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Investigation of University Students' Perceived Physical Literacy According to Selected Demographic Variables

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Abstract

Lifelong participation in regular physical activity can be increased and sustained by achieving an adequate level of physical literacy. The purpose of this study is to investigate the perceived levels of physical literacy among students enrolled in a sports science faculty.. A total of 268 volunteer students, comprising 90 females and 178 males studying at the Uşak University Sports Science Faculty, were included in the study. "Perceived Physical Literacy Scale" (PPLS) was used to determine the physical literacy levels of the participants. The data were analysed with descriptive statistics, independent sample t-test and One way ANOVA tests. It was concluded that there was no significant difference between the perceived physical literacy levels of the participants according to the variables of gender, being a licensed athlete and the regiopn where their family lived. However, in relation to the Department and perceived economic status, significant differences favouring coach education department students and students with monthly incomes higher than their expenses were identified in the PPLS communication sub-dimension ($p<.05$). The study found that students in the Faculty of Sports Sciences have a high level of physical literacy. To further explore the concept of media literacy, there is a need for qualitative and quantitative studies conducted with various age groups.

Keywords: Physical Literacy, Physical Activity, University Students, Healthy Lifestyle Behaviour.

Üniversite Öğrencilerinin Algıladıkları Beden Okuryazarlığının Seçili Demografik Değişkenlere Göre İncelenmesi

Öz

Yaşam boyu düzenli fiziksel aktiviteye katılım, yeterli beden okuryazarlığı düzeyine ulaşılmasıyla artırılabilir ve sürdürülebilir. Bu çalışmanın amacı, spor bilimleri fakültesi öğrencilerinin algıladıkları beden okuryazarlığı düzeylerinin incelenmesidir. Çalışmaya Uşak Üniversitesi spor bilimleri fakültesinde öğrenim gören 90 kadın, 178 erkek olmak üzere toplam 268 gönüllü öğrenci dahil edilmiştir. Katılımcıların beden okuryazarlığı düzeylerinin belirlenmesinde "Algılanan Beden Okuryazarlığı Ölçeği" (ABOÖ) kullanılmıştır. Veriler betimsel istatistik, bağımsız örneklem t-testi ve tek yönlü varyans analizi testi ile analiz edilmiştir. Cinsiyet, lisanslı sporcu olma ve ailenin yaşadığı bölge değişkenine göre katılımcıların algılanan beden okuryazarlığı seviyeleri arasında anlamlı bir farklılığın olmadığı sonucuna ulaşılmıştır. Ancak, öğrenim görülen program ve algılanan ekonomik durum değişkenlerine göre ise ABOÖ'nün iletişim alt boyutunda antrenörlük eğitimi bölümü öğrencileri ve aylık gelirleri giderlerinden yüksek olan öğrenciler lehine anlamlı farklılıkların olduğu belirlenmiştir($p<.05$). Çalışma sonucunda spor bilimleri fakültesinde öğrenim gören öğrencilerin beden okuryazarlığı seviyelerinin yükseğe yakın olduğu görülmüştür. Beden okuryazarlığı kavramına derinlik getirmek için farklı yaş gruplarıyla gerçekleştirilecek nitel ve nicel çalışmalara ihtiyaç duyulmaktadır

Anahtar kelimeler: Beden Okuryazarlığı, Fiziksel Aktivite, Üniversite Öğrencileri, Sağlıklı Yaşam Davranışı.

Introduction

Preventing health problems caused by the increasing sedentary lifestyle on worldwide necessitates restructuring physical education classes and extracurricular sports activity programs (Department for Education, 2013; MEB, 2018). The core of programs aimed at promoting lifelong regular physical activity habits in joint learning outcomes comprises concepts such as motivation, self-confidence, movement competence, and interaction with the environment (Kirk, 2013). Analysis of the physical education curricula of leading countries in education reveals that they focus on fundamental movement skills and the ability to move safely and dexterously. Individuals who anticipate the need for movement in response to changing environmental conditions and cleverly and creatively solve a range of physically demanding situations are referred to as "physical literate" (Whitehead, 2001).

The concept of physical literacy, or the benefits to health from both individual and sociological perspective, was first highlighted in the American National Physical Education literature in 1938 (Robinson et al., 2018). Margaret Whitehead first proposed the definition of physical literacy (PL)in 1993 as proficiency in basic movement skills and the ability to move competently and creatively. Despite the concept entering literature years before, it gained momentum and popularity after serious philosophical discussions were initiated in 1993 (Pot et al., 2018). Whitehead (2010) has defined PLas "a person's ability to engage in physical activity throughout the lifespan, encompassing motivation, confidence, physical competence, knowledge and understanding." In this context, PLinvolves individuals possessing a diverse set of movement skills and demonstrating them safely and confidently in different environments, particularly through regular participation in physical activity. In this context, PLrefers to an individual having a broad range of movement skills and being able to confidently display this throughout their life, primarily through participation in regular physical activity, among other environments.

In this context, physical education classes are identified as the most suitable environment for improving the concept of physical literacy, which has a strong theoretical background and allows access to a wide audience (Edwards et al., 2019; Roberts et al., 2019). It is known that education-leading countries such as the United Kingdom, New Zealand, Australia, and Canada have taken the lead in promoting physical activity through practices in physical education classes (Li et al., 2020; Pot & Hilvoorde, 2013; Rainer & Davies, 2013; Roetert & MacDonald, 2015). The learning outcomes of Physical Education and Games in primary schools and Physical Education and Sports in middle and high schools in Turkey are theoretically compatible with the concept of physical literacy. In addition, the physical fitness cards in primary schools and physical fitness report cards in middle and

high schools provide information on each student's proficiency in fundamental movement skills and physical fitness level.

It is known that children are very interested in participating in extracurricular sporting activities (Taştan and Yiğit, 2022). The Developmental Model of Participation in Sport (DMPS) and Long-Term Athlete Development Model (LTAD) are the most widely accepted models for defining, understanding, and improving sports environments for youth (Balyi et al., 2013; Côté & Fraser-Thomas, 2007). In both models, the long-term development of sports is divided into stages according to factors such as the participants' ages, skill levels, talents, and maturity. Balyi et al. (2013) emphasize in LTAD that physical activity should be an enjoyable part of children's daily lives and that the holistic development of fundamental movement skills and physical capacities, sports skills development, and lifelong physical activity are the goals. Similarly, it is a fact that Côté and Fraser-Thomas (2007) focus primarily on the necessary motivation, skill development, sense of achievement, enjoyment, and pleasure required for lifelong participation in sports rather than purely on the athletic development of children in the stages of the DMPS. The objectives and outcomes of the initial stages encompassing the stages of childhood and adolescence in both models coincide with the concept of physical literacy.

The WHO and Public Health studies have reported that physical activity participation action plans have been limited in achieving their objectives, and there has been a global increase in inactive lifestyles (WHO, 2019; Keegan et al., 2019). When examining the countries that have altered their current situation, the impact of PL programs is related to practitioners' approaches. In these countries, it has been emphasized that the educational practices of physical education teachers and coaches and the organizations and activity choices they are involved in highly depend on their pedagogical and area competencies (Silverman & Mercier, 2015). It has been highlighted that qualified instructors should create environmental conditions for children and young people to discover their abilities to develop physical literacy (Lundvall, 2015; Whitehead, 2010). The majority of the strategy to increase the effectiveness of PL programs developed by Castelli et al. in 2015 is aimed directly at instructors, supporting these findings.

The perceptions, attitudes, and practices of instructors as role models regarding physical literacy hold great importance for establishing this critical concept and transforming health behaviours in students. Additionally, evaluating the PL status of students in sports science faculties of universities can be an alternative method to assess the quality of education provided. In this context, it is believed that it is important to examine the perceived physical literacy levels of sports science students who are future coaches and physical education teachers, unless subjective assessments are

clearly indicated as such. In light of this information, the study aims to analyze the perceived PL levels of Uşak University Sports Science faculty students concerning selected variables.

Materials and Methods

During the current research, the "Directive on Scientific Research and Publication Ethics of Higher Education Institutions" was followed.

Model of the Research

This study investigated students' perceived physical literacy levels at the Faculty of Sports Sciences at XYZ University. A screening model was employed as a quantitative research method. This model aims to investigate and explain the existing variable in its original form (Karasar, 2007).

Population and Sample

The population of the study consists of 1427 students studying at XYZ University's Faculty of Sport Sciences. A specific sampling method with an effect size of 0.25, a significance level of 0.05, and a power level of 95% determined that a minimum of 252 students should participate in the study (Patton, 1999). In this context, the sample group for the study consists of 268 students, with 90 females and 178 males, who completed the survey in full via Google Forms. This number exceeds the amount required for the study. The sample group was formed using an easily accessible sampling method. In this method, the researcher selects a population that is close and easy to access (Yıldırım & Şimşek, 2011). The demographic information related to gender, academic program, grade level, perceived academic and economic status, being a licensed athlete, place of residence, and the place where the family lives for the sample group are given in Table 1.

Table 1

Descriptive Statistics of Participants

Variables	Group	n	%
Gender	Female	90	33,6
	Male	178	66,4
Department	Physical Education	156	58,2
	Coach Education	63	23,5
	Sports Management	49	18,3
Perceived Economic State	Income less than expenses	67	25,0
	Income equal to expenses	154	57,5
	Income more than expenses	47	17,5
Being a licensed athlete	Yes	128	47,8
	No	140	52,2
Place where the family residence	Village, Town	44	16,4
	District	102	38,1

	City	72	26,9
	Metropolitan	50	18,7

Data Collection Tools

Perceived Physical Literacy Questionnaire (PPLQ)

This study used the Perceived Physical Literacy Scale (PPLS) to determine students' physical literacy levels. The PPLS was developed for physical education teachers in Hong Kong by Sum et al. (2016), and its Turkish reliability and validity were established by Munusturlar and Yıldızer (2020). The scale consists of nine non-reverse scored items and uses a 5-point Likert-type response format, with higher scores indicating higher levels of physical literacy. The first four items of PPLS assess the Self-Esteem (SE) sub-dimension, while items 5,6,7 evaluate the Knowledge and Understanding (KU) sub-dimension, and items 8 and 9 assess the Communication (COM) sub-dimension. According to Munusturlar and Yıldızer (2020), the scale has a variance rate of 69.04% and a Cronbach's Alpha reliability coefficient of .81. The authors reported that the Cronbach Alpha internal consistency coefficient was .79 for Self-esteem and self-confidence, .845 for Knowledge and understanding, and .78 for COM, which are the sub-dimensions of the scale. To be considered reliable, a scale must have a Cronbach Alpha value greater than 0.69 (Büyüköztürk, 2018).

Table 2

Perceived Physical Literacy Skewness, Kurtosis and Chronbach's Alpha Coefficient Values

	n	$\overline{X}$	**Sd**	**Skewness**	**Kurtosis**	**Croncbach α**	**Min.**	**Max.**
Sense of Self and Self-Confidence (SE)	268	3,79	1,07	-1,26	1,13	0,94	4	20
Knowledge and Understanding (KU)	268	3,93	1,19	-1,22	0,62	0,95	3	15
Communication (COM)	268	3,68	1,16	-0,81	-0,23	0,93	2	10
Perceived Physical Literacy Questionnaire (PPLQ)	268	3,81	1,06	-1,38	1,19	0,97	9	45

Analysis of Data

The independent variables of this study are Gender, Department, Perceived Economic Status, Status of Being a Licensed Athlete, and place where the family residence. The comparisons between the study's dependent variable, the physical literacy level of the Faculty of Sport Sciences students, and the sub-dimensions of physical literacy, namely the levels of SE, KU, and C, and the independent variables were evaluated. The distribution of dependent variables in the study is given in Table 2. Normality and homogeneity tests were performed to measure whether the data met the prerequisites of parametric tests. Since the "Skewness and Kurtosis" values were within the range of ±2 and the "Levene's Test" result was p>.05, the variables met the assumption of normality and homogeneity

(Tabachnick et al., 2013). In addition, it is seen that the Chronbach's Alpha coefficients of the scale in the current study are reliable (Özdamar, 2017). Accordingly, an independent sample t-test was used to compare the means of two groups, such as gender and being a licensed athlete. One-way analysis of variance (ANOVA) was used to compare the means of three or more groups (George & Mallery, 2021). In addition, the significance level of this study was determined as $p<0.05$.

Ethics of Research

Ethics committee approval of this study was obtained from Uşak University Non-Interventional Clinical Research Ethics Committee with decision number 143-143-20-000.

Results

Before the comparison between the variables, as a result of the participants' responses to the PPLQ ($\overline{X}$=3,81±1,06), it is seen that their perceived physical literacy levels are at good level. Their perceived physical literacy levels are in a good level in the sub-dimensions of the PPLQ, which are SE ($\overline{X}$=3,79±1,07), KU ($\overline{X}$=3,93±1,19) and COM ($\overline{X}$=3,68±1,16).

Table 3

T-test Results of Perceived Physical Literacy Score and Sub-dimension Scores According to Gender and State of being a Licenced Athlete Variables

			N	$\overline{X}$	Ss	t	df	p
Gender	SE	Female	90	3,83	0,84	0,40	266	0,69
		Male	178	3,77	1,17			
	KU	Female	90	3,96	1,01	0,27	266	0,79
		Male	178	3,92	1,27			
	COM	Female	90	3,74	1,1	0,68	266	0,50
		Male	178	3,64	1,19			
	PPLQ	Female	90	3,85	0,88	0,44	266	0,69
		Male	178	3,79	1,14			
Being a licensed athlete	SE	Yes	128	3,88	1,12	1,31	266	0,19
		No	140	3,71	1,03			
	KU	Yes	128	3,94	1,21	0,08	266	0,94
		No	140	3,93	1,17			
	COM	Yes	128	3,71	1,17	0,46	266	0,65
		No	140	3,65	1,15			
	PPLQ	Yes	128	3,86	1,09	0,73	266	0,47
		No	140	3,77	1,03			

*p<0.05

According to the results of "Independent sample T test" in Table 3, there was no significant difference between gender and being a licensed athlete and the sub-dimensions of the scale.

Table 4

Test Results of Perceived Physical Literacy Score and Sub-dimension Scores According to Department, Perceived Economic Status and Region of Family Residence Variables

			N	X	SS	F	p	η2	Posthoc
Department	SE	Physical Education	156	3,78	0,97	1,89	0,15		
		Coach Education	63	3,98	1,05				
		Sports Management	49	3,59	1,37				
	KU	Physical Education	156	3,92	1,10	0,42	0,66		
		Coach Education	63	4,04	1,16				
		Sports Management	49	3,84	1,47				
	COM	Physical Education	156	3,73	1,09	3,79	0,02*	0,03	II>III
		Coach Education	63	3,86	1,19				
		Sports Management	49	3,29	1,25				
	PPLQ	Physical Education	156	3,81	0,97	1,67	0,19		
		Coach Education	63	3,97	1,05				
		Sports Management	49	3,60	1,32				
Perceived Economic State	SE	Income less than expenses	67	3,65	1,02	1,26	0,29		
		Income equal to expenses	154	3,80	1,18				
		Income more than expenses	47	3,97	0,70				
	KU	Income less than expenses	67	3,81	1,21	3,61	0,28		
		Income equal to expenses	154	3,86	1,24				
		Income more than expenses	47	4,35	0,86				
	COM	Income less than expenses	67	3,66	1,03	6,42	0,01*	0,05	III>II III>I
		Income equal to expenses	154	3,53	1,25				
		Income more than expenses	47	4,20	0,82				
	PPLQ	Income less than expenses	67	3,70	1,03	2,92	0,06		
		Income equal to expenses	154	3,76	1,15				
		Income more than expenses	47	4,15	0,69				
Place where the family residence	SE	Village, Town	44	3,67	1,09	2,42	0,07		
		District	102	3,69	1,23				
		City	72	3,76	0,92				
		Metropolitan	50	4,15	0,85				
	KU	Village, Town	44	3,93	1,26	1,94	0,12		
		District	102	3,78	1,32				
		City	72	3,90	1,04				
		Metropolitan	50	4,27	0,98				
	COM	Village, Town	44	3,67	1,17	2,19	0,09		
		District	102	3,49	1,27				
		City	72	3,73	1,01				
		Metropolitan	50	3,99	1,06				
	PPLQ	Village, Town	44	3,76	1,10	2,37	0,07		
		District	102	3,68	1,20				
		City	72	3,80	0,91				

	Metropolitan	50	4,16	0,86	

*p<0.05

The results of the One-way analysis of variance, shown in Table 4, indicate that there is a statistically significant difference in sub-dimension COM of PPLQ according to the Department variable (F(2, 265)=[3,79], p=0.02). In order to prevent the type-I error encountered in multiple comparison tests used to determine between which sub-dimensions of the independent variable the significant difference was found, the critical alpha level was determined as p<0,017 in age and sports year and p<0,008 in education (Büyüköztürk, 2018). According to the results of the Bonferroni comparison test, it was determined that this difference was because the COM scores of the coaching program students ($\overline{X}$=3,86±1,19) were higher than those of the management program students ($\overline{X}$=3,29±1,25). However, when the results of the one-way analysis of variance were analyzed, it was determined that there was no statistically significant difference in PPLQ and its other sub-dimensions, SE and KU, according to the Department variable (p>0.05).

Among the findings of the study, there is a statistically significant difference between the perceived economic status variable and the COM sub-dimension of PPLQ of sports sciences faculty students (F (2,265 =[6,42], p=0.01). As a result of the comparison tests, the significant difference in the COM sub-dimension is explained by the fact that students whose perceived monthly income is more than their expenses ($\overline{X}$=3,55±0,97) have higher mean scores than students whose income is equal to their expenses ($\overline{X}$=2,71±1,01) and students whose income is less than their expenses. However, it was observed that there was no statistically significant difference in the PPLQ and its other sub-dimensions, SE and KU, according to the perceived economic status variable (p>0.05).

The results of the one-way analysis of variance shown in Table 4 indicate that there is no statistically significant difference between the variable of the place where the family residence and the PPLQ mean scores and its SE, KU and COM sub-dimensions (p>0.05).

Discussion and Conclusion, Suggestions

In this study, conducted at the Faculty of Sport Sciences at XYZ University, the PL perceptions of students were examined. The results indicate that no significant difference was observed instead of gender, licensed athlete status, or family region. According to the study's variables and perceived economic status, significant differences were found in the communication sub-dimension of the PPLQ scale.

The research findings revealed that there was no significant difference in the perceived level of physical literacy of the students of the subjects according to the gender variable. Moreover, female students displayed higher mean scores in physical literacy and its sub-dimensions than their male

counterparts. When examining the limited literature on physical literacy, Zhang et al. (2022) conducted a study with 798 Chinese university students. They discovered no significant difference between the physical literacy levels of female and male students. It was also noted that there was no significant difference in the sub-dimensions of self-confidence and physical competence (males: 11.3±2.2; females: 11.4±2.0), motivation (males: 12.1±1.9; females: 12.1±1.7) and interaction with the environment (males: 7.4±1.7; females: 7.4±1.6). In a study parallel to the findings of this study, Choi et al. (2018) concluded that there was a low level of significant relationship between the level of physical literacy and the level of PAin a study conducted in Hong Kong with 1945 participants aged 12-18 years. They stated that there was no significant difference between the physical literacy levels of the participants according to the gender variable. This situation could be interpreted as gender equality, which does not change the perception of physical literacy in social, educational and cultural terms. The fact that the perceived physical literacy levels and sub-dimensional scores of female students are higher, With the effect of intensive practice courses in the curriculum of the faculty of sports sciences, a rapid change in the level of physical literacy can be perceived compared to men with the effect of the development in the movement repertoire of female students and the information in theoretical courses (Güçlü, 2022).

It was found that there was a difference in the perceived physical literacy between licensed athletes and students. Furthermore, the PL levels of licensed athletes were slightly higher than those of unlicensed across the PPLQ and all its sub-dimensions. Amateur or professional licensed athletes train intensively all year round, focusing on movements specific to their discipline. Sports science students are assumed to enhance their understanding of PL through practical and theoretical training in various fields (Güçlü, 2022). Considering that PL is defined as having the awareness and motivation to participate in lifelong PA, it is conceivable that all sports sciences faculty students have a similar perceived PL level. Since there is no study comparing the PL of athletes as a participant group in the domestic and foreign literature, this study is a descriptive preliminary study.

The study found a significant difference in the communication sub-dimension of the PL scores perceived by the subjects. Specifically, students from the coaching education department had a higher mean score than those from the Department of Management in the communication sub-dimension of PPLS. The existing literature indicates a need for more research comparing the PL programs of sports science students. Nevertheless, Choi et al. (2021) reported an increase in the PAlevels of 372 Chinese university students and the affective and social aspects of PL due to a 10-week PL training program they attended. In this study, the researchers propose that individuals' lifestyles alter during the transition to university, significantly reducing PAparticipation. Nonetheless, this can be facilitated by incorporating physical literacy-themed courses into the curriculum. In another study, Ma et al. (2020)

conducted research with a substantial sample size (n=5265, 46.6% male) to investigate the correlation between physical literacy, mental health, and resilience in university students. This study found a significant association between physical literacy, resilience, and mental health, with PL boosting resilience and enhancing mental health. As part of a holistic approach to supporting university students' well-being and mental health, the researchers suggest implementing practices to enhance PL within universities.

Another finding of this research is that there are significant differences in the communication sub-dimension of the physical literacy questionnaire according to the monthly income balance. It was seen that the average scores of the group whose monthly income was higher than the expenditure were higher than the group whose monthly income was equal to and lower than the expenditure. In the literature, most of the studies examining PL and socio-economic status are in parallel with the results of this study. In a recent study with many participants, Choi et al. (2018) examined the relationship between PL and PAin a study conducted with 1945 adolescents aged between 12 and 18 (14.98±1.65) living in Hong Kong. According to selected demographic features, the correlation between perceived PL and PAlevels showed a significant relationship according to socio-economic status (SES). Studies conducted in other countries (USA, Poland, Italy, and Finland) also supported the positive relationship between SES and PAor participation in extracurricular sporting activities (Dmitruk et al., 2015; Fox et al., 2010; Srikanth et al., 2015). Families with high SES can provide more opportunities for their children. They can pay for tuition and equipment and transport their children to and from classes, which are thought to increase the likelihood that their children will be physically active (Dmitruk et al., 2014) and more physically literate (Tomporowski et al., 2008). In the study by Kantomaa et al. (2007), a positive correlation was observed between PAand family income of Finnish youth. A similar correlation was observed in a re-study conducted by Federico et al. (2009) on Italian children, where it was observed that children from families with a higher occupational category (intellectual workers) showed more PAcompared to participants with at least one non-working parent.

This research also revealed that significant differences exist in the communication sub-dimension of the PL questionnaire based on the monthly income balance. The results show that the group with a higher income than their expenditure had higher mean scores than the group with an equal or lower income than their expenditure. In the literature, studies on PL and socio-economic status (SES) align with the findings of this research. A recent study by Choi et al. (2018), which included a large sample size of 1945 adolescents residing in Hong Kong, investigated the correlation between PL and PA. They examined individual factors, and the correlation between perceived PL and PAlevels demonstrated a significant relationship according to SES. Similar studies conducted in

other countries, such as the US, Poland, Italy, and Finland, also supported the positive relationship between SES and PAor participation in extracurricular sports activities (Dmitruk et al., 2015; Fox et al., 2010; Srikanth et al., 2015). SES of Families can offer their children more opportunities. They have the means to cover tuition fees, purchase equipment, and provide transportation to and from sports courses, which is believed to enhance their children's likelihood of engaging in PA(Dmitruk et al., 2014) and improving their PL (Tomporowski et al., 2008). Kantomaa et al. (2007) found a positive correlation between physical activity and the family income of Finnish young people in their study. A similar outcome was noted in a study by Federico et al. (2009) on Italian children. The study found that children from families with a higher SES engaged in more PAthan those with at least one parent who did not work. Yet, Ma et al. (2020) investigated the association between perceived physical literacy (PL) and levels of physical activity (PA) of Chinese undergraduate students (n=536) via various demographic characteristics. They found no relation between PL and SES. However, GPA demonstrated a significant association. A global PAsurvey revealed that individuals in high-income countries are more prone to engage in less PAthan those in lower-income countries (Hallal et al., 2012).

The study found no significant difference in PL scores among participants based on their family's region of residence. However, those with families residing in metropolitan areas showed higher mean scores in the PPLQ and all of its sub-dimensions. Although there are no studies in the literature examine the PL status of individuals residing in urban and rural areas, studies comparing physical activity status are frequently encountered. In a comprehensive study of 178,161 participants from 49 states of the USA in 2005, Martin et al. reported that physical activity levels were higher in urban areas than in rural areas. In parallel, the levels of physical inactivity amongst individuals residing in rural regions exceeded those of those living in urban areas. Whitfield et al. (2019) examined the efficacy of guidelines published in the USA to enhance muscle strength and aerobic fitness through the national health survey. The survey revealed increased adherence to the guideline criteria across rural and urban areas from 2008 to 2017. In this report, only 25.3% of urban and 19.6% of rural residents met the combined muscle strength and aerobic fitness guidelines. In a study conducted between 2000 and 2018 with data collected from 2691 male university students in Poland, Podstawski et al. (2020) found that permanent residence (village, city, metropolitan area) significantly affected students' height, BMI, and strength abilities, including standing broad jump and medicine ball backward and forward throw. This phenomenon is accounted for by the circumstance that urban residents are more aware of physical activity, possess greater educational attainment, benefit from better access to sports facilities, and are subject to numerous social and economic factors, including the possibility of physical activity habits within their social context (Buckworth & Dishman, 2002;

Lowry et al., 2007). Hendry et al. (1993) suggest that physical activity levels are closely linked to social reference models and the reinforcement or support individuals receive for such behaviour. They stress the importance of not viewing parents' place of residence as a direct influencer of physical fitness but as one of several socio-economic factors that shape individual development (Podstawsk et al., 2020).

As a result, this study's findings demonstrate that students studying in the Faculty of Sports Sciences exhibit a high level of perceived physical literacy, regardless of gender. Future teachers or coaches need to grasp this essential concept to effectively convey their knowledge.. The practical and theoretical courses in the Faculty of Sports Sciences play a significant role in enabling students to achieve this level. Studies in the literature highlight an increase in sedentary behaviors among students during their transition to university, which may persist into later life. One potential solution proposed by these studies is the inclusion of PL in the university curriculum across departments. Furthermore, cross-sectional studies could be conducted globally and in the Türkiye with primary, secondary, and university students to assess their understanding of this developing concept. In order to assess the impact of sports science education on students' physical literacy, it is recommended that studies investigating the PL levels of students in various faculties be conducted with sports science academics.

Ethics Committee Permission Information

Ethical review board: Uşak University, Non-Interventional Research Ethics Committee

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Declaration of Contribution Rates of Researchers

Both authors contributed equally at all stages of the research.

Conflict Statement

The authors have no conflict declaration regarding the research.

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