Original Article / Araştırma Makalesi

INVESTIGATION OF PERCEIVED STRESS LEVELS AND MOTIVATION TO PARTICIPATE IN PHYSICAL ACTIVITY IN STUDENTS OF FACULTY OF HEALTH SCIENCES

Sağlık Bilimleri Fakültesi Öğrencilerinde Algılanan Stres Düzeyleri ve Fiziksel Aktiviteye Katılım Motivasyonlarının İncelenmesi

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ABSTRACT

This study aimed to investigate the perceived stress level and motivation to participate in physical activity among students of the Faculty of Health Sciences. In this descriptive, relational and cross-sectional study, 252 students studying at the Faculty of Health Sciences, Iğdır University, were included in the study determined by stratified sampling method. While the total perceived stress score of the students of the Faculty of Health Sciences was at a moderate level, their motivation to participate in physical activity scores were found to be at a high level. A weak negative correlation was observed between the mean scores of the students' Physical Activity Participation Motivation Scale and the Perceived Stress Scale (r: -0.228, p<0.001). This study provided important information about the perceived stress level and motivation to participate in physical activity among students of the Faculty of Health Sciences. Preventive strategies to reduce the perceived stress of students and educational programs to increase their participation in physical activity should be implemented. In this context, programs to increase the physical activity levels of students should be disseminated in universities, and psychological counseling and guidance services should be made more accessible and effectively used by students. More students should have access to the Medico-Social Services Unit, which is established to meet the medical and social services of students within universities.

Anahtar kelimeler: Motivation, Perceived stress, Physical activity, Undergraduate students.

ÖZ

Bu çalışmada, Sağlık Bilimleri Fakültesi öğrencilerinde algılanan stres düzeyi ve fiziksel aktiviteye katılım motivasyonunun araştırılması amaçlanmıştır. Tanımlayıcı, ilişkisel ve kesitsel türde gerçekleştirilen çalışmada, tabakalı örnekleme yöntemi ile belirlenen Iğdır Üniversitesi Sağlık Bilimleri Fakültesi'nde öğrenim gören 252 öğrenci dahil edilmiştir. Sağlık Bilimleri Fakültesi öğrencilerinin algıladıkları toplam stres puanı orta düzeydeyken, fiziksel aktiviteye katılım motivasyonu puanları yüksek düzeyde bulunmuştur. Öğrencilerin Fiziksel Aktiviteye Katılım Motivasyonu Ölçeği ile Algılanan Stres Ölçeği puan ortalamaları arasında negatif yönde zayıf bir korelasyon olduğu görülmüştür (r:-0.228, p<0.001). Bu çalışma, Sağlık Bilimleri Fakültesi öğrencileri arasında algılanan stres düzeyi ve fiziksel aktiviteye katılım motivasyonu hakkında önemli bilgiler sağlamıştır. Öğrencilerin algıladıkları stresi azaltmaya yönelik önleyici stratejiler ve fiziksel aktiviteye katılımlarını artırmaya yönelik eğitim programları uygulanmalıdır. Bu bağlamda, üniversitelerde öğrencilerin fiziksel aktivite düzeylerini artırmaya yönelik programlar yaygınlaştırılmalı, psikolojik danışma ve rehberlik hizmetleri öğrenciler tarafından daha erişilebilir ve etkin bir şekilde kullanılır hale getirilmelidir. Üniversiteler bünyesinde öğrencilerin medikal ve sosyal hizmetlerini karşılamak amacıyla kurulmuş olan Mediko-Sosyal Hizmetler Ünitesi'ne daha çok öğrencinin ulaşmasına imkân sunulmalıdır.

Keywords: Algılanan stres, Fiziksel aktivite, Lisans öğrencileri, Motivasyon.

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INTRODUCTION

Physical activity is defined as bodily movements that occur as a result of the contraction of skeletal muscles and require energy expenditure. Physical activity includes a wide range of activities including exercise, playing games, housework, walking, active transportation, recreational activities, free time activities, and daily living activities (Çolak & Erol, 2021; Özer, 2021). Physical activity is known to be an important public health measure in the treatment and prevention of various physical and mental diseases. Several studies have reported that physical activity has significant benefits in preventing the loss of physical and psychological function experienced by people with various chronic diseases such as cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis (Herbert et al., 2020; Maynou Pujolràs et al., 2021; Zulyniak et al., 2020). Having high levels of physical activity is related to physical, mental and social well-being (Biddle, 2016; Buecker et al., 2021). In other words, it is a key point for individuals to achieve biopsychosocial well-being. Although the physical, psychological and social health benefits of physical activity are well known, participation in physical activity is generally not at the desired levels (Katzmarzyk et al., 2022). It has been reported that physical activity can be used as a promising strategy to provide motivation, especially as it acts as a barrier to stress-related complaints (Wunsch et al., 2021). It is emphasised that motivation to participate in physical activity (MPPA) increases with age. However, it is emphasized that perceived stress can reduce this motivation, which can lead to a decrease in the level of physical activity (Hsu et al., 2019).

Stress refers to a challenging or threatening situation that disrupts an individual's physical and psychological well-being (Khanal & Shrestha 2021). The level of perceived stress increases as a result of the increase in the mismatch between the needed resources and environmental expectations (Alsaleem et al., 2021). The stress perceived by students during the university period is generally high. This is due to the high demands expected from students throughout their education. Being away from family, increasing personal expectations, time constraints, increasing academic load and exams, financial inadequacies can be shown among these stressor factors (Sharp & Theiler 2018). While a reasonable level of perceived stress leads to increased productivity and performance, physical and psychological health may be negatively affected when it exceeds this level (Alsaleem et al., 2021).

Negative emotions such as stress experienced by university students can affect their health and reduce their academic performance (Ribeiro et al., 2018). Maher et al. (2014) found that the life satisfaction of university students who participated in more physical activity

increased. It has been reported that people who are more physically active also tend to be less anxious and depressed (Stubbs et al., 2017). It has been reported in the literature that physiotherapy, nursing and nutrition students do not participate in adequate levels of physical activity (Athanasaki et al., 2023; Kgokong & Parker, 2020; Veseta et al., 2022). In this respect, it is valuable to determine the perceived stress and MPPA of students who will be key players in these professional groups that lead the way in recommending physical activity.

In the literature, it is seen that the effect of perceived stress on variables such as life satisfaction, health beliefs towards exercise, gastrointestinal symptoms, stress coping behavior and eating awareness in university students have been evaluated (Altaş et al., 2022; Babaoğlu & Özdenk, 2017; Caz, 2024; Ergin et al., 2018; Özavcı et al., 2023). No study was found that evaluated students' perceived stress level and MPPA together. High motivational level contributes to the formation of positive emotions. In this way, people become more willing to take actual action towards their goals and objectives. In other words, if students' MPPA is high, they can be more successful in participating in physical activity (Bozkurt & Tamer, 2020). In this regard, an increase in the perceived stress level may reduce motivation for physical activity, causing students to become more sedentary.

The contribution of this study to the literature is the examination of the relationship between perceived stress and MPPA among students from leading health professions, including physiotherapy and rehabilitation, nursing, and dietetics, who play a critical role in improving public health. It is thought that determining the perceived stress and MPPA in students studying these professions will guide researchers in terms of taking supportive measures. Therefore, in this study, it was aimed to investigate the perceived stress level and MPPA in students of the Faculty of Health Sciences. For this purpose, answers are sought to the following questions:

1. What are students' perceptions of stress levels and their motivation for participation in physical activity?

2. Is there a correlation between the level of stress students experience and their motivation to engage in physical activity?

3. Is there a difference in the level of stress and MPPA according to the socio-demographic characteristics of the students?

MATERIAL AND METHOD

Purpose and Type of Study

This research was carried out as a cross-sectional, descriptive and correlational study to investigate the association between perceived stress levels and MPPA among students of the Faculty of Health Science.

Place and Time of Research

The research was conducted with a total of 252 students enrolled in the Faculty of Health Sciences at Iğdır University during the 2023-2024 academic year. The study was carried out by sending the link to a form created via Google Forms to the participants through a mobile application.

Research Population and Sample

The population of the research consists of a total of 700 students at Iğdır University Faculty of Health Sciences in the 2023-2024 academic year. The sample was determined by the stratified random sampling method (Erdoğan et al., 2021). The sample size was determined as 252 students according to 80% power, 95% confidence interval, 0.25 effect size and 0.05 margin of error (G*Power 3.1.9.4). In addition, the number of staff in the population was stratified according to the departments (Nursing, Physiotherapy and Rehabilitation, Nutrition and Dietetics) considering the number of students (Karagöz, 2019). The numbers of students determined according to the strata are given in Table 1.

Table 1. Number of Students Determined According to Strata

Strata no.	Department	Number of students	Strata weight	Number of students to be included in the sample
1	Nutrition and Dietetics	150	150/700=0.22	0.22*252=55
2	Physiotherapy and Rehabilitation	200	200/700=0.28	0.28*252=71
3	Nursing	350	350/700=0.5	0.50*252=126
Total	3 departments	700	1.00	252 student

Inclusion Criteria

To be aged between 18 and 29,

Being a student of the Faculty of Health Sciences,

Having no health issues that would affect the level of physical activity,

Continuing active education,

Completing the data collection tools in full.

Exclusion Criteria

Those studying in another department other than the Faculty of Health Sciences,

Refusal to take part in a research study,

Not filling out the information form completely,

Those who have any problems that prevent physical activity.

Dependent and Independent Variables of the Study

The dependent variables of the research are the Perceived Stress Scale (PSS) and the Motivation Scale for Participation in Physical Activity (MSPPA). Independent variables constitute questions regarding socio-demographic characteristic.

Data Collection Tools

Data in the study; Personal Information Form was collected using the PSS and the MSPPA.

Personal information form: It consists of questions to inquire about the student's age, gender, height, weight, department, income status and weighted average.

Perceived stress scale (PSS): The PSS was developed by Cohen, Kamarck & Mermelste in 1983 (Cohen et al. 1983). Bilge et al. (2009) and as a result of the reliability analysis of the study, the Cronbach Alpha value was found to be 0.81. The scale is prepared on a 5-point Likert type (0 never, 4 very often) and gives a total score between 0-32. Among the items of the scale, three are reverse (items 4, 5, 6) and five are literal (items 1, 2, 3, 7, 8). The PSS has two subscales: perceived stress and perceived coping. The perceived stress subscale was determined as (items 1, 2, 3, 7, 8), and the perceived coping subscale was determined as (items 4, 5, 6). A high total score indicates a high level of perceived stress, while high scores from the subscales indicate a negative situation.

Motivation scale for participation in physical activity (MSPPA): The scale, developed by Tekkurşun Demir & Cicioğlu (2018), for which Turkish validity and reliability studies have been conducted, consists of 16 items and 3 sub-dimensions (individual reasons, environmental reasons and reasonlessness). This scale is used to evaluate individuals' motivation levels to participate in physical activity. The scores obtained reflect very low motivation levels between 1-16, low between 17-32, medium between 33-48, high between 49-64 and very high between 65-80 (Tekkurşun Demir & Cicioğlu, 2018).

Collection of Research Data

The research was conducted in the spring semester of the 2023-2024 academic year in a state university in Eastern Anatolia. Google forms and scales and the link link of the questions prepared for socio-demographic characteristics were sent to the students of a state university in Eastern Anatolia via mobile application. 'Informed consent form', "questions about social-demographic characteristics", "Perceived Stress Scale, and MSPPA" were used for data collection.

Ethical Aspect of Research

Ethical approval was obtained from Iğdır University Non-Interventional Clinical Research Ethics Committee (Meeting Date: 27.03.2024 and Number of Meetings/Decisions:7 /4). The purpose and benefits of the study, along with the participants' roles, were thoroughly explained to the students comprising the study sample. They were asked to carefully review the data collection forms. Participation in the study was conducted in accordance with the principle of voluntarism, and written informed consent was obtained from all participants. Participants were informed that the data obtained would not be used for purposes other than the study, that the data would be kept confidential and would only be used for scientific research purposes. The research was conducted in accordance with the Declaration of Helsinki, and research and publication ethics were followed.

Statistical Analysis

Data were statistically analysed using IBM SPSS Statistics 25 (version 25). The data were first assessed for normality. Whether the data showed normal distribution was checked with the range of Kurtosis and Skewness coefficients, and it was determined that the range in question was between +2.0 and-2.0, and the data showed normal distribution (Uysal & Kılıç 2022). For the evaluation of normally distributed data, descriptive statistical methods (mean, standard deviation, frequency) were employed. Additionally, the Independent Samples t-Test was used to compare quantitative data between two groups, while One-Way ANOVA was applied for comparisons involving more than two groups. Tukey HSD Post Hoc Test was conducted to identify specific group differences where significant variations were found. In addition, the relationship between the variables was analysed by Pearson correlation analysis. In the calculation of correlation strength; very weak correlation (r = 0-0.25), weak correlation (r = 0.26-0.49), moderate correlation (r = 0.50-0.69), strong correlation (r = 0.70-0.89) and very strong correlation (r = 0.90-1.0) were evaluate (Karagöz, 2019). The significance level was determined as $p<0.05$.

RESULTS

It was found that 69% of the students included in the study were between 21 and 23 years old, 64.7% were female, 50% were nursing students, 57.9% had an income status equal to their expenses, and 72.6% had a body mass index between 18.5-24.9 (Table 2).

Table 2. Descriptive Characteristics of Students

Variables	**(n=252)**	
	n	**%**
Age		
18-20	52	20.6
21-23	174	69.0
24 years and over	26	10.3
Gender		
Male	89	35.3
Female	163	64.7
Department		
Physiotherapy and Rehabilitation	71	28.2
Nursing	126	50.0
Nutrition and Dietetics	55	21.8
Income Status		
Income less than expenditure	64	25.4
Income equals expenditure	146	57.9
Income more than expenditure	42	16.7
Body Mass Index		
18.5 under	20	7.9
18.5-24.9	183	72.6
25.0-29.9	32	12.7
30.0-40	17	6.8

n: Number of participants, %: Rate of percent.

When the PSS was examined in relation to the introductory characteristics of the students, no statistically significant difference was found between the age groups with the mean scores of perceived stress sub-dimension and total scores ($p>0.05$) (Table 3).

When the averages were analysed according to the gender of the students, a statistically significant difference was found between gender and perceived stress sub-dimension and total stress mean scores ($p<0.05$). The mean perceived stress and total stress scores of female students were higher than those of male students (Table 3).

When the means were examined according to the departments, a statistically significant difference was found in the perceived coping sub-dimension by departments ($p<0.05$). It was observed that the perceived coping scores of nursing students were higher (Table 3).

When the means were examined according to the income level of the students, a statistically significant difference was found between the income status and the perceived coping sub-dimension and total stress mean scores ($p<0.05$). It was observed that the perceived coping scores of the students whose income level was lower than the expense were higher. It

was observed that the total stress mean scores of the students whose income level was higher than the expense were lower than the other income groups (Table 3).

When the averages were analysed according to the body mass index of the students, no significant difference was found between body mass index with perceived stress level mean scores ($p>0.05$) (Table 3).

When the averages were examined according to the students' weighted grade point average, a statistically significant difference was found between the weighted grade point average and the perceived stress and perceived coping sub-dimensions and total average scores ($p<0.05$). It was observed that the students with lower weighted grade point averages had higher perceived stress and perceived coping sub-dimensions and total average scores than the students with better weighted grade point averages (Table 3).

Table 3. Comparison of PSS Means According to Students' Descriptive Characteristics

Variables	Perceived Stress Sub-Dimension	Perceived Coping Sub-Dimension	Total Score
	$\overline{X}$±SD	$\overline{X}$±SD	$\overline{X}$±SD
Age			
18-20	10.87±3.82	5.42±2.27	16.29±5.19
21-23	11.02±3.41	5.82±1.84	16.84±3.77
24 years and over	10.12±3.35	5.73±1.63	15.85±3.83
F value	0.764	0.866	0.889
p value	0.467	0.422	0.413
Gender			
Male	9.92±3.56	5.92±2.06	15.84±3.94
Female	11.43±3.34	5.63±1.82	17.06±4.14
t value	3.279	-1.129	2.289
p value	0.001*	0.260	0.023*
Department			
Physiotherapy and Rehabilitation	10.68±3.50	5.41±1.96	16.08±4.26
Nursing	11.14±3.46	6.07±1.73	17.21±3.67
Nutrition and	10.62±3.57	5.36±2.13	15.98±4.69
Dietetics F value	0.627	4.104	2.614
p value	0.535	0.018*	0.075
Income Status			
Income less than expenditure	11.59±3.65	6.28±1.93	17.88±4.23
Income equals expenditure	10.75±3.21	5.60±1.80	16.35±3.57
Income more than expenditure	10.36±4.06	5.33±2.11	15.69±5.20
F value	1.922	3.961	4.493
p value	0.148	0.020*	0.012*
Body Mass Index			
18.5 under	10.20±3.54	5.10±1.77	15.30±4.26
18.5-24.9	10.98±3.51	5.74±1.89	16.72±4.23
25.0-29.9	11.28±3.70	6.25±1.90	17.53±3.36
30.0-40	9.73±1.95	5.09±2.30	14.82±1.94
F value	0.841	1.945	1.996
p value	0.472	0.123	0.115

Grade Point Average			
1.00-1.99	15.60±4.15	8.00±2.00	23.60±5.77
2.00-2.50	11.17±3.25	5.99±1.95	17.15±4.06
2.51-3.00	10.57±3.63	5.63±1.86	16.20±4.19
3.01-3.50	11.23±3.07	5.50±1.62	16.73±2.86
3.51-4.00	10.57±3.04	5.22±2.06	15.78±2.89
F value	2.839	2.727	4.755
p value	0.025*	0.030*	0.001*

X: Mean, SD: Standart deviation, * p <0.05 significant.

When the mean scores of MPPA according to the descriptive characteristics of the students were analysed, no statistically significant difference was found between the age groups, income level and weighted grade point average of the students and the sub-dimensions and total mean scores of MPPA (p>0.05) (Table 4).

When the mean scores of students' MPPA according to gender were analysed, a statistically significant difference was found between gender and individual reasons sub-dimension mean scores (p<0.05). The motivation of female students to participate in physical activity was higher than that of male students according to the individual reasons sub-dimension (Table 4).

When the students' average scores for MPPA were examined according to gender, a statistically significant difference was found between gender and the average scores for the individual reasons sub-dimension (p<0.05). The motivation for participation in physical activity of female students was higher than that of male students according to the individual reasons sub-dimension (Table 4).

When the students' MPPA mean scores were examined at the department level, a statistically significant difference was found in the department and individual and environmental reasons sub-dimensions (p<0.05). The MPPA of physiotherapy and rehabilitation students was higher than the individual and environmental reasons sub-dimensions (Table 4).

When the students' mean scores for MPPA were examined according to their body mass index, a statistically significant difference was found between the MPPA and the individual reasons sub-dimension, environmental reasons sub-dimension and total mean scores (p<0.05) (Table 4).

Table 4. Comparison of MSPPA According to Students' Descriptive Characteristics

Variables	**Individual Causes**	**Environmental Causes**	**Causelessness**	**Total Score**
	$\overline{X}$±SD	$\overline{X}$±SD	$\overline{X}$±SD	$\overline{X}$±SD
Age				
18-20	24.35±3.81	21.71±4.21	14.38±4.14	60.44±8.65

21-23	23.32±4.00	20.93±4.38	14.30±3.68	58.55±9.35
24 years and over	22.54±3.60	20.42±4.08	14.35±3.45	57.31±7.33
F value	2.151	0.955	0.009	1.283
p value	0.119	0.386	0.991	0.279
Gender				
Male	22.64±4.68	20.89±4.77	13.85±4.14	57.38±10.34
Female	23.89±3.41	21.12±4.05	14.58±3.49	59.59±8.17
t value	2.214	0.383	1.407	1.738
p value	0.028*	0.702	0.161	0.084
Department				
Physiotherapy and Rehabilitation	24.08±3.67	22.13±4.05	13.97±4.06	60.18±9.13
Nursing	22.80±4.24	20.47±4.40	14.30±3.73	57.57±9.14
Nutrition and Dietetics	24.06±3.37	20.93±4.25	14.84±3.34	59.87±8.44
F value	3.447	3.437	0.829	2.407
p value	0.033*	0.034*	0.438	0.092
Income Status				
Income less than expenditure	22.80±4.67	19.95±5.44	13.92±3.88	56.67±11.06
Income equals expenditure	23.61±3.62	21.37±3.86	14.25±3.68	59.23±8.05
Income more than expenditure	23.88±3.81	21.52±3.66	15.21±3.69	60.62±8.50
F value	1.247	2.754	1.592	2.825
p value	0.289	0.066	0.206	0.061
Body Mass Index				
18.5 under	23.80±2.94	22.10±3.43	13.85±3.97	59.75±8.20
18.5-24.9	23.89±3.67	21.23±4.24	14.68±3.72	59.80±8.56
25.0-29.9	23.81±4.51	19.09±5.09	12.88±3.87	53.78±9.96
30.0-40	19.91±5.02	20.18±2.22	13.55±2.65	53.64±7.37
F value	6.009	2.911	2.428	5.735
p value	0.001*	0.035*	0.066	0.001*
Grade Point Average				
1.00-1.99	22.60±4.61	19.00±6.70	14.80±4.81	56.40±10.04
2.00-2.50	23.19±3.88	21.08±3.81	14.71±3.42	58.99±8.34
2.51-3.00	23.80±4.01	21.23±4.44	14.38±3.72	59.42±9.35
3.01-3.50	21.73±2.97	19.59±4.15	13.00±3.32	54.32±7.33
3.51-4.00	24.09±4.26	21.61±4.67	13.96±4.89	59.65±10.01
F value	1.600	1.064	0.959	1.666
p value	0.175	0.375	0.431	0.158

X: Mean, SD: Standart deviation, * p <0.05 significant.

When the relationship between the students' MSPPA and the PSS mean scores was examined, a weak negative correlation was found (r: -0.228, p<0.001) (Table 5).

Table 5. Correlation Results Between the MSPPA and the PSS and The Mean Scores of the Scales

Variables	n	Min-Max	$\bar{X}$±SD	MSPPA	Perceived Stress Scale
MSPPA	252	26-80	58.81±9.04	1	-0.228**
Perceived Stress Scale	252	3-31	16.63±4.11	-0.228**	1

X: Mean, SD: Standart deviation, Min: Minimum, Max: Maximum, **p<0.001

When the students' mean scores on the MSPPA were examined; individual causes sub-dimension was 23.45±3.94 points, environmental causes sub-dimension was 21.04±4.31 points, causelessness sub-dimension was 14.33±3.74 points and total score was 58.81±9.04 (high

motivation) (Table 6). When the students' mean scores on the PSS were examined; perceived stress sub-dimension was 10.90±3.49 points, perceived coping sub-dimension was 5.73±1.91 points and total score was 16.63±4.11 points (Table 6).

Table 6. Scale Total and Subscale Score Distributions

		n	Min	Max	$\bar{X}$±SD
Motivation to Participate in Physical Activity					
	Individual Causes	252	11	30	23.45±3.94
	Environmental Causes	252	6	30	21.04±4.31
	Causelessness	252	4	20	14.33±3.74
	Total	252	26	80	58.81±9.04
Perceived Stress					
	Perceived Stress	252	0	20	10.90±3.49
	Perceived Coping	252	0	12	5.73±1.91
	Total	252	3	31	16.63±4.11

X: Mean, SD: Standart deviation, Min: Minimum, Max: Maximum.

DISCUSSION

This study aimed to determine the perceived stress level and MPPA in the students of the Faculty of Health Sciences and to provide recommendations for this purpose. University students are exposed to various challenges in order to meet the demands expected of them in order to be successful. The load caused by coursework and extracurricular activities makes students to feel under emotional pressure and stress (Kizhakkeveettil et al., 2017). Family, social, academic and financial burdens reveal the importance of approaches to manage this stress faced by students. With increased stress, students experience problems with their self-identity, while general health and immune factors are negatively affected (Largo-Wight et al., 2005).

The total perceived stress level of the students participating in this study was moderate. In the literature, it is observed that the stress experienced by female students is higher than male students (Graves et al., 2021; Iqbal et al., 2015; Keleş et al., 2022). The findings of our study are parallel to these results. The fact that stress is higher in female students may be due to biological differences and the difference in gender-specific immune profile (Rainville et al., 2018). Therefore, gender appears to be an important component that should be taken into consideration in reducing perceived stress in university students.

In this study, it was observed that the perceived coping situations of Nursing students were more negative than Physiotherapy and Rehabilitation and Nutrition and Dietetics students. In the literature, it is stated that practical education in nursing is more stressful than academic education (Topcu et al., 2015). In addition, factors such as emergencies needed in nursing

practice, irregularities in clinical practice and special unit rotations may create additional stress (Onieva-Zafra et al., 2020). The fact that there is a lot of practical training in nursing and that there is more dependence on professional practices compared to Physiotherapy and Rehabilitation and Nutrition and Dietetics departments may further increase perceived stress. This may negatively affect their ability to cope with stressors. As seen in this study, since the difficulties brought by professional practices between departments may differ, specific trainings for each department need to be revised.

In addition, it was observed that students with low income levels were disadvantaged in their perceived coping and total stress situations compared to other income groups. It is reported in the literature that the stress level perceived by students increases as their income level decreases (Özdenk & Kaya, 2019). In this respect, supporting students with low income levels with social policies to be developed may contribute to reducing the stress they perceive. In addition to these, an important factor that increases the stress perceived by students is the weighted grade point average. In this study, it was observed that the stress perceived by students with low grade point average was higher. This is an expected situation. In the literature, it is reported that students' perception of stress/discomfort decreases as their academic achievement increases (Önal & Filiz, 2023). Long-term and uncontrollable stress can reduce the effectiveness of education and negatively affect the health of students (Uysal & Toprak, 2021). In this respect, analytical approaches should be applied to students with low grade point averages to address the underlying reasons. Because the problems experienced by students may enter a vicious circle after a while and may negatively affect their professional development and academic performance. This may lead to the failure of the professional steps that health students will apply in their professional lives and may negatively affect patient safety.

As the perceived stress level increases, it negatively affects the MPPA (Demirtaş et al., 2017). The students in this study showed a high level of motivation to participate in physical activity. Within the individual reasons sub-dimension of the Physical Activity Motivation Scale, it was found that female students had higher motivation compared to male students. In addition, physiotherapy and rehabilitation students showed greater motivation in both the personal and environmental reasons sub-dimensions. This higher level of motivation is likely due to their coursework related to physical activity and exercise. This finding suggests that education about physical activity and exercise may be an effective strategy to increase motivation. It was also found that students with a higher body weight were less motivated to participate in physical activity. The literature shows that overweight people have negative

experiences regarding physical activity due to shame due to stigma (Vartanian et al., 2014). These individuals also prefer to stay away from exercise environments such as gyms (Sattler et al., 2018). Psychosupport practices should be provided for students who need emotional support to overcome their fear of stigmatization. In addition, physical activity and exercise programs should be developed and supervised by physiotherapists to increase their motivation and level of physical activity. Because current evidence emphasizes that physical activity and exercise provide effective results in the treatment of mental disorders (Carneiro et al., 2017; Schuch & Vancampfort, 2021).

In our study, there was a negative and weak correlation between students' perception of stress levels and their motivation to be physically active. Although students' motivation to engage in physical activity was high, their overall perceived stress levels were moderate. The literature suggests that physical activity can reduce the incidence of mental disorders such as stress (Firth et al., 2020). Physical activity has been shown to have protective effects against stress and anxiety (Schuch et al., 2019). A cross-sectional study of 1,095 university students in Spain found that increased participation in physical activity led to better endurance and emotional management, which contributed to a reduction in psychological distress (San Román-Mata et al., 2020).

Universities are seen as key environments in terms of education and health. Therefore, students are expected to create an environment where they can exhibit a healthy lifestyle and have high academic performance during their university years. However, students often have to lead sedentary lifestyle due to competitive grades, unemployment problems and lack of free time. This situation leads to both a sedentary lifestyle and increased stress levels. Therefore, training should be provided on methods of coping with students' perceived stress and campus intervention programs that increase physical activity should be implemented (Lee & Kim, 2019). In this way, students' perceived stress will decrease and their MPPA may increase. This may contribute to the increase in academic performance expected from them.

This study has some limitations. It is thought that the online application of the forms of the questionnaires and scales may make it difficult for the researchers to answer the questions that will be directed towards possible misunderstandings that may occur when students fill out the questionnaires and scales. The fact that the departments of the students included in the study were different and that the student population in each department had different numbers prevented a homogeneous distribution. In addition, the inclusion of students from only one

university in the study constitutes a limitation in terms of generalising the findings. Studies to be conducted with larger samples may facilitate the generalisation of the results.

CONCLUSION AND RECOMMENDATIONS

This study provided valuable insights into the perceived stress levels and motivation for physical activity among students in the Faculty of Health Sciences. The findings revealed that while the overall perceived stress of these students was moderate, their motivation to engage in physical activity was high. A weak negative correlation was observed between the average scores of the students' MPPA and their perceived stress levels. These findings can inform future research design and health student interventions. It is important to implement preventive strategies aimed at reducing students' perceived stress and to develop educational programs that enhance their participation in physical activity. In this regard, universities should promote initiatives to increase students' physical activity levels and encourage more effective use of psychological counseling and guidance services. More students should have access to the Medico-Social Services Unit, which is established to meet the medical and social services of students within universities. These approaches can reduce the level of stress perceived by students and increase their motivation to participate in physical activity. Additionally, conducting qualitative research with in-depth interviews could be suggested to better understand students' perceived stress and motivation for physical activity.

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