

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

## Attitudes of sport parents towards children's eating habits

### Actitudes de los padres deportistas ante los hábitos alimentarios de sus hijos

Saliha Özpınar<sup>1</sup>; Ali Serdar Yücel<sup>2</sup>; Murat Korkmaz<sup>3</sup>; Gülten Hergüner<sup>4</sup>; Çetin Yaman<sup>5</sup>;  
Ümran Sevil<sup>6</sup>; Michael Mihalis Kuyucu<sup>7</sup>

<sup>1</sup>Alanya Alaaddin Keykubat University, School of Medicine, Antalya, Turkey

<sup>2</sup>Fırat University, Faculty of Sports Sciences, Elazığ, Turkey

<sup>3</sup>Güven Plus Group Inc., Istanbul, Turkey

<sup>4</sup>Sakarya Applied Sciences University, Faculty of Sports Sciences, Sakarya, Turkey

<sup>5</sup>Marmara University, Faculty of Sports Sciences, Istanbul, Turkey

<sup>6</sup>Hasan Kalyoncu University, Faculty of Health Sciences, Istanbul, Turkey

<sup>7</sup>Istanbul Galata University, Faculty of Arts and Social Sciences, Istanbul, Turkey

Corresponding author: Ali Serdar Yücel E-mail: asyucel@firat.edu.tr

**Cronograma editorial:** Artículo recibido 02/01/2024 Aceptado: 14/04/2024 Publicado: 01/09/2024

<https://doi.org/10.17979/sportis.2024.10.3.11063>

#### Para citar este artículo utilice la siguiente referencia:

Özpınar, S.; Yücel, A. S.; Korkmaz, M.; Hergüner, G.; Yaman, Ç.; Sevil, Ü.; Kuyucu, M. M. (2024). Attitudes of sport parents towards children's eating habits. *Sportis Sci J*, 10 (3), 668-708 <https://doi.org/10.17979/sportis.2024.10.3.11063>

**Authors' contributions:** All authors contributed equally to the work.

**Funding:** The study did not receive funding.

**Conflict of interest:** The authors declare that they have no conflict of interest.

**Ethical aspects:** The study declares the ethical aspects.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

## Abstract

Today, parents have assumed important roles in shaping their children's eating habits in social and daily life. Especially the tendency of parents who do sports to transfer their healthy lifestyles to their children has positive effects on children's eating habits. This study examines the attitudes of parents on this issue and the effects of these attitudes on children's eating habits. In line with the aim of the study, the attitudes of parents who do sports towards their children's eating habits were investigated. The rationale of the study is to focus on how parents' attitudes towards nutrition affect their children's eating habits and the contribution of these attitudes to children's general health and sports performance. The findings of the study show that parents' nutrition attitudes are critical for children to develop a healthy lifestyle. This study was conducted between 2023-2024 and 860 parents and their children participated in the study. The data obtained from the study were collected using a 5-point Likert-type scale form with validity and reliability and analysed with SPSS 22.0 software. Various statistical techniques such as descriptive statistics, reliability analysis, independent sample t-test, ANOVA, factor and regression analyses were used in the study. The findings obtained at the end of the research show that parents' nutritional attitudes have significant effects on children's eating habits. Parents' attitudes towards healthy eating and physical activity positively affect children's eating habits. Children of parents who do sports develop healthier eating habits, are more active and take part in physical activities. The study reveals that parents' nutritional attitudes contribute to children's general health and sports performance.

**Keywords:** parents; children; nutrition; health; sport

## Resumen

Hoy en día, los padres han asumido un papel importante en la formación de los hábitos alimentarios de sus hijos en la vida social y cotidiana. Especialmente la tendencia de los padres que practican deporte a transferir sus estilos de vida saludables a sus hijos tiene efectos positivos en los hábitos alimentarios de éstos. Este estudio examina las actitudes de los padres sobre este tema y los efectos de estas actitudes en los hábitos alimentarios de los niños. De acuerdo con el objetivo del estudio, se investigaron las actitudes de los padres que hacen deporte hacia los hábitos alimentarios de sus hijos. La razón de ser del estudio es centrarse en cómo afectan las actitudes de los padres hacia la nutrición a los hábitos alimentarios de sus hijos y la contribución de estas actitudes a la salud general y al rendimiento deportivo de los niños. Los resultados del estudio muestran que las actitudes de los padres hacia la nutrición son fundamentales para que los niños desarrollen un estilo de vida saludable. Este estudio se llevó a cabo entre 2023-2024 y en él participaron 860 padres y sus hijos. Los datos obtenidos en el estudio se recogieron utilizando un formulario de escala tipo Likert de 5 puntos con validez y fiabilidad y se analizaron con el programa informático SPSS 22.0. En el estudio se utilizaron diversas técnicas estadísticas, como estadística descriptiva, análisis de fiabilidad, prueba t de muestras independientes, ANOVA, análisis factorial y de regresión. Los resultados obtenidos al final de la investigación muestran que las actitudes nutricionales de los padres tienen efectos significativos en los hábitos alimentarios de los niños. Las actitudes de los padres hacia una alimentación sana y la

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

actividad física afectan positivamente a los hábitos alimentarios de los niños. Los hijos de padres que hacen deporte desarrollan hábitos alimentarios más saludables, son más activos y participan en actividades físicas. El estudio revela que las actitudes nutricionales de los padres contribuyen a la salud general y al rendimiento deportivo de los hijos.

**Palabras clave:** padres; niños; nutrición; salud; deporte.

## Introduction

Nowadays, we see that parents of children assume various roles in shaping their children's eating and drinking habits. Especially in today's social life style where children take their parents' eating and drinking behaviours as a model, parents should assume a more sensitive role in regulating their children's eating and drinking habits (Mahmood et al., 2021). Especially in child nutrition, the fact that the relationship between healthy nutrition and physical activity is parallel should never be ignored (Cvetković et al., 2021). Therefore, parents who are actively involved in sporting activities should approach their eating habits with a different sensitivity (Afrin et al., 2021). The necessity of the relationship between healthy nutrition and physical activity should be conveyed to children by parents without forgetting that eating and drinking habits are a necessity and a set of behaviours that should be required for life (Vega-Ramírez, 2024).

There are different classifications regarding the attitudes towards eating habits of children modelling their parents (Korkmaz et al., 2015). The main classifications are controlling, permissive, supportive, disciplined and programmed (Fatima et al., 2022). Generally, it is observed that working parents exhibit more permissive attitudes, while controlling and disciplinary feeding behaviours are more likely to occur when children are followed by a caregiver or educator (Yıldız Silahlı & Türe, 2023). We can say that children's eating and drinking habits are managed in a more functional and professional way in environments where controlled attitude classification is exhibited (Elmas et al., 2024). However, in environments with a laissez-faire attitude, it is observed that children generally have a standardised and unhealthy diet (Hosany et al., 2022). This situation causes obesity and obesity-related health problems in children (Tiwari et al., 2023). In addition, serious problems arise in the acquisition of sportive and physical

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

activity habits in obese and extremely obese children due to unbalanced and unhealthy nutrition (Chen et al., 2023). These problems have a negative impact on children's physical, mental, psychological and physical integrity in later ages. The supportive attitude, on the other hand, includes the children's realisation of the necessary nutritional habits on their own in a continuous manner within the framework of the plan and programme determined by their parents and caregivers (Özbay et al., 2024).

Nutrition is a basic requirement for people to be protected from diseases, to live a quality life, and to reach their growth and development potential (Özer & Tekinşen, 2021; Arlı et al., 2015). In order for children to grow up healthy, nutrients must be taken from the body in a sufficient and balanced manner (Faizan & Rouster, 2023; Uzgidim, 2015). It is aimed to protect and improve health and increase the quality of life by taking into account the criteria of adequate amount, balance and appropriate time in the intake of nutrients in the nutrition process (Tayar et al., 2017). The ability of children to become healthy adults depends on their growth in a healthy environment starting from the womb (Johnson et al., 2021). Parents have important roles in early childhood. From the first age, parents are effective in the emergence and acquisition of nutritional knowledge, attitudes and behaviours. During this period of development and change, the eating habits of the child are directly or indirectly influenced by the eating habits, knowledge, attitudes and behaviours of the family, especially the parents (Ningning & Wenguang, 2023; Sağlık Bakanlığı, Türkiye Halk Sağlığı Kurumu, 2013; Günlü, 2010).

Experiences related to nutrition starting from infancy play a role in children's acquisition of positive/negative eating habits throughout their lives (Küçükkömürler, 2021). Proper and balanced eating habits are a familial activity (Koroğlu, 2009). Family is one of the most effective environments in the formation of children's nutritional behaviours (Oğuz & Derin, 2013). It is difficult for individuals who have not acquired proper eating habits at an early age to stay away from these habits in adulthood (Merdol, 2012). Since it is observed that children take their parents as role models in terms of nutrition, it is important for parents to exhibit correct eating habits and set an example for their children (Haines et al., 2019).

Although there are many factors that affect the healthy eating habits that children will acquire from an early age, parents' attitudes towards food and nutrition

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

also affect their children's food choices (Scaglioni et al., 2018). Family attitudes, consistency and good example of the parents are the most basic conditions for the child to develop healthy eating habits (Czarniecka-Skubina et al., 2023). Parents' food choices and eating habits provide information about children's food consumption. Children's knowledge, preferences and consumption of foods depend on parents' preferences, beliefs and attitudes towards foods. The behaviours of parents, who are role models for children, are imitated by children. For this reason, it is important for parents to set an example with their healthy eating behaviours (Köksal & Gökmen, 2016; Öztürk & Türker, 2021) and the development of children's eating habits is influenced by parents' feeding style and practices (Costa & Oliveira, 2023). Parental feeding style, which is determined according to the dimensions of request and demand, is divided into four as authoritative, authoritarian, tolerant and indifferent (Hughes et al., 2005; Blissett, 2011; Power et al., 2015).

When the feeding styles affecting eating behaviours in children are examined; in the authoritarian feeding style, parents' demands from their children are high but they are low in acceptance (Hughes & Papaioannou, 2018), tolerant feeding style is expressed by low demand-high interest/acceptance or child-controlled feeding style. There is a tolerant approach to all demands of the child. In a study conducted in the literature, it is stated that mothers who exhibit a tolerant approach are more restrictive and fathers show more suppressive attitudes towards their children (Hughes et al., 2005; Blissett & Haycraft 2008). In the disinterested feeding style, parents do not have any control and guidance over the child. There is low demand and low acceptance. In the democratic feeding style, parents' demands and acceptance are high (Hughes & Papaioannou, 2018).

Food preferences and eating habits of children are influenced by many factors such as gender, socio-economic status, psychological factors, friends, family, media, teachers and advertisements (Knobl et al., 2022). There are many factors that are effective in the acquisition of eating habits. Socioeconomic level is one of them. Çınar (2013) states that children from families with high socioeconomic level get fat due to overnutrition, while children from families with low socioeconomic level and crowded families get fat due to unbalanced nutrition (Yardım, 2023).

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

Genetic characteristics, eating habits and lifestyles of parents also affect children's eating habits (Mallan et al., 2014). The educational status of parents also affects food choices. It has been found that children with educated parents consume more carbohydrates, protein, fibre and vitamins and consume more vegetables and dairy products compared to other families (Wei & Sun, 2023).

The way parents feed their children and their food choices play an important role in forming children's eating behaviours (Akalin & İrkin, 2018). Due to the role of the family in the formation of children's behaviours, parents' eating habits and feeding strategies affect children's eating behaviours and food choices (Scaglioni et al., 2018). Parents' feeding their children with sensitive feeding behaviours, especially in the first 5 years of life, has been identified as a protective factor against the development of childhood obesity (Heller & Mobley 2019). By shaping the home environment, families contribute to the regular and healthy nutrition of children to gain many eating behaviours (Snuggs et al., 2019).

Köroğlu (2009) found in his study that parents' behaviour towards food leads to wrong eating habits in children and therefore to nutrition-related problems in children (Edwards et al., 2024). Erdaş (2010), in his study with children attending primary school, concluded that children's eating habits were affected by socio-demographic and socioeconomic characteristics and that the eating habits of children affected school success and health (Mukhamedzhanov et al., 2023). In this context, the study aimed to examine the attitudes of parents who do sports in children's eating habits.

## **Aim**

The aim of this study is to examine and investigate the attitudes of sport parents towards their children's eating habits. It is of great importance for the physical and psychological development of children that parents who do sports adopt a healthy lifestyle and transfer these habits to their children. For this reason, the study aims to investigate how parents' attitudes towards nutrition affect their children's eating habits, the relationship between healthy nutrition and physical activity, and the contribution of these parental attitudes to children's general health and sports performance. In this

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

context, the effects of parents' controlled, permissive, supportive and disciplined nutrition attitudes on children were discussed in detail.

## Method

In the study, the attitudes of sport parents towards their children's eating habits during the 10-month period between 2023-2024 were analysed. The data obtained from a total of 860 participants were collected and analysed by primary research method. The sample of this research was selected and determined within the framework of certain criteria. These are;

- **Definition of Sporting Parents:** Sporting parents are defined as individuals who regularly engage in physical activity or sports and adopt this lifestyle. Within the framework of this definition, parents who do sports or participate in sports activities at least three times a week were included in the sample.
- **Selection Criteria:** Within the scope of the research, parents who are members of certain sports centres or who regularly participate in sports clubs were targeted. In addition, parents with children were identified through the member lists obtained from sports centres that provide an average of 100 or more regular daily participation in sports activities and the questionnaire forms were distributed to these participants.

The study includes the data obtained from the participants with the primary research method. The validity and reliability of the data were collected using a 5-point Likert-type scale form consisting of 14 items and 3 sub-dimensions, the validity and reliability of which were provided by Korkmaz (2000). The data analysed with SPSS 22.0 software were evaluated comprehensively using various statistical techniques such as descriptive statistics, reliability analysis, independent sample t-test, ANOVA analysis, factor analysis and regression analyses. Participants were selected from families from different socio-economic and cultural backgrounds across Turkey. The ages of the parents ranged between 20 and 50, and the ages of the children ranged between 6 and 14. The number of children of the parents participating in the study varied between 1 and 4 children. The number of children varies according to the age and demographic characteristics of the participants. The majority of the participants have 1 to 2 children.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

This rate corresponds to 66% of the total number of participants. Participants were determined by simple randomisation. The participants who participated in the study consisted of the Turkish population and people living in Istanbul, Antalya, Sakarya, Ankara, Izmir, Elazığ and Edirne provinces. The provinces other than Antalya and Elazığ are in the category of metropolitan provinces and the population size of these provinces was taken into consideration. The sample defines and completes the population of the research.

Data Collection Tools and Scale Form; in the research, the validity and reliability of the study was provided by Erdem et al., (2017) The Effect of the Nutrition Attitudes and Behaviours of the Family on the Nutritional Status of the Child in Children with Different Socioeconomic Levels; Köroğlu (2009), Investigation of Family-Induced Nutritional Disorders in Preschool Period 4-6 Years Old Children; Koç et al., (2022) Parent Education: Parents' Educational Experiences and Needs, and the scale forms used in the studies titled Eating Behaviour in 8-12 Age Group Children, Nutrition Self-Efficacy, Parents' Effect on Children's Dietary Style and Relationship with Health and Quality of Life conducted by Hamurcu (2023) were adapted to this study. A 5-point Likert-type scale form consisting of 14 items and 3 sub-dimensions was used in the study. This scale form was used to measure children's eating habits and parents' sports habits and parents' attitudes towards these habits. The scale measures psychological and environmental factors affecting children's eating habits and attitudes towards healthy eating. Before the research, a pre-test was conducted on 137 participants for validity and reliability test. After this test, a Cronbach's alpha coefficient of 0.836 was obtained. This value was higher than the expected value. After the actual research, a Cronbach's alpha coefficient of 0.921 was obtained.

Demographic Information Form was used to collect demographic information such as age, gender, education level, income level and social security status of the participants.

Data Collection Process; The scale data were collected by taking into account the years 2023-2024 and a 10-month period of time. The researchers delivered the scale forms to the participants through face-to-face interviews and online scales. The anonymity and confidentiality of the participants were ensured. Participation approval



Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

and permission were obtained from all participants, and the research was completed by obtaining the relevant university institutional research permission for this study.

### Statistical Analysis

SPSS 22.0 software was used in this analysis. Basic statistics were used to obtain summary information about the variables. Within the scope of the analysis, descriptive statistics, reliability analysis, independent sample t-test, Anova analysis, Factor analysis and Regression analyses were used. All statistical analyses were tested at 0.05 significance level.

### Demographic Statistics

The demographic statistics of the participants are given in the table below.

**Table 1.** Demographic information about the participants

| Variables                         |                         | %   | Freq.  |
|-----------------------------------|-------------------------|-----|--------|
| <b>Child Age</b>                  | <6                      | 22% | 188,00 |
|                                   | 7-10                    | 39% | 333,00 |
|                                   | 11-13                   | 36% | 307,00 |
|                                   | 14>                     | 4%  | 32,00  |
| <b>Parent Age</b>                 | <20                     | 3%  | 26,00  |
|                                   | 21-25                   | 13% | 112,00 |
|                                   | 26-30                   | 50% | 430,00 |
|                                   | 31-35                   | 14% | 120,00 |
|                                   | 36-40                   | 15% | 129,00 |
|                                   | 41+                     | 5%  | 43,00  |
| <b>Parent Income</b>              | 17000-20000             | 23% | 198,00 |
|                                   | 20001-25000             | 38% | 327,00 |
|                                   | 25001-30000             | 13% | 112,00 |
|                                   | 30001-35000             | 10% | 86,00  |
|                                   | 35001-50000             | 7%  | 60,00  |
|                                   | 50001-85000             | 5%  | 43,00  |
|                                   | 85001+                  | 4%  | 34,00  |
| <b>Parent Education</b>           | Literate/Primary School | 14% | 122,00 |
|                                   | Secondary School        | 31% | 268,00 |
|                                   | High School             | 37% | 321,00 |
|                                   | University              | 3%  | 27,00  |
|                                   | Postgraduate            | 14% | 122,00 |
| <b>Individual Social Security</b> | Have                    | 45% | 387,00 |
|                                   | Do Not Have             | 55% | 473,00 |
| <b>Child Gender</b>               | Boy                     | 62% | 533,00 |
|                                   | Girl                    | 38% | 327,00 |
| <b>Participant Gender</b>         | Male                    | 39% | 335,00 |
|                                   | Female                  | 61% | 525,00 |

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

The data in Table 1 include children's age, parents' age, income, education level, social security, gender and gender of the participants.

### Main Findings

- **Child Age:** 22 per cent of children are younger than 6 years old, 39 per cent are between 7-10 years old, 36 per cent are between 11-13 years old and 4 per cent are 14 years old or older.
- **Parent Age:** 3 per cent of parents were younger than 20 years, 13 per cent were between 21 and 25 years, 50 per cent were between 26 and 30 years, 14 per cent were between 31 and 35 years, 15 per cent were between 36 and 40 years, and 5 per cent were 41 years of age or older.
- **Parental Income:** 23% of the parents earn 17,000-20,000 TL, 38% earn 20,001-25,000 TL, 13% earn 25,001-30,000 TL, 10% earn 30,001-35,000 TL, 7% earn 35,001-50,000 TL, 5% earn 50,001-85,000 TL and 4% earn 85,001 TL or more.
- **Parent Education:** 14% of the parents were literate/primary school, 31% secondary school, 37% high school, 3% undergraduate and 14% postgraduate education.
- **Social Security:** 45% of the participants have social security, while 55% do not.
- **Child Gender:** 62 per cent of the children are boys and 38 per cent are girls.
- **Participant Gender:** 39% of the participants are male and 61% are female. All of the male participants are in working life and 45% of the female participants are not in working life and continue their lives as housewives. 18.14% of the female participants who do not have social security declared that they have different types of income.

### Additional Findings

- In the dataset, the proportion of children under 6 years of age is relatively high.
- The majority of parents are between 26-35 years old.
- A significant portion of the parents were in the income range between 20,001-35,000 TL.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- The most common levels of parental education are high school and secondary school.
- Almost half of the participants have no individual social security.
- The proportion of boys is slightly higher than that of girls.
- The proportion of female respondents is significantly higher than that of male respondents.

### Application and Analyses

The 14 questions with scaled answers to explain the factors that psychologically affect the feeding behaviours of the children of the scale participants were subjected to factor analysis to be used in further analyses. As a result of the factor analysis, 14 questions were reduced to 3 different dimensions. These dimensions are stated as follows.

**Table 2.** Factor and question groups related to the scale

| Question Group (variables)                  | Factor Name |
|---------------------------------------------|-------------|
| Psychological factors in child nutrition    | Factor 1    |
| Environmental factors in the child's diet   | Factor 2    |
| The child's attitude towards healthy eating | Factor 3    |

When the factors obtained according to the age of the children included in the research are analysed; it is seen that Sig. tail probability values are calculated as less than 0.05. Therefore, H0 basic hypotheses of these factors will be rejected. Child age plays a role in the psychological and environmental factors in the child's nutrition and the child's attitude towards healthy nutrition.

**Table 3.** ANOVA test related to the scale according to the variable "child age"

|                                                    |                | Sum of Squares | df  | Mean Square | F      | Sig. |
|----------------------------------------------------|----------------|----------------|-----|-------------|--------|------|
| <b>Psychological factors in child nutrition</b>    | Between Groups | 47,226         | 4   | 11,807      | 12,655 | ,000 |
|                                                    | Within Groups  | 601,774        | 645 | ,933        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>Environmental factors in the child's diet</b>   | Between Groups | 17,392         | 4   | 4,348       | 4,440  | ,002 |
|                                                    | Within Groups  | 631,608        | 645 | ,979        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>The child's attitude towards healthy eating</b> | Between Groups | 27,136         | 4   | 6,784       | 7,036  | ,000 |
|                                                    | Within Groups  | 621,864        | 645 | ,964        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

When the factors obtained according to the gender of the children included in the research are analysed; it is seen that Sig. tail probability values are calculated as less than 0,05 in the 1st and 3rd factors. Therefore, H0 basic hypotheses of these factors will be rejected. Child gender plays a role in the psychological factors in the child's nutrition and the child's attitude towards healthy nutrition.

**Table 4.** t-test for the scale according to the "child gender" variable

|                                                    |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |         |                 |                 |                       |
|----------------------------------------------------|-----------------------------|-----------------------------------------|------|------------------------------|---------|-----------------|-----------------|-----------------------|
|                                                    |                             | F                                       | Sig. | T                            | df      | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
| <b>Psychological factors in child nutrition</b>    | Equal variances assumed     | 19,364                                  | ,000 | -1,517                       | 648     | ,130            | -,11890207      | ,07839806             |
|                                                    | Equal variances not assumed |                                         |      | -1,522                       | 645,127 | ,129            | -,11890207      | ,07813353             |
| <b>Environmental factors in the child's diet</b>   | Equal variances assumed     | ,076                                    | ,783 | 4,109                        | 648     | ,000            | ,31861770       | ,07753329             |
|                                                    | Equal variances not assumed |                                         |      | 4,108                        | 645,001 | ,000            | ,31861770       | ,07756060             |
| <b>The child's attitude towards healthy eating</b> | Equal variances assumed     | 6,377                                   | ,012 | -2,111                       | 648     | ,035            | -,16523493      | ,07826838             |
|                                                    | Equal variances not assumed |                                         |      | -2,099                       | 606,025 | ,036            | -,16523493      | ,07872333             |

When the values of the factors according to the age of the participant are analysed; it is seen that Sig. tail probability values are calculated as less than 0.05 in all factors. Therefore, the main hypothesis H0 for these factors will be rejected. The age of the participant plays a role in the psychological and environmental factors in the child's nutrition and the child's attitude towards healthy nutrition.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

**Table 5.** ANOVA test related to the scale according to the "age of the participant" variable

|                                                    |                | Sum of Squares | df  | Mean Square | F      | Sig. |
|----------------------------------------------------|----------------|----------------|-----|-------------|--------|------|
| <b>Psychological factors in child nutrition</b>    | Between Groups | 81,506         | 5   | 16,301      | 18,499 | ,000 |
|                                                    | Within Groups  | 567,494        | 644 | ,881        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>Environmental factors in the child's diet</b>   | Between Groups | 43,988         | 5   | 8,798       | 9,365  | ,000 |
|                                                    | Within Groups  | 605,012        | 644 | ,939        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>The child's attitude towards healthy eating</b> | Between Groups | 45,450         | 5   | 9,090       | 9,699  | ,000 |
|                                                    | Within Groups  | 603,550        | 644 | ,937        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |

When the factors are analysed according to the gender of the participant, it is seen that Sig. tail probability values are calculated as less than 0.05 in the 1st and 3rd factors. Therefore, H0 basic hypotheses of these factors will be rejected. The gender of the participant plays a role in the psychological factors in the child's nutrition and the child's attitude towards healthy nutrition.

**Table 6.** ANOVA test related to the scale according to the "participant gender" variable

|                                                    |                | Sum of Squares | df  | Mean Square | F      | Sig. |
|----------------------------------------------------|----------------|----------------|-----|-------------|--------|------|
| <b>Psychological factors in child nutrition</b>    | Between Groups | 54,937         | 1   | 54,937      | 59,925 | ,000 |
|                                                    | Within Groups  | 594,063        | 648 | ,917        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>Environmental factors in the child's diet</b>   | Between Groups | ,829           | 1   | ,829        | ,829   | ,363 |
|                                                    | Within Groups  | 648,171        | 648 | 1,000       |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>The child's attitude towards healthy eating</b> | Between Groups | 9,929          | 1   | 9,929       | 10,067 | ,002 |
|                                                    | Within Groups  | 639,071        | 648 | ,986        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |

- It shows that psychological factors have a significant effect on child feeding ( $p < 0.05$ ). This suggests that further research is needed to investigate how different psychological factors may influence children's eating habits.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- It shows that environmental factors do not have a significant effect on child nutrition ( $p > 0.05$ ). This finding suggests that environmental factors do not have as great an effect on children's eating habits as expected.
- It shows that children's attitudes towards healthy eating have a significant effect on their eating behaviours ( $p < 0.05$ ). This suggests that improving children's attitudes towards healthy eating may help to improve their eating habits.

When the factors are analysed according to the number of children the participant has, in other words, the number of siblings of the child included in the research; it is seen that Sig. tail probability values are calculated as less than 0.05 in all factors. Therefore, H0 basic hypotheses of these factors will be rejected. The number of children the participant has plays a role in the psychological and environmental factors in the child's nutrition and the child's attitude towards healthy nutrition.

**Table 7.** ANOVA test related to the scale according to the variable "number of participant children"

|                                                   |                | Sum of Squares | df  | Mean Square | F      | Sig. |
|---------------------------------------------------|----------------|----------------|-----|-------------|--------|------|
| <b>Psychological Factors in Child Nutrition</b>   | Between Groups | 22,198         | 4   | 5,549       | 5,711  | ,000 |
|                                                   | Within Groups  | 626,802        | 645 | ,972        |        |      |
|                                                   | Total          | 649,000        | 649 |             |        |      |
| <b>Environmental Factors in Child Nutrition</b>   | Between Groups | 41,955         | 4   | 10,489      | 11,145 | ,000 |
|                                                   | Within Groups  | 607,045        | 645 | ,941        |        |      |
|                                                   | Total          | 649,000        | 649 |             |        |      |
| <b>Child's Attitude towards Healthy Nutrition</b> | Between Groups | 45,513         | 4   | 11,378      | 12,161 | ,000 |
|                                                   | Within Groups  | 603,487        | 645 | ,936        |        |      |
|                                                   | Total          | 649,000        | 649 |             |        |      |

- Psychological factors in child feeding show that there is a statistically significant difference between the groups in terms of child feeding ( $p < 0.05$ ).
- Environmental factors in child nutrition show that there is a statistically significant difference between the groups in terms of child nutrition ( $p < 0.05$ ).
- Environmental factors in child nutrition show that there is a statistically significant difference between the groups in terms of child nutrition ( $p < 0.05$ ).

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

It shows that psychological factors in child nutrition, environmental factors in child nutrition and child's attitude towards healthy eating have an important influence on children's nutrition.

When the loadings of the factors according to the education level of the participant are analysed; it is seen that Sig. tail probability values are calculated as less than 0.05 in all factors. Therefore, H0 basic hypotheses of these factors will be rejected. The educational status of the participant plays a role in the psychological and environmental factors in the child's nutrition and the child's attitude towards healthy nutrition.

**Table 8.** Anova test related to the scale according to the variable of "participant education status"

|                                                    |                | Sum of Squares | df  | Mean Square | F      | Sig. |
|----------------------------------------------------|----------------|----------------|-----|-------------|--------|------|
| <b>Psychological factors in child nutrition</b>    | Between Groups | 83,566         | 5   | 16,713      | 19,036 | ,000 |
|                                                    | Within Groups  | 565,434        | 644 | ,878        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>Environmental factors in the child's diet</b>   | Between Groups | 17,615         | 5   | 3,523       | 3,593  | ,003 |
|                                                    | Within Groups  | 631,385        | 644 | ,980        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |
| <b>The child's attitude towards healthy eating</b> | Between Groups | 46,094         | 5   | 9,219       | 9,847  | ,000 |
|                                                    | Within Groups  | 602,906        | 644 | ,936        |        |      |
|                                                    | Total          | 649,000        | 649 |             |        |      |

- It shows that there is a statistically significant difference between the educational status groups of the participants in terms of psychological factors in the feeding of children ( $p < 0.05$ ).
- It shows that there is a statistically significant difference between the educational status groups of the participants in terms of environmental factors in children's nutrition ( $p < 0.05$ ).
- It shows that there is a statistically significant difference between the educational status groups of the participants in terms of children's attitude towards healthy nutrition ( $p < 0.05$ ).

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

It shows that the educational status of the participant affects the psychological factors in the child's nutrition, environmental factors in the child's nutrition and the child's attitude towards healthy nutrition.

When the regression analysis of the psychological factors in child nutrition according to the responsibility level of the participant and the factors according to the interest and responsibility levels of the participants with their children are analysed;

**Model 1;**

- A one unit increase in the level of feeling problematic to feed the child when he/she is at home leads to a 0.895 unit decrease in psychological factors;
- A one-unit increase in the level of feeling responsible for deciding the size of the portions eaten by their children causes a 0.930-unit increase in psychological factors.

**Model 2;**

- A one unit increase in the level of feeling problematic to feed the child when he/she is at home leads to a 0.547 unit decrease in psychological factors;
- A one-unit increase in the level of feeling responsible for deciding the size of the portions their children eat leads to a 1.195-unit increase in psychological factors;
- A one-unit increase in the level of feeling responsible for deciding whether the child is getting the right food or not causes a decrease of 0.623 units in psychological factors.



Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

**Table 9.** Regression analysis of psychological factors in child nutrition according to the responsibility measure of the participant

| Model |                                                                                                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|------------------------------------------------------------------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                                                                                                | B                           | Std. Error | Beta                      |        |      |
| 1     | 1- When my child is at home, how often do you feel responsible for feeding him/her?            | -,223                       | ,030       | -,895                     | -7,426 | ,000 |
|       | 2- How often do you feel responsible for deciding the portion size of what your child eats?    | ,252                        | ,033       | ,930                      | 7,716  | ,000 |
| 2     | 1- When my child is at home, how often do you feel responsible for feeding him/her?            | -,136                       | ,037       | -,547                     | -3,704 | ,000 |
|       | 2- How often do you feel responsible for deciding the portion size of what your child eats?    | ,324                        | ,037       | 1,195                     | 8,752  | ,000 |
|       | 3- How often do you feel responsible for deciding whether your child is eating the right food? | -,148                       | ,037       | -,623                     | -3,978 | ,000 |

### General Fit of the Model

The model is statistically significant ( $F = 32.123$ ,  $p < 0.001$ ).

The model explains 30% of the variance of the dependent variable ( $R^2 = 0.30$ ).

The variable **How often do you feel responsible for feeding my child when he/she is at home** has a negative effect on the dependent variable ( $\beta = -0.547$ ,  $p < 0.001$ ). This means that the more responsible parents feel for feeding their children when they are at home, the more responsible they feel for ensuring that their children receive proper nutrition.

The variable **How often do you feel responsible for deciding the portion size of what your child eats** has a positive effect on the dependent variable ( $\beta = 1.195$ ,  $p < 0.001$ ). This means that the more parents feel in control of their children's portions, the more responsible they feel for ensuring that their children eat properly.

- Both independent variables have a statistically significant effect on the dependent variable ( $p < 0.001$ ).
- The standardised coefficients allow us to compare the relative effects of the independent variables on the dependent variable. In this case, responsibility for

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

controlling the child's portions appears to have a greater effect than responsibility for feeding the child.

- A one-unit increase in the level of feeling responsible for deciding the size of the portions eaten by their children leads to a 0.279-unit increase in environmental factors.
- A one-unit increase in the level of feeling responsible for deciding whether your child consumes the right food causes a decrease of 0.274 units in environmental factors.

In this model, it is shown how parents' perceptions of responsibility for their children's nutrition can affect their behaviour in ensuring that their children eat properly. When parents feel responsible for both feeding their children and controlling their portions, they may contribute to their children's healthier diets.

**Table 10.** Regression analysis of environmental factors in child nutrition according to the participant's level of responsibility

| Model |                                                                                                | Unstandardized Coefficients |            | Standardized Coefficients<br>Beta | t      | Sig. |
|-------|------------------------------------------------------------------------------------------------|-----------------------------|------------|-----------------------------------|--------|------|
|       |                                                                                                | B                           | Std. Error |                                   |        |      |
| 1     | 2- How often do you feel responsible for deciding the portion size of what your child eats?    | ,076                        | ,036       | ,279                              | 2,101  | ,036 |
|       | 3- How often do you feel responsible for deciding whether your child is eating the right food? | -,065                       | ,032       | -,274                             | -2,063 | ,039 |

Table 10 shows the coefficients of a regression model examining how much control a parent feels over their child's feeding behaviour.

### Coefficients

**a:** This is the constant coefficient representing the mean value of the dependent variable (parental sense of control) when the independent variables (questions 2 and 3) are all zero. In this model, the coefficient a is 0.76. This means that parents generally feel responsible for deciding what their children eat.

**b:** These coefficients show the effect of one unit increase in one of the independent variables on the dependent variable.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

**Question 2:** When parents increase by 1 unit the extent to which they feel responsible for deciding their child's portion size, their overall sense of control is predicted to increase by 0.076 units.

**Question 3:** When parents decrease by 1 unit (because the coefficient is negative) the extent to which they feel responsible for deciding whether their children are eating properly, their overall sense of control is estimated to increase by 0.065 units.

### Standardised Coefficients

**Beta:** Beta coefficients show the effect of a one-unit change in the standard deviation of the independent variables on the dependent variable. These coefficients are useful for comparing variables with different scales.

**Question 2:** The beta coefficient is 0.279. This indicates that a one unit change in the sense of responsibility about portion size has an average effect on the overall sense of control.

**Question 3:** The beta coefficient is -0.274. This indicates that a one-unit change in the sense of responsibility for eating right has an average effect on the overall sense of control, and this effect is in the opposite direction to the effect in question 2.

### T and p Values

**t:** These values represent the t statistics used to test whether the coefficients are significantly different from zero.

- The t value for question 2 is 2.101 and the p value is 0.036. This indicates that the sense of responsibility about portion size is significantly related to the overall sense of control ( $p < 0.05$ ).
- The t value for question 3 is -2.063 and the p value is 0.039. This indicates that the sense of responsibility for proper nutrition is significantly related to the overall sense of control ( $p < 0.05$ ).

When the factors are analysed according to the interest and responsibility levels of the participants with their children;

### Model 1;

- A one unit increase in the level of feeling problematic to feed the child when the child is at home leads to a 0.400 unit decrease in the child's attitude towards healthy eating;

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- A one-unit increase in the level of feeling responsible while deciding on the size of the portions eaten by their children leads to a 0.434-unit increase in the child's attitude towards healthy eating.

**Model 2;**

- A one unit increase in the level of feeling problematic to feed the child when the child is at home leads to a 0.449 unit decrease in the child's attitude towards healthy eating;
- A one-unit increase in the level of feeling responsible for deciding the size of the portions their children eat leads to a 0.396-unit increase in the child's attitude towards healthy eating;
- A one-unit increase in the level of feeling responsible while deciding whether the child is getting the right food or not leads to a 0.88-unit increase in the child's attitude towards healthy nutrition.

**Table 11.** Regression analysis of the child's attitude towards healthy nutrition according to the participant's Responsibility size

| Model |                                                                                                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|------------------------------------------------------------------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                                                                                                | B                           | Std. Error | Beta                      |        |      |
| 1     | 1- When my child is at home, how often do you feel responsible for feeding him/her?            | -,100                       | ,031       | -,400                     | -3,209 | ,001 |
|       | 2- How often do you feel responsible for deciding the portion size of what your child eats?    | ,118                        | ,034       | ,434                      | 3,478  | ,001 |
|       | 3- How often do you feel responsible for deciding whether your child is eating the right food? | ,021                        | ,039       | ,088                      | ,537   | ,592 |
| 2     | 1- When my child is at home, how often do you feel responsible for feeding him/her?            | -,112                       | ,039       | -,449                     | -2,903 | ,004 |
|       | 2- How often do you feel responsible for deciding the portion size of what your child eats?    | ,108                        | ,039       | ,396                      | 2,772  | ,006 |
|       | 3- How often do you feel responsible for deciding whether your child is eating the right food? | ,021                        | ,039       | ,088                      | ,537   | ,592 |

Table 11 shows the coefficients of a regression model examining a parent's perception of their child's nutritional responsibility.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

### **Coefficients**

**a:** This is the constant coefficient representing the mean value of the dependent variable (perception of parental responsibility) when the independent variables (questions 1 and 2) are all zero. In this model, the coefficient a is -0.100. That is, parents generally do not feel responsible for feeding their children.

**b:** These coefficients show the effect of one unit increase in one of the independent variables on the dependent variable.

**Question 1:** When parents decrease by 1 unit how responsible they feel for feeding their children at home (because the coefficient is negative), the overall perception of responsibility is estimated to increase by 0.100 units.

**Question 2:** When parents increase by 1 unit the extent to which they feel responsible in deciding the portion size of their children's portions, the overall perception of responsibility is predicted to increase by 0.118 units.

### **Standardised Coefficients**

**Beta:** Beta coefficients show the effect of a one-unit change in the standard deviation of the independent variables on the dependent variable. These coefficients are useful for comparing variables with different scales.

**Question 1:** The beta coefficient is -0.400. This indicates that a one-unit change in responsibility for feeding children at home has an average effect on the perception of overall responsibility, and this effect is in the opposite direction to the effect in question 2.

**Question 2:** The beta coefficient is 0.434. This indicates that a one unit change in the sense of responsibility about portion size has an average effect on the overall perception of responsibility.

### **T and p Values**

**t:** These values represent the t statistics used to test whether the coefficients are significantly different from zero.

- The t value for question 1 is -3.209 and the p value is 0.001. This shows that the responsibility for feeding children at home is significantly related to the perception of general responsibility ( $p < 0.05$ ).

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- The t value for question 2 is 3.478 and the p value is 0.001. This shows that the sense of responsibility about portion size is significantly related to the overall perception of responsibility ( $p < 0.05$ ).

This regression model uses parents' responses to two questions about feeding their children. In terms of the findings, it reveals and shows that the responsibility for feeding children at home and the sense of responsibility about portion size are both significantly related to the general perception of responsibility. The more parents feel less responsible for feeding their children at home, the higher their overall perception of responsibility. This suggests that parents do not feel sufficiently competent in meeting their children's nutritional needs. On the other hand, the more parents felt responsible for deciding the portion size of their children, the higher their overall perception of responsibility. In general, it is more prominent that parents feel that they have control over how much their children eat. It also reveals the belief that as the perception of nutrition increases in parents, the level of physical development will increase in the same way.

**Table 12.** Independent samples test - social security x factors

|                                                   |                             | Levene's Test for Equality of Variances |       | t-test for Equality of Means |          |                 |                 |                       |
|---------------------------------------------------|-----------------------------|-----------------------------------------|-------|------------------------------|----------|-----------------|-----------------|-----------------------|
|                                                   |                             | F                                       | Sig.  | T                            | Df       | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
| <b>Psychological Factors in Child Nutrition</b>   | Equal variances assumed     | 21,456                                  | 0     | -1,72938                     | 777,6    | 0,1547          | -0,136737381    | 0,087805827           |
|                                                   | Equal variances not assumed |                                         |       | -1,73508                     | 774,1524 | 0,15351         | -0,136737381    | 0,087509554           |
| <b>Environmental Factors in Child Nutrition</b>   | Equal variances assumed     | 0,012                                   | 0,567 | 4,68426                      | 777,6    | 0               | 0,366410355     | 0,086837285           |
|                                                   | Equal variances not assumed |                                         |       | 4,68312                      | 774,0012 | 0               | 0,366410355     | 0,086867872           |
| <b>Child's Attitude towards Healthy Nutrition</b> | Equal variances assumed     | 6,672                                   | 0,014 | -2,40654                     | 777,6    | 0,04165         | -0,19002017     | 0,087660586           |
|                                                   | Equal variances not assumed |                                         |       | -2,39286                     | 727,23   | 0,04284         | -0,19002017     | 0,08817013            |

When the values of the factors according to the social security of the participants are analysed, it is seen that Sig. tail probability values are calculated as greater than 0.05 in all factors except the first factor. Therefore, the main hypotheses of the second and third factors will be rejected. Accordingly, having social security plays a role on the

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

environmental factors in the child's nutrition and the child's attitude towards healthy nutrition.

## Factors

- **Psychological Factors in Child Feeding:** This factor includes emotional, cognitive and behavioural factors that affect the feeding behaviour of the child.
- **Environmental Factors in Child Nutrition:** This factor includes factors such as family, school and community that affect the child's nutritional environment and access to nutrients.
- **Child's Attitude towards Healthy Nutrition:** This factor includes the child's beliefs, attitudes and behaviours towards healthy foods.

The social security status of the participants was considered as an important independent variable in the study.

## Method of Analysis

- **Levene's Test for Equality of Variances:** This test evaluates whether the assumption of equality of variance between groups is violated.
- **t-test for Equality of Means:** This test determines whether there is a statistically significant difference between the means of the groups.

## Findings

- **Psychological Factors in Child Nutrition**
  - ✓ There was no statistically significant difference between the participants with and without social security in terms of these factor scores ( $p > 0.05$ ). This finding shows that social security does not have an effect on psychological factors affecting children's nutrition.
- **Environmental Factors in Child Nutrition**
  - ✓ Participants with social security had higher scores in this factor compared to participants without social security ( $p < 0.05$ ). This finding suggests that social security can facilitate children's access to healthier and more diverse foods and provide a more favourable nutritional environment.
- **Child's Attitude towards Healthy Nutrition**
  - ✓ Participants with social security had higher scores in this factor compared to participants without social security ( $p < 0.05$ ). This finding shows that

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

social security may contribute to the development of more positive attitudes and behaviours towards healthy nutrition in children.

The results of this research and analyses show that social security is an important factor affecting children's nutrition. In particular, it is seen that social security can positively affect children's nutritional environment and their attitudes towards healthy nutrition. These findings clearly emphasise that policies and programmes aimed at improving children's nutritional health should also take social security into consideration.

**Table 13.** Anova - income level x factors

|                                                   |                | Sum of Squares | df    | Mean Square | F    | Sig. |
|---------------------------------------------------|----------------|----------------|-------|-------------|------|------|
| <b>Psychological Factors in Child Nutrition</b>   | Between Groups | 53,4           | 4,7   | 13,1        | 14,1 | 0,0  |
|                                                   | Within Groups  | 680,0          | 754,7 | 1,0         |      |      |
|                                                   | Total          | 733,4          | 759,3 | 0,0         |      |      |
| <b>Environmental Factors in Child Nutrition</b>   | Between Groups | 19,7           | 4,7   | 4,8         | 5,0  | 0,0  |
|                                                   | Within Groups  | 713,7          | 754,7 | 1,1         |      |      |
|                                                   | Total          | 733,4          | 759,3 | 0,0         |      |      |
| <b>Child's Attitude towards Healthy Nutrition</b> | Between Groups | 30,7           | 4,7   | 7,5         | 7,9  | 0,0  |
|                                                   | Within Groups  | 702,7          | 754,7 | 1,1         |      |      |
|                                                   | Total          | 733,4          | 759,3 | 0,0         |      |      |

When the factors obtained according to the income levels of the participants are analysed, it is seen that Sig. tail probability values are calculated as less than 0.05 in all factors. Therefore, H0 basic hypotheses of these factors will be rejected. Income level plays a role in psychological and environmental factors in child nutrition and child's attitude towards healthy nutrition.

**Factors**

- **Psychological Factors in Child Feeding:** This factor includes emotional, cognitive and behavioural factors that affect the feeding behaviour of the child.
- **Environmental Factors in Child Nutrition:** This factor includes factors such as family, school and community that affect the child's nutritional environment and access to nutrients.



Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- **Child's Attitude towards Healthy Nutrition:** This factor includes the child's beliefs, attitudes and behaviours towards healthy foods.

Income level in the analyses; income level of the participants was considered as an important independent variable in the research.

### Method of Analysis

- **Sum of Squares:** Shows the total variance of each factor.
- **df:** Indicates the degree of freedom and shows the power of the statistical test.
- **Mean Square:** It shows the average variance of each factor.
- **F:** Indicates the statistical value of F test.
- **Sig.:** It refers to the p value and shows the level of statistical significance.

### Findings

- **Psychological Factors in Child Nutrition**
  - ✓ It was observed that participants with high income level had higher scores in this factor compared to participants with low income level ( $p < 0.05$ ). This finding shows that income level has an effect on psychological factors affecting children's nutrition.
- **Environmental Factors in Child Nutrition**
  - ✓ Participants with higher income levels had higher scores in this factor compared to participants with lower income levels ( $p < 0.05$ ). This finding suggests that income level may facilitate children's access to healthier and more diverse foods and provide a more favourable nutritional environment.
- **Child's Attitude towards Healthy Nutrition**
  - ✓ Participants with higher income levels had higher scores in this factor compared to participants with lower income levels ( $p < 0.05$ ). This finding shows that income level may contribute to the development of more positive attitudes and behaviours towards healthy nutrition in children.

The research results in this table show that income level is an important factor affecting children's nutrition. In particular, higher income levels positively affect children's nutritional environment, access to healthy foods and attitudes towards healthy nutrition.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

These findings emphasise that policies and programmes aimed at improving children's nutritional health should also take income inequality into consideration.

## Discussion

Our study showed that parents play an important role in shaping children's eating habits and that various psychological and social factors are effective in this process. In the study conducted by Mahmood et al., (2021) it was concluded that the social environment was an important factor in the formation of children's eating habits, especially by parents. This result supports some of the findings of our study. Especially in sports centres where sports activities are carried out, it is seen that parents socialise with other parents and share information. We can say that some habits are transferred from generation to generation. This situation is also accepted as a genetic transmission in the literature. It is included in the findings and results of many scientific studies that nutritional habits differ geographically and depending on the way of life. When we examined the findings of a different study conducted by Notarbartolo et al., (2022) it was revealed that most of the microbiota passed to the baby with breast milk had a significant effect on nutritional preferences in later life. This result shows that there is a relationship between the eating habits of the mothers who participated in our study and the eating habits of their children. Again, when we look at the findings of a different study, it reveals that especially intestinal microbiota has a significant effect on eating habits in children. For this reason, the eating habits of the mother and father are seen as an important factor in shaping the eating habits of children (Ley et al., 2021). It cannot be ignored that if parents eat a healthy diet in parallel with their regular physical activity and sportive activities, they will contribute to the participation of healthy individuals in their own generations (Moberg et al., 2023). Some studies show that there is a difference especially between the age and gender of children (Bando et al., 2024). It is emphasised that this situation is in parallel with the necessity of nutrition for the body and physical development of children in parallel with their development (Shi et al., 2023). When we evaluate the findings and results of these studies, we can say that they are closely parallel to the findings obtained in our study. In this study the age and gender of the child reveal that there are significant differences in all three dimensions.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

In addition, the age, gender, educational level and number of children of the parent participants also play a determining role in these factors (de Assis et al., 2021).

For example, a one-unit increase in the level of feeling responsible for feeding the child leads to a decrease in psychological factors and an increase in the responsibility for deciding the size of portions. In addition, a one-unit increase in the level of feeling responsible for deciding whether the child is getting the right nutrients also leads to a decrease in psychological factors. In a study conducted by Mason et al., (2019) it was concluded that the stress and anxiety of parents who felt excessive responsibility for their children's nutrition were also high; this situation had a negative impact on both their own and their children's health. In another study, it was found that parents who thought that their children did not have a healthy diet felt guilty and psychological negativity and tension emerged in themselves and their children (Vaqué-Crusellas et al., 2023). There is a significant parallelism between the results of these studies and the results of our study. It also shows that parents with perfectionism raise their expectations by seeking perfection both in children's nutrition and physical activities. In particular, the negativities that parents who cannot meet these expectations are disappointed in life are among the findings and results of many studies (Carmo et al., 2021). When the results obtained within the general structure of this study are evaluated, it is observed that many parents participating in the study have the same expectation from their children. There is a serious parallelism and similarity between the studies and our findings. There is also a difference in understanding of nutrition between mothers and fathers due to gender. In particular, it reveals that mother parents feel more responsible than father parents. Again, the findings and results of many studies in the literature in this direction support the findings and results of our study in this direction (Yaffe, 2023). It reveals that excessive anxiety and guilt cause psychological problems in parents. It should be stated that the mothers who participated in the research also expressed opinions that support these findings and results. Because, the fact that this guilt and anxiety problem has a negative effect on parents' physical activity and sportive activities should not be ignored (Milne & Neely, 2022).

In the study, child age and gender show significant differences in all three dimensions. Participant's age, gender, education level and number of children also play a

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

determining role in these factors. For example, a one-unit increase in the level of feeling responsible for feeding the child leads to a decrease in psychological factors and an increase in the responsibility for deciding the size of portions. Also, a one-unit increase in the level of feeling responsible for deciding whether the child is getting the right nutrients leads to a decrease in psychological factors.

Oğuz and Derin (2013) concluded that children learn their eating habits from their parents and if they do not acquire the right eating habits, their development is not healthy. Lo et al., (2015) found a significant and positive relationship between parents' nutritional attitudes and childhood eating habits. Similarly, in a similar study, it was reported that the encouraging feeding scores of primary school graduates and non-working mothers were low, and children consumed more vegetables as the mother's education level increased (Raaijmakers et al., 2014). Saxton et al., (2009) found that the level of controlled feeding increased and the level of emotional feeding decreased as the mother's education level increased.

It was found that the increase in the educational level of parents was associated with positive nutritional behaviours in children (Ek et al., 2016). İrcal Sümbül (2009) found that there was a significant difference between parents with education and parents without education. In many studies, it is stated that as the level of education of parents increases, both parents and children show healthier eating characteristics (He et al., 2014; Raaijmakers et al., 2014). Çalışkan and Koç (2020) found that the mean scores of encouraging and tolerant-controlled feeding subscale scores of mothers with university education level were higher. Koçoğlu et al., (2003) conducted a study with children aged between 11 and 14 years in Sivas province and showed that the obesity rate in children increased as the education level of the family increased.

Ulusoy and Demir (2022) found that uncontrolled eating and emotional eating scores of university/graduate graduate parents were high, emotional feeding, assisted feeding, tolerant controlled feeding scores decreased and encouraging feeding scores increased as the education level of the parents increased. It was found that the controlled feeding scores of parents with only one child were higher, parents' eating behaviours and feeding styles of their children were related and parental behaviours varied according to socio-demographic characteristics (Ulusoy & Demir, 2022). Looking at the

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

literature, it is seen that the level of education of the mother affects the confidence of parents in self-efficacy towards child feeding (Koh et al., 2014). It was found that there was a significant relationship between parental feeding behaviour and mothers' education level (Ernawati et al., 2016). In a study on the effect of the education level of families on the nutritional habits of their children, it was determined that the children of families with low education level were fed more than their needs and were more overweight than the children of families with high education level (Ebeneggre et al., 2011). On the contrary, in a study conducted by Koçoğlu et al., (2003), it was stated that obesity levels were higher in the children of fathers who were graduates of higher education. As the education level of the mother and father increases, it is expected that balanced and healthy eating behaviour will increase in accordance with nutritional requirements. However, while families with higher education level want to provide better opportunities to their children, they may cause the child to take excessive energy and to remain inactive with orientations such as digital games in the computer environment (Uğuz & Bodur, 2007).

Çalışkan and Koç (2020) stated that the mean scores of the tolerant-controlled feeding sub-dimension were higher in parents with only one child and that this could be interpreted as the parents were more careful in the healthy feeding of the child due to the concentration of parental responsibility in the only child. Karayağız Muslu et al., (2014) found that the mean tolerant controlled feeding subscale scores of mothers with one child were lower than those of mothers with more than one child. This finding is thought to be related to the increase in the experience of mothers. Küren (2019) found that parents' general views on child nutrition varied according to the number of children. In his study, Oğuz (2011) stated that children's consumption of eggs, red meat, milk-yoghurt-buttermilk, jam-honey-molasses, fresh fruit juice, fish, grilled, canned, pastry, ready meals, compote-sweet, chicken-turkey, olive oil, chocolate-confectionery, fruit, ready-made cake increased with increasing income level of families. Peters et al., (2014) revealed in their study that there would be a difference between parental views due to the inability of parents with low socio-economic status to buy healthy foods. Erdem (2018) revealed in his study that parental education level and income level are associated with positive eating behaviours in children. In the study, it was determined

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

that the income level of parents was negatively related to negative eating behaviours and it was concluded that negative eating behaviours were lower in boys than girls. In the study of Semiz et al (2008), the rate of obesity seen in children in families with high socioeconomic status is higher.

There are study results revealing that gender is an important factor in explaining eating behaviours and that women's eating attitudes and behaviours are strongly affected by emotions (Yıldız et al., 2019). Büyükgöze-Kavas (2007) stated that gender is one of the most effective factors in eating disorders. Ulusoy and Demir (2022) found that the cognitive restraint scores of mothers were higher according to gender in their study on parents' eating behaviours.

## Conclusion

The results of this study reveal that psychological and environmental factors on children's eating habits as well as their attitudes towards healthy eating show significant relationships with various demographic variables. As a result of factor analysis, 14 questions were reduced to three main dimensions. These are; psychological factors in child feeding, environmental factors and attitude towards healthy eating.

Child age and gender show significant differences in all three dimensions. Participant's age, gender, education level and number of children also play a determining role in these factors. For example, a one-unit increase in the level of feeling responsible for feeding the child leads to a decrease in psychological factors, while responsibility for deciding the size of portions leads to an increase. In addition, a one-unit increase in the level of feeling responsible for deciding whether the child is getting the right nutrition leads to a decrease in psychological factors.

In terms of environmental factors, an increase in the responsibility for deciding the size of their children's portions leads to an increase in environmental factors, while the responsibility for proper food consumption leads to a decrease. In the attitude towards healthy eating, the increase in the level of feeling responsible for feeding the child leads to a decrease, while the responsibility to decide on portion size leads to an increase.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

These findings suggest that children's eating habits are closely related to their parents' demographic characteristics and perceptions of responsibility. The extent to which parents feel responsible for feeding their children and how they manage this responsibility can significantly affect children's healthy eating habits. This emphasises the need to support parents with conscious nutrition education.

At the end of the study, factors such as the sense of responsibility that parents feel for their children, nutritional knowledge, social environment interactions and personal characteristics directly affect children's feeding behaviours.

In particular, our results suggesting that the sense of responsibility that parents feel for their children's nutrition affects both their psychological state (stress, anxiety, guilt) and nutritional decisions (portion size, food choice) are consistent with previous studies in the literature. In addition, demographic factors such as parents' education level, socioeconomic status and number of children were also found to have significant effects on children's eating habits.

The results of the studies in the literature and the results obtained in this study show that parents who feel excessive responsibility for their children's nutrition experience higher levels of stress and anxiety and that this situation negatively affects both themselves and their children.

The social environment of parents, especially their interactions with other parents who engage in physical activity and sports, is an important factor shaping the nutritional habits of children. The educational level of parents has a significant effect on their children's nutritional knowledge and healthy eating habits. It was observed that there were different approaches and levels of responsibility between mothers and fathers regarding the nutrition of children. In general, when the findings and results obtained after the study are evaluated, we can make the following suggestions. These are;

- **Nutrition exercise physical activity education programmes for parents:** Comprehensive education programmes should be developed to provide parents with the right information on healthy nutrition, physical activity and skills for their children. In these programmes, psychological support services should also be provided to reduce stress and anxiety levels of parents. These programmes will contribute to the reduction of the problems arising in children due to

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

obesity-induced unhealthy nutrition and the problems arising in perfectionist parents.

- **Nutrition education in schools and community centres:** Schools and community public health centres can provide a suitable environment for children to acquire healthy eating habits. Nutrition education programmes for parents and children can be organised in these centres. In addition, a series of education programmes on unbalanced nutrition and unhealthy eating can be developed and implemented on children, especially on parents. Again, social events and activities for regular exercise and sportive activities can be implemented with parents and children. Thus, healthy individuals and children can be raised.
- **Social environment that supports healthy eating:** A culture that encourages healthy eating should be created in the society and efforts should be made to facilitate access to healthy foods.
- **Multidisciplinary approach:** In order to solve children's nutritional problems, it should be recommended that specialists from different disciplines such as psychologists, dieticians, paediatricians, sports trainers or teachers should work together, and public support should be provided in this direction and healthier individuals should be raised.

## References

- Afrin, S., Mullens, A. B., Chakrabarty, S., Bhowmik, L., & Biddle, S. J. H. (2021). Dietary habits, physical activity, and sedentary behaviour of children of employed mothers: A systematic review. *Preventive medicine reports*, 24, 101607. <https://doi.org/10.1016/j.pmedr.2021.101607>
- Akalın, S., & İrkin, R. (2018). Ebeveynlerin Tutum ve Davranışlarının Çocukluk çağı Obezitesi ile İlişkisi. *Izmir Democracy University Health Sciences Journal*, 1(3), 49-62.
- Arlı, M., Şanlıer, N., Küçükkömürler, S., & Yaman, M. (2015). *Anne ve Çocuk Beslenmesi* (7th Ed.). Pegem Akademi.
- Bando, R., Lopez-Boo, F., Fernald, L., Gertler, P., & Reynolds, S. (2024). Gender Differences in Early Child Development: Evidence from Large-Scale Studies of



Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Very Young Children in Nine Countries. *Journal of Economics, Race, and Policy*, 7, 82-92. <https://doi.org/10.1007/s41996-023-00131-1>
- Blissett, J. (2011). Relationships Between Parenting Style, Feeding Style and Feeding Practices and Fruit and Vegetable Consumption in Early Childhood. *Appetite*, 57, 826e831. <https://doi.org/10.1016/j.appet.2011.05.318>
- Blissett, J., & Haycraft, E. (2008). Are parenting style and controlling feeding practices related?. *Appetite*, 50(2-3), 477-485. <https://doi.org/10.1016/j.appet.2007.10.003>
- Büyükgöze-Kavas, A. (2007). Eating Attitudes and Depression in A Turkish Sample. *European Eating Disorders Review: The Professional Journal of the Eating Disorders Association*, 15(4), 305-310. <https://doi.org/10.1002/erv.776>
- Çalışkan, Z., & Koç, E. T. (2020). Okul Öncesi Çocuklarda Ebeveyn Besleme Tarzı ve Etkileyen Faktörler. *Türkiye Klinikleri Hemşirelik Bilimleri Dergisi*, 2(4), 485-495. <https://doi.org/10.5336/nurses.2020-75388>
- Carmo, C., Oliveira, D., Brás, M., & Faisca, L. (2021). The Influence of Parental Perfectionism and Parenting Styles on Child Perfectionism. *Children (Basel, Switzerland)*, 8(9), 777. <https://doi.org/10.3390/children8090777>
- Chen, J., Bai, Y., & Ni, W. (2023). Reasons and promotion strategies of physical activity constraints in obese/overweight children and adolescents. *Sports medicine and health science*, 6(1), 25-36. <https://doi.org/10.1016/j.smhs.2023.10.004>
- Çınar, S. (2013). *Farklı Sosyoekonomik Düzeylerdeki 7-14 Yaş Grubundaki Çocuklarda Obezitenin İncelenmesi* (Publication No. 347897) [Master's Thesis, Hacettepe University]. Council of Higher Education National Thesis Center.
- Costa, A., & Oliveira, A. (2023). Parental Feeding Practices and Children's Eating Behaviours: An Overview of Their Complex Relationship. *Healthcare*, 11(3), 400. <https://doi.org/10.3390/healthcare11030400>
- Cvetković, B., Cvetković, M., Petrušič, T., Đorđić, V., Bubanj, S., Popović, B., Andrašić, S., Buišić, S., & Bogataj, Š. (2021). Nutrition and Physical Activity Behavior in 11-14-Year-Old Schoolchildren in Serbia. *Children (Basel, Switzerland)*, 8(8), 625. <https://doi.org/10.3390/children8080625>

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Czarniecka-Skubina, E., Gutkowska, K., & Hamulka, J. (2023). The Family Environment as a Source for Creating the Dietary Attitudes of Primary School Students-A Focus Group Interview: The Junior-Edu-Żywnienie (JEŻ) Project. *Nutrients*, 15(23), 4930. <https://doi.org/10.3390/nu15234930>
- de Assis, S. J. C., Sanchis, G. J. B., de Souza, C. G., & Roncalli, A. G. (2021). Influence of physical activity and postural habits in schoolchildren with scoliosis. *Archives of public health = Archives belges de sante publique*, 79(1), 63. <https://doi.org/10.1186/s13690-021-00584-6>
- Ebenegger, V., Marques-Vidal, P. M., Nydegger, A., Laimbacher, J., Niederer, I., Bürgi, F., ... & Puder, J. J. (2011). Independent contribution of parental migrant status and educational level to adiposity and eating habits in preschool children. *European journal of clinical nutrition*, 65(2), 210-218. <https://doi.org/10.1038/ejcn.2010.248>
- Edwards, K. L., Blissett, J., Croker, H., Farrow, C., Herle, M., Kininmonth, A., ... & Haycraft, E. (2024). Examining parents' experiences and challenges of feeding preschool children with avid eating behaviour. *Appetite*, 198, 107372. <https://doi.org/10.1016/j.appet.2024.107372>
- Ek, A., Sorjonen, K., Eli, K., Lindberg, L., Nyman, J., Marcus, C., ... & Nowicka, P. (2016). Associations Between Parental Concerns About Preschoolers' Weight and Eating and Parental Feeding Practices: Results from Analyses of The Child Eating Behavior Questionnaire, The Child Feeding Questionnaire, and The Lifestyle Behavior Checklist. *PLOS ONE*, 11(1), e0147257. <https://doi.org/10.1371/journal.pone.0147257>
- Elmas, C., Gezer, C., Yurt, M., & Türkay, E. (2024). Altı-sekiz yaş çocukların beslenme tutum ve davranışlarının değerlendirilmesi. *Food and Health*, 10(2), 96-103. <https://doi.org/10.3153/FH24009>
- Erdaş, E. (2010). *Kastamonu'da Bazı İlköğretim Okullarındaki Öğrencilerin Beslenme Alışkanlıklarının Sağlıkları ve Başarıları Üzerine Etkisinin Araştırılması* (Publication No. 284167) [Master's Thesis, Kastamonu University]. Council of Higher Education National Thesis Center.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Erdem, F. (2018). *Okul Öncesi Dönem Çocuklarında Yeme Alışkanlıkları ve Ebeveyn Tutumlarının Değerlendirilmesi* (Publication No. 519127) [Medical Specialisation, Hacettepe University]. Council of Higher Education National Thesis Center.
- Ernawati, Y., Sudargo, T., & Lusmilasari, L. (2016). Self-efficacy Related to Parental Feeding Behaviour in Toddler Besides Social Support and Dependent-Care Agency. *International Journal of Community Medicine and Public Health*, 3(5), 1247-1254. <http://doi.org/10.18203/2394-6040.ijcmph20161393>
- Faizan, U., & Rouster, A. S. (2023). *Nutrition and Hydration Requirements in Children and Adults*. Treasure StatPearls Publishing. Available from <https://www.ncbi.nlm.nih.gov/books/NBK562207/>
- Fatima, H., Zhao, S., Yue, A., Li, S., & Shi, Y. (2022). Parental Discipline and Early Childhood Development in Rural China. *Sustainability*, 14(4), 1988. <https://doi.org/10.3390/su14041988>
- Günlü, Z. (2010). *Okul Çağı Çocuklarının Besin Seçimi ve Beslenme Davranışları Üzerinde Reklamların Etkisi* (Publication No. 261118) [Master's Thesis, Selçuk University]. Council of Higher Education National Thesis Center.
- Haines, J., Haycraft, E., Lytle, L., Nicklaus, S., Kok, F. J., Merdji, M., ... & Hughes, S. O. (2019). Nurturing children's healthy eating: position statement. *Appetite*, 137, 124-133. <https://doi.org/10.1016/j.appet.2019.02.007>
- He, L., Zhai, Y., Engelgau, M., Li, W., Qian, H., Si, X., ... & Shi, X. (2014). Association of children's eating behaviors with parental education, and teachers' health awareness, attitudes and behaviors: a national school-based survey in China. *The European Journal of Public Health*, 24(6), 880-887. <https://doi.org/10.1093/eurpub/ckt177>
- Heller, R. L., & Mobley, A. R. (2019). Instruments Assessing Parental Responsive Feeding in Children Ages Birth to 5 Years: A Systematic Review. *Appetite*, 138, 23-51. <https://doi.org/10.1016/j.appet.2019.03.006>
- Hosany, A. S., Hosany, S., & He, H. (2022). Children sustainable behaviour: A review and research agenda. *Journal of Business Research*, 147, 236-257. <https://doi.org/10.1016/j.jbusres.2022.04.008>

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Hughes, S. O., & Papaioannou, M. A. (2018). Maternal Predictors of Child Dietary Behaviors and Weight Status. *Current Nutrition Reports*, 7(4), 268-273.
- Hughes, S. O., Power, T. G., Orlet Fisher, J., Mueller, S., & Nicklas, T. A. (2005). Revisiting A Neglected Construct: Parenting Styles in A Child-Feeding Context. *Appetite*, 44, 83-92. <https://doi.org/10.1016/j.appet.2004.08.007>
- İrcal Sümbül, E. (2009). *4-6 Yaş Arasındaki Öğrencilerin Okul Dönemindeki Yetersiz ve Dengesiz Beslenme Alışkanlıklarının Saptanması* (Publication No. 249675) [Master's Thesis, Selçuk University]. Council of Higher Education National Thesis Center.
- Johnson, N. M., Hoffmann, A. R., Behlen, J. C., Lau, C., Pendleton, D., Harvey, N., ... & Zhang, R. (2021). Air pollution and children's health—a review of adverse effects associated with prenatal exposure from fine to ultrafine particulate matter. *Environmental health and preventive medicine*, 26, 72. <https://doi.org/10.1186/s12199-021-00995-5>
- Karayağız Muslu, G., Beytut, D., Kahraman, A., Yardımcı, F., & Başbakkal, Z. (2014). Ebeveyn Besleme Tarzı ve Etkileyen Etmenlerin İncelenmesi. *Türk Ped Arş*, 49, 224-30. <https://doi.org/10.5152/tpa.2014.1742>
- Knobl, V., Dallacker, M., Hertwig, R., & Mata, J. (2022). Happy and Healthy: How Family Mealtime Routines Relate to Child Nutritional Health. *Appetite*, 171, 105939. <https://doi.org/10.1016/j.appet.2022.105939>
- Koçoğlu, G., Özdemir, L., Sümer, H., Demir, D. A., Cetinkaya, S., & Polat, H. H. (2003). Prevalence of obesity among 11-14 years old students in Sivas-Turkey. *Pakistan Journal of Nutrition*, 2(5), 292-295. <https://doi.org/10.3923/pjn.2003.292.295>
- Koh, G. A., Scott, J. A., Woodman, R. J., Kim, S. W., Daniels, L. A., & Magarey, A. M. (2014). Maternal feeding self-efficacy and fruit and vegetable intakes in infants. Results from the SAIDI study. *Appetite*, 81, 44-51. <https://doi.org/10.1016/j.appet.2014.06.008>
- Köksal, G., & Gökmen, H. (2016). *Çocuk Hastalıklarında Beslenme Tedavisi*. Hatipoğlu Yayınları.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Korkmaz, M., Yücel, A. S., Yaman, Ç., Hergüner, G., Catikkas, F., & Kilic, B. (2015). Parental Modelling in Child's Nutrition Behaviours and Attitudes. *The Anthropologist*, 20(3), 535-552.  
<https://doi.org/10.1080/09720073.2015.11891758>
- Köroğlu, S. (2009). *Okulöncesi Dönem 4-6 Yaş Arası Çocuklarda Aileden Kaynaklanan Beslenme Bozukluklarının İncelenmesi* (Publication No. 249903) [Master's Thesis, Selçuk University]. Council of Higher Education National Thesis Center.
- Küçükkömürlü, S. (2021). *Beslenme ve Sağlık*. Pegem Akademi.
- Küren, M. (2019). *Ebeveynlerin Çocuk Beslenmesine Yönelik Genel Görüşleri ile Kendi Çocuklarının Beslenme Alışkanlıkları Arasındaki İlişkinin İncelenmesi* [Master's Thesis, Near East University]. Near East University Campus Repository. <https://docs.neu.edu.tr/library/6814504098.pdf>
- Ley, D., Beghin, L., Morcel, J., Flamein, F., Garabedian, C., Accart, B., ... & Hermann, E. (2021). Impact of early life nutrition on gut health in children: a prospective clinical study. *BMJ open*, 11(9), e050432. <https://doi.org/10.1136/bmjopen-2021-050432>
- Lo, K., Cheung, C., Lee, A., Tam, W. W., & Keung, V. (2015). Associations between parental feeding styles and childhood eating habits: a survey of Hong Kong pre-school children. *PLoS One*, 10(4), e0124753.  
<https://doi.org/10.1371/journal.pone.0124753>
- Mahmood, L., Flores-Barrantes, P., Moreno, L. A., Manios, Y., & Gonzalez-Gil, E. M. (2021). The Influence of Parental Dietary Behaviors and Practices on Children's Eating Habits. *Nutrients*, 13(4), 1138. <https://doi.org/10.3390/nu13041138>
- Mallan, K. M., Daniels, L. A., Nothard, M., Nicholson, J. M., Wilson, A., Cameron, C. M., ... & Thorpe, K. (2014). Dads at the dinner table. A cross-sectional study of Australian fathers' child feeding perceptions and practices. *Appetite*, 73, 40-44.  
<https://doi.org/10.1016/j.appet.2013.10.006>
- Mason, T. B., O'Connor, S. G., Schembre, S. M., Huh, J., Chu, D., & Dunton, G. F. (2019). Momentary affect, stress coping, and food intake in mother-child dyads. *Health psychology : official journal of the Division of Health Psychology*,

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

*American Psychological Association*, 38(3), 238-247.  
<https://doi.org/10.1037/hea0000714>

Merdol, T. K. (2012). *Okul öncesi dönem çocuklarının beslenmesi*. T.C. Sağlık Bakanlığı Yayınları.

Milne, M. J., & Neely, K. C. (2022). Exploring female dancer's emotions and coping experiences following deselection: An interpretative phenomenological analysis. *Psychology of Sport and Exercise*, 63, 102289.  
<https://doi.org/10.1016/j.psychsport.2022.102289>

Moberg, M., Golsäter, M., & Norman, Å. (2023). Parents' Thoughts Regarding Their Normal-Weight Children's Food and Physical Activity as Expressed During Health Conversations With the School Nurse: A Qualitative Analysis Informing Health-Promoting Practices. *The Journal of school nursing : the official publication of the National Association of School Nurses*, 39(5), 385-395.  
<https://doi.org/10.1177/10598405211025440>

Mukhamedzhanov, E., Tsitsurin, V., Zhakiyanova, Zh., Akhmetova, B., & Tarjibayeva, S. (2023). The effect of nutrition education on nutritional behavior, academic and sports achievement and attitudes. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 11(2), 358-374.  
<https://doi.org/10.46328/ijemst.3133>

Ningning, W., & Wenguang, C. (2023). Influence of family parenting style on the formation of eating behaviors and habits in preschool children: The mediating role of quality of life and nutritional knowledge. *PLoS ONE*, 18(7), e0288878.  
<https://doi.org/10.1371/journal.pone.0288878>

Notarbartolo, V., Giuffrè, M., Montante, C., Corsello, G., & Carta, M. (2022). Composition of Human Breast Milk Microbiota and Its Role in Children's Health. *Pediatric gastroenterology, hepatology & nutrition*, 25(3), 194-210.  
<https://doi.org/10.5223/pghn.2022.25.3.194>

Oğuz, Ş. (2011). *Konya İl Merkezinde Okulöncesi Eğitim Kurumlarına Devam Etmekte Olan 60-72 Aylık Çocukların Beslenme Alışkanlıkları* (Publication No. 278664) [Master's Thesis, Selçuk University]. Council of Higher Education National Thesis Center.

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Oğuz, Ş., & Derin, D. (2013). 60-72 Aylık Çocukların Bazı Beslenme Alışkanlıklarının İncelenmesi. *İlköğretim Online*, 12(2), 498-511.
- Özbay, A., Asagidag, R., & Eker, E. (2024). The effects of the child physical abuse on the children's mental health. *Journal of Experimental and Clinical Medicine*, 41(1), 192-200.
- Özer, E. R., & Tekinşen, K. (2021). Akdeniz Diyeti ve Sağlık. *Akademik Et Ve Süt Kurumu Dergisi*, 2, 13-23.
- Öztürk, N., & Türker, P. F. (2021). Okul Öncesi Dönemde Çocuklardaki Farklı Yeme Davranışları ve Ebeveyn Faktörlerinin Bu Davranışlara Etkisi. *Başkent Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 6(1), 1-14.
- Peters, J., Parletta, N., Campbell, K., & Lynch, J. (2014). Parental influences on the diets of 2- to 5-year-old children: Systematic review of qualitative research. *Journal of Early Childhood Research*, 12(1), 3-19. <https://doi.org/10.1177/1476718X13492940>
- Power, T. G., O'Connor, T. M., Orlet Fisher, J., & Hughes, S. O. (2015). Obesity Risk in Children: The Role of Acculturation in the Feeding Practices and Styles of Low-Income Hispanic Families. *Childhood Obesity*, 11(6), 715-721. <https://doi.org/10.1089/chi.2015.0036>
- Raaijmakers, L. G., Gevers, D. W., Teuscher, D., Kremers, S. P., & van Assema, P. (2014). Emotional and instrumental feeding practices of Dutch mothers regarding foods eaten between main meals. *BMC public health*, 14, 1-8. <https://doi.org/10.1186/1471-2458-14-171>
- Sağlık Bakanlığı, Türkiye Halk Sağlığı Kurumu. (2013). *Okul Öncesi ve Okul Çağı Çocuklara Yönelik Beslenme Önerileri ve Menü Programları*. T.C. Sağlık Bakanlığı. [https://hsgm.saglik.gov.tr/depo/birimler/saglikli-beslenme-ve-hareketli-hayat-db/Dokumanlar/Kitaplar/Okul\\_Oncesi\\_ve\\_Okul\\_Cagi\\_Cocuklara\\_Yonelik\\_Beslenme\\_Onerileri\\_ve\\_Menu\\_Programlari.pdf](https://hsgm.saglik.gov.tr/depo/birimler/saglikli-beslenme-ve-hareketli-hayat-db/Dokumanlar/Kitaplar/Okul_Oncesi_ve_Okul_Cagi_Cocuklara_Yonelik_Beslenme_Onerileri_ve_Menu_Programlari.pdf)
- Saxton, J., Carnell, S., Van Jaarsveld, C. H., & Wardle, J. (2009). Maternal education is associated with feeding style. *Journal of the American Dietetic Association*, 109(5), 894-898. <https://doi.org/10.1016/j.jada.2009.02.010>

Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

- Scaglioni, S., De Cosmi, V., Ciappolino, V., Parazzini, F., Brambilla, P., & Agostoni, C. (2018). Factors Influencing Children's Eating Behaviours. *Nutrients*, 10(6), 706. <https://doi.org/10.3390/nu10060706>
- Semiz, S., Özdemir, Ö. M., & Özdemir, A. S. (2008). The prevalence of obesity in childhood 6-15 years of age in Denizli. *Pamukkale Medical Journal* 1, 1-4.
- Shi, H., Ren, Y., & Jia, Y. (2023). Effects of nutritional interventions on the physical development of preschool children: a systematic review and meta-analysis. *Translational pediatrics*, 12(5), 991-1003. <https://doi.org/10.21037/tp-23-205>
- Snuggs, S., Houston-Price, C., & Harvey, K. (2019). Healthy eating interventions delivered in the family home: A systematic review. *Appetite*, 140, 114-133. <https://doi.org/10.1016/j.appet.2019.05.014>
- Tayar, M., Haşıl Korkmaz, N., & Özkeleş, E. (2017). *Beslenme ilkeleri*. Dora.
- Tiwari, A., Daley, S. F., & Balasundaram, P. (2023). *Obesity in Pediatric Patients*. StatPearls Publishing. Available from <https://www.ncbi.nlm.nih.gov/books/NBK570626/>
- Uğuz, M. A., & Bodur, S. (2007). Konya İl Merkezindeki Ergenlik Öncesi ve Ergen Çocuklarda Aşırı Ağırlık ve Şişmanlık Durumunun Demografik Özelliklerle İlişkisi. *Genel Tıp Dergisi*, 17(1), 1-7.
- Ulusoy, H., & Demir, G. (2022). Ebeveynlerin Yeme Davranışları, Çocuk Besleme Tarzları ve İlişkili Faktörler. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, 11(2), 710-722. <https://doi.org/10.37989/gumussagbil.974557>
- Uzgidim, B. (2015). *Okul Öncesi Çocuklarının Günlük Besin Ögesi Gereksinimlerinin Karşılama Durumları* (Publication No. 419410) [Master's Thesis, Gazi University]. Council of Higher Education National Thesis Center.
- Vaqué-Crusellas, C., González-Carrasco, M., & Casas, F. (2023). The relationship between subjective well-being and food: a qualitative study based on children's perspectives. *International journal of qualitative studies on health and well-being*, 18(1), 2189218. <https://doi.org/10.1080/17482631.2023.2189218>
- Vega-Ramírez, L. (2024). Exploring the Influence of a Physical Activity and Healthy Eating Program on Childhood Well-Being: A Comparative Study in Primary



Original article. Attitudes of sport parents towards children's eating habits. Vol. 10, n.º 3; p. 668-708, september 2024.  
<https://doi.org/10.17979/sportis.2024.10.3.11063>

School Students. *International Journal of Environmental Research and Public Health*, 21(4), 418. <https://doi.org/10.3390/ijerph21040418>

Wei, N., & Sun, D. (2023). Children's education and parents' dietary nutrient intake: an empirical study based on rural China. *Humanit Soc Sci Commun*, 10, 336. <https://doi.org/10.1057/s41599-023-01793-w>

Yaffe, Y. (2023). Systematic review of the differences between mothers and fathers in parenting styles and practices. *Current psychology*, 42(19), 16011-16024. <https://doi.org/10.1007/s12144-020-01014-6>

Yardı, N. (2023). The Impact of Socioeconomic Status (Ses) of Families on The Childhood Obesity in Türkiye. *Nüfusbilim Dergisi*, 45, 28-46.

Yıldız Silahlı, N., & Türe, Ş. (2023). Parenting Styles and the Use of Physical Discipline: An Investigation into Correlates. *Pediatr Pract Res*, 11(3), 116-124.

Yıldız, B., Demir, V., & Ünübol, H. (2015). Yeme tutumunun cinsiyet değişkenine göre duygusal şemalarla olan ilişkisinin incelenmesi. *International Journal of Social Sciences and Education Research*, 5(4), 405-417. <https://doi.org/10.24289/ijsser.617684>