



Research Article

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Physical activity levels and nutritional habits of physical education teachers during the covid-19 pandemic process

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Abstract

Background: While previous studies investigated the impact of the covid pandemic on society, no study findings were found on physical activity and nutrition habits of physical education teachers in this period. Therefore, this study was planned. For this purpose, a total of 238 Physical Education Teachers with an average age of 32.5±6.8 years, working in Çanakkale Province, participated voluntarily. Result: Physical Activity score (MET) in women was 1586.1±1646.1 MET; in males, it was found to be 1952.9.1±1558.6 MET. The frequency of daily meal consumption of the participants is mostly 3 meals (51.2%), the meals are mostly morning, noon and evening, respectively; it was determined that egg (17%), rice (20.2%) and meat dish (16.7%) were consumed. It was determined that fast food consumption was consumed 1 day a week with a rate of 53.7%, and the frequency of liquid consumption was mostly 1-2 lt (53.3%) per day. It was determined that tea-coffee type beverages were generally (50%) 1-2 glasses a day, and most of the participants (65.9%) did not consume cigarettes and alcohol (82.2%). When the results were evaluated, it was found that the frequency of exercise and physical activity levels of the participants were low, the fast-food style eating habits were high and their daily fluid consumption was low. Conclusion; it can be said that in order to prevent the health problems that may be caused by sedentary life during the pandemic process, it can be beneficial to gain regular exercise habits and to give seminars on healthy nutrition.

Keywords: Covid-19, Pandemic, Physical Activity, Exercise, Nutritional Habit.

INTRODUCTION

Epidemics have created problems for us humans in every aspect throughout our lives. Because these epidemics affect not only the people infected with the virus, but also indirectly or directly the entire society in which people live. As a result of the rapid spread of diseases with a high risk of transmission due to the effect of an infection on a living thing, it is called an epidemic when the infection causes disease in many living things. When we examine the term pandemic again (ancient Greek: pan: all + demos: people); It can be defined as epidemic diseases that affect cities, countries, continents and even the whole world and spread rapidly [1]. The most obvious condition of being healthy is that the nutritional values that individuals take during the day should meet the amount of energy they spend. Not getting enough of these foods on a day with a lot of energy or consuming more than necessary on a day spent sedentary are the biggest threats to health [2]. Although the concepts of adequate, balanced and healthy nutrition are related to each other, they have different meanings. When we examine these concepts as content; "Adequate Nutrition" means that our body receives the energy necessary to fulfill its duties in a healthy way, from the foods it consumes and supplements as much as it needs. When we look at the concept of "Balanced Nutrition", it is to ensure that the foods we consume are taken into the body in a balanced way to meet the energy we need. Finally, "Healthy Eating" refers to avoiding practices that endanger health in the production, supply, preparation and storage of foods to be consumed [3]. One of the most important results of being in quarantine is the decrease in the exercise levels of individuals during the day [4]. Spending time without moving around the house all day long; It has caused sedentary life to come to the fore and some chronic diseases, which are powered by inactivity, to settle in our body or to progress further. When we look at the effects of all these results on our body; decrease in muscle strength, difficult-to-repair disorders in our immune system, and an increase in the risk of contracting viral diseases as an effect of these disorders [5]. In order to get rid of a sedentary life, it is very important to apply some combined exercises at home during the day in order to protect our health. Going up and down stairs, changing the place of things, walking, some household chores can be given as examples. Apart from these, creating a small sports area at home and making use of digital videos; practice of push-ups, sit-ups, pilates,

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yoga exercises; It is also recommended to do various physical activities in safe outdoor areas, taking into account the mask and distance [5].

Studies on Physical Education Teachers, who provide guidance to the society about active life and healthy nutrition, are very limited, especially during the time we have to spend in our homes during the pandemic process. Therefore, the aim of this study is; The aim of this study is to examine the physical activity and healthy eating habits of this special group during the pandemic.

MATERIAL AND METHODS

In the study; 238 Physical Education Teachers working in Çanakkale participated voluntarily. International Physical Activity Questionnaire-Short Form and Nutritional Habits Questionnaire was applied to the participants. The questionnaire was delivered online and the data were collected online.

International Physical Activity Questionnaire- Short Form: It is recommended to apply the questionnaire to adults aged 18-69 [6]. In the questionnaire, there are questions about the exercise applied for at least 10 minutes in the last week. In the questionnaire, it is determined how many days in the last 7 days and for how long for each day a) Heavy physical activities (EFA), b) Moderate-intensity physical activities (OFA), c) Walking (Y). In the last question; daily sedentary time (sitting, lying down, etc.) is determined. The MET method is used to determine the level of physical activity. 1 MET=3.5 ml/kg/min. At rest, each person consumes 3.5 ml of oxygen per kg per minute. In the IPAQ, it is assumed that AFA = 8.0 METs, OFA = 4.0 METs, Y=3.3 METs. The total amount of MET spent from these three different physical activities is calculated by determining how many days a week and for how long each person does AFA, OFA and Y. Physical Activity level is determined in 3 categories. I category: Inactive ones:>600 MET-min/wk II. category minimum active 600 – 3000 MET-min/wk III category HEPA active.

Nutritional Habits Questionnaire; The nutritional habits questionnaire to be used in the study was created by the researcher considering similar studies in the literature and expert opinions. It consists of a total of 20 questions, the first part with descriptive features and the second part where nutritional habits are questioned.

Ethical approval: This study was approved by the university's human research ethics committee at the date of 21.11.2022.

RESULTS

Table 1 shows the descriptive characteristics of the participants. When the table was examined, it was seen that the participants with similar demographic characteristics differed in their physical activity scores. It was determined that male participants had higher physical activity scores than females (female; 1586,1±1646,1 MET, male; 1952,9,1±1558,6 MET)

When Table 2 is examined, the answers of 238 people who participated in the study were analyzed; When the daily life information table was examined, it was determined that 72.7% of the participants did sports and 27.3% did not. When we continue to examine the table, it is stated that 173 participants who do sports are 116 people who do any of the branches in the survey; It was found that 11.2% of these 116 participants were jogging, 10.3% walking, 76.7% fitness and 1.8% pilates.

When we look at Table 3, the answers of the participants in the study were analyzed; It was determined that 32.3% of the participants whose answers were subject to analysis did not consume fast food products; It was found that 53.7% consumed fast food once a week, 12.6% consumed fast food 3 times a week, and 1.2% consumed fast food more than 5 times a week.

The daily water consumption levels of the participants are shown in Table 4. When the table was examined, it was determined that the participants mostly (53.3%) consumed 1-2 liters of water per day.

The cigarette consumption levels of the participants are shown in Table 5. Looking at the table, it was determined that the majority of the participants (65.9%) did not smoke.

The alcohol consumption frequencies of the participants are shown in Table 6. It was determined that the majority of the participants (82.2%) did not drink alcohol.

DISCUSSION

When we look at the products consumed by the participants, it is observed that the products consumed in our study are mainly carbohydrate products and there is an increase in the consumption of fast food products during the pandemic period. According to the study investigating the effect of the coronavirus epidemic on the nutritional habits of individuals; With the introduction of the virus into our lives, it has been found that the consumption frequency of foods made from dough is 28.0%. In the study on nutritional recommendations for the Covid 19 pandemic quarantine; Many healthy products such as vegetables and fruits, nuts, legumes, olive oil, fish varieties, chicken, milk and meat products are inversely related to the risk of depression that can be experienced during the time spent at home in the pandemic, whereas sugary drinks, refined foods, fried foods, processed meat, It has been suggested that unhealthy western eating habits including refined grains and foods high in fat, biscuits, appetizers and pastries are associated with an increased risk of depression [7].

In our study, the Physical Activity Score of the participants was determined as 1848.4±1655.1 MET that is, the minimum active. In the study investigating the importance of physical activity and exercise in the Covid-19 pandemic; there are many alternatives that the individual can move around in a closed environment during the day; Basic stretching movements, general housework, going up and down stairs, dancing with music or various exercise movements, as well as finding ways to stay active in this period by making use of exercise videos presented in the digital environment are included [8]. Again, when the study on Covid-19 and sedentary life is examined; During the periods when there are rules to go out on the street at certain times, it is among the suggestions given to do balance, stretching and strengthening exercises that can be applied in an aerobic environment such as yoga and pilates [9]. According to the research examining the effect of the Covid-19 epidemic on global trends, physical inactivity and sedentary behaviors; Different types of exercise against Covid-19 at a moderate level and within a certain time can provide protection against Covid-19 by increasing the immune system. In addition, it can be offered as a prescription to people who have had the Covid-19 disease to improve their immune system [10]. According to the research that evaluated the nutritional habits and physical activity status of first and emergency students during the COVID-19 epidemic; 56.9% of the 123 students participating in the study do not do physical activity. While 32.5% of them do low physical activity, 10.6% of them do physical activity at a level that can provide benefits for health [11].

When we look at the number of meals eaten in a day, it was determined that the majority of the participants in our study ate 3 meals a day. When we look at the data, 3.3% (n=8) of the participants who did not skip meals had 1 meal a day; 29.8% (n=71) had 2 meals a day; 51.2% (n=122) had 3 meals a day; 15.7% (n=37) eat 4 meals a day. According to the research that evaluated the nutritional habits and physical activity status of first and emergency students during the COVID-19 epidemic; 56.1% of the participants (n=69) spend three main meals a day by eating regularly. When we look at the regular nutrition rates, the rate of male students (58.3%) is slightly higher than that of female students (55.6%). The main meal that students do not attach

importance to and do not feel the need to eat is lunch with 26.8%, followed by breakfast with 19.5%. The most important main meal is dinner ^[11]. According to the study investigating the nutritional problems of youth; The rate of participants who eat 3 meals a day is determined as 68-70%, the rate of participants who have insufficient breakfast is 38-63%, the rate of participants who have insufficient lunch is 53-69%, and the rate of participants who have insufficient dinner is 20-54% ^[2].

In the study, when the types of exercises done during the pandemic were examined; It was found that 116 participants participated in the study exercised and 13 of them did jogging, 12 of them walking, 89 of them fitness and 2 of them did pilates exercises. According to the study examining the activities of the students of the faculty of sports sciences during the quarantine period and their suggestions to sedentary individuals during the new type of coronavirus period; 24 of the 122 students who participated in the study stated that they did physical activity as professionals and 71 as amateurs ^[12]. In this study, which examines the change in physical activity levels of university students due to the COVID-19 pandemic; It was determined that the proportion of students who regularly engaged in physical activity after COVID-19 decreased from 57.49% (n=234) to 32.18% (n=131). In addition, it was observed that the rate of general physical inactivity (rarely performing physical activity or not at all) increased from 42.5% (n=173) to 67.81% (n=276) ^[13].

The COVID-19 quarantine has had negative effects on nutrition and living habits all over the world. It increased its effect with factors such as unhealthy diet, weight gain, and low physical activity ^[14]. In this period, there are studies that determine that food consumption in the form of snacks increases especially after the last meal time ^(15, 16,17). On the other hand, the results of the research that determined that the consumption of vegetables and fruits increased during the closure period are also striking ^[18-21].

Table 1: Descriptive characteristics of the participants (mean \pm sd)

	Female	Male	Total
Age (year)	32,1 \pm 4,8	32,7 \pm 7,6	32,5 \pm 6,8
Body height (cm)	165,7 \pm 5,9	178,5 \pm 6,1	174,1 \pm 8,6
Body weight (kg)	60,7 \pm 11,8	80,2 \pm 9,6	73,4 \pm 14,1
Monthly income (TL)	4367,7 \pm 2472,6	4735,2 \pm 3197,5	4609,1 \pm 2969,9
Physical Activity Score (MET)	1586,1 \pm 1646,1	1952,9,1 \pm 1558,6	1848,4 \pm 1655,1

Table 2: Distribution of participants' daily life information (n-%)

Do you do exercises regularly?	N	%
Yes	173	72,7
No	65	27,3
Total	238	100
Type of exercise ?	N	%
Running	13	11,2
Walking	12	10,3
Fitness	89	76,7
Pilates	2	1,8
Total	116	100
Daily sleep duration?	N	%
Less than 4 hours	2	1
4-6 hours	41	17,2
6-8 hours	153	64,2

More than 8 hours	42	17,6
Total	238	100
Numbers of meals of day?	N	%
1	8	3,3
2	71	29,8
3	122	51,2
More than 4	37	15,7
Total	238	100

Table 3: Distribution of fast food consumption of the participants (n-%)

Fast food consumption	N	%
Don't eat	77	32,3
Once a week	128	53,7
3 times a week	30	12,6
More than 5 times a week	3	1,2
Total	238	100

Table 4: Distribution of water consumption of the participants (n-%)

Water consumption (liter in a day)	N	%
Less than 0,5	7	2,9
1-2	127	53,3
More than 3	104	43,6
Total	238	100

Table 5: Distribution of participants' cigarette consumption (n-%)

Cigarette consumption (pieces per a day)	N	%
Don't smoke	157	65,9
5-10	39	16,3
20	40	16,8
More than 20	2	0,8
Total	238	100

Table 6: Distribution of participants' alcohol consumption

Alcohol consumption (liter in a week)	N	%
Don't drink	195	82,2
1	33	13,9
2-3	9	3,7
Total	237	100

CONCLUSION

According to the results of the International Physical Activity Questionnaire- Short form applied in the study; During the Covid-19 pandemic process, the daily exercise frequency and physical activity levels of the participants are clearly low due to the transition to distance education and the closure due to quarantine. When we look at the results of the Nutritional Habits Questionnaire applied in the study, we see that carbohydrate products predominate in the dietary habits of the participants during the pandemic process. Although

breakfast, lunch and evening meals are evaluated separately, carbohydrates are still encountered in the most consumed products. As a result of the curfews that came to the agenda during the pandemic period, an increase in the frequency of fast food consumption is observed among the participants who cannot go out with the intensification of takeaway applications. During the Covid-19 pandemic process, a decrease in the fluid consumption of the participants was detected due to the changes in physical activity, regular nutrition and sleep habits.

Conflicts of Interest

Not declared

Financial Support

Not declared

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