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# ANALYSIS OF HEALTHY LIFESTYLE BEHAVIORS OF ADOLESCENT ATHLETES: THE EXAMPLE OF VAN PROVINCE[1]

***Ergin ÇETİNER***
*Teacher, Van Sports High School, Van, Turkey, ergincetiner@hotmail.com*
*ORCID: 0000-0001-7341-9329*

***Muhammed Zahit KAHRAMAN***
*Asst. Prof. Dr., Muş Alparslan University, Muş, Turkey, mzkahraman04@gmail.com*
*ORCID: 0000-0003-1295-7611*

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**ABSTRACT**

Adolescence is a critical period for athletes to acquire good physical habits and healthy lifestyle behaviors. This study, which aimed to examine the healthy lifestyle behaviors of adolescent athletes with respect to certain variables, employed the descriptive survey model, a quantitative research method. The study population encompassed adolescent athletes in Van, Turkey, while the sample was comprised of 400 athletes (221 men and 179 women) with an average age of 15.92±1.17 years, who participated voluntarily. For data collection, a demographic information form consisting of 10 questions created by the researcher, and the "Healthy Lifestyle Behaviors Scale-II (HLBS)" developed by Walker et al. (1996) and adapted into Turkish by Bahar et al. (2008), containing 52 items with 6 factors, were used. The data were analyzed using the SPSS program. Since the data exhibited normal distribution, parametric tests including the independent samples T-test, one-way analysis of variance (ANOVA), and the Tukey post hoc test for intra-group differences, were performed. According to our findings, no significant differences existed in the scale total and factors scores for the variables of club license and type of sport ($p>.05$). Significant differences were observed for certain factors with respect to the variables of age, gender, grade, athletic history, frequency of athletic activity, family income, and maternal and paternal educational levels ($p<.05$). There were also significant differences in the variables of age, gender, grade, and frequency of athletic activity in the HLBS scale total scores ($p<.05$). Thus, the healthy lifestyle behaviors of adolescent athletes were found to differ in terms of certain variables.

**Keywords:** adolescence, athlete, healthy lifestyle behaviors.

[1] This article was produced from the master's thesis of Ergin Çetiner.

**INTRODUCTION**

Health represents a central topic in daily life and can be thought of as a process encompassing different levels ranging from the highest degree of well-being to death (Palank, 1991). Health and disease constitute integral parts of human life. Managing one's health is necessary to sustain daily life and meet one's physiological needs. Health maintenance should be among the primary responsibilities of people (Kaplan et al., 1993).

Everything an individual does or is able to do in life is considered behavior; examples include climbing, feeding, swimming, walking, and talking. Hidden emotions and internal reflections, such as being loved, feeling, and thinking, are also accepted as behaviors in addition to the aforementioned visible behaviors. Health behaviors, on the other hand, are defined as positive behaviors in the form of efforts to improve and protect the health of oneself as well as other individuals. Proper nutrition, physical activity, regular sleep, and managing one's health are examples of positive health behaviors (Bulduk et al., 2015). Individuals need to incorporate healthy lifestyle behaviors in order to maintain a healthy and balanced life.

Although individuals of all ages can participate in sports, there are critical periods for achieving success in sports. Adolescence represents a period of critical importance for athletes to develop good physical habits and healthy lifestyle behaviors. Risk factors such as stress, obesity, lack of physical activity, and especially alcohol and/or cigarette use during adolescence, may lead to pathological risks in adulthood. Studies have shown that participation in physical activity during adolescence reduces sedentary behavior while a balanced diet improves overall health (Van Horn et al., 2018). For this reason, it is important to know the risk factors and make the necessary practices in order for young people to acquire behaviors that improve their health or not to adopt negative lifestyle behaviors that may harm both themselves and others (Sümen & Öncel, 2017).

Researchers, policymakers, and healthcare professionals must take extra care to support the adoption of healthy lifestyles during adolescence while advising certain precautions. Adolescence is a period of risk-taking that involves major implications for wellness in later adulthood, which can then be shaped by preventive plans and programs. Individuals who are made aware and guided during adolescence are better able to provide opportunities to improve the health of their children, even at a minimum, in the future (Lari et al., 2019). Programs targeting the health of adolescents should be implemented and developed (Ryff et al., 2004). It is important for young people to lead a more active life at school, in society and in all areas of life, starting from adolescence, for physical and mental health and a healthier life in adulthood (Coşkun & Karagöz, 2021).

The present study aimed to determine the healthy lifestyle behaviors of adolescent athletes with regard to certain variables. Consequently, it will also serve to provide information to researchers and health authorities on such issues as health responsibility, physical activity, nutrition, interpersonal relationships, spiritual development, and stress management. The adoption of healthy lifestyle behaviors will enable athletes to live their lives more productively, as well as to achieve success in their chosen sport. In the literature, there are few studies in which the healthy lifestyle behaviors of adolescent athletes are discussed, especially with respect to

the variables of type of sport, frequency of athletic activity, athletic history (number of years participating in sports), and club license. The application of our study to adolescent male athletes engaged in both team and individual sports elevates the importance of our study.

## METHOD

### Research Model

This study employed the descriptive survey model, a quantitative research method. Studies organized on the descriptive survey model are performed on a whole population or on a sample taken from the latter in order to formulate a general idea regarding a population consisting of many people (Karasar, 2011).

### Research Hypotheses

Ten hypotheses were developed in line with the overall purpose of the study and the relationships in the model.

$H_1$1: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to age.
$H_1$2: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to gender.
$H_1$3: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to class.
$H_1$4: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to being club licensed.
$H_1$5: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to the type of sport.
$H_1$6: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to the athlete's sports history.
$H_1$7: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes according with respect to frequency of doing sports.
$H_1$8: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes according with respect to family income.
$H_1$9: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to maternal education status.
$H_1$10: There exists a significant difference in the healthy lifestyle behaviors of adolescent athletes with respect to paternal education status.

**Study Population and Sample**

The study population consisted of 7175 adolescent athletes who regularly exercise in their own branches in clubs or school teams studying in different high schools affiliated with the Ministry of National Education in the province of Van, Turkey. The sample of the research; According to the power analysis, 400 (age: 15.92±1.17 years, 221 males 179 and females) adolescent athletes who have an effect size of 0.05 and an error level of 5%, and who have the power to represent the universe at a 95% confidence interval, were formed. The sample of the study was selected from the athletes studying in İpekyolu, Tusba and Edremit districts by using the purposeful sampling method.

**Data Collection**

Prior to the start of the study, ethical approval was obtained from the Scientific Research and Publication Ethics Committee (no. 27755, dated 27.10.2021) of Muş Alparslan University. After permission to conduct the study was granted, the parents of the adolescent athletes who agreed to participate on a voluntary basis signed consent forms. The participating athletes were then informed regarding the purpose of the study before data gathering was begun. The data were collected in the first semester of the 2022-2023 academic year. Incomplete and incorrectly filled-out forms were not included in the study.

**Data Collection Tools**

***Personal Information Form***

In order to determine the demographic characteristics of the participants and to identify the independent variables, a form consisting of ten questions was prepared by the researcher and given to the athletes. The demographic information of the participants is shown in Table 1.

***Healthy Lifestyle Behaviors Scale***

The “Healthy Lifestyle Behaviors Scale II”, developed by Walker (1996) and adapted to Turkish by Bahar et al. (2008), was used in this study. The scale consists of 52 items and six factors (subscales): health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, and stress management. The overall score generated by the scale represents the healthy lifestyle behaviors score. All items on the scale are scored positively using a 4-point Likert-type scale. The Cronbach Alpha coefficient obtained for the Turkish version of the scale was .92 (Bahar et al., 2008). In this study, a value of .88 was determined for the Cronbach Alpha coefficient.

**Data Analysis**

The SPSS package program was used in the statistical analysis of the data collected from the participants. First, the data were tested to determine whether they exhibited normal distribution. In the normality test, skewness and kurtosis values for the data were calculated, with the results ranging between -1.5 and +1.5, indicating normal distribution (George & Mallery, 2019). Since the data were normally distributed, they were analyzed using parametric tests. Descriptive statistics, the independent samples T-test, one-way analysis of variance (One-Way ANOVA), and the Tukey post hoc test to determine the source of intragroup differences were used to analyze the data. A confidence interval of 95% was chosen and p-values below .05 were considered statistically significant.

**FINDINGS**

The following findings, concerning the healthy lifestyle behaviors of adolescent athletes with regard to certain variables, were obtained.

In Table 1, the answers provided by the athletes participating in the study pertaining to demographic variables are given as frequency (F) and percentage (%).

**Table 1.** Demographic Characteristics of the Study Participants

| **Demographic Variables** | | **F** | **%** |
|---|---|---|---|
| Age | 14 Years | 41 | 10.25% |
| | 15 Years | 122 | 30.50% |
| | 16 Years | 111 | 27.75% |
| | 17 Years | 80 | 20.00% |
| | 18 Years | 46 | 11.50% |
| Gender | Male | 221 | 55.25% |
| | Female | 179 | 44.75% |
| Grade | 9th Grade | 120 | 30.00% |
| | 10th Grade | 67 | 16.75% |
| | 11th Grade | 126 | 31.50% |
| | 12th Grade | 87 | 21.75% |
| Club License | Yes | 249 | 62.25% |
| | No | 151 | 37.75% |
| Type of Sport | Individual Sports | 149 | 37.25% |
| | Team Sports | 251 | 62.75% |
| Athletic History | 1 Year | 37 | 9.25% |
| | 2 Years | 48 | 12.00% |
| | 3 Years | 72 | 18.00% |
| | 4 or more Years | 243 | 60.75% |
| Frequency of Doing Sports | 1 day per week | 50 | 12,50% |
| | 2-3 days a week | 197 | 49,25% |
| | 4 days or more per week | 153 | 38,25% |
| Family Income Status | 0-3.000 Turkish Lira (TL) | 106 | 26.50% |
| | 3001-5500 TL | 150 | 37.50% |
| | 5501-8000 TL | 90 | 22.50% |
| | 8001 TL and above | 54 | 13.50% |

| | | | |
|---|---|---|---|
| Maternal Education Status | Illiterate | 145 | 36.25% |
| | Primary School | 154 | 38.50% |
| | Middle School | 68 | 17.00% |
| | High School | 27 | 6.75% |
| | University | 6 | 1.50% |
| Paternal Education Status | Illiterate | 45 | 11.25% |
| | Primary School | 111 | 27.75% |
| | Middle School | 144 | 36.00% |
| | High School | 86 | 21.50% |
| | University | 14 | 3.50% |
| | Total | 400 | 100.00% |

According to Table 1, 30.50% of the adolescent athletes participating in the study were 15 years old while 10.25% were 14, with 31.50% in the 11th grade and 16.75% in the 10th grade. Males were in the majority (55.25% to 44.75%) 62.25% of the participants were club licensed whereas 37.75% were unlicensed. Concerning the type of sport played by the participants, 62.75% were team athletes while 37.25% engaged in individual sports. Of the study participants, 60.75% had 4 or more years of athletic history, whereas 9.25% had played sports for only one year. 49.25% of the participants were doing sports 2-3 days a week, 12.50% do sports once a week.

Family income was between 3001-5500 TL (Turkish lira) for 37.50% of the participants and 8001 TL or above for 13.50%. The maternal educational level for 38.50% of the participants was primary school and over one-third of the mothers (36.25%) were illiterate, while only 1.50% were university graduates. Paternal educational levels were overall higher than those of the mothers, with 36.00% having a middle school education and 3.50% receiving a university education.

**Table 2**. Descriptive Statistics for the HLBS Scale Total and Factor Scores

| Factors | N | Mean. | Std. Dev. | Min. | Max. | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| Health Responsibility | 400 | 18.69 | 4.81 | 9.00 | 34.00 | .291 | -.044 |
| Physical Activity | 400 | 19.48 | 4.67 | 8.00 | 31.00 | -.126 | -.279 |
| Nutrition | 400 | 20.91 | 4.04 | 9.00 | 31.00 | -.043 | -.303 |
| Spiritual Development | 400 | 25.60 | 4.53 | 13.00 | 36.00 | -.139 | -.217 |
| Interpersonal Relationships | 400 | 23.21 | 4.49 | 12.00 | 36.00 | .146 | -.157 |
| Stress Management | 400 | 20.00 | 3.77 | 9.00 | 31.00 | -.115 | -.165 |
| HLBS Scale Total | 400 | 127.89 | 18.42 | 77.00 | 175.00 | .099 | .050 |

According to the data presented in Table 2, the HLBS scale total and factor scores of the adolescent athletes exhibited normal distribution, with skewness and kurtosis values ranging between -1.5 and +1.5 parametric tests were performed in the statistical comparisons of the data showing normal distribution.

**Table 3**. ANOVA Test Results for the Variable of Age

| Factors | Age | N | Mean | Std. Dev. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | 14 Years[1] | 41 | 18.71 | 4.80 | .366 | .833 | p>.05 |
| | 15 Years[2] | 122 | 19.02 | 5.12 | | | |
| | 16 Years[3] | 111 | 18.59 | 4.57 | | | |
| | 17 Years[4] | 80 | 18.70 | 4.57 | | | |
| | 18 Years[5] | 46 | 18.04 | 5.09 | | | |
| Physical Activity | 14 Years[1] | 41 | 20.51 | 4.17 | 3.896 | **.004*** | **2>4,5** |
| | 15 Years[2] | 122 | 20.25 | 4.52 | | | |
| | 16 Years[3] | 111 | 19.68 | 4.55 | | | |
| | 17 Years[4] | 80 | 18.34 | 5.05 | | | |
| | 18 Years[5] | 46 | 17.98 | 4.44 | | | |
| Nutrition | 14 Years[1] | 41 | 20.93 | 4.38 | 2.475 | **.044*** | **2>4** |
| | 15 Years[2] | 122 | 21.66 | 4.10 | | | |
| | 16 Years[3] | 111 | 20.92 | 3.80 | | | |
| | 17 Years[4] | 80 | 19.86 | 3.97 | | | |
| | 18 Years[5] | 46 | 20.72 | 3.98 | | | |
| Spiritual Development | 14 Years[1] | 41 | 26.27 | 4.52 | 1.347 | .252 | p>.05 |
| | 15 Years[2] | 122 | 25.98 | 4.58 | | | |
| | 16 Years[3] | 111 | 25.77 | 4.37 | | | |
| | 17 Years[4] | 80 | 24.85 | 4.65 | | | |
| | 18 Years[5] | 46 | 24.85 | 4.53 | | | |
| Interpersonal Relationships | 14 Years[1] | 41 | 23.80 | 4.68 | .567 | .687 | p>.05 |
| | 15 Years[2] | 122 | 23.20 | 4.68 | | | |
| | 16 Years[3] | 111 | 23.06 | 4.23 | | | |
| | 17 Years[4] | 80 | 22.78 | 4.36 | | | |
| | 18 Years[5] | 46 | 23.76 | 4.75 | | | |
| Stress Management | 14 Years[1] | 41 | 21.49 | 3.41 | 3.537 | **.008*** | **1>4,5** |
| | 15 Years[2] | 122 | 20.30 | 3.50 | | | |
| | 16 Years[3] | 111 | 20.10 | 3.96 | | | |
| | 17 Years[4] | 80 | 19.20 | 3.67 | | | |
| | 18 Years[5] | 46 | 19.04 | 4.09 | | | |
| HLBS Scale Total | 14 Years[1] | 41 | 131.71 | 18.00 | 2.501 | **.042*** | **1>4 2>4** |
| | 15 Years[2] | 122 | 130.43 | 19.17 | | | |
| | 16 Years[3] | 111 | 128.12 | 17.73 | | | |
| | 17 Years[4] | 80 | 123.73 | 17.90 | | | |
| | 18 Years[5] | 46 | 124.39 | 18.08 | | | |

*p<.05

Based on the results in Table 3, although significant differences were observed between the adolescent athletes' age groups in physical activity, nutrition, and stress management as well as HLBS scale total scores (p<.05), no significant differences were found for the factors of health responsibility, spiritual development, or interpersonal relationships (p>.05).

Physical activity and stress management scores were higher for the 15-year-old athletes compared to 17- and 18-year-old athletes, while the 15-year-old athletes also scored higher for nutrition than the 17-year-olds. Regarding the HLBS scale total scores, those of the 14- and 15-year-old athletes were found to be higher than those of the 17-year-old athletes.

**Table 4**. ANOVA Test Results for the Variable of Gender

| Factors | Gender | N | Mean | Std. Dev. | t | p |
|---|---|---|---|---|---|---|
| Health Responsibility | Male | 221 | 19.16 | 4.75 | 2.161 | **.031*** |
| | Female | 179 | 18.12 | 4.84 | | |
| Physical Activity | Male | 221 | 20.16 | 4.52 | 3.283 | **.001*** |
| | Female | 179 | 18.64 | 4.72 | | |
| Nutrition | Male | 221 | 21.17 | 4.00 | 1.406 | .161 |
| | Female | 179 | 20.60 | 4.06 | | |
| Spiritual Development | Male | 221 | 25.48 | 4.30 | -.543 | .587 |
| | Female | 179 | 25.73 | 4.81 | | |
| Interpersonal Relationships | Male | 221 | 23.41 | 4.65 | 1.023 | .307 |
| | Female | 179 | 22.95 | 4.29 | | |
| Stress Management | Male | 221 | 20.46 | 3.59 | 2.726 | **.007*** |
| | Female | 179 | 19.44 | 3.93 | | |
| HLBS Scale Total | Male | 221 | 129.84 | 18.62 | 2.374 | **.018*** |
| | Female | 179 | 125.47 | 17.93 | | |

*p<.05

As shown in Table 4, there were significant differences between male and female athletes in terms of health responsibility, physical activity, stress management, and the total score of the HLBS scale (p<.05), while no significant differences were observed for nutrition, spiritual development, or interpersonal relationships (p>.05).

The adolescent male athletes scored higher on health responsibility, physical activity, stress management, and HLBS scale total than the female athletes.

**Table 5**. ANOVA Test Results for the Variable of Grade Level in School

| Factors | Grade | N | Mean | Std. Dev. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | 9th Grade[1] | 120 | 18.58 | 4.88 | 1.026 | .381 | p>.05 |
| | 10th Grade[2] | 67 | 19.46 | 5.14 | | | |
| | 11th Grade[3] | 126 | 18.79 | 4.46 | | | |
| | 12th Grade[4] | 87 | 18.11 | 4.95 | | | |
| Physical Activity | 9th Grade[1] | 120 | 19.96 | 4.42 | 11.535 | **.000*** | **1>4 2>1,3,4** |
| | 10th Grade[2] | 67 | 21.73 | 3.99 | | | |
| | 11th Grade[3] | 126 | 19.13 | 4.71 | | | |
| | 12th Grade[4] | 87 | 17.57 | 4.63 | | | |
| Nutrition | 9th Grade[1] | 120 | 21.32 | 4.01 | 4.870 | **.002*** | **2>3,4** |
| | 10th Grade[2] | 67 | 22.25 | 4.30 | | | |
| | 11th Grade[3] | 126 | 20.33 | 3.89 | | | |
| | 12th Grade[4] | 87 | 20.17 | 3.80 | | | |
| Spiritual Development | 9th Grade[1] | 120 | 25.93 | 4.66 | 2.015 | .111 | p>0,05 |
| | 10th Grade[2] | 67 | 26.51 | 4.34 | | | |
| | 11th Grade[3] | 126 | 25.25 | 4.18 | | | |
| | 12th Grade[4] | 87 | 24.93 | 4.90 | | | |
| Interpersonal Relationships | 9th Grade[1] | 120 | 23.38 | 4.57 | .448 | .719 | p>.05 |
| | 10th Grade[2] | 67 | 23.46 | 4.69 | | | |
| | 11th Grade[3] | 126 | 22.83 | 4.25 | | | |
| | 12th Grade[4] | 87 | 23.32 | 4.63 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Stress Management | 9th Grade[1] | 120 | 20.67 | 3.57 | 5.393 | **.001*** | **1>3,4 2>3,4** |
| | 10th Grade[2] | 67 | 21.00 | 3.69 | | | |
| | 11th Grade[3] | 126 | 19.40 | 3.71 | | | |
| | 12th Grade[4] | 87 | 19.18 | 3.93 | | | |
| HLBS Scale Total | 9th Grade[1] | 120 | 129.83 | 18.97 | 5.838 | **.001*** | **1>4 2>3,4** |
| | 10th Grade[2] | 67 | 134.42 | 17.98 | | | |
| | 11th Grade[3] | 126 | 125.72 | 17.47 | | | |
| | 12th Grade[4] | 87 | 123.30 | 17.84 | | | |

*p<.05

According to the findings in Table 5, while significant differences existed between the school grade levels in physical activity, nutrition, stress management, and the total scores of the HLBS scale (p<.05), no significant differences were found for health responsibility, spiritual development, or interpersonal relationships (p> .05).

Regarding physical activity, the 9th-grade athletes had higher scores than the 12th-graders, while the 10th-grade athletes scored higher than all the other grades. The 10th-grade athletes had higher nutrition scores compared to the 11th- and 12th-graders, and 9th- and 10th-grade athletes scored higher the stress management compared to athletes in the 11th and 12th grades. The behavior scores for the total scale were determined to be higher for 9th-grade athletes than those in the 12th grade, and those of the 10th-grade athletes were also higher compared to the scores of the 11th- and 12th-graders.

**Table 6.** T-test Results for the Variable of Club License

| Factors | Club License | N | Mean | Std. Dev. | t | p |
|---|---|---|---|---|---|---|
| Health Responsibility | Yes | 249 | 18.77 | 4.97 | .398 | .691 |
| | No | 151 | 18.57 | 4.55 | | |
| Physical Activity | Yes | 249 | 19.71 | 4.68 | 1.263 | .207 |
| | No | 151 | 19.10 | 4.63 | | |
| Nutrition | Yes | 249 | 20.68 | 4.10 | -1.464 | .144 |
| | No | 151 | 21.29 | 3.92 | | |
| Spiritual Development | Yes | 249 | 25.85 | 4.51 | 1.432 | .153 |
| | No | 151 | 25.18 | 4.56 | | |
| Interpersonal Relationships | Yes | 249 | 23.11 | 4.44 | -.551 | .582 |
| | No | 151 | 23.36 | 4.59 | | |
| Stress Management | Yes | 249 | 20.09 | 3.81 | .611 | .541 |
| | No | 151 | 19.85 | 3.72 | | |
| HLBS Scale Total | Yes | 249 | 128.20 | 18.86 | .445 | .656 |
| | No | 151 | 127.36 | 17.71 | | |

As seen in Table 6, no statistically significant differences were observed between licensed and unlicensed athletes (p>.05).

**Table 7.** T-test Results for the Variable of Type of Sport

| Factors | Type of Sport | N | Mean | Std. Dev. | t | p |
|---|---|---|---|---|---|---|
| Health Responsibility | Individual Sports | 149 | 18.77 | 4.62 | .232 | .817 |
| | Team Sports | 251 | 18.65 | 4.93 | | |
| Physical Activity | Individual Sports | 149 | 19.08 | 4.77 | -1.312 | .190 |
| | Team Sports | 251 | 19.71 | 4.60 | | |
| Nutrition | Individual Sports | 149 | 20.70 | 4.14 | -.819 | .413 |
| | Team Sports | 251 | 21.04 | 3.97 | | |
| Spiritual Development | Individual Sports | 149 | 25.66 | 4.89 | .236 | .814 |
| | Team Sports | 251 | 25.55 | 4.32 | | |
| Interpersonal Relationships | Individual Sports | 149 | 23.48 | 4.31 | .931 | .352 |
| | Team Sports | 251 | 23.04 | 4.60 | | |
| Stress Management | Individual Sports | 149 | 20.05 | 4.12 | .209 | .835 |
| | Team Sports | 251 | 19.97 | 3.56 | | |
| HLBS Scale Total | Individual Sports | 149 | 127.74 | 18.91 | -.123 | .902 |
| | Team Sports | 251 | 127.97 | 18.16 | | |

As per the findings presented in Table 7, no significant differences existed between the adolescent athletes on the basis of whether they were engaged in individual or team sports (p>.05).

**Table 8.** ANOVA Test Results for the Variable of Athletic History

| Factors | Athletic History | N | Mean | Std. Dev. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | 1 Year[1] | 37 | 18.43 | 5.13 | .402 | .752 | p>.05 |
| | 2 Years[2] | 48 | 19.15 | 4.79 | | | |
| | 3 Years[3] | 72 | 18.25 | 4.85 | | | |
| | 4 or more Years[4] | 243 | 18.77 | 4.78 | | | |
| Physical Activity | 1 Year[1] | 37 | 17.46 | 4.08 | 4.043 | **.008*** | **2>1** |
| | 2 Years[2] | 48 | 20.96 | 4.71 | | | |
| | 3 Years[3] | 72 | 19.64 | 5.14 | | | |
| | 4 or more Years[4] | 243 | 19.44 | 4.50 | | | |
| Nutrition | 1 Year[1] | 37 | 20.08 | 3.93 | 2.159 | .092 | p>.05 |
| | 2 Years[2] | 48 | 21.65 | 4.30 | | | |
| | 3 Years[3] | 72 | 21.65 | 4.03 | | | |
| | 4 or more Years[4] | 243 | 20.67 | 3.97 | | | |
| Spiritual Development | 1 Year[1] | 37 | 25.14 | 5.76 | .609 | .610 | p>.05 |
| | 2 Years[2] | 48 | 26.21 | 3.59 | | | |
| | 3 Years[3] | 72 | 25.21 | 4.41 | | | |
| | 4 or more Years[4] | 243 | 25.66 | 4.54 | | | |
| Interpersonal Relationships | 1 Year[1] | 37 | 23.59 | 4.19 | .340 | .796 | p>.05 |
| | 2 Years[2] | 48 | 23.40 | 5.03 | | | |
| | 3 Years[3] | 72 | 22.78 | 4.30 | | | |
| | 4 or more Years[4] | 243 | 23.23 | 4.50 | | | |
| Stress Management | 1 Year[1] | 37 | 19.57 | 4.33 | 1.439 | .231 | p>.05 |
| | 2 Years[2] | 48 | 21.02 | 3.30 | | | |
| | 3 Years[3] | 72 | 19.79 | 4.09 | | | |
| | 4 or more Years[4] | 243 | 19.93 | 3.66 | | | |
| HLBS Scale Total | 1 Year[1] | 37 | 124.27 | 19.77 | 1.460 | .225 | p>.05 |
| | 2 Years[2] | 48 | 132.38 | 17.78 | | | |
| | 3 Years[3] | 72 | 127.32 | 20.00 | | | |
| | 4 or more Years[4] | 243 | 127.72 | 17.79 | | | |

*p<.05

According to the data in Table 8, while the difference in physical activity was determined to be significant with respect to athletic history for the adolescent athletes (p<.05), no significant differences were observed in health responsibility, nutrition, spiritual development, interpersonal relations, stress management, or total scores of the HLBS scale (p>.05).

For physical activity, the scores of the athletes with a history of at least two years of engaging in sports were higher than those of the athletes with a sports history of only one year.

**Table 9:** ANOVA Test Results for the Variable of Frequency of Athletic Activity

| Factors | Frequency of Athletic Activity | N | Mean | Std. Dev. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | 1 day per week[1] | 50 | 18.66 | 4.96 | 2.443 | .088 | p>.05 |
| | 2-3 days per week[2] | 197 | 18.20 | 4.83 | | | |
| | 4 or more days per week[3] | 153 | 19.34 | 4.70 | | | |
| Physical Activity | 1 day per week[1] | 50 | 16.66 | 4.47 | 25.752 | **.000*** | **2>1 3>1,2** |
| | 2-3 days per week[2] | 197 | 18.78 | 4.40 | | | |
| | 4 or more days per week[3] | 153 | 21.29 | 4.37 | | | |
| Nutrition | 1 day per week[1] | 50 | 19.34 | 4.02 | 7.743 | **.001*** | **3>1,2** |
| | 2-3 days per week[2] | 197 | 20.66 | 3.98 | | | |
| | 4 or more days per week[3] | 153 | 21.75 | 3.94 | | | |
| Spiritual Development | 1 day per week[1] | 50 | 26.16 | 5.20 | 0.703 | .496 | p>.05 |
| | 2-3 days per week[2] | 197 | 25.36 | 4.50 | | | |
| | 4 or more days per week[3] | 153 | 25.71 | 4.34 | | | |
| Interpersonal Relationships | 1 day per week[1] | 50 | 23.64 | 4.70 | 1.688 | .186 | p>.05 |
| | 2-3 days per week[2] | 197 | 22.79 | 4.28 | | | |
| | 4 or more days per week[3] | 153 | 23.60 | 4.68 | | | |
| Stress Management | 1 day per week[1] | 50 | 18.80 | 4.14 | 5.020 | **.007*** | **3>1** |
| | 2-3 days per week[2] | 197 | 19.82 | 3.56 | | | |
| | 4 or more days per week[3] | 153 | 20.63 | 3.82 | | | |
| HLBS Scale Total | 1 day per week[1] | 50 | 123.26 | 19.33 | 7.805 | **.000*** | **3>1,2** |
| | 2-3 days per week[2] | 197 | 125.60 | 17.85 | | | |
| | 4 or more days per week[3] | 153 | 132.33 | 18.05 | | | |

*p<.05

As shown by the findings in Table 9, there were significant differences between the groups divided on the basis of frequency of athletic activity in physical activity, nutrition, stress management, and total scale scores (p<.05), whereas no significant difference was observed in health responsibility, spiritual development, or interpersonal relations (p>.05).

The athletes engaging in sports 2-3 days per week scored higher in physical activity than those who only do sports once per week; similarly, those who engage in sports 4 times per week also received higher physical activity scores than the other two groups. The athletes who play sports 4 days or more per week also showed higher nutrition and total scale scores compared to the other two groups, while those engaged in sports 4 or more days per week had higher stress management scores than those who play sports only once per week.

**Table 10.** ANOVA Test Results for the Variable of Family Income

| Factors | Family Income Status | N | Mean | Std. Dev. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | 0-3.000 TL[1] | 106 | 17.92 | 5.15 | 1.383 | .247 | p>.05 |
| | 3001-5500 TL[2] | 150 | 19.05 | 4.66 | | | |
| | 5501-8000 TL[3] | 90 | 19.07 | 4.81 | | | |
| | 8001 TL and above[4] | 54 | 18.61 | 4.47 | | | |
| Physical Activity | 0-3.000 TL[1] | 106 | 18.77 | 4.82 | 2.335 | .073 | p>.05 |
| | 3001-5500 TL[2] | 150 | 19.83 | 4.66 | | | |
| | 5501-8000 TL[3] | 90 | 19.07 | 4.63 | | | |
| | 8001 TL and above[4] | 54 | 20.57 | 4.21 | | | |
| Nutrition | 0-3.000 TL[1] | 106 | 20.80 | 4.04 | 0.049 | .986 | p>.05 |
| | 3001-5500 TL[2] | 150 | 20.95 | 3.83 | | | |
| | 5501-8000 TL[3] | 90 | 20.90 | 4.51 | | | |
| | 8001 TL and above[4] | 54 | 21.04 | 3.88 | | | |
| Spiritual Development | 0-3.000 TL[1] | 106 | 24.72 | 4.49 | 2.472 | .061 | p>.05 |
| | 3001-5500 TL[2] | 150 | 25.86 | 4.33 | | | |
| | 5501-8000 TL[3] | 90 | 26.37 | 4.43 | | | |
| | 8001 TL and above[4] | 54 | 25.30 | 5.12 | | | |
| Interpersonal Relationships | 0-3.000 TL[1] | 106 | 22.15 | 4.16 | 5.756 | **.001*** | **2>1,4** |
| | 3001-5500 TL[2] | 150 | 24.23 | 4.39 | | | |
| | 5501-8000 TL[3] | 90 | 23.36 | 4.63 | | | |
| | 8001 TL and above[4] | 54 | 22.17 | 4.60 | | | |
| Stress Management | 0-3.000 TL[1] | 106 | 19.75 | 3.89 | 0.906 | .438 | p>.05 |
| | 3001-5500 TL[2] | 150 | 20.29 | 3.65 | | | |
| | 5501-8000 TL[3] | 90 | 19.62 | 3.76 | | | |
| | 8001 TL and above[4] | 54 | 20.35 | 3.90 | | | |
| HLBS Scale Total | 0-3.000 TL[1] | 106 | 124.10 | 18.30 | 2.329 | .074 | p>.05 |
| | 3001-5500 TL[2] | 150 | 130.21 | 17.34 | | | |
| | 5501-8000 TL[3] | 90 | 128.38 | 20.04 | | | |
| | 8001 TL and above[4] | 54 | 128.04 | 18.11 | | | |

*p<.05

Based on the data given in Table 10, a significant difference in interpersonal relationships was observed with respect to the family income levels of the adolescent athletes (p<.05), whereas no significant differences existed in health responsibility, physical activity, nutrition, spiritual development, stress management, and the total scale scores (p>.05).

With regard to interpersonal relationships, the athletes with family incomes between 3001-5500 TL had higher scores than those with only 0-3000 TL.

**Table 11**. ANOVA Test Results for the Variable of Maternal Education Level

| Factors | Maternal Education | N | Mean | Std. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | Illiterate[1] | 145 | 18.03 | 4.81 | 1.793 | .148 | p>.05 |
| | Primary School[2] | 154 | 19.01 | 4.65 | | | |
| | Middle School[3] | 68 | 18.54 | 5.13 | | | |
| | High School[4] | 27 | 19.96 | 4.41 | | | |
| Physical Activity | Illiterate[1] | 145 | 18.91 | 4.66 | 1.830 | .141 | p>.05 |
| | Primary School[2] | 154 | 19.48 | 4.49 | | | |
| | Middle School[3] | 68 | 19.93 | 4.80 | | | |
| | High School[4] | 27 | 20.96 | 5.35 | | | |
| Nutrition | Illiterate[1] | 145 | 20.67 | 4.03 | 1.157 | .326 | p>.05 |
| | Primary School[2] | 154 | 20.70 | 3.68 | | | |
| | Middle School[3] | 68 | 21.69 | 4.52 | | | |
| | High School[4] | 27 | 20.96 | 4.59 | | | |
| Spiritual Development | Illiterate[1] | 145 | 25.41 | 4.54 | 0.173 | .915 | p>.05 |
| | Primary School[2] | 154 | 25.47 | 4.38 | | | |
| | Middle School[3] | 68 | 25.85 | 4.95 | | | |
| | High School[4] | 27 | 25.70 | 4.04 | | | |
| Interpersonal Relationships | Illiterate[1] | 145 | 23.12 | 4.22 | 0.051 | .985 | p>.05 |
| | Primary School[2] | 154 | 23.27 | 4.56 | | | |
| | Middle School[3] | 68 | 23.22 | 4.90 | | | |
| | High School[4] | 27 | 22.96 | 4.69 | | | |
| Stress Management | Illiterate[1] | 145 | 19.49 | 3.58 | 2.632 | .049* | **4>1, 3>1** |
| | Primary School[2] | 154 | 19.91 | 3.81 | | | |
| | Middle School[3] | 68 | 20.68 | 3.81 | | | |
| | High School[4] | 27 | 21.22 | 3.91 | | | |
| HLBS Scale Total | Illiterate[1] | 145 | 125.63 | 17.68 | 1.409 | .240 | p>.05 |
| | Primary School[2] | 154 | 127.84 | 17.29 | | | |
| | Middle School[3] | 68 | 129.91 | 21.23 | | | |
| | High School[4] | 27 | 131.78 | 18.51 | | | |

*p<.05

Since there were only six athletes whose mothers were educated at university, they were not included in the statistical comparisons (Table 11). While there were significant differences in stress management in terms of the maternal education status of the adolescent athletes (p<.05), no significant differences were observed in health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, and the HLBS scale total scores (p>.05).

As regards stress management, the athletes whose mothers received high school and middle school educations had higher scores compared to those whose mothers lacked basic literacy skills.

**Table 12.** ANOVA Test Results for the Variable of Paternal Education Level

| Factors | Paternal Education | N | Mean | Std. | f | p | Variance |
|---|---|---|---|---|---|---|---|
| Health Responsibility | Illiterate[1] | 45 | 18.00 | 4.55 | 0.818 | .484 | 5>1,2 |
| | Primary School[2] | 111 | 18.14 | 4.87 | | | |
| | Middle School[3] | 144 | 18.85 | 5.00 | | | |
| | High School[4] | 86 | 18.92 | 4.42 | | | |
| Physical Activity | Illiterate[1] | 45 | 19.62 | 3.59 | 4.085 | **.007*** | **4>2** |
| | Primary School[2] | 111 | 18.43 | 4.89 | | | |
| | Middle School[3] | 144 | 19.28 | 4.93 | | | |
| | High School[4] | 86 | 20.74 | 4.25 | | | |
| Nutrition | Illiterate[1] | 45 | 20.80 | 3.41 | 0.259 | .855 | p>.05 |
| | Primary School[2] | 111 | 20.71 | 4.13 | | | |
| | Middle School[3] | 144 | 20.83 | 4.10 | | | |
| | High School[4] | 86 | 21.20 | 3.91 | | | |
| Spiritual Development | Illiterate[1] | 45 | 25.31 | 5.51 | 0.279 | .840 | p>.05 |
| | Primary School[2] | 111 | 25.24 | 4.24 | | | |
| | Middle School[3] | 144 | 25.68 | 4.41 | | | |
| | High School[4] | 86 | 25.71 | 4.57 | | | |
| Interpersonal Relationships | Illiterate[1] | 45 | 22.38 | 4.74 | 0.942 | .420 | p>.05 |
| | Primary School[2] | 111 | 23.23 | 4.28 | | | |
| | Middle School[3] | 144 | 23.53 | 4.12 | | | |
| | High School[4] | 86 | 22.84 | 5.22 | | | |
| Stress Management | Illiterate[1] | 45 | 19.69 | 3.37 | 2.193 | .088 | p>.05 |
| | Primary School[2] | 111 | 19.37 | 3.62 | | | |
| | Middle School[3] | 144 | 20.08 | 4.10 | | | |
| | High School[4] | 86 | 20.71 | 3.47 | | | |
| HLBS Scale Total | Illiterate[1] | 45 | 125.80 | 18.55 | 1.431 | .233 | p>.05 |
| | Primary School[2] | 111 | 125.14 | 17.94 | | | |
| | Middle School[3] | 144 | 128.26 | 18.92 | | | |
| | High School[4] | 86 | 130.12 | 17.12 | | | |

*p<.05

As was the case with maternal educational level, there were too few athletes whose fathers had been educated at university (14), hence they were not included in the statistical comparisons (Table 12). While a significant difference in physical activity existed with respect to the paternal educational status of the athletes (p<.05), there were no significant differences in health responsibility, nutrition, spiritual development, interpersonal relationships, stress management, or the HLBS scale total scores (p>.05).

Concerning physical activity, the athletes whose fathers had received a high school education scored higher scores than those whose fathers only had a primary school education.

**CONCLUSION and DISCUSSION**

According to the results in the present study, although significant differences were observed between the adolescent athletes' age groups in physical activity, nutrition, and stress management as well as HLBS scale total scores, no significant differences were found for the factors of health responsibility, spiritual development, or interpersonal relationships. Physical activity and stress management scores were higher for

the 15-year-old athletes compared to 17- and 18-year-old athletes, while the 15-year-old athletes also scored higher for nutrition than the 17-year-olds. Regarding the HLBS scale total scores, those of the 14- and 15-year-old athletes were found to be higher than those of the 17-year-old athletes. Gömleksiz et al. (2020) found that the behavioral scores of individuals under the age of 21 were higher than those over the age of 21 in terms of health responsibility, interpersonal relationships, stress management, and the HLBS scale total. In the same vein, Nacar et al. (2014) reported that individuals younger than age 21 had higher HLBS total scores than those over 21 years of age. Hence, the results of these studies are consistent with those of our study. A study on adolescents detected no significant difference between age groups with respect to the HLBS scale total score (Yulu, 2020). In another study, involving adolescents in the final year of high school, no significant differences between age groups were observed (Aktaş Özakgül, 2016). Ergün et al. (2019) found no significant difference in the behavioral scores between adolescents aged 14-15 and those aged 16 and over in terms of the HLBS scale total scores. The difference in the results obtained in our study compared with these studies is thought to stem from the athlete profile of our sample group.

According to the results in the present study, there were significant differences between male and female athletes in terms of health responsibility, physical activity, stress management, and the total score of the HLBS scale, while no significant differences were observed for nutrition, spiritual development, or interpersonal relationships. The adolescent male athletes scored higher on health responsibility, physical activity, stress management, and HLBS scale total than the female athletes. In a study involving athletes enrolled in a faculty of sports sciences, the behavioral scores of male athletes for exercise and stress management were higher than those of female athletes (Küçük Yetgin & Agopyan, 2017). Açıksöz et al. (2013), in their study on nursing students, found that the male participants scored higher on healthy lifestyle behaviors than the females. Yıldız (2010) determined that male adolescents had higher behavioral scores than female students in terms of self-actualization, nutrition, exercise, and the HLBS scale total. Kılcı (2019) reported that the behavioral scores of adolescent males were higher than those of females for health responsibility, physical activity, spiritual development, interpersonal relationships, stress management, and the HLBS scale total, consistent with our findings. In their study on adolescents, Aktaş Özakgül et al. (2016) observed that, while there was no significant difference between male and female individuals in the HLBS scale total scores, the behavioral scores of male individuals in physical activity were higher than those of females, whereas, for health responsibility, nutrition, and interpersonal relations, the female individuals' behavioral scores were higher. In a different study conducted on adolescent individuals in Afyonkarahisar province, while there was no significant difference between men and women in the HLBS scale total scores, it was determined that behavioral scores of male individuals in the nutrition sub-dimension were higher than female individuals, and in the interpersonal relations sub-dimension, the behavioral scores of female individuals were higher than male individuals (Coşkun & Karagöz, 2021). Another study found that female adolescents had higher behavioral scores than male adolescents for health responsibility and interpersonal relationships, while the reverse was true with regard to

physical activity (Metin Karaaslan & Çelebioğlu, 2018). We surmise that the discrepancy between the results obtained from these studies and ours is due to cultural differences.

According to the results in the present study, while significant differences existed between the school grade levels in physical activity, nutrition, stress management, and the total scores of the HLBS scale, no significant differences were found for health responsibility, spiritual development, or interpersonal relationships. Regarding physical activity, the 9th-grade athletes had higher scores than the 12th-graders, while the 10th-grade athletes scored higher than all the other grades. The 10th-grade athletes had higher nutrition scores compared to the 11th- and 12th-graders, and 9th- and 10th-grade athletes scored higher the stress management compared to athletes in the 11th and 12th grades. The behavior scores for the total scale were determined to be higher for 9th-grade athletes than those in the 12th grade, and those of the 10th-grade athletes were also higher compared to the scores of the 11th- and 12th-graders. Yıldız (2010) found that 9th-grade students had higher behavioral scores for exercise than their 11th-grade counterparts; these results are in agreement with our own findings. The lower behavioral scores of the adolescent students in the 11th and 12th grades compared to those in the 9th and 10th grades may be attributable to factors such as university exam stress and career planning. In another study involving adolescents, no significant differences were detected between the students' grade levels for the HLBS scale total score (Yulu, 2020). Metin Karaaslan & Çelebioğlu (2018) reported that the behavioral scores of 12th-grade students for health responsibility and nutrition, as well as the HLBS scale total, were higher than those of students in other grades, while for interpersonal relationships, 11th-grade students had higher behavioral scores compared to students in the 9th, 10th, and 12th grades. It is thought that the difference between the results obtained from these studies and the results obtained from our study is due to the athlete profile, similar to the age variable.

Concerning the club license variable, in the present study, no significant difference was found between licensed and unlicensed athletes. According to the results in the present study, no significant differences existed between the adolescent athletes on the basis of whether they were engaged in individual or team sports. Tizar et al. (2022) determined that no significant difference existed between the mean scores of athletes engaging in team versus individual sports with regard to healthy nutrition. The results of our study are in agreement with this research.

According to the results in the present study, while the difference in physical activity was determined to be significant with respect to athletic history for the adolescent athletes, no significant differences were observed in health responsibility, nutrition, spiritual development, interpersonal relations, stress management, or total scores of the HLBS scale. For physical activity, the scores of the athletes with a history of at least two years of engaging in sports were higher than those of the athletes with a sports history of only one year. In the study of Bebiş et al. (2015) found that adolescent individuals who regularly do sports have higher behavioral scores in the HLBS scale total than those who do not do sports. Yalçınkaya et al. (2007) found that individuals who exercised regularly had higher behavioral scores for self-actualization, health responsibility, exercise, nutrition,

interpersonal support, and coping with stress than their non-exercising cohorts. In a study involving adolescents, students who participated in school sports scored higher on health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, stress management, and the HLBS scale total compared to students who did not play school sports (Kılcı, 2019). The results of these studies and our study show similarities.

According to the results in the present study, there were significant differences between the groups divided on the basis of frequency of athletic activity in physical activity, nutrition, stress management, and total scale scores, whereas no significant difference was observed in health responsibility, spiritual development, or interpersonal relations. The athletes engaging in sports 2-3 days per week scored higher in physical activity than those who only do sports once per week; similarly, those who engage in sports 4 times per week also received higher physical activity scores than the other two groups. The athletes who play sports 4 days or more per week also showed higher nutrition and total scale scores compared to the other two groups, while those engaged in sports 4 or more days per week had higher stress management scores than those who play sports only once per week. Kılcı (2019) reported that the behavioral scores of adolescent students who engage in physical activity were higher than those who do not for the factors of health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, and stress management, as well as for the HLBS scale total. In another study, the adolescent lifestyle scale total and health responsibility, physical activity, nutrition, positive life perception, interpersonal relationships, stress management, and spiritual health scores of adolescents participating in social activities were higher than those of individuals who did no such socializing (Karagözoğlu, 2021). Yalçınkaya et al. (2007) found that individuals who exercise 3-4 days or more per week had higher behavioral scores for the HLBS scale total and all factors (subscales). According to the researches in the literature and the results of our study, it can be said that as the frequency of weekly sports increases, positive developments occur in healthy lifestyle behaviors.

According to the results in the present study, a significant difference in interpersonal relationships was observed with respect to the family income levels of the adolescent athletes, whereas no significant differences existed in health responsibility, physical activity, nutrition, spiritual development, stress management, and the total scale scores. With regard to interpersonal relationships, the athletes with family incomes between 3001-5500 TL had higher scores than those with only 0-3000 TL. In a study involving adolescents, the HLBS scale total scores of individuals with a high family income level were found to be higher compared to those of individuals with medium or low family incomes (Ergün et al., 2019). Karagözoğlu (2021) detected no significant differences in terms of family income status for the adolescent lifestyle scale total and subscale scores. Yıldız (2010) reported that participants with high family income levels had higher behavioral scores for interpersonal support than those from low-income families. Another study determined that the HLBS scale total scores of adolescent students whose family incomes exceeded their expenses were higher than those of their cohorts whose family incomes did not cover their expenses (Aktaş Özakgül et al., 2016). In different studies in the literature, the self-actualization, exercise, interpersonal support subscales and HLBS scale total score averages

of people with high economic status were found to be higher than those with low income (Chen et al., 2007; İlhan et al., 2010). According to the results of our study with these researches, it is seen that positive developments occur in healthy lifestyle behaviors as the family income status increases.

According to the results in the present study, while there were significant differences in stress management in terms of the maternal education status of the adolescent athletes, no significant differences were observed in health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, and the HLBS scale total scores. As regards stress management, the athletes whose mothers received high school and middle school educations had higher scores compared to those whose mothers lacked basic literacy skills. In a study conducted on adolescent individuals, the behavioral scores of students whose mothers were university graduates were higher for the HLBS scale total than those whose mothers had only primary school or high school educations (Yulu, 2020). Ergün et al. (2019) found that the behavioral scores of students whose mothers were university graduates had higher behavioral scores for the HLBS scale total in their study on adolescents in Balıkesir province. Bebiş et al. (2015) found that the children of mothers with high school or higher education had a higher average score in the nutrition and exercise subscale according to mother's education level. In a study by Karagözoğlu (2021), it was determined that in the stress management sub-dimension, the behavior scores of the individuals whose mothers had received primary school education were determined to be higher than those whose mothers lacked basic literacy skills. According to the researches in the literature and the results of our study, it can be said that as the educational status of the mothers increases, positive developments occur in the healthy lifestyle behaviors of adolescents.

According to the results in the present study, while a significant difference in physical activity existed with respect to the paternal educational status of the athletes, there were no significant differences in health responsibility, nutrition, spiritual development, interpersonal relationships, stress management, or the HLBS scale total scores. Concerning physical activity, the athletes whose fathers had received a high school education scored higher scores than those whose fathers only had a primary school education. In a study conducted on adolescent individuals in Balıkesir province, Ergün et al. (2019) determined that the behavioral scores of the students whose fathers had received university educations were higher for the HLBS scale total. Yulu (2020), in a study on adolescents, found that the behavioral scores of individuals with fathers educated at university had significantly higher behavioral scores for the HLBS scale total than those whose fathers had only primary or high school educations. In different studies on adolescent individuals, no significant differences were observed in the total scale and factors (subscales) scores with respect to paternal educational status (Yıldız, 2010; Karagözoğlu, 2021). According to the researches in the literature and the results of our study, it can be said that as the educational status of the fathers increases, positive developments occur in the healthy lifestyle behaviors of adolescents.

According to the results of our study, no significant differences existed in the scale total and factors scores for the variables of club license and type of sport. Significant differences were observed for certain factors with

respect to the variables of age, gender, grade, athletic history, frequency of athletic activity, family income, and maternal and paternal educational levels. There were also significant differences in the variables of age, gender, grade, and frequency of athletic activity in the HLBS scale total scores. Thus, the healthy lifestyle behaviors of adolescent athletes were found to differ in terms of certain variables.

**RECOMMENDATIONS**

As a result of this study conducted to determine the healthy lifestyle behaviors of adolescent athletes, the following suggestions can be made;

- Conducting studies with different independent variables related to the healthy lifestyle behaviors of adolescent athletes,
- Application of the study to athletes of different age groups,
- Application of the study to adolescent individuals in different populations, regions and provinces,
- Raising awareness for the acquisition of healthy lifestyle behaviors in adolescent athletes,
- Giving seminars on healthy and balanced nutrition to adolescent athletes at regular intervals,
- Encouraging adolescents to engage in regular physical activity.

**ETHICAL TEXT**

The study was prepared in accordance with the Declaration of Helsinki and Ethics Committee approval was obtained from the Scientific Research and Publication Ethics Committee of Muş Alparslan University with the letter dated 27.10.2021 and numbered 27755.

"This article complies with journal writing rules, publication principles, research and publication ethics, and journalism ethics. Responsibility for any violations that may arise regarding the article belongs to the authors."

**Authors Contribution Rate:** The 1st author's contribution rate to the article is 70%. The second author's contribution rate to the article is 30%.

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