

Investigation of the Relationship Between Secondary School Students' Physical Activity Attitudes and School Life Satisfaction

Hüseyin Özden YURDAKUL¹

Çanakkale Onsekiz University

Abstract

In this study, it is aimed to investigate the relationship between the attitudes of students studying in secondary school to physical activity and their school life satisfaction. The relationship between middle school students' attitudes towards physical activity and school life satisfaction was tested by the structural equation model. A total of 299 students who study at secondary schools affiliated to Çanakkale central schools, 53.2% (n = 159) of whom are male and 46.8% (n = 140) of female, are the research group. Attitude scale to physical activity and school life satisfaction scales were used as data collection tool in secondary school students. It has been observed that socialization and Self-Trust dimensions, which are the sub-dimensions of attitude to physical activity, affect school satisfaction positively and significantly, and are statistically significant. As a result, physical activity environments affect students' feelings of socialization and self-confidence positively, which is thought to affect students' school life satisfaction positively. To gain the habit of doing physical activities in schools, it can be suggested to increase the physical education lesson hours and to direct them to extra sports activities.

Keywords: Physical Activity, School Satisfaction, Attitudes, Socialization, Self-Trust

DOI: 10.29329/epasr.2020.270.20

¹Assist. Prof. Dr., Sport Science Faculty, Çanakkale Onsekiz Mart University, Çanakkale, Turkey, ORCID:
<http://orcid.org/0000-0001-6879-3658>;

Correspondence: yurdakul@comu.edu.tr

Introduction

The level of life satisfaction perception of the individual affects life in many areas positively or negatively. It has been stated that individuals with high life satisfaction have positive professional and interpersonal relationships, and that these individuals are more resistant to diseases and longer than those with low life satisfaction (Lyubomirsky, King & Diener, 2005). The criteria that the individual sets in his life determine the level of perception of life satisfaction (Pavot & Diener, 1993). Although life satisfaction is considered as a sub-dimension of happiness (Dilmaç & Ekşi, 2008), it is evaluated with many concepts such as psychological well-being, quality of life, subjective well-being (Dost, 2007). Diener, Emmons, Larsen, and Griffin (1985) defined life satisfaction as pleasure, feeling happy, being good in various ways. Many factors affect people's life satisfaction either positively or negatively. It is observed that these factors show some differences compared to adulthood in adolescence. This is because adolescence is a period in which many physical, psychological, and social changes occur (Byrne, Davenport & Mazanov, 2007; Moksnes, Byrne, Mazanov & Espnes, 2010). Factors affecting life satisfaction for students; school, family, friends, and life environment (Huebner, Laughlin Ash and Gilman, 1998). It can be stated that the positive experiences that the student has at school increase the quality of life of the student and that it will increase learning by increasing school motivation. It was observed that Life satisfaction and economic situation (Shek, 2005) related to academic success (Jovanović & Jerković, 2011), family relationships (Hampden-Thompson, & Galindo, 2017) cultural difference (Kaya, Çensiz & Aynas, 2019; Liu, Tian & Gilman, 2005), disability status (Eroğlu & Acet, 2017), ethnic structure (Leung, Pe-Pua & Karnilowicz, 2006), level of happiness in physical education classes (Uğraş & Güllü, 2020) and self-efficacy (Erol, 2017) in research. Abroad (Arciuli, Emerson & Llewellyn, 2019; Danielsen, Samdal, Hetland & Wold, 2009; Geagea, MacCallum, Vernon, & Barber, 2017; Hampden-Thompson & Galindo, 2017) and domestically (Arındağ & Seydooğulları, 2018; Baş & Yurdabakan, 2017; Kermen, Tosun & Doğan, 2016; Şahin, 2018) in recent years, the subject of school life satisfaction has been the subject of much research. The reason for this is that students' satisfaction with school life is concerning many subjects such as academic success, peer relations, belonging to the school. One of life satisfaction and lifestyle behaviors is physical activity (Penedo & Dahn, 2005). Researches have shown that physical activity in adolescents prevents weight gain (Simon et al., 2008), stress reduction (De Moor, Beem, Stubbe, Boomsma & De Geus, 2006), sociologically and psychologically positively (Åberg et al., 2009; Plowman, 2008). It is even stated that it positively affects students' academic success (Fedewa & Ahn, 2011) and has a positive relationship between physical activity and learning (Nilsson, Perfilieva, Johansson, Orwar & Eriksson, 1999). In case of low physical activity, it is known that many adverse conditions and risks occur in both adolescents and adults. Low physical activity increases the risk of obesity and cardiovascular disease (Hancox, Milne & Poulton, 2004). Many studies show that there is a positive relationship between physical activity and psychological well-being and life satisfaction

(Santino et al, 2019; Vella, Cliff, Magee & Okely, 2014; Ussher, Owen, Cook & Whincup, 2007; Kleszczewska, Dzielska, Salonna & Mazur, 2018). The World Health Organization mentioned the importance of physical activity for both mental and physical health (Who, 2015). It is observed that there is a decrease in the level of physical activity despite the prevention of obesity, decreased risks of cardiovascular disease, and psychological benefits. It can be said that this decline was caused by some reasons such as academic concerns, environmental effects, and the family's attitude towards physical activity. It can be stated that physical education lessons and extracurricular activities are the most suitable environment for spreading the physical activity habit throughout life. The goals and achievements of the physical education lesson programs can be expressed in terms of effective weight (Güllü, Arslan, Görgüt & Uğraş, 2011; Uğraş & Aral, 2018) to give students the habit of doing physical activity. Considering that physical activity has many benefits for students, it can be said that the attitude towards physical activity can positively affect school satisfaction. In this study, it is aimed to investigate the relationship between middle school students' attitudes towards physical activity and school life satisfaction.

Method

In this study, a relational screening method was used to examine the relationship between middle school students' attitudes towards physical activity and school life satisfaction. The relational screening method was chosen to give an idea about the cause-effect relationship between attitude to physical activity and school life satisfaction (Fraenkel, Wallen & Hyun, 2012). The relationship between middle school students' attitudes towards physical activity and school life satisfaction was tested by the structural equation model. SEM is one of the powerful analysis methods to develop theory between variables.

Study Group

Students studying at secondary schools affiliated to Çanakkale central schools in the 2019-2020 academic year participated in the study. A total of 299 students, 53.2% (n = 159) of the students are male and 46.8% (n = 140) of the students are female students. When the distribution of the participants by class level is examined, 23.4% of 5th grade (n = 70), 20.1% of 6th grade (n = 60), 24.1% of 7th grade (n = 72) and 32.4% of 8 classes (n = 133) appear to be.

Data Collection Tools

Physical Activity Attitude Scale for Secondary School Students: Scale developed by Yıldız, Bilgin, Korur, Yüksel and Demirhan (2019), "Love (5 items)", "Willingness (7 items)", "Benefit (4 items)", "Socialization (5 items)" and "Self Confidence (4 items)" consisted of 5 dimensions and 25 items. Confirmatory factor analysis was performed for the construct validity of the scale. According to CFA results, item factor loads were observed to vary between .44 and .79. As a result of the first CFA,

two items were removed in order. According to DFA results after the procedure, χ^2 / sd (1.818), GFI (.886), CFI (.908), IFI (.909), TLI (.895) and RMSEA (.052) values were found. It can be stated that the scale has acceptable reference values (Kline, 2016; Tabachnick & Fidell, 2007). For the internal reliability of the scale, Cronbach's alpha values were found to be .805 in willingness dimension, .767 in love dimension, .796 in benefit dimension, .700 in the socialization dimension and .710 in self-confidence dimension.

School Satisfaction Scale: The scale adapted to Turkish by Telef (2014) developed by Randolph, Kangas, and Ruokamo (2009), consists of one dimension and 6 items. According to CFA results, item factor loads were observed to vary between .64 and .81. According to DFA results after the procedure, χ^2 / sd (3.518), GFI (.968), CFI (.976), IFI (.977), TLI (.954) and RMSEA (.082) values were found. It can be stated that the scale has acceptable reference values (Kline, 2016; Tabachnick & Fidell, 2007). The Cronbach's alpha value of the scale was found to be .870. These results show that the scale is reliable.

Analysis of data

SPSS 23 and AMOS 23 statistics programs were used to analyze the data. Before determining whether the data are suitable for the structural equation model, 24 questionnaires with missing, erroneous, and extreme values were prepared and the process was continued with a total of 299 data sets. For the normality assumption of the data, skewness and kurtosis values were examined. After determining that DFA and Cronbach's Alpha reliability coefficients met the necessary conditions for Structural Equation Modeling (SEM), analyzes were performed. While SPSS 23 was used for descriptive statistics and Pearson correlation analysis, AMOS 23 was used in DFA and SEM analysis. χ^2 / sd , IFI, CFI, TLI, NFI, and RMSEA values were examined to test the SEM model.

Results

Correlation analysis was conducted to test the relationship between school life satisfaction, which is the predicted variable of the research, and attitude to physical activity, which is the predictive variable. The relationship between sub-dimensions of attitude to extracurricular activities and sub-dimensions of attachment to school is presented in Table 1.

Table 1. Correlation Values and Descriptive Statistics of the Relationship Between Attitude to Physical Activity and School Life Satisfaction

Variables	Mean	Sd.	Skew.	Kurt.	1	2	3	4	5	6
1.	4,31	,80	-1,55	1,33	1					
2.	4,06	,92	-1,18	1,06	.252**	1				
3.	3,71	,95	-,78	,25	.270**	-.113*	1			
4.	3,91	,92	-,80	-,01	.265**	.602**	.635**	1		
5.	3,53	1,05	-,53	-,36	.426**	.109	.200**	.122*	1	
6.	4.11	1,01	-1,31	1,17	.174**	.107	.186**	.191**	.202**	1

**p < .01, *p < .05 1: Affinity, 2: Willingness, 3: Benefit, 4: Socialization, 5: Self-Trust, 6: School Satisfaction

When Table 1 is examined, it is seen that there is a positive and low level significant relationship between students' ,who participated the research, "Affinity" scores and "School Satisfaction" ($r = .174, p < .01$), "Benefit" ($r = .186, p < .01$), "Socialization" ($r = .191, p < .01$), Self-Trust ($r = .202, p < .01$) scores. It was determined that there was no significant relationship between Willingness and School Satisfaction. The path analysis of the relation of attitude to physical activity sub-dimensions with school life satisfaction is shown in Figure 1.

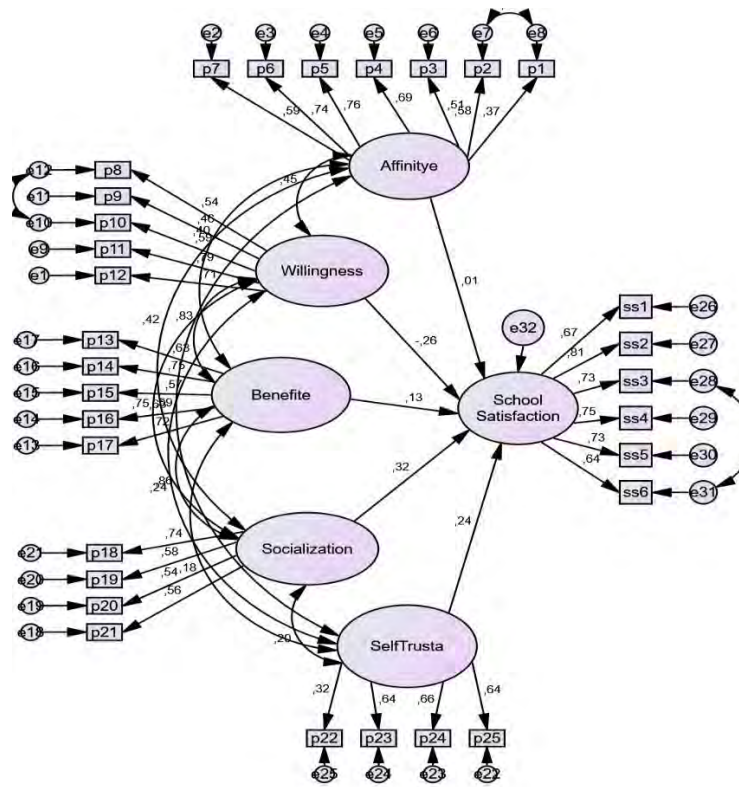


Figure 1. Path Analysis of Attitude to Physical Activity Sub-Dimensions towards School Satisfaction

It was observed that the adaptation indexes of the model, which examines the effect of sub-dimensions of attitude to physical activity on school life satisfaction, meet the necessary compliance criteria. ($\chi^2 / sd = 1.710$, GFI = .867, CFI = .909, IFI = .911, TLI = .898 and RMSEA = .049). According to these results, it was seen that the model reached acceptable reference values and the model was confirmed (Kline, 2016; Tabachnick & Fidell, 2007). The path model showing the relationship of attitude to physical activity towards school life satisfaction is shown in table 2.

Table 2. Standardized Regression Results Regarding the Effect of Attitude to Physical Activity Sub-Dimensions on School Life Satisfaction

Path	Path Coefficient (β)	Standardized Estimate	Standard Error (S.E)	Critical Ratio (C.R)	Significance Value (p)
Affinity → School Satisfaction	.011	.019	.186	.104	.917
Willingness → School Satisfaction	-.264	-.368	.250	-1.475	.140
Benefit → School Satisfaction	.131	.196	.399	.492	.623
Socialization → School Satisfaction	.316	.525	.365	1.438	.025
Self-Trust → School Satisfaction	.242	.323	.140	2.314	.021

According to Table 2, it was observed that the socialization dimension, which is one of the sub-dimensions of attitude to physical activity, affects school satisfaction positively and significantly ($\beta = .316, p > .05$) and is statistically significant. Self-Trust, one of the sub-dimensions of attitude to physical activity, was found to affect school satisfaction positively and significantly ($\beta = .242, p > .05$). It was found that the sub-dimensions of attitude to physical activity affinity, willingness, and benefit do not statistically affect School Satisfaction.

Discussion, Conclusion and Recommendations

In this study, it is aimed to investigate the relationship between the attitudes of students studying in secondary school to physical activity and school life satisfaction. While it was determined that the physical activity attitude levels of the students studying in schools affiliated to the city center of Çanakkale have a positive effect on school life satisfaction in terms of Socialization and Self-Trust, it was revealed that they did not have a significant effect on Affinity, Willingness and Benefit dimensions.

It is a fact that physical activity is associated with physical and psychosocial wellbeing in children (Hancox, Milne & Poulton, 2004; Kriemler et al. 2010; Santino et al., 2019; Vella, Cliff, Magee & Okely, 2014; Ussher, Owen, Cook & Whincup, 2007; Kleszczewska, Dzielska, Salonna & Mazur, 2018). However, the physical activity levels of young people are not at the desired level (Troiano et al., 2008). Some countries such as Scotland have implemented some strategic plans to increase the physical activity levels of children and young people (Inchley, Kirby & Currie, 2011). In this study, it can be said that the physical activity attitude sub-dimension scores of the students studying in secondary school are at a good level. It is concluded that this situation positively affects the school life levels.

Studies are showing that physical activity positively affects family relationships (Beets, Cardinal & Alderman, 2010; Pugliese & Tinsley, 2007) and is related to the level of physical activity of young people. Students with a high level of attitude towards physical activity can often be considered as family support. Considering the important role of peer and parent support in increasing the level of physical activity (Laird et al., 2016), it is likely that it positively affected life satisfaction in children and adolescents. The habit of doing physical activity is realized in schools through physical education lessons and sports activities outside the classroom. Extracurricular sports activities have a positive effect on the social development of the students as well as their physical development. (Fredricks & Eccles, 2006). With the extracurricular sports activities, students get the opportunity to socialize. Through these activities, they have a chance to spend time in a fun environment with their peers and teachers. Sports environments have the feature to strengthen the peer relations of students such as team, togetherness, solidarity. It is a fact that sports are effective in socializing individuals (Hardin & Greer, 2009). Physical education lessons where students have the opportunity to do

physical activity are seen as entertaining by students (Namlı, Temel & Güllü, 2017; Temel & Güllü, 2016). Pehlevan and Bal (2018) concluded that participation in sports in secondary school is effective in peer relationships and the development of social relationships. The fact that adolescents have fun and a good time in social activities and sports activities and enable socialization may have caused students to increase their school life satisfaction. In their study, Belton, Prior, Wickel, and Woods (2017) concluded that extracurricular physical activity activities on students studying in disadvantaged schools have a positive effect on students' life satisfaction. Another study found that adolescents who do sports are happier than those who do not (Snyder, Martinez, Bay, Parsons, Sauers & McLeod, 2010). These studies show that it is possible to say, physical activity environments affect adolescents' socialization and indirectly their life satisfaction. According to the research results, Self-Trust, which is one of the sub-dimensions of physical activity, positively affected school satisfaction. Sports environments are one of the places where adolescents can experience their feelings of achievement and acceptance. It can be said that the self-confidence that adolescents gain through physical activity can positively affect their school life satisfaction. In this study, it was found that as the self-confidence score of secondary school students increased from the sub-dimensions of physical activity, school life satisfaction increased. It has been revealed by research that the self-confidence levels of adolescents who do sports are higher than those who do not do sports (Aykora, 2019; Gündoğdu, 2019; Özbek, Yoncalık & Alicak, 2017; Terlemez, 2019; Yarımkaaya, Akandere & Baştuğ, 2014). It can be stated that physical activity increases students' self-confidence and in this case it positively affects the school life satisfaction of students.

As a result, it was concluded that the physical activity attitudes of the students studying in secondary school positively affect their school life satisfaction. Physical activity environments positively affect students' feelings of socialization and self-confidence, which positively affects their school life satisfaction. According to data from PISA (2015), considering that ranked last in OECD countries, life satisfaction scores of students in Turkey be directed to the physical activity requirements of the students come forward. To gain the habit of doing physical activities in schools, it can be suggested to increase the physical education lesson hours and to direct them to extra sports activities. It can also be provided to organize activities where the benefits of physical activity can be transferred to their families.

References

- Åberg, M. A., Pedersen, N. L., Torén, K., Svartengren, M., Bäckstrand, B., Johnsson, T., Cooper-Kuhn, C, M., Aberg, N, D., Nilsson, M.,& Kuhn, H. G. (2009). *Cardiovascular fitness is associated with cognition in young adulthood*. Proceedings of the National Academy of Sciences, 106(49), 20906-20911.

- Arciuli, J., Emerson, E., & Llewellyn, G. (2019). Adolescents' self-report of school satisfaction: The interaction between disability and gender. *School Psychology, 34*(2), 148.
- Arıdağ, N. Ç., & Seydoğulları, S. Ü. (2018). Lise Öğrencilerinin Yaşam Doyumu ve Yılmazlık Düzeylerinin Anne-Baba Tutumlarıyla İlişkisi Açısından İncelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 34*(4), 1037-1060.
- Aykora, E. (2019). Bitlis ve Van İllerinde Okul Sporlarına Katılan Ergenlerin Özgüven Ve Sosyal Kaygı Düzeyleri İncelemesi. *Turan-Sam, 11*(41), 566-572.
- Baş, A. U., & Yurdabakan, İ. (2017). Psikolojik sağlamlık ve okul ikliminin ortaokul öğrencilerinin yaşam doyumunu yordama gücü. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi, 1*(41), 202-214.
- Beets, M. W., Cardinal, B. J., & Alderman, B. L. (2010). Parental social support and the physical activity-related behaviors of youth: a review. *Health Education & Behavior, 37*(5), 621-644.
- Belton, S., Prior, P., Wickel, E., & Woods, C. (2017). The impact of participation in extra-curricular physical activity on males from disadvantaged schools. *European Physical Education Review, 23*(1), 60-72.
- Byrne, D. G., Davenport, S. C., & Mazanov, J. (2007). Profiles of adolescent stress: The development of the adolescent stress questionnaire (ASQ). *Journal of Adolescence, 30*, 393-416.
- Danielsen, A. G., Samdal, O., Hetland, J., & Wold, B. (2009). School-related social support and students' perceived life satisfaction. *The Journal of Educational Research, 102*(4), 303-320.
- De Moor, M. H. M., Beem, A. L., Stubbe, J. H., Boomsma, D. I., & De Geus, E. J. C. (2006). Regular exercise, anxiety, depression and personality: a population-based study. *Preventive Medicine, 42*(4), 273-279.
- Diener, E., Emmons, R. A., Larsen, R. J. & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71-75.
- Dilmaç, B. ve Ekşi, H. (2008). Meslek yüksek okullarında öğrenim gören öğrencilerin yaşam doyumları ve benlik saygılarının incelenmesi. Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 20, 279-287.
- Dost, M. T. (2007). Üniversite öğrencilerinin yaşam doyumunun bazı değişkenlere göre incelenmesi. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi, 22*(22), 132-143.
- Eroğlu, S. Y., & Acet, M. (2017). İşitme engelli öğrencilerin spor yapma değişkenine göre sosyal görünüş kaygısı ile yaşam kalitesi düzeylerinin incelenmesi. *Türkiye Klinikleri Spor Bilimleri Dergisi, 9*(2), 65-70. doi.10.5336/sportsci.2016-54033
- Erol, M. (2017). Genç yetişkinliğin öncesinde olan ergenlerin yaşam doyumunu: "Utangaçlık" ve "öz yeterlik algısı"nın rolü. *Türk Psikiyatri Dergisi, 28*(2), 95-103.

- Fedewa, A. L., & Ahn, S. (2011). The effects of physical activity and physical fitness on children's achievement and cognitive outcomes: a meta-analysis. *Research Quarterly for Exercise and Sport*, 82(3), 521-535.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How To Design And Evaluate Research in Education*. New York: McGraw-Hill.
- Fredricks, J. A., & Eccles, J. S. (2006). Is extracurricular participation associated with beneficial outcomes? Concurrent and longitudinal relations. *Developmental Psychology*, 42(4), 698-713.
- Geagea, A., MacCallum, J., Vernon, L., & Barber, B. L. (2017). Critical links between arts activity participation, school satisfaction and university expectation for Australian high school students. *Australian Journal of Educational & Developmental Psychology*, 15, 53-65.
- Güllü, M., Arslan, C., Görgüt, İ & Uğraş, S. (2011). İlköğretim Beden Eğitimi Dersi (1-8. Sınıflar) Öğretim Programı ve Kılavuzunun İncelenmesi. *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, 134-141.
- Hampden-Thompson, G., & Galindo, C. (2017). School–family relationships, school satisfaction and the academic achievement of young people. *Educational Review*, 69(2), 248-265.
- Hancox, R. J., Milne, B. J., & Poulton, R. (2004). Association between child and adolescent television viewing and adult health: a longitudinal birth cohort study. *Lancet*, 364, 257–262.
- Hardin, M., & Greer, J. D. (2009). The influence of gender-role socialization, media use and sports participation on perceptions gender-appropriate sports. *Journal of Sport Behavior*, 32(2), 207-226.
- Huebner, E. S., Laughlin, J. E., Ash, C., & Gilman, R. (1998). Further validation of the multidimensional students' life satisfaction scale. *Journal of Psychoeducational Assessment*, 16(2), 118-134.
- Jovanović, V., & Jerković, I. (2011). School satisfaction among secondary school students: Relations with school achievement and mental health indicators. *Psihologija*, 44(3), 211-224.
- Kaya, Z., Çenesiz, G., & Aynas, S. (2019). Yabancı Uyruklu Öğrencilerin Sosyal Destek Algıları İle Psikolojik İyi Oluş ve Yaşam Doyumlarının İncelenmesi: Van Yüzüncü Yıl Üniversitesi Örneği. *Elektronik Sosyal Bilimler Dergisi*, 18 (70), 518-537. DOI: 10.17755/esosder.416882
- Kermen, U., Tosun, N. İ., & Doğan, U. (2016). Yaşam doyumunu ve psikolojik iyi oluşun yordayıcısı olarak sosyal kaygı. *Eğitim Kuram ve Uygulama Araştırmaları Dergisi*, 2(1), 20-29.
- Kleszczewska, D., Dzielska, A., Salonna, F., & Mazur, J. (2018). The association between physical activity and general life satisfaction in lower secondary school students: the role of individual and family factors. *Community Mental Health Journal*, 54(8), 1245-1252.
- Kline, R. B. (2016). *Principles and practice of structural equation modeling*. The Guilford Press, New York: NY.

- Kriemler, S., Zahner, L., Schindler, C., Meyer, U., Hartmann, T., Hebestreit, H., H, BrunnerLa Rocca HP, van Mechelen W., & Puder JJ. (2010). *Effect of school based physical activity programme (KISS) on fitness and adiposity in primary schoolchildren: cluster randomised controlled trial*. *BMJ*, 340: c785. doi:10.1136/bmj.c785. PMID:20179126.
- Leung, C., Pe-Pua, R., & Karnilowicz, W. (2006). Psychological adaptation and autonomy among adolescents in Australia: A comparison of Anglo-Celtic and three Asian groups. *International Journal of Intercultural Relations*, 30, 99–118.
- Laird, Y., Fawkner, S., Kelly, P., McNamee, L., & Niven, A. (2016). The role of social support on physical activity behaviour in adolescent girls: a systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 13(1), 79.
- Liu, W., Tian, L., & Gilman, R. (2005). A cross-cultural study on life satisfaction between Chinese and American middle school students. *Chinese Mental Health Journal*, 19(5), 319.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803–855.
- Moksnes, U. K., Byrne, D. G., Mazanov, J., & Espnes, G. A. (2010). Adolescent stress: Evaluation of the factor structure of the Adolescent Stress Questionnaire. *Scandinavian Journal of Psychology*, 51, 203–209.
- Namlı, A., Temel, C., & Güllü, M. (2017). Ortaokul Öğrencilerinin Beden Eğitimi Dersine İlişkin Ürettikleri Metaforlar. *Kastamonu Education Journal*, 25(2), 479-496.
- Nilsson, M., Perfilieva, E., Johansson, U., Orwar, O., & Eriksson, P. S. (1999). Enriched environment increases neurogenesis in the adult rat dentate gyrus and improves spatial memory. *Journal of neurobiology*, 39(4), 569-578.
- Özbek, S., Yoncalık, M. T., & Alıncak, F. (2017). Sporcu ve Sedarter Lise Öğrencilerinin Özgüven Düzeylerinin Karşılaştırılması (Kırşehir İli Örneği). *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 2(3), 46-56.
- Pavot, W., & Diener, E. (1993). The review of the satisfaction with life scale. *Psychological Assessment*, 5, 164–172.
- Pehlevan, Z., & Bal, S. İ. (2018). 13-15 Yaş Grubu Çocuklarda Spora Katılımın Akran İlişkileri ve Sosyal Destek Alma Üzerine Etkisi. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 23(4), 191-203.
- Penedo, F. J., & Dahn, J. R. (2005) Exercise and well-being: A review of mental and physical health benefits associated with physical activity. *Current Opinion in Psychiatry*, 18(2):189–193.
- PİSA. (2015) https://read.oecd-ilibrary.org/education/pisa-2015-results-volume-iii_9789264273856-en#page11. (02.03.2019).

- Ploughman, M. (2008). Exercise is brain food: the effects of physical activity on cognitive function. *Developmental Neurorehabilitation, 11*(3), 236-240.
- Pugliese, J., & Tinsley, B. (2007). Parental socialization of child and adolescent physical activity: A meta-analysis. *Journal of Family Psychology, 21*(3), 331.
- Randolph, J. J., Kangas, M., & Ruokamo, H. (2009). The preliminary development of the children's overall satisfaction with schooling scale. *Child Indicators Research, 2*(1), 79-93
- Santino, N., Larocca, V., Hitzig, S. L., Guilcher, S. J., Craven, B. C., & Bassett-Gunter, R. L. (2019). Physical activity and life satisfaction among individuals with spinal cord injury: Exploring loneliness as a possible mediator. *Journal of Exercise, Movement, and Sport (SCAPPS refereed abstracts repository), 51*(1), 246-246.
- Shek, D. T. L. (2005). Economic stress, emotional quality of life, and problem behavior in Chinese adolescents with and without economic disadvantage. *Social Indicators Research, 71*, 363–383.
- Snyder, A. R., Martinez, J. C., Bay, R. C., Parsons, J. T., Sauers, E. L., & McLeod, T. C. V. (2010). Health-related quality of life differs between adolescent athletes and adolescent nonathletes. *Journal of Sport Rehabilitation, 19*(3), 237-248.
- Simon, C., Schweitzer, B., Oujaa, M., Wagner, A., Arweiler, D., Tribby, E., et al. (2008). Successful overweight prevention in adolescents by increasing physical activity: a 4-year randomized controlled intervention. *International Journal of Obesity, 32*, 1489–1498.
- Şahin, S. (2018). The relationship between school building and school life satisfaction Okul binaları ve okul yaşam doyumunu arasındaki ilişki. *Journal of Human Sciences, 15*(4), 2113-2126.
- Tabachnick, B. G. & Fidell, L. S. (2007). Using multivariate statistics (5. bs.). New York: Allyn and Bacon.
- Telef, B. (2014). Turkish Adaptation Study of Overall School Satisfaction Scale for Children/Çocuklar İçin Kapsamlı Okul Doyumu Ölçeği'nin Türkçeye Uyarlama Çalışması. *Eğitimde Kuram ve Uygulama, 10*(2), 478-490.
- Temel, C. & Güllü, M. (2016). Bir beden eğitimi dersi çiz. *Eğitim ve Bilim, 41*(183), 351-361.
- Terlemez, M.(2019). Spor Aktivitesinin Özgüven, Serotonin Ve Dopamine Etkisi. *International Journal of Social Science, 2*(2), 1-6.
- Troiano, R. P., Berrigan, D., Dodd, K. W., Masse, L. C., Tilert, T., & McDowell, M. (2008). Physical activity in the United States measured by accelerometer. *Medicine & Science in Sports & Exercise, 40*(1), 181-188.
- Uğraş, S., & Aral, H. Ortaokul Beden Eğitimi Ders Programındaki Kazanımların Yenilenmiş Bloom Taksonomisine Göre Değerlendirilmesi. *Journal of Global Sport and Education Research, 1*(1), 33-46.

- Uğraş, S. & Güllü, M. (2020). Ortaokulda Öğrenim Gören Öğrencilerin Beden Eğitimi Dersindeki Mutluluk Düzeyleri ile Yaşam Doyumları Arasındaki İlişkinin İncelenmesi: Yapısal Eşitlik Modeli. *Journal of History School*, 44,583-599.
- Ussher, M. H., Owen, C. G., Cook, D. G., & Whincup, P. H. (2007). The relationship between physical activity, sedentary behaviour and psychological wellbeing among adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 42(10), 851-856
- WHO, Regional Committee for Europe. (2015). Physical activity strategy for WHO European Region 2016–2025. *Regional Committee for Europe 65th Session*, Vilnius, Lithuania, September 14–17, 2015. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0010/282961/65wd09
- Vella, S. A., Cliff, D. P., Magee, C. A., & Okely, A. D. (2014). Sports participation and parent-reported health-related quality of life in children: longitudinal associations. *The Journal of pediatrics*, 164(6), 1469-1474.
- Yarımkaya, E., Akandere, M., & Baştuğ, G. (2014). 12–14 Yaş Arası İlköğretim Öğrencilerinin Özgüven Düzeylerinin Voleybolda Servis Atma Becerisi Üzerine Etkisi. *Beden Eğitimi Ve Spor Bilimleri Dergisi*, 8(2), 242-250.
- Yıldız, G., Bilgin, E., Korur, E. N., Yüksel, Y., & Demirhan, G. (2019). Orta Okul Öğrencileri İçin Fiziksel Aktivite Tutum Ölçeğinin Geliştirilmesi. *Spor Bilimleri Dergisi*, 30(2), 63-73.