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INVESTIGATION OF HEALTHY EATING SELF-EFFICACY AND CONSCIOUS AWARENESS: A STUDY ON ADOLESCENT CHILDREN WHO DIFFER ACCORDING TO THEIR SPORTING STATUS

Research article

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INVESTIGATION OF HEALTHY EATING SELF-EFFICACY AND CONSCIOUS AWARENESS: A STUDY ON ADOLESCENT CHILDREN WHO DIFFER ACCORDING TO THEIR SPORTING STATUS

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Abstract

This study aims to determine the mindfulness and healthy eating self-efficacy levels of adolescents according to their sports status. For this reason, healthy eating self-efficacy scale for children and mindfulness scale for adolescents were used in our study. After the scale data were collected by convenience sampling method, homogeneity results and Cronbach alpha values were calculated. Then, the results of the study were obtained by MANOVA analysis. According to the results of the analysis, it has been determined that the ones with the highest value are male adolescent students who do sports. In addition, it has been concluded that doing sports has a positive effect on female students both on conscious awareness and on healthy eating self-efficacy levels. These results show that doing sports can provide significant physical and psychological benefits for adolescents.

Keywords: Sports, sports management, sports psychology, sports sociology.

1. Introduction

There is an increasing problem of obesity in Turkey. When individuals over the age of 15 are examined, the rate of obese individuals aged 15 and over was 19.6% in 2016, while it was 21.1% in 2019 (Türkiye İstatistik Kurumu, 2020). Most of the obesity problems worldwide are due to the continuation of poor eating habits in adolescence into adulthood (Antonogeorgos et al, 2013; Malkoc ve ark., 2020; Jang and Kim, 2023). An important explanation of the development and change in the behavior of adolescents is Bandura's theory of social cognitive learning. According to this theory, your behavior interacts with environmental and individual factors. As a result of this interaction; argues that individual characteristics, behavior, and environmental factors play an important role in shaping an adolescent's behavior (Bandura, 1998). Studies show that adolescents' awareness should be understood to acquire healthy eating habits (McClain, Chappuis, Nguyen-Rodriguez, Yaroch, and Spruijt-Metz, 2009).

Along with the physical change in adolescence, there will also be changes in eating habits. In this process, peers play an important role in eating habits (Flores Morales et al., 2022; Fitzgerald et al., 2013). In addition, the eating behaviors of parents are also important for children (Ayyıldız ve Gülü, 2022; Zarnowiecki et al., 2020). Because the food that parents keep in the house directly affects the children's eating habits (Pearson et al., 2010). Parents with a high level of education make more effort for their children to eat healthy (Wolfson et al., 2015). However, the results show that a significant portion of adolescent children makes their eating habits away from home (Cleveland et al, 2012; Walsh, 2008). In this case, it is important to analyze the level of conscious awareness of adolescents' eating habits. This study aims to examine the conscious awareness and healthy eating self-efficacy of high school students aged 14-18 according to their sports status.

Sub-problems of the study

- Is there a significant difference in terms of gender variable towards high school students' attitudes towards healthy eating self-efficacy and conscious awareness?
- Is there a significant difference in terms of the state of doing sports of high school students' attitude towards healthy eating self-efficacy and conscious awareness?

2. Method

2.1. Research Model

In this study, two different scales, which were made with the quantitative screening method and whose validity and reliability had been made before, were used. With this study, it was aimed to determine the healthy nutrition self-efficacy and conscious awareness levels in the interaction of gender and sports status of high school students between the ages of 14-18, which is our hypothesis.

2.2. Universe-Sample

The sample group of the research consists of high school students between the ages of 14-18 who do and do not do sports. The sample group at the high school level consists of 126 males and 275 females, a total of 401 people.

Table 1. Descriptive statistics

Variable	Group	N	%	Total
Gender	Female	275	68.6	401
	Male	126	31.4	
Age	14 year	82	20.4	401
	15 year	99	24.7	
	16 year	110	27.4	
	17 year	83	20.7	
Do you do sports?	18 year	27	6.7	401
	Yes	225	20.5	
	No	176	53.1	

2.3. Data Collection Tools

The data collection tool consists of three parts. In the first part, there is a personal information form and a total of 3 demographic information is included. In the second part, Brown et al. (2011) The Conscious Awareness Scale Adolescent Form, developed by Turan 2020 and adapted into Turkish, was used. This scale consists of 14 questions with 6 Likert type and one dimension. The original name of the scale developed by Story et al. (2003) is "Self-Efficacy for Healthy Eating". The Healthy Eating Self-Efficacy Scale for Children, which was

adapted into Turkish by Kabasakal et al. (2020), was used. This scale consists of 9 Likert type questions and one dimension.

2.4. Analysis of Data

When the Cronbach alpha values of the data are examined, it is seen that it is 0.70. According to Kalaycı (2010), this result shows that the data is reliable.

The skewness and Kurtosis values were examined to check the homogeneity of the data. The results were found to be between -2 +2 values. According to Weaver and Wuensch (2013), skewness Kurtosis values in the -2+2-range show that the data is normally distributed.

After the homogeneity test and reliability analysis of the study, MANOVA test was performed to detect the differences. In the MANOVA test; in addition to gender and sports status, their interactions were also examined.

2.5. Ethical Consent of the Research

In this study, all the rules set out in the scope of the "Directive on the Ethics of Scientific Research and Publication in Higher Education Institutions" were adhered to. Participants were informed of the topic and purpose of the study, and their written and verbal consent was obtained, indicating that the data would be used in scientific research. Ethical approval of our study was received from Kırıkkale University Social and Human Sciences Research Ethics Committee.

3. Findings

Table 2. Conscious Awareness Scale Adolescent Form (CASAF) and Healthy Eating and Self-Efficacy for Children (HESEC) MANOVA Results

Tests of Between-Subjects Effects							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gender	CASAF ^a	4.238	1	4.238	4.174	.042	.010
	HESEC ^b	.088	1	.088	.517	.473	.001
Sport	CASAF ^a	2.524	1	2.524	2.487	.116	.006
	HESEC ^b	1.730	1	1.730	10.125	.002	.025
Gender *	CASAF ^a	.405	1	.405	.399	.528	.001
Sport	HESEC ^b	1.253	1	1.253	7.336	.007	.018

a.R²= .023; b.R²= .030

When the main effect of gender was examined, there was a significant difference on CASAF, but no significant difference on HESEC. When the CASAF results were examined, the average score of women was 3.6, while the mean score of men was 3.9. These results show that male high school students have higher mindfulness than female high school students (p<0.05).

When the main effect of sports was examined, there was a significant difference in HESEC, but no significant difference in CASAF. When the results of HESEC were examined, it was determined that while the rate of those doing sports was 2, the rate of female students was 1.9 ($p < 0.05$).

While there is no significant difference in the interaction of gender and sport in CASAF, it is seen that there is a significant difference in HESEC. When the HESEC results are examined, it has been determined that the average score of male students who do sports is significantly higher than that of female students who do sports and those who do not. In addition, it is seen that the HESEC rate is significantly higher in female students who do sports compared to those who do not ($p < 0.05$).

Table 3. Conscious Awareness Scale Adolescent Form (CASAF) and Healthy Eating and Self-Efficacy for Children (HESEC) Descriptive Statistics

	Does she/he do sports?	CASAF	HESEC
Female	Yes	3.7 ± 1.1	2 ± 0.4
	No	3.6 ± 1	1.9 ± 0.4
	Total	3.6 ± 1	1.9 ± 0.4
Male	Yes	4 ± 1	2.1 ± 0.4
	No	3.7 ± 0.9	1.8 ± 0.4
	Total	3.9 ± 1	1.9 ± 0.4
Total	Yes	3.8 ± 1.1	2 ± 0.4
	No	3.6 ± 1	1.9 ± 0.4
	Total	3.7 ± 1	1.9 ± 0.4

4. Conclusion, Discussion and Recommendations

Adolescence is a developmental period defined by many physical and psychological transformations, often accompanied by higher emotional reactivity and stress (Moreira and Cristina, 2020). Various studies show that adolescents undergo more emotional changes than adults (Bailen et al. 2019; Maciejewski et al. 2017). While no significant difference was found in the study on mindfulness in adolescents (Abujaradeh et al., 2020), it was found that there was a significant difference in favor of males on mindfulness in our study. The reason for this is thought to be that men are raised more freely in our society and have a higher awareness by interacting more with their environment.

Physical activity (PA) (eg sports, physical education) supports children's psychophysical development, improves health and well-being, provides opportunities for fun experiences, and increases self-efficacy (Vitali et al., 2019). Physically active youth have been found to have higher levels of fitness (for example, stronger muscles, lower body fat, stronger bones) (Carson et al., 2016). Physical activity and nutrition play an important role in predicting child health (Davison and Birch, 2001; Gustafson and Rhodes, 2006). In addition, nutrition and self-efficacy are very important for adolescents to be good individuals both physically and psychologically (Banik et al., 2021). When our study was examined, it was determined that the healthy eating self-efficacy levels of adolescents who do sports are significantly higher than those who do not and men who do not do sports. These results show that adolescents who do

sports have a significantly higher self-efficacy for healthy nutrition than adolescents who do not and male students are significantly higher than female students. According to Logan et al., (2019), it is argued that making adolescents do sports is important in determining a healthier diet and lifestyle.

As a result, it has been determined that doing sports has higher self-efficacy for healthy eating in both male and female students. However, men seem to have a significantly higher effect on healthy eating self-efficacy. During adolescence, it is seen that there is an intense flow of emotions. It is thought that doing sports is important in determining a healthier lifestyle in this period when both physical and psychological emotional transitions are intense.

It is important to understand the expectations of children in terms of the management and administration of sports and to produce policies accordingly. For this reason, it is thought that our study is an important study in terms of both sport management and sports sociology. It is thought that it is important to include adolescents from different geographies and different sample groups in the sample group for future studies. In addition, qualitative studies and involving parents in such studies are considered important.

References

- Abujaradeh, H., Colaianne, B. A., Roeser, R. W., Tsukayama, E., & Galla, B. M. (2020). Evaluating a short-form Five Facet Mindfulness Questionnaire in adolescents: Evidence for a four-factor structure and invariance by time, age, and gender. *International Journal of Behavioral Development, 44*(1), 20-30.
- Bailen, N. H., Green, L. M., Thompson, R. J. (2019). Understanding emotion in adolescents: a review of emotional frequency, intensity, instability, and clarity. *Emotion Review, 11*(1), 63–73. <https://doi.org/10.1177/1754073918768878>.
- Bandura, A., (1998). Bandura Health promotion from the perspective of social cognitive theory *Psychology and Health, 13* , pp. 623-649.
- Banik, A., Zarychta, K., Knoll, N., & Luszczynska, A. (2021). Cultivation and enabling effects of social support and self-efficacy in parent–child dyads. *Annals of Behavioral Medicine, 55*(12), 1198-1210.
- Brown, K. W., West, A. M., Loverich, T. M. ve Biegel, G. M. (2011). Assessing adolescent mindfulness: Validation of an adapted mindful attention awareness scale in adolescent normative and psychiatric populations. *Psychological Assessment, 23*(4), 1023–1033. doi:10.1037/a0021338
- Carson V, Hunter S, Kuzik N, Gray CE, Poitras VJ, Chaput JP, Saunders TJ, Katzmarzyk PT, Okely AD, Connor Gorber S+4 more. 2016. Systematic review of sedentary behavior and health indicators in school-aged children and youth: an update. *Applied Physiology, Nutrition, and Metabolism 41*:S240-S265.
- Cleveland, M. J., Feinberg, M. E., Osgood, D. W., Moody, J. (2012). Do peers' parents matter? A new link between positive parenting and adolescent substance use. *Journal of studies on alcohol and drugs, 73*(3), 423-433.
- Davison, K. K., Birch, L. L. (2001). Childhood overweight: a contextual model and recommendations for future research. *Obesity reviews, 2*(3), 159-171.
- Fitzgerald, A., Heary, C., Kelly, C., Nixon, E., Shevlin, M. (2013). Self-efficacy for healthy eating and peer support for unhealthy eating are associated with adolescents' food intake patterns. *Appetite, 63*, 48-58.
- Flores Morales, J., Kim, J., Fong, E. (2022). Peer effects on the educational outcomes of immigrant youth: heterogeneity by generation and school context. *Journal of Ethnic and Migration Studies, 48*(17), 4166-4190.
- Gustafson, S. L., & Rhodes, R. E. (2006). Parental correlates of physical activity in children and early adolescents. *Sports medicine, 36*, 79-97.
- Gülü, M., Ayyıldız, E. (2022). Effect of the COVID-19 pandemic on barriers to middle-aged adults' participation in physical activity in Turkey: a cross-sectional study. *Journal Of Mens Health*.

- Jang, H., Kim, J. (2023). Peers' parental education and cardiovascular disease risk in adulthood: The mediating role of health-related behaviors. *Social Science Medicine*, 115673.
- Kabasakal, E., Arslan, U. E., Sarp, Üner., Ünlü, H. K., Bilir, N., Yardim, M. S., Özcebe, H. (2020). Çocuklar İçin Sağlıklı Yeme Öz-Yeterlik Ölçeğinin Türkçe Geçerlik ve Güvenirlik Çalışması. *Türkiye Çocuk Hastalıkları Dergisi*, 1-6.
- Kalaycı, Ş. (2010). *SPSS uygulamalı çok değişkenli istatistik teknikleri* (Vol. 5, p. 359). Ankara, Turkey: Asil Yayın Dağıtım.
- Lien N, Lytle LA, Klepp KI. Stability in consumption of fruit, vegetables and sugary foods in a cohort from age 14-21, *Prev Med*, 2001, vol. 33 (pg. 217-26).
- Logan, K., Cuff, S., LaBella, C. R., Brooks, M. A., Canty, G., Diamond, A. B., Stricker, P. R. (2019). Organized sports for children, preadolescents, and adolescents. *Pediatrics*, 143(6).
- Maciejewski, D. F., van Lier, P. A., Branje, S. J., Meeus, W. H., & Koot, H. M. (2017). A daily diary study on adolescent emotional experiences: measurement invariance and developmental trajectories. *Psychological Assessment*, 29(1), 35–49. <https://doi.org/10.1037/pas0000312>.
- Malkoç, N., Yaşar, O., Turgut, M., Kerem, M., Köse, B., Atli, A., & Sunay, H. (2020). Healthy nutrition attitudes of sports science students. *Progress in Nutrition*, 22(3).
- McClain, A. D., Chappuis, C., Nguyen-Rodriguez, S. T., Yaroch, A. L., Spruijt-Metz, D. (2009). Psychosocial correlates of eating behavior in children and adolescents: a review. *International Journal of Behavioral Nutrition and Physical Activity*, 6(1), 1-20.
- Moreira, H., Cristina Canavarro, M. (2020). Mindful parenting is associated with adolescents' difficulties in emotion regulation through adolescents' psychological inflexibility and self-compassion. *Journal of youth and adolescence*, 49(1), 192-211.
- Pearson, N., Atkin, A. J., Biddle, S. J., Gorely, T. (2010). A family-based intervention to increase fruit and vegetable consumption in adolescents: a pilot study. *Public health nutrition*, 13(6), 876-885.
- Story M, Sherwood NE, Himes JH, Davis M, Jacobs DR, Cartwright Y, et al. An after-school obesity prevention program for African-American girls: the Minnesota GEMS pilot study. *Ethn Dis* 2003;13:54-64.
- Turan, M. E. (2020). Bilinçli Farkındalık Ölçeği Ergen Formu'nun geçerlik ve güvenilirlik çalışması. *OPUS International Journal of Society Researches*, 16(Eğitim ve Toplum Özel sayısı), 5608-5625.
- Türkiye İstatistik Kurumu (2020). Türkiye Sağlık Araştırması. Sayı: 33661

- Vitali, F., Robazza, C., Bortoli, L., Bertinato, L., Schena, F., Lanza, M. (2019). Enhancing fitness, enjoyment, and physical self-efficacy in primary school children: a DEDIPAC naturalistic study. *PeerJ*, 7, e6436.
- Walsh, P. (2008). Are involved parents providing public goods or private goods?. *Public Finance Review*, 36(6), 678-705.
- Weaver, B., Wuensch, K. L. (2013). SPSS and SAS programs for comparing Pearson correlations and OLS regression coefficients. *Behavior research methods*, 45(3), 880-895.
- Wolfson, J. A., Gollust, S. E., Niederdeppe, J., Barry, C. L. (2015). The role of parents in public views of strategies to address childhood obesity in the United States. *The Milbank Quarterly*, 93(1), 73-111.
- Zarnowiecki, D., Mauch, C. E., Middleton, G., Matwiejczyk, L., Watson, W. L., Dibbs, J., Golley, R. K. (2020). A systematic evaluation of digital nutrition promotion websites and apps for supporting parents to influence children's nutrition. *International Journal of Behavioral Nutrition and Physical Activity*, 17, 1-19.