft C., Larsen MN., Madsen M., Sandager L., Lundager I., Møller A., Hansen L., Madsen EE., Elbe AM., Ottesen L., Krstrup P. (2018). Physical fitness and body composition in 10–12-year-old Danish children in relation to leisure-time club-based sporting activities. *BioMed Research International*. 2018(1), 9807569.
10. Trakman GL., Forsyth A., Devlin BL., Belski R. (2016). A systematic review of athletes' and coaches' nutrition knowledge and reflections on the quality of current nutrition knowledge measures. *Nutrients*. 8, 1-23.
11. Cengizoğlu İC., Keskin B., Kabasakal SA. (2024). Examination of healthy lifestyle behaviors of athletes. *Online Turkish Journal of Health Sciences*. 9(1), 41-47.
12. Danielik K., Książek A., Zagrodna A., Słowińska-Lisowska M. (2022). How do male football players meet dietary recommendations? A systematic literature review. *International Journal of Environmental Research and Public Health*. 19(15), 9561.
13. Carney DJ., Hannon MP., Murphy RC., Close GL., Morton JP. (2024). Perspectives on the role of nutrition in influencing academy soccer player development and performance: A qualitative case study of key stakeholders from an English category one soccer academy. *Journal of Sports Sciences*. 42(1), 61-72.
14. Parcel GS., Edmundson E., Perry CL., Feldman HA., O'Hara-Tompkins N., Nader PR., Johnson CC., Stone EJ. (1995). Measurement of self-efficacy for diet-related behaviors among elementary school children. *Journal of School Health*. 65(1), 23-27.
15. Öztürk M. (2010). Çocukların beslenme alışkanlıklarının sağlık davranışı etkileşim modeline göre incelenmesi. Doktora tezi, İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü. İstanbul.
16. Story M., Sherwood NE., Himes JH., Davis M., Jacobs DR., Cartwright Y., Smyth M., Rochon J. (2003). An after-school obesity prevention program for African-American girls: the Minnesota GEMS pilot study. *Ethnicity and Disease*. 13, 1-54.
17. Kabasakal E., Arslan UE., Üner S., Konşuk Ünlü H., Bilir N., Yardım MS., Araz Ö., Huang T., Özcebe H. (2020). Çocuklar için sağlıklı yeme öz-yeterlik ölçeğinin Türkçe geçerlik ve güvenilirlik çalışması. *Turkish Journal of Pediatric Disease*. 15, 72-77.
18. Tabachnick BG., Fidell LS., Ullman JB. (2013). Using multivariate statistics. 6th volume. Pearson, Boston MA, 497-516.
19. Ng CM., Kaur S., Koo HC., Mukhtar F., Yim HS. (2022). Culinary nutrition education improves home food availability and psychosocial factors related to healthy meal preparation among children. *Journal of Nutrition Education and Behavior*. 54(2), 100-108.

20. Karakuş E. (2020). İlkokul 4. Sınıf öğrencilerinin beslenme özellikleri ile okuduğunu anlama başarısı arasındaki ilişkinin belirlenmesi. Yüksek Lisans Tezi, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü. Ankara.
21. Van Biervliet S., Van Biervliet JP., De Neve J., Watteyne R., D'Hooghe M. (2011). Nutritional intake evolution in adolescent sporting boys over the last two decades. *Acta Clinica Belgica*. 66(4), 280-282.
22. Devreker T., Vandenplas Y. (2011). Sport practice and nutritional habits are linked. *Acta Clinica Belgica*. 66(4), 253-253.
23. Meyer F., Perrone CA. (2008). Considerações nutricionais para crianças e adolescentes que praticam esportes. *Arq Sanny Pesq Saúde*. 1(1), 49-56.
24. Murathan G. (2023). Exploring attitudes towards healthy nutrition among athletes in diverse disciplines. *International Journal of Disabilities Sports and Health Sciences*. 6(Special Issue 1), 351-359.
25. Aydoğan AU. (2018). Spor yapan çocukta beslenme. *Klinik Tıp Pediatri Dergisi*. 10(5), 19-27.
26. Jalp J., Kaur G. (2023). Importance of diet and nutrition for athletes performance. *Journal of Sports Science and Nutrition*. 4(2), 159-160.
27. Hamurcu P. (2023). 8-12 yaş grubu çocuklarda yeme davranışı, beslenme özyeterliliği, ebeveynlerin çocukların beslenme tarzı üzerine etkisi ile sağlık ve yaşam kalitesi ilişkisi. *Kocatepe Tıp Dergisi*. 24(4), 443-451.
28. Al-Ghanim L., Alkazemi D. (2021). Factors associated with self-efficacy toward healthy eating and physical activity among Kuwaiti adolescent girls. *Current Research in Nutrition and Food Science Journal*. 9(3), 890-903.
29. Silva C., Pereira B., Figueiredo G., Rosário P., Núñez JC., Magalhães P. (2023). Self-Efficacy to Regulate Eating Behaviors Scale for Children: A Validation Study. *International Journal of Environmental Research and Public Health*. 20(4), 2807.
30. Çevik C., Orsal O. (2023). Investigation of the relationship between nutritional self-efficacy, attitude and behaviours of students with overweight and obesity. *Kocatepe Tıp Dergisi*. 24(3), 272-280.
31. Çeltek Orhan Ö., Karayagız Muslu G., Manav G., Kara R. (2022). An investigation of the relationship between nutritional behaviours and nutritional self-efficacy in children. *Child: Care, Health and Development*. 48(5), 744-750.
32. Walter O., Bobrov A., Tamir S. (2018). Surprising advantages of low self-efficacy revealed in a sports nutrition education. *American Journal of Health Behavior*. 42(4), 23-33.
33. Miškulin I., Šašvari A., Dumić A., Bilić-Kirin V., Špiranović Ž., Pavlović N., Miškulin M. (2019). The general nutrition knowledge of professional athletes. *Food in Health and Disease, Scientific-Professional Journal of Nutrition and Dietetics*. 8(1), 25-32.
34. Wardenaar F. (2017). Evaluation of dietary intake and nutritional supplement use of elite and sub-elite Dutch athletes: Dutch Sport Nutrition and Supplement Study. Doctoral thesis, Wageningen University and Research. Wageningen.
35. Göral K., Saygın Ö., Karacabey K. (2010). Amateur and professional football player to investigate the level of nutritional knowledge. *Journal of Human Sciences*. 7(1), 836-856.
36. Gacek M., Popek A. (2019). Analysis of nutritional behaviors of males – competitive and recreational volleyball players. *Sport and Tourism Central European Journal*. 1(2), 93–102.