

# The effect of school education on students' participation in sports and physical activity and profiles of individuals with physical activity and fitness habits in Turkey

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## ABSTRACT

This study aimed to analyze the physical inactivity problem from an educational perspective by investigating the profiles of individuals engaging in physical activities and fitness exercises in recreational areas, gyms, green areas, and walking tracks in Ankara, Bursa, Kırıkkale and Nazilli city centers in Turkey. The other objectives of the study were to reveal the type of exercising habits of the Turkish people and to emphasize the effect of physical education on the acquisition of physical activity habits. The research employed a questionnaire form developed by Arabacı and Korkmaz (2010), updated by the researcher just before this study. A total of 1000 people, 250 from Ankara, 290 from Bursa, 258 from Kırıkkale, and 202 from Nazilli, participated in the study. The study revealed that men (54.4%) participated in more physical activities than women (45.6%). The results also indicated that the higher the education levels are, the higher the participation rates in physical activities are, which means that physical education at school helps students gain regular physical activity habits. The study also showed that most people were engaged in sports for health reasons (73.1%). It was found that the rate of people with regular weekly exercise schedules was low (4.4%), while a large proportion of the participants (56.3%) preferred walking. The average age of individuals with exercising habits was found to be 30.

**Keywords:** Physical education, COVID-19, physical activity, lifelong sports, recreation.

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## INTRODUCTION

Acquiring physical activity habits in childhood and youth is an important process. Education plays a drastic role in the formation of this habit. Physical activity habits gained during school years will form the basis of a healthier life in the future. In other words, students with the ability of appreciation of the importance of practicing healthy life routines can enjoy a higher quality of life in the future. McKenzie (2007) emphasized the importance of school physical education by stating that it is the only structured setting with a possibility to ensure that all children can engage in activities to meet the recommendations, as these institutions are capable of providing knowledge and skills to the target population at minimal additional cost to the community.

Gråstén (2014) reported that school-based physical

activity interventions increased students' physical activity participation and positive attitudes toward physical activities. Bates (2006) also stated that the majority of young people spend significant amounts of time in the school environment, so school is a key context in which to target children and youth with physical activity interventions.

Telama et al. (2005) believe that patterns of activity in adulthood are often established during adolescence. Gråstén (2014) also underlines the importance of this period saying that it is a period for promoting physical activity. Apart from sufficient equipment and facilities, a safe environment is also indispensable for an effective and attractive school physical education. Research shows that an increase in physical activity could be

possible with access to a gym or when equipment and safe space for play was made available during recess (Ridgers et al., 2007; Stratton and Mullan, 2005; Verstraete et al., 2006). Drenowatz et al. (2013) believe that changes in the classroom environment could affect children's physical activity positively.

Man is a moving being, with his body designed to be on the move. A static life is against the nature of human beings. Movement is a means of exploring and learning about the world as well as communicating with other people and nature. It is a source of happiness for children besides its high importance for their psycho-motor development and the healthy growth of their organs. It is also a fundamental element enabling people to stay healthy and fit physically, spiritually, and mentally. The movement phenomenon in humans is closely related to the philosophical - anthropological understanding of vitality and physicality within the concept of lifelong sport (Franke, 1986; Kale 2002).

The basic philosophy of lifelong sports is to keep people healthy by encouraging them to do physical activities. Since it bears common characteristics with workout activities, the term 'physical activity' is intertwined with sports and exercise and is used synonymously with sports and fitness exercises by a large part of society. Physical activities can be defined as activities by which people move their bodies using different muscles and joints at different intensities, increasing the heart and respiratory rate, and thus consuming energy. In this context, activities such as walking, squatting, running, jumping, cycling, swimming, playing, dancing, working in the garden, and climbing stairs can all be considered as physical activity. Bouchard et al. (1994) describe the physical activity as follows: "Health-related physical activity involves any movement of the body caused by skeletal muscles, which leads to an increase in energy consumption through resting metabolism." Physical activity is considered as a physical movement resulting in energy consumption due to the movement of the body's skeletal muscles (Caspersen et al., 1985).

The value created by physical activities in terms of quality of life, health protection, and development is an accepted reality all over the world. Buckworth and Dishman (2002) stated that physical fitness is the capacity to successfully deal with current and potential physical challenges in life. The components of ability-related physical fitness are mobility, balance, coordination, speed, strength, and reaction time.

### **Physical activity in terms of health**

Physical inactivity is generally caused by situations requiring no movement, such as staying home for long hours, working at the desk, spending time in the same environment for a long time, and traveling to school or workplace by motor vehicles. A lifestyle with little physical

activity and without workout activities can harm both body health and mental health. Lack of physical activity, which has become a major problem today because it is increasingly becoming a lifestyle for many people, can cause excessive weight gain, cardiovascular diseases, loss of bone density, degeneration of cellular energy systems, diseases such as diabetes, weakening of muscles, heart, and lungs. American surgeon Smith stated in his study in 1915 that degenerative diseases associated with physical activity such as kidney diseases, heart diseases, and high blood pressure increased gradually (MacAuley, 1984; Paffenbarger et al., 2001; quoted by Bulut, 2013).

The available data show that 31% of the world's population does not follow the minimum recommendations for physical activity (Hallal et al., 2012). According to the World Health Organization (WHO, 2002a; WHO, 2002b), two-thirds of the adult population are not exercising and are reluctant to do daily activities, such as climbing stairs, walking, and cycling. Given the prevalence, global reach, and health impact of physical inactivity, the issue should be defined as a pandemic (Kohl et al., 2012).

According to the World Health Organization (WHO), physical inactivity is one of the major risk factors for global mortality (6% of deaths globally). Furthermore, physical inactivity is thought to be a major cause for almost 21 to 25% of breast and colon cancers, 27% of diabetes and nearly 30% of ischaemic heart disease burden (WHO, 2020).

The reason why a lack of physical activity is a vital risk factor for humans is that it is a common trigger of various diseases. In addition to risk factors such as high blood lipid levels, tobacco consumption, psychological stress, high blood pressure, and obesity, low physical activity is also associated with the occurrence of coronary heart disease, especially in the form of a heart attack. Physical activity has a positive effect on many of the risk factors (Höltke, 2002). Physical inactivity is known to be a major preventable risk factor for coronary heart disease (Yusuf et al., 2004; König et al., 2007; Anand et al., 2008; act. Zachow, 2014).

A major goal of public health services in industrialized countries today is to create a quality and healthy lifestyle for people by providing them with physical activity opportunities. Health in old ages is mainly influenced by health status and lifestyle at earlier ages. In this regard, the risk of getting sick should be reduced as much as possible in the future life, and preferably, diseases should be avoided as much as possible by preventive measures. Sports, as an improvement factor of the quality of life, often play an important role in the prevention of chronic degenerative diseases caused by lack of exercise. The musculoskeletal system is especially affected by prolonged sitting, which can result in muscle tension, back and neck aches. Physical activity has a positive effect on nutrient supply to the joints. Movement

promotes joint functions, delays the course of the disease, and has an analgesic effect. The delicate cartilage tissue of the joints is fed through the synovial fluid, which requires a dose-adjusted physical movement (Zöberl, 2008).

Physical inactivity can also affect mental health negatively, causing stress and psychological disturbances. Campbell (2020) stated that actions including social distancing, staying home for too long, travel restrictions, and closures of key community resources could lead to increasing the risk of family violence. The fact that the psychology of people who have to stay in more due to the isolation during the COVID-19 pandemic process may deteriorate, and as a result, there is an increase in cases of domestic violence and divorce is a major concern across the world.

American College of Sports Medicine (ACSM) lists the benefits of regular physical activity and/or exercise as follows:

Benefits of Regular Physical Activity and /or Exercise (ACSM, 2006):

- Improvement in Cardiovascular and Respiratory Function,
- Reduction in Cardiovascular Disease Risk Factors,
- Decreased Morbidity and Mortality.

There are many studies on how much physical activity is necessary. Many US organizations suggest that children and adolescents should exercise at least 60 minutes a day (Dür and Griebler, 2007, quoted by Thaller, 2012). It is reported that the exercises with a minimum of 30 minutes of moderate-intensity per day recommended in the guidelines improve the general physical condition for all age groups (Pitta et al., 2005). An adult should exercise at least 150 minutes per week of moderate-intensity, like cycling or jogging. As an alternative to people who do enough physical activity, it is recommended to do 75 minutes of high-intensity jogging or exercising. The intensity should be doubled to improve health. This means 300 minutes of medium intensity or 150 minutes of intensive sports per week. In general, it is demanded that you exercise at least 45 minutes every two days or 30 minutes every day (TU Bergakademie Freiberg, 2020). According to research, if a person exercises or is engaged in sport and physical activity at low to moderate levels, they are less likely to suffer a heart attack (Danielsen et al., 2013; Shibata et al., 2011).

### **Policymaking – education – sports culture**

Global and national policies need to be developed to promote physical activity and to support the lifelong sport. Besides, education curricula should be updated, activities should be organized for the formation and spread of sports culture and necessary action plans should be

prepared. It is reported that the development and implementation of national policies and action plans are crucial for physical activity and public health (Bull et al., 2004). According to a recent WHO report, 73% of member states have an identifiable plan, strategy, or policy to address physical inactivity; however, only 55% of these plans, strategies, or policies are operational. What's more, only 42% of these operational policies have been funded. Relevant plans, strategies, or policies are less prevalent (46%) in the African WHO region, while more importance is attached to the issue (100%) in Southeast Asia. A substantial difference between income groups is also reported: 82% of countries with upper-middle-income have policies and strategies, while 68% of those with lower-middle-income have prepared relevant plans (WHO, 2010; quoted by Kohl et al., 2012).

WHO urges member states to celebrate the Move for Health Day each year to promote physical activity for health and well-being (WHO, 2003). As in many countries, intensive work has been carried out since the 1960s to encourage participation in sports in the member states of the Council of Europe, aiming to motivate individuals of all ages and all walks of life to do some kind of physical activity in their free time, regardless of age, gender, race, social structure, and skills.

The school environment plays an important role in making daily life more dynamic and healthier for children and adolescents. Physical education and sports lessons are just one of many factors that can be effective on this issue. Other factors supporting the concept of "schools in motion" can be "lessons in motion" (taking a break for 3-5 min and exercising), dynamic breaks, opportunities provided by sports clubs, or making a bicycle-friendly route to the school. In this context, the school area should be designed primarily for students to move comfortably and safely. The idea of linking the school with exercise, health, and learning and putting it into practice based on theoretical reflection emerged in Switzerland in the mid-1980s. This idea came to life with the concept of the "Bewegte Schule" (schools in motion) introduced in many schools in Germany and Austria. The project is carried out with activities that prioritize physical activities such as short-term gymnastic movements between classes, taking measures against too long and wrong sitting, being more active during breaks, and going to school by bicycle.

In addition to international measures, national policies should also be developed. However, the existence of national policy may not always bring absolute success. National policies and action plans should not be left to governments only. Specifically, the government, non-governmental organizations, municipalities, academic communities, businesses (firms, factories, industrial organizations) and the community should act in cooperation for physical activity to become widespread in the society and to reduce physical inactivity.

Academic training should also be reorganized to

prepare future generations for life in this sense. Formal academic training programs and graduate training should also be designed to guide the next generation of researchers in this area. Global capacity in exercise science, physical education, physical therapy, public health, architecture and planning, and environmental health should be increased and be oriented towards integration and comprehensive approaches to physical activity and public health (Kohl et al., 2012). Physical activity and physical education and sports are not just subjects of sports science. They are also subjects of many fields such as health, behavioral science, sociology, psychology, child development, youth science and elderly healthcare, urbanization, and urbanism. As such, it is a multidisciplinary field and each discipline should focus on the subject from its perspective.

### **Causes for physical inactivity**

There are many reasons why physical activity is not at the desired point worldwide. The most common discourse in this regard today is the characterization of the modern world by automation and mechanization and the development of global information and communication technologies. As a result, this means that many activities are performed by sitting, and thus, the average daily physical activity time is decreasing gradually, especially in industrialized countries, and a new sedentary lifestyle is adopted. Apart from this modern rationale, many factors can be listed, some of which may be purely national or demographic:

1. The lack of a sports culture (in some countries football is dominant while, in others, performance-racing sports are in the foreground),
2. Such economic reasons as unemployment, intensive work tempo, poverty, working from home, etc.
3. Violence incidents, climatic conditions, rural to urban migration,
4. Overnutrition or nutritional deficiency, pandemic or health problems,
5. Limited or lack of a free and safe environment (social norms, social pressure), crooked urbanization and metropolitan life,
6. An increased variety of leisure activities performed by sitting and the effect of popular culture on it (TV programs, social media, surfing and shopping on the Internet, TV platforms, home theater, computer games, mobile devices, etc.),
7. An increase in the elderly population,
8. Deficiencies in educational processes, the spread of distance education,
9. Early marriage, childcare.
10. Lack of access to sports centers.

According to field survey, researchers address the

obstacles hindering regular sports activity as follows: lack of time, lack of energy and motivation, high cost, illness or injury, lack of opportunity in the region, lack of tolerance, psychological discomfort, lack of skills, fear of injury, lack of safe places, childcare, lack of sports partners, poor sports programs, and lack of access to sports and support facilities (Thaller, 2012).

### **Causes for physical activity**

Many factors motivate people about physical activity. Among these, health and demographic features stand out. Knowing which social and economic factors are effective for people is important in terms of determining the factors and policies that will encourage physical activity. Many behavioral theories have been developed to promote physical activity. Knowing the factors associated with physical inactivity will help identify appropriate activity behavior, develop policies, and provide resources. Factors that can promote physical activity can be listed as follows:

1. Desire to lead a healthy life; medical effect,
2. Socialization, group harmony,
3. Psychological factors such as showing/proving oneself,
4. The presence of sports culture in the community and family,
5. Desire to have a fit body under the influence of the popular and modern culture; beauty effect,
6. A successful education system and establishment (curriculum, indoor and outdoor sports fields, sports equipment),
7. Fun, pleasure, enjoyment,
8. Economic comfort, wealth,
9. Free and safe environment,
10. The abundance and attraction of sporting activities ease of access to sports facilities.

Significant research and analysis have been conducted to identify factors that increase or decrease the chances of people adopting and managing a physically active lifestyle. Demographic factors such as education, gender, genetic effects, and socioeconomic status are among the most important determinants of participation in physical activity. Other factors that promote physical activity can be listed as follows: psychological factors such as entertainment, the joy of movement, determination to adopt a sporting habit, self-efficacy, self-motivation, self-scheme for activity; behavioral features and habits such as activity behavior adopted in childhood; health factors such as dietary adjustments and scheduled workout; social and cultural factors such as social support from friends and family and environment and exercise opportunities (Buckworth and Dishman, 2002).

Gabler (2000) reports that when people are asked about the reasons for doing sports, pleasure, competition,

and health factors often come to the fore. Other responses include the joy of movement, excitement, self-awareness and self-knowledge, challenge, risk and adventure, performance and success, social acceptance, prestige and strength, fitness, and social motives. Some human actions are psychological and depend on motivation. Würth (2006) asked the following questions about sports motivation: "Why do people do sports?", "Why does someone do a certain type of sport?" and "Why do some people stick to sports, while others don't?" Research has shown that such factors as health, socialization, a fit body, and relaxation are the reasons for sports motivation. Also, family and peer support are cited as a source of motivation for physical activity.

Women and especially young girls are motivated to maintain their ideal weight and have a slim body. Physical attraction is generally an incentive for physical activity in women, while competition and performance are at the forefront in men (Thaller, 2012). It is possible to say that the new body culture resulting from health-beauty and sports relationship is shaped by the cosmetic industry rather than the sports culture (Koca, 2006). Young children are often under the influence of the opportunity to practice and try different and unusual activities. Parental support also plays an important role at this age. In adults, experiences of success, development of special skills, medical reasons, a supportive social network, and the joy of movement are often reported to be the main motivating factors (Allender et al., 2006).

### **Lifelong sports in Turkey**

Turkey, with its wide geographic area and a population of 82 million, is hosting different cultures and demographic structures. Therefore, it is not possible to talk about a homogeneous sports culture. However, sports in general, especially football, are very popular. The popularity of football comes from the influence of popular culture and media as well as male hegemony in politics and sports. Achievements in some international sports competitions in different branches have not been permanent and sustainable due to the lack of sports culture in the country.

In Turkey, economic prosperity has increased recently. With the effect of globalization, the internet, and social networks, people have become more conscious about health and nutrition. Sports infrastructure has been strengthened and the number of parks and recreational areas has increased. The interest of the middle and upper classes in sports has changed positively. The interest and demand for different types of sports and physical activities have increased. Especially young girls and women are more interested in sports as both audience and participant. On the other hand, with the effect of urbanization and technological developments, a sedentary lifestyle, which has become a serious public health problem, has also become widespread.

The 59<sup>th</sup> article of the Constitution of Turkey (1982)

says: "The State shall take measures to develop the physical and mental health of Turkish citizens of all ages. The State encourages the spread of sports to the masses". Public institutions and non-governmental organizations (NGOs) encourage the society to actively engage in sports using slogans such as "Mass sports", "Sports for life", "Sports for everyone" and "Sports for a healthy life" (Akça, 2012). In this context, the Sports Federation for All, established in 1990, aims to spread the idea of sports culture and Olympism in society.

The Turkish Ministry of National Education and the Ministry of Youth and Sports strengthen their establishment and technological infrastructure and develop policies for children and youth to help them acquire a sports culture. The Ministry of Health carries out many activities to protect public health by promoting physical activity. The Ministry announced that 1 million bicycles would be distributed within 4 years within the scope of the "promoting physical activity project 2015-2018, (Turkish Ministry of Health, 2015).

In the National Youth and Sports Policy Document (Official Gazette, 2013) adopted by the Turkish Cabinet, the importance of this issue was expressed as follows: "Sport has a very important place in raising healthy generations, protecting public health, developing the economy, establishing social peace and developing social cohesion. Therefore, more should be done to develop the sports culture and sports habit by increasing the number of licensed athletes, spreading the Olympic spirit in the community, and training talented young people as elite athletes".

Turkish higher education also conducts programs and academic activities to help young people acquire a sports culture. University students enjoy many sports centers, swimming pools, bicycle paths, and recreation areas existing in most of the campuses, spending their free time with sports activities to have fun and relax. Besides, graduate students are encouraged to do academic research on such topics as "lifelong sports, and exercising programs for the elderly".

Public institutions, municipalities, and non-governmental organizations in Turkey give increasingly more support to sports each day. More and more people enjoy physical activity opportunities. According to the Turkish Statistical Institute (TSI), the number of licensed athletes under sports federations in Turkey in 2007 was 1.262.891, and the number of active athletes was 209.436. The number of active athletes in 2018 increased to 695.698 while the number of licensed athletes rose to 4.907.955 (General Directorate of Sports Services, 2020). Despite this rising trend experienced in Turkey, the country's sports culture, participation in physical activity, and success in international competitions are still not at the desired level.

This study aimed to determine the profile of individuals doing physical activity and sports in recreational areas, parks, gyms, green areas, and daily walking tracks in Ankara, Bursa, Kırkkale, and Nazilli and to reveal the

reasons why these people are engaged in sports. The study dealt with the following specific hypotheses:

- (a) The higher the education levels are, the higher likelihood of participation in regular physical activity is,
- (b) Participation in physical activity may decrease as the population ages,
- (c) People are engaged in physical activities mostly for staying healthy and having a fit body,
- (d) The rate of participation in regular physical activity and sports is low in general.

## METHODOLOGY

### Research model

This is a descriptive survey study aiming to reveal the facts about the existing situation on physical activity and sports habits in Turkey, conducted in 2019. The research utilized a questionnaire consisting of 30 questions, originally prepared by Arabacı and Korkmaz in 2010 and later updated by the author of this paper.

### Data collection

The survey was conducted in Ankara, Turkey's capital, Bursa, a city located in the Marmara region, Nazilli, located in the Aegean region, and Kırıkkale in the Central Anatolia. A total of 1000 people voluntarily participated in the research conducted on individuals engaged in physical activity and sports in parks, recreational areas,

gyms, green areas, and walking tracks. Before the application of the survey, the participants were informed about the nature of the study and they were told that it was scientific research.

The data were analyzed using the SPSS 18.5 package program. Descriptive statistical techniques such as frequency, percentage, mean and standard deviation were used in the evaluation of the data.

## RESULTS

The locational and educational data of the individuals participating in the research are given in Table 1. Bursa had the highest participation rate with 29% (290 participants). The research revealed that the higher the education levels were, the higher the physical activity levels were.

Table 2 shows the ages, heights, and weights of the participants. A total of 1000 people, 456 (45.6%) women, and 544 (54.4%) men participated in the study. The average age of the participants in the research was 30.14 years, and the average height was 171.71 cm while the average weight was found to be 69.75 kg.

Table 3 shows the participants' reasons for sports, whether they do it regularly throughout the year and whether they go exercising without a partner. Research findings showed that 73.1% of the participants went exercising mostly for health reasons (731 participants). While the number of regular sports enthusiasts throughout the year was 556 (55.6%) and the number of those exercising without a partner was found to be 811 (81.1%).

**Table 1.** Locational and educational data of the participants.

City	N	%	Education level	N	%
Ankara	250	25.0	No literacy	2	0.2
Bursa	290	29.0	Primary school	14	1.4
Kırıkkale	258	25.8	Secondary school	54	5.4
Nazilli	202	20.2	High school	378	37.8
			University	552	55.2
Total	1000	100.0	Total	1000	100.0

According to Table 4, almost half of the participants (49.9%) stated that they did not need a coach, while 82.3% of the participants said that they would follow it if they were given a training program.

Table 5 shows what sort of physical activity participants preferred doing. 563 of the participants stated that they preferred walking (56.3), while 171 of them said they liked bodybuilding (17.1%) and 97 of them expressed that

jogging was their choice (9.7%). Some of the participants said that they preferred other types of sports, like aerobics, football, karate, kickboxing, taekwondo, and pilates. 31.5% of the participants said that they liked being engaged in another type of physical activity or sports in addition to their first choice. The leading two of these sports were found to be jogging with 11.2% and swimming with 8.4%.

**Table 2.** Ages, heights, and weights of the participants.

Gender		Age (years)	Height (cm)	Weight (kg)
Female N= 456	Mean	30.61	166.21	62.55
	Min.	15	148	28
	Max	65	190	98
	SD	.440	.323	.476
Male N= 544	Mean	29.78	176.31	76.10
	Min.	14	150	47
	Max	78	200	130
	SD	.409	.291	.528
Total	Mean	30.14	171.71	69.75
	Min.	14	148	28
	Max	78	200	130
	SD	.299	.268	.416

**Table 3.** Participants' sports habits.

Why sports?	N	%	Do you exercise regularly throughout the year?			Do you go exercising without your partner?		
			N	%		N	%	
Health	731	73.1	Yes	556	55.6	Yes	811	81.1
Leisure time	115	11.5						
Socialization	31	3.1	No	440	44	No	187	18.7
Condition	69	6.9						
Other*	42	4.2	No response	4	0.4	No response	2	0.2
Total	988	100	Total	1000	100	Total	1000	100

\* Other: A fit body, losing weight, pleasure, professional.

**Table 4.** Need for a coach or physical activity program.

Do you need a coach?	N	%	Would you follow a training program?	N	%
Yes	500	50.1	Yes	821	82.3
No	499	49.9	No	177	17.7
Total	999	100.0	Total	998	100.0

**Table 5.** Physical activities preferred by the participants.

Sports types	N	%
Walking	563	56.3
Jogging (running)	97	9.7
Body Building	171	17.1
Cycling	24	2.4
Tennis	11	1.1
Swimming	42	4.2
Other*	83	8.3
Total	991	100.0

\*Other: Aerobics, football, basketball, volleyball, martial arts, pilates.

According to Table 6, 88.5% of the participants do not have any health problems. 64.3% of them do not smoke and 62.9% do not consume alcohol.

According to Table 7, the rate of people doing sports 3 days a week is 30.2% (298 participants), which is the highest rate. The number of people who do physical activity every day is only 44 (4.4%). The table indicates that 290 (29.5%) people do physical activity between 19:00 and 20:00. Table 6 also shows that 507 people (51.2%) are engaged in physical activity between 31-60 minutes, which is the highest rate.

According to Table 8, 54.3% of the participants did not go through a health check before starting sports. 12.6%

**Table 6.** Health problems and smoking and alcohol habits of the participants.

Do you have any health problems?	N	%	Do you smoke?	N	%	Do you take alcohol?	N	%
Yes	115	11.5	Yes	357	35.7	Yes	147	14.7
No	882	88.5	No	642	64.3	Sometimes	224	22.4
						No	628	62.9
Total	997	100	Total	999	100	Total	999	100

**Table 7.** Physical activity levels of the participants as daily and weekly length of time.

How many days a week do you do sports?	N	%	What time of the day do you do sports?	N	%	How many hours a day do you do sports?	N	%
1 day	81	9.2	6:00 and earlier	34	3.4	30 min	97	9.8
2 days	174	17.6	6:00-8:00	116	11.7	31-60 min	507	51.2
3 days	298	30.2	9:00-10:00	83	8.4	61-90 min	269	27.2
4 days	194	19.5	11:00-12:00	44	4.5	Longer than 91 min	117	11.8
5 days	145	14.7	15:00-16:00	93	9.4			
6 days	52	5.3	17:00-18:00	167	16.9			
7 days	44	4.4	19:00-20:00	290	29.5			
Total	988	100	20:00 and earlier	160	16.2			
			Total	987	100	Total	990	100

**Table 8.** Regular health check-up frequency and healthy eating awareness levels of the participants.

Did you go through a health check before starting sports?	N	%	How often do you get a check-up?	N	%	Do you think you have enough information about healthy eating?	N	%
Yes	456	45.7	Never	443	44.6	Yes	624	62.6
			Every 3 months	126	12.6	No	373	37.4
No	541	54.3	Every 6 months	184	18.6			
			Once a year	241	24.2			
Total	997	100	Total	994	100	Total	997	100

of them stated that they undergo health checks every 3 months and 62.6% said that they are well-informed about healthy eating.

## DISCUSSION

This study aimed to investigate the profile of individuals engaged in physical activity and sports. The results of the study revealed that men (54.1%) are more engaged in physical activity and sports than women (45.6%), which is consistent with the literature on the subject (Turkish Ministry of Health, 2013; Sanli and Güzel, 2009; Leslie et al, 1999; WHO, 2016). The average age of the participants in the study was 30.14. The number of the

respondents in the range age of 50-59 years was 37 and in the range of 60-78 was only 6, which suggests that the level of physical activity and sports decreases as the age progresses. Similar findings were reported in a study conducted by Shaw and Spokane (2008). The reason why physical activity level decreases with age might be related to health problems that worsens in old age. Another reason might be the fact that physical activity habits were not acquired at earlier ages.

This survey also revealed that people with higher education levels have higher levels of physical activity, confirming that education plays an important role in the levels of physical activity. A study by Karabulut and Altun (2018) also showed that university graduates constituted the highest rate with 49.2% in those who regularly attend



sports. Shaw and Spokane (2008) also stated that with the increase in the level of education, the level of physical activity increased, adding that the age-related decline in physical activity was not as high among the highly educated compared to the less educated.

A high percentage (73.1%) of those who participated in this survey stated that they do physical activity and sports for health reasons. Weinberg and Gould (2007) also reported that physical and psychological factors such as weight control, low risk of cardiovascular disease, reduced stress, and depression, taking pleasure and gaining self-confidence were among the most common reasons for doing sports. Karabulut and Altun (2018) showed that most women came to the gym to keep fit (56.8%). Kenyon (1964) reported that health motivates individuals to exercise. According to Zunft et al. (1999), maintaining good health (42%) is the main motivation for people to participate in physical activity.

This study indicated that 44% of the respondents do not regularly engage in physical activity and sports. Although the benefits of physical activity on human health are well-known, sufficient levels of physical activity remain low in both developed and developing countries (Gomes et al., 2016; Azevedo et al., 2007). According to WHO, 23% of men and 32% of women aged 18+ years were insufficiently physically active across the world in 2016. The data showed that levels of insufficient activity did not improve over the past 15 years (28.5% in 2001; 27.5% in 2016). The WHO Region of the Americas (39%) and the Eastern Mediterranean Region (35%) had the highest prevalence of insufficient physical activity, while the prevalence of insufficient activity was the lowest in the Western Pacific (19%) and African (22%) regions (WHO, 2016).

This study shows that the most popular physical activity, taking first place with a significant difference, is walking (56.3%). The research titled "Physical Activity Levels of Turkish Society" by Active Life Association (2010) also showed that walking (43%) was the most common physical activity. The reason why walking is so popular might be that it is a less tiring and less expensive activity that can be done anywhere without the need for extra equipment.

This survey indicated that 30.2% of the respondents engage in physical activity 3 days a week, while 9% of them exercise 30 min a day at most. Another study in the literature reported that 23% of men do sufficient physical activity, 22% of them moderately exercise and 55% have low physical activity levels, while in women these rates were found to be 13, 18 and 69%, respectively (Ünal et al., 2013). The data obtained from the research "Nutrition and Health in Turkey" showed that only 5% of the Turkish people do regular (minimum 3 days a week, moderate intensity for 30 min) physical activity (Turkish Ministry of Health, 2014). 3/4 of the Turkish population does not have sufficient physical activity levels (Active Life Association, 2010).

This study revealed that 35.7% of the participants smoked and 14.7% consumed alcohol. It was also revealed that 54.3% did not have a health check before starting sports. These results suggest that individuals should be better-informed about the negative effects of smoking and alcohol on health as well as the importance of health check. Many studies have shown that smoking and drinking alcohol have negative effects on health, while physical activity reduces the risk of getting sick. Among 65,838 postmenopausal women who were assessed according to American Cancer Society prevention guidelines (which consider diet, physical activity, and alcohol consumption), women who took better care of themselves showed a 17% lower risk of any cancer, 22% lower risk of breast cancer, 52% lower risk of colorectal cancer, 27% lower risk of all-cause mortality, and 20% lower risk of cancer-specific mortality (Thomson et al., 2014).

Half of the participants in this study stated that they did not need a coach. The ratio of those who stated that they would follow the instructions if they were given a training program was found to be 82.3%. These results suggest that individuals prefer limited, non-complex physical activities that can be done on their own. However, a daily/weekly training program illustrating how to make physical movements correctly, telling about the benefits of these movements, informing about the duration of exercise, and the calorie amount to be burned, etc. would be a good idea.

## Conclusions

There is not much comprehensive research conducted in Turkey about the profiles of individuals engaged in physical activity and sports. Therefore, the findings obtained from this study will hopefully help researchers and those who are interested in the subject gain up-to-date information.

Considering the recommendations made by the WHO, the physical activity participation rate in Turkey is not high enough. Higher education levels can lead to better physical activity habits and an advanced sports culture across the country. The main factors motivating people to do sports are health-related like maintaining good health, losing weight, and keeping fit. Developing an understanding of sports as a leisure time activity and teaching individuals how to enjoy themselves by exercising and, especially socializing could be a contributing factor to the spread of physical activity. Improving living conditions, employment rates, and income levels could also contribute to higher participation in physical activity. More effective policies promoting physical activity for healthy lifestyles should be designed.

Various epidemics and pandemics caused by viruses (swine flu, SARS, MERS, Ebola, Zika, and Covid-19) have become a global threat to public health in the 21st

century. It is predicted that such outbreaks will continue to be a threat to public health and people will have to restrict their lives. People in many countries have had to stay home and self-isolate, as the world has been under the influence of the Covid-19 pandemic since the first months of 2020. Parks, recreational areas, and sports facilities have all been shut down. Working from home has become a routine. It has been a process causing the intensity of daily physical activity, already under the desired level, to decrease further. While people are trying to protect themselves from the virus, they suffer from immobility-related diseases. Therefore, governments, policymakers, and scientists must work together to create awareness among people and to prevent them from staying inactive at home by designing relevant policies, appropriate software, and applications. Networks and online sports platforms should be developed, whereby family doctors, public health professionals, sports ministry officials, and non-governmental organizations can encourage people to do regular exercise even at home.

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