



Determination of Physical Education and Sports Teachers' Nutrition Habits and Physical Activity Levels in the Global Epidemic (Covid-19) Process

Ramazan Erdogan^{1*}

Metin Yilmaz²

Isa Aydemir³



(✉ Corresponding Author)

¹Bitlis Eren University School of Physical Education and Sport, Bitlis, Turkey.

¹Email: ramaznerdogan@hotmail.com

^{2,3}Firat University Faculty of Sport Sciences, Elazig, Turkey.

Abstract

This research was conducted to determine Physical Education and Sports teachers' nutritional habits and physical activity levels during the global epidemic (covid-19) process. 156 (121 male, 35 female) volunteer physical education and sports teachers working in Elazig province participated in the study. In order to determine the demographic information of participants, the personal information form; to determine the nutritional habits and physical activity levels, the "Investigation of Nutrition Habits and Nutrition Knowledge Levels" developed by Yücel (2015) and to determine the physical activity levels, the short form of the "International Physical Activity Questionnaire" were applied to participants. The SPSS package program was used in the analysis of the data and the significance level was accepted as $p < 0.05$. According to the research results, it was determined that 89.1% of physical education and sports teachers did not receive nutrition education, 62.2% had a chronic disease, 27.6% were in the age range 43 and above, 67.3% were married, 59% were between 171-180 cm, 38.5% were between 71-80 kg, 27.6% had a seniority between 6-10 years and 42,9% had income between 4001-5000 TL. 47.4% of the teachers stated the effect of the state's "Stay at Home" project on physical activity as no, 37.2% yes, 15.4% partially and most of them stated that body weight increased during the pandemic period. It was observed that the mean scores of the participants' nutritional habits before the pandemic were lower than their mean scores during the pandemic period and a statistically significant difference was determined ($p < 0.05$). In addition, before the pandemic, it was seen that the physical activity score averages of the participants were higher than the physical activity score averages during the pandemic period, and statistically significance was determined ($p < 0.05$). As a result, it was observed that the eating habits of the physical education and sports teachers participating in the study were negatively affected during the pandemic period, and their physical activity levels decreased. In this context, we believe that the promotion of regular physical activities as well as adequate and balanced nutrition during the epidemic period will contribute to the individuals to overcome the epidemic with minimum damage.

Keywords: Physical education Sports teacher, Coronavirus, Healthy lifestyle, Nutrition habits, Physical activity.

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Contents

1. Introduction	52
2. Materials and Methods	52
3. Findings	53
4. Discussion	57
5. Conclusion	58
References	58

Contribution of this paper to the literature

This study contributes to existing literature by determining Physical Education and Sports teachers' nutritional habits and physical activity levels during the global epidemic (covid-19) process.

1. Introduction

The corona virus (Covid-19) appeared in Wuhan, China in December 2019, and despite all the measures taken by the Chinese government to stop this epidemiological phenomenon, it could not prevent the spread of the infection to the world. In this context, a number of difficulties have arisen in the world that have changed the usual life due to the Covid-19 epidemic (World Health Organization, 2020). Many countries have adapted to the new situation, especially social distance, mask, hygiene and home isolation have now become part of everyday life (Merriam-Webster, 2020; Miller, 2020).

With the measures taken to prevent and control the spread of the Covid-19 epidemic, a number of changes have occurred in eating habits, physical activity levels, consumer behavior, education and training methods and daily life. In order to prevent these negative changes in the life of societies, continuation of physical activity, sleep patterns, adequate and balanced nutrition are of great importance. Especially in the restrictions that exist with the quarantine period, regular physical activities as well as adequate and balanced nutrition are important in protecting the health of individuals. By encouraging all these factors (physical activity, adequate and balanced diet, social distance, etc.), it will be the most effective treatment method in protecting individuals and communities against the virus (Imboden et al., 2019; Lavie, Ozemek, Carbone, Katzmarzyk, & Blair, 2019; Ozemek et al., 2018).

Nutrition is expressed as individuals' taking adequate amounts of nutrients and using them in the body in order to continue their lives in a more vigorous and productive way as well as growth and development. And adequate and balanced nutrition is defined as taking enough and needed amount of food to continue their lives in a healthy way and use it in the body. It is important to protect people from diseases together with the protection of physical fitness level of people with adequate and balanced nutrition (Bozkurt & Erdoğan, 2019).

Physical activity is expressed as making a movement in the body as a result of people's energy expenditure (Cengiz & Delen, 2019). Regular physical activities not only reduce stress and anxiety, but also affect the immune system positively (Nieman & Wentz, 2019). Professional institutions and persons in the field stated that exercises for 150-300 minutes of moderate intensity activities or half of these times for high intensity per week, and balance and strength exercises involving large muscle groups 2 days a week would positively contribute to individuals' physical fitness levels as well as maintaining their health (Demirel & Kayihan, 2014; Piepoli et al., 2016; Piercy, Troiano, & Ballard, 2018). They stated that people who regularly engaged in physical activity could reduce the risk of acute respiratory distress syndrome, which is an important cause of death in patients with corona virus (COVID-19, 2020). In addition to the sedentary lifestyle that emerged as a result of the epidemic period, inadequate and unbalanced nutrition also increases the risk of cardiovascular diseases, obesity and Covid-19.

The Covid-19 epidemic affects the way of life of societies, as well as making it difficult by negatively affecting the lifestyles of physical education and sports teachers, who previously had a more active lifestyle. The responsibility of individuals to support the immune system during the epidemic period has been stated as adopting a healthy lifestyle, eating adequate and balanced nutrition, paying attention to sleep patterns and maintaining regular physical activities (Naja & Hamadeh, 2020). In addition, individuals are recommended to avoid smoking and alcohol and to minimize stress (Harvard Medical School, 2020). It is stated that individuals who cannot isolate themselves and do not regularly implement a physical activity program are at risk during the epidemic period (Centers for Disease Control and Prevention, 2020).

In this context, for physical education and sports teachers to continue their lives in a healthy way during the global epidemic process depends on regular physical activity as well as adequate and balanced nutrition during the quarantine process. This research was conducted to determine the nutritional habits and physical activity levels of physical education and sports teachers in the covid-19 process.

2. Materials and Methods

Participants: The population of the study consisted of physical education and sports teachers working in Elazığ province, and the sample group consisted of 156 (121 male, 35 female) physical education and sports teachers who voluntarily participated in the study.

Data Collection Tools: Questionnaire method, one of the data collection techniques, was used in the study. In obtaining the data: A "Personal Information Form" consisting of 7 questions to determine the demographic information of the participants was applied. To determine the nutritional habits, a questionnaire consisting of 25 questions by Yücel (2015) aiming to examine the Nutrition Habits and Nutrition Knowledge Levels of Healthcare Professionals was applied. And the short form of the "International Physical Activity Questionnaire" was adapted according to the purpose of the study and applied to the participants in the process of obtaining the data.

2.1. MET (Metabolic Equivalence) Calculation

1 MET = 3.5 ml / kg / min. oxygen consumption

METx3.5x weight (kg) / 200 = ... kcal / min.

According to the physical activity score, the physical activity levels of the participants are classified as "low, medium and high" (Devran & Saka, 2019):

- < 3 MET mild severe activity.
- 3-6 MET moderate severe activity.
- > 6 MET high intensity activity.

Statistical Analysis: In the analysis of the data, SPSS package program was used and the data determined to show normal distribution by looking at the normality test analysis of "Kolmogorov-Smirnov" values, were applied

Independent Samples t and One-Way Anova test for in-group comparisons. Significance level was accepted as $p < 0.05$.

3. Findings

Table-1. Demographic information of physical education teachers.

		Frequency	Percent (%)
Gender	Male	121	77.6
	Female	35	22.4
Age	23-27	19	12.2
	28-32	25	16
	33-37	37	23.7
	38-42	32	20.5
	43 and over	43	27.6
Marital status	Married	46	29.5
	Single	105	67.3
	Divorced	5	3.2
Size	150-160	6	3.8
	161-170	35	22.4
	171-180	92	59
	181-190	23	14.7
Weight	51-60	13	8.3
	61-70	27	17.3
	71-80	60	38.5
	81-90	36	23.1
	91 and over	20	12.8
Professional Seniority	1-5	38	24.4
	6-10	43	27.6
	11-15	27	17.3
	16-20	22	14.1
	21 and over	26	16.7
Income status	3000-4000	32	20.5
	4001-5000	67	42.9
	5001-6000	37	23.7
	6001-7000	9	5.8
	7001 and over	11	7.1
Nutrition Education	Yes	17	10.9
	No	139	89.1
Chronic Disease	Yes	97	62.2
	No	59	37.8

3.1. Physical Education and Sports Teachers' Pre-Pandemic Nutritional Habits and Physical Activity Levels Frequency Analysis

Table 2. Physical education teachers' nutritional knowledge levels.

		Frequency	Percent (%)
Number of main meals per day	1 meal	-	-
	2 meals	83	53.2
	3 meals	73	46.8
	More	-	-
Skipping meals during the day	Breakfast	15	9.6
	Lunch	81	51.9
	Dinner	6	3.8
	No skip	54	34.6
Reasons for skipping meals	Changes in eating habits	22	14.1
	For not wanting to	31	19.9
	Gaining weight	12	7.7
	Stress	17	10.9
	Changes in sleeping habit	14	9
	Being busy	60	38.5
The most common types of food / drink consumed between meals	Carbonated / Acid drinks	12	7.7
	Juice etc.	23	14.7
	Cake / Cookie / Biscuit	33	21.2
	Candy / Chocolate etc.	16	10.3
	Fruit / Dried fruit etc	72	46.2
Daily water consumption	1 liter and less	30	19.2
	1.5 liters	52	33.3
	2 liters	29	18.6
	2.5 liters	19	12.2
	3 liters and more	26	16.7

When **Table 1** is examined, it is seen that the physical education and sports teachers; gender, age, marital status, height, weight, professional seniority and income status respectively determined as follows:

77.6% are men, 22.4% are women, 43 people are 43 years old and over, 37 people are 33-37 years old, 32 people are 38-42 years old, 25 people are 28-32 years old and 19 people are 23-27 years old 67.3% are married, 29.5% are single, 3.2% are divorced, 92 persons are between 171-180 cm, 35 persons are between 161-170 cm, 23 persons are between 181-190 cm, 6 persons are between 150-160 cm, 60 persons are between 71-80 kg, 36 persons are between 81-90 kg, 27 persons are between 61-70 kg, 20 persons are 90 kg and above, 13 persons are between 51-60 kg, 43 persons have seniority between 6-10 years, 38 persons 1-5 years, 27 persons 11-15 years, 26 persons 21 years and above, 22 persons 16-20 years, 67 persons have an income level of between 4001-5000 TL, 37 persons 5001-6000 TL, 32 persons 3000-4000 TL, 11 persons 7001 TL and above, and 9 people had an income level of 6001-7000 TL. In addition, 89.1% of the participants were found not to receive nutrition training and 62.2% of them had a chronic disease.

According to Table 2 it has been determined that 46.8% of the physical education and sports teachers participating in the study consume three main meals a day, 51.9% do not regularly eat lunch, 38.5% skip meals due to workload, 46.2% mostly have fruit / dried fruit etc. in snacks, and 33.3% consume 2 liters of water.

Table-3. Physical education teachers' physical activity levels.

		Frequency	Percent (%)
Do you do physical activity regularly?	Yes	60	38.5
	No	30	19.2
How many days do you exercise in a week?	Not totally	66	42.3
	None	15	9.6
	1 day	16	10.3
	2 days	32	20.5
Where do you do your physical activities?	3 days	55	35.3
	3 days or more	38	24.4
	At home	47	30.1
	Jogging / Walking Areas	53	34
How many hours / minutes do you exercise per week?	Sports Areas of the Municipality	35	22.4
	Sports Halls	21	13.5
	Minute / average	240. 22	

When Table 3 was examined it was found that physical education and sports teachers who participated in the study; 42.3% of them partially participated in a physical activity program, 35.3% did physical activity three days a week and 30.1% did physical activity at home.

3.2. Physical Education and Sports Teachers' Nutritional Habits and Physical Activity Levels Frequency Analysis during Pandemic Period

Table-4. Physical education teachers' nutritional knowledge levels.

		Frequency	Percent (%)
Has there been any change in the nutrition habits during the pandemic period?	Yes	67	42.9
	No	46	29.5
	Partly	43	27.6
Number of main meals per day	1 meal	69	44.2
	2 meals	70	44.9
	3 meals	17	10.9
Skipping meals during the day	Breakfast	15	9.6
	Lunch	80	51.3
	Dinner	48	30.8
	No skip	13	8.3
Has there been any change in the type of food / beverage for the snack you consume during the pandemic?	Yes	47	30.1
	No	63	40.4
	Partially	46	29.5
Reasons for skipping meals	Changes in eating habits	22	14.1
	For not wanting to	19	12.2
	Gaining weight	13	8.3
	Stress	65	41.7
	Changes in sleeping habit	28	17.9
	Being busy	9	5.8
Has there been a change in the number of daily main meals during the pandemic process?	Yes	69	44.2
	No	87	55.8
Has there been a change in daily fluid consumption?	Increased	53	34
	Decreased	33	21.2
	Unchanged	70	44.9
The most common types of food / drink consumed between meals	Carbonated / Acid drinks	15	9.6
	Juice etc.	19	12.2
	Cake / Cookie / Biscuit	38	24.4
	Candy / Chocolate etc.	19	12.2
	Fruit / Dried fruit etc.	52	33.3
Daily water consumption	Carbonated / Acid drinks	13	8.3
	1 liter and less	31	19.9
	1.5 liters	39	25
	2 liters	33	21.2
	2.5 liters	21	13.5
	3 liters and more	32	20.5

When Table 4 is examined, it is observed that 42.9% of the physical education and sports teachers participating in the study have changes in their eating habits, 44.9% consume two main meals a day and the most skipped main meal is lunch with 51.3% and 41% 7 of them skip meals due to stress.

Table-5. Physical education teachers' physical activity levels.

		Frequency	Percent (%)
Do you do physical activity regularly?	Yes	58	37.2
	No	49	31.4
	Partially	49	31.4
How many days do you exercise a week?	1 day	21	13.5
	2 days	54	34.6
	3 days	49	31.4
	3 days or more	32	20.5
Has there been a negative change in your physical activity status?	Yes	67	42.9
	No	19	12.2
	Partially	70	44.9
Where do you do your physical activities?	At home	103	66
	Jogging / Walking Areas	23	14.7
	Sports Areas of the Municipality	12	7.7
	Sports Halls	18	11.5
Do you believe home exercises are helpful?	Yes	85	54.5
	No	20	12.8
	Partially	51	32.7
Has the State's Stay Home Project affected your exercise?	Yes	58	37.2
	No	74	47.4
	Partially	24	15.4
Has your body weight changed?	Increased	84	53.8
	Decreased	32	20.5
	Unchanged	40	25.6
How many hours / minutes do you exercise per week?	Minute / average	132.24	

Looking Table 5, it was determined that the majority of physical education and sports teachers participating in the study did not participate in a physical activity program regularly, 34.6% did physical activity two days a week, 53.8% had an increase in their body weight and 66% did physical activity at home. In addition, 47.4% of respondents expressed no, 37.2% yes and 15.4% partially on the item "Was "Stay at Home" project of the state effective in your physical activity?"

3.3. Physical Education and Sports Teachers' Pre-Pandemic Nutrition Habits and Physical Activity Levels *t* and Variance Analysis

Table-6. Physical education and sports teachers' analysis of nutritional habits and nutritional knowledge levels *t* test according to their demographic information.

		Nutrition		t	P	Physical Activity		t	p
		\bar{X}	Sd			\bar{X}	Sd.		
Gender	Female	13.57	5.04	56.831	0.00	7.01	2.26	-65.077	0.00
	Male	22.28	1.27			12.00	0.00		
Nutrition Education	Yes	6.64	0.70	77.473	0.00	5.29	2.05	-3.822	0.05
	No	16.61	5.15			8.48	2.78		
Chronic Disease	Yes	11.68	3.67	44.055	0.00	6.49	2.23	15.435	0.12
	No	21.84	1.21			10.83	1.44		

Note: $p < .05$.

Looking at the Tables 6 and 7, It was determined that there was a statistically significant difference between the mean scores of physical education and sports teachers participating in the study from their nutritional habits and physical activity levels according to gender, marital status, educational status, profession, age, height, weight, nutritional education and income, while no statistically significant difference was found according to the chronic disease status.

3.4. Physical Education and Sports Teachers' Nutritional Habits and Physical Activity Levels *t* and Variance Analysis during Pandemic Period

When Tables 8 and 9 are evaluated, it has been determined that there is a statistical difference between the mean scores of dietary habits and physical activity levels of physical education and sports teachers participating in the study according to their gender, marital status, educational status, profession, age, height, weight, nutritional education, chronic disease status and income.

3.5. Physical Activity Levels *t* Test Analyzes of Physical Education and Sports Teachers in and before the Pandemic Period

When Table 10 is examined, it has been determined that there is a statistically significant difference between the physical activity levels of physical education and sports teachers participating in the study during and before the pandemic period.

Table-7. Variance analysis of physical education teachers' eating habits and physical activity levels according to demographic information.

		Nutrition		F	Sig	Physical Activity		F	Sig
		\bar{X}	Sd			\bar{X}	Sd.		
Age	23-27	6.78	0.78	740.47	0.00	5.26	1.93	228.74	0.00
	28-32	9.96	1.17			5.00	0.00		
	33-37	12.67	1.31			6.32	0.74		
	38-42	19.34	1.69			9.84	1.13		
	43 or over	22.23	1.15			11.51	1.05		
Height	150-160 cm	6.00	0.00	94.58	0.00	6.33	1.63	67.956	0.00
	161-170 cm	8.82	1.65			4.91	1.24		
	171-180 cm	17.00	4.27			8.51	2.30		
	181-190 cm	22.30	1.55			12.00	0.00		
Weight	51-60 kg	6.38	0.50	265.46	0.00	4.84	2.07	75.040	0.00
	61-70 kg	9.29	1.38			5.25	0.94		
	71-80 kg	14.31	2.96			7.53	2.18		
	81-90 kg	21.80	0.78			10.33	1.45		
	91 kg or over	22.20	1.64			12.00	0.00		
Marital Status	Married	18.31	4.32	110.02	0.00	5.13	1.30	71.751	0.00
	Single	8.69	1.90			9.26	2.37		
	Divorced	19.80	1.78			12.00	0.00		
Professional Seniority	1-5 years	8.21	1.74	595.465	0.00	5.13	1.43	226.091	0.00
	6-10 years	12.44	1.35			6.13	0.83		
	11-15 years	18.96	1.55			10.00	1.17		
	16-20 years	21.86	0.35			10.36	1.43		
	21 years or over	22.38	1.47			12.00	0.00		
Income Status	3001-4000	7.68	1.35	248.966	0.00	5.06	1.54	67.150	0.00
	4001-5000	13.83	2.91			7.25	2.18		
	5001-6000	21.75	0.83			10.29	1.45		
	6001-7000	23.00	0.00			12.00	0.00		
	7001 or over	21.54	2.01			12.00	0.00		

Note: p<.05.

Table-8. Physical education and sports teachers' nutritional habits and physical activity levels t test analyzes according to the demographic information.

		Nutrition		t	p	Physical Activity		t	p
		\bar{X}	Sd			\bar{X}	Sd.		
Gender	Female	18.45	6.84	-11.131	0.00	6.22	2.40	-6.281	0.00
	Male	31.54	2.16			8.85	1.08		
Nutrition Education	Yes	9.23	0.66	-7.552	0.00	4.00	0.00	-5.488	0.00
	No	22.87	7.42			7.15	2.36		
Chronic Disease	Yes	16.14	5.58	-17.959	0.00	6.05	2.48	-5.446	0.00
	No	30.01	2.55			8.06	1.76		

Note: p<.05.

Table-9. Physical education teachers' nutrition habits and physical activity levels variance analysis according to demographic information.

		Nutrition		F	Sig	Physical Activity		F	Sig
		\bar{X}	Sd			\bar{X}	Sd		
Age	23-27	9.42	0.83	521.459	0.00	4.00	0.00	53.741	0.00
	28-32	12.40	0.86			4.36	0.48		
	33-37	18.48	3.25			8.18	2.54		
	38-42	25.87	1.71			6.21	1.73		
	43 or over	31.06	2.18			8.74	1.07		
Height	150-160 cm	9.00	0.00	155.360	0.00	4.00	0.00	45.458	0.00
	161-170 cm	11.22	1.47			4.17	0.38		
	171-180 cm	23.19	5.18			7.46	2.23		
	181-190 cm	32.86	1.35			8.95	1.10		
Weight	51-60 kg	9.00	0.00	280.095	0.00	4.00	0.00	32.233	0.00
	61-70 kg	11.74	1.05			4.18	0.39		
	71-80 kg	20.21	4.38			7.28	2.45		
	81-90 kg	28.52	1.15			7.91	1.82		
	91 kg or over	33.15	1.22			8.80	1.10		
Marital Status	Married	25.23	5.54	162.316	0.00	7.84	2.14	68.664	0.00
	Single	11.23	1.77			4.23	0.43		
	Divorced	34.00	0.00			34.00	0.00		
Professional Seniority	1-5 years	10.73	1.51	481.558	0.00	4.10	0.31	51.118	0.00
	6-10 years	17.79	3.48			7.72	2.63		
	11-15 years	25.55	1.67			5.70	1.29		
	16-20 years	28.68	0.64			8.77	0.92		
	21 years or over	32.42	1.79			8.76	1.17		
Income Status	3001-4000	10.37	1.36	210.333	0.00	4.12	0.33	23.776	0.00
	4001-5000	19.22	4.71			6.94	2.52		
	5001-6000	28.48	1.16			7.83	1.86		
	6001-7000	32.11	1.16			9.44	0.88		
	7001 or over	34.00	0.00			8.27	1.00		

Note: p<.05.

Table-10. Physical activity levels t test analyzes of physical education teachers in and before the pandemic period.

		\bar{X}	Sd	t	p
Physical Activity	Before Pandemic	7.53	2.49	24.604	0.00
	Pandemic Period	6.81	2.44		
Nutrition	Before Pandemic	15.52	5.77	-3.503	0.01
	Pandemic Period	21.39	8.20		

Note: $p < .05$.

4. Discussion

When the eating habits of physical education and sports teachers before and during the pandemic are examined in the study; Before the pandemic, 53.2% of the teachers stated that the number of main meals per day was two, 51.9% stated that the most skipped main meal during the day was lunch, 38.5% of them said that the reason for skipping meals was work intensity, 46.2% of them stated that they consume fruit / dried fruit etc. between meals and 33.3% of them stated that they consume 1.5 liters of water per day. During the pandemic period, 44.2% of the teachers stated that the number of their main meals per day was two, 51.3% stated that the most skipped main meal during the day was lunch, 41.7% stated that the reason for skipping meals was stress, 33% of them stated that they consume fruit/dried fruit etc between meals and 25% of them stated that they consume 1.5 liters of water a day. It was observed that most of the physical education and sports teachers participating in the study had a chronic illness and had not received any nutrition training before. In addition, it was also determined that the participants' eating habits during and before the pandemic were not adequate and regular. In line with these results, it is seen that there are changes in the nutritional habits of physical education and sports teachers with the pandemic. [Tiryaki, Pehlivan, and Baba \(2020\)](#) found that 14.7% of the participants were exercising at home and 54% ate two meals a day in the study, in which they examined the determination of the basic psychological needs of sports sciences students staying at home during the pandemic period. [Mattioli, Sciomer, Cocchi, Maffei, and Gallina \(2020\)](#) stated in their study that by encouraging activities such as healthy eating and regular physical activity during the pandemic period, people's risk of getting sick would decrease and the epidemic period would be overcome with minimum damage. [Akyol and Celik \(2020\)](#) found in their study that the nutritional habits of university students were negatively affected during the Covid-19 process. [Khoramipour et al. \(2020\)](#) in their study on physical activity and nutritional guidelines to help combat Covid-19, stated that a regular physical activity program and adequate and balanced nutrition will strengthen the immune system and have positive effects during the epidemic period. [Mor, Acar, and Arslanoğlu \(2020\)](#) stated in their compilation study that adequate and balanced nutrition would minimize the risk of developing diseases by strengthening the immune system. [Garipoğlu and Bozar \(2020\)](#) investigated the eating habits of individuals in social isolation in the Covid-19 epidemic and found that the participants' eating habits were irregular and their physical activity levels were low. [Tek and Koçak \(2020\)](#) stated in their research on the role of nutrition in supporting the immune system in the fight against coronavirus, that adequate and balanced nutrition will positively affect the immune system and help both the quality of life and the prevention of the epidemic. [Dilber and Dilber \(2020\)](#) found that the participants' eating habits were negatively affected during the epidemic period in the study in which they examined the effect of corona virus outbreak on individuals' eating habits. [Ammar et al. \(2020\)](#) in their study examining the effects of home isolation on nutrition and physical activity during the covid-19 period, stated that the pandemic period had a negative effect on physical activity and eating habits.

When the physical activity levels before and during the pandemic of the physical education and sports teachers participating in the study were evaluated, before the pandemic, 42.3% of teachers stated that they partly did a physical activity, 35.3% exercised three days a week and 34% did their physical activities in the running/walking areas. During the pandemic, 37.2% of teachers stated that they regularly did physical activity, 34.6% exercised two days a week and 66% said they did their physical activity at home. In addition, it was observed that the physical activity levels of the participants were insufficient during and before the pandemic. [Tural \(2020\)](#) in his study investigating the effect of physical activity on quality of life during pandemic period home quarantine, determined that the physical activity levels of the participants were low. [Ercan and Keklicek \(2020\)](#) stated that the physical activity levels of the participants were low in the research in which they examined the physical activity levels of university students due to the Covid-19 pandemic. [Ozemek et al. \(2018\)](#) stated in their study on Covid-19 and physical inactivity that physical activity would help prevent both Covid-19 and cardiovascular disorders that might occur in the organism. [Cheval et al. \(2020\)](#) stated in their study that doing enough physical activity and reducing the sedentary life span would help in coping with the Covid-19 epidemic. [Pündük \(2020\)](#) stated in his review study that regular exercises affect the immune system positively as well as protection against the virus and exercise can be recommended as a prescription. [Woods et al. \(2020\)](#) stated in their study that lower intensity and progressive exercises would strengthen the body's immune system and overcome the epidemic period with minimal damage, as high-intensity resistance exercises to be applied during the epidemic period would weaken the immune system. [Arslan and Ercan \(2020\)](#) studied the importance of exercise during the Covid-19 pandemic and social isolation process, stated that to overcome the pandemic process with minimal damage not only being active at home but also organizing exercise programs considering the physical characteristics of individuals would positively affect the health of individuals.

It was determined that there is a statistically significant difference in nutrition and physical activity levels of physical education and sports teachers participating in the study during and before the pandemic period ($p < 0.05$). While the average score of physical activity levels of physical education sports teachers before the pandemic is higher than the pandemic period, the average score of nutritional habits before the pandemic is lower than the pandemic period. It was observed that the participants paid more attention to their eating habits during the pandemic period. In addition, it was determined that the participants did not pay attention to their physical activity levels during the pandemic period. This may be due to home isolation and restrictions imposed to prevent the spread of the virus as a result of the pandemic. [Reyes-Olavarría et al. \(2020\)](#) in the study examining the nutrition

and physical activity levels of individuals during the Covid-19 epidemic, stated that the Chilean people had changes in their eating habits, increase body weight and decrease in physical activity levels compared to the pre-epidemic period. Simşek, Koç, Ozsoy, and Karakuş (2020) found in their study that there was a statistical difference between physical activity levels before and after the pandemic. Sánchez-Sánchez et al. (2020) In their study, they examined the eating habits and physical activity levels of the Spaniards during and before the epidemic period. They stated that there were changes in their eating habits and they adopted an unhealthy eating habits such as alcoholic beverages, snacks and desserts, and their physical activity levels decreased compared to the pre-epidemic period.

5. Conclusion

As a result; during the pandemic period, it was determined that physical education and sports teachers' nutritional habits and physical activity levels were negatively affected. We believe that it will be beneficial to do physical activity regularly, as well as adequate and balanced nutrition, in order to overcome this new epidemic, which the whole world is struggling with today, with minimal damage. During the Covid-19 outbreak, activities such as information, programs, etc. can be arranged that will protect people's health, strengthen their immune systems, regulate their eating habits and increase their level of physical activity.

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