



Comprasion of physical activity levels of working women and housewives according to some variables

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Abstract

This study aimed to examine the changes in physical activity levels of women according to some variables. Housewives (HW) and working women (WW) in certain institutions in Malatya voluntarily participated in the study. The volunteering participants were divided into two groups, WW (N=175) and HW (N=175), based on employment status. The International Physical Activity Questionnaire (IPAQ) short form was used to determine the physical activity levels of the participants in the study. According to the data obtained in the study, it was seen that the metabolic equivalent of task (MET) of the research group did not differ according to age, body mass index (BMI) and marital status, however the working status of the women affected their MET scores and the HW's had a higher physical activity level than WW. It was seen that the inactive lifestyle habits of the working women in the research group affected their physical activity levels and they were not very active in the living areas left behind from the business life.

Keywords: BMI, metabolic equivalent, physical activity

Çalışan kadınların ve ev hanımlarının fiziksel aktivite düzeylerinin bazı değişkenlere göre karşılaştırılması

Öz

Bu araştırma kadınların fiziksel aktivite düzeylerindeki değişimlerini bazı değişkenlere göre incelemeyi amaçlamıştır. Çalışmaya Malatya ilinde bazı kurumlarda çalışan ve ev hanımları gönüllü olarak katıldı. Katılımcılar çalışma durumlarına göre ÇK (çalışan kadın: n=175) ve EH (ev hanımı: n=175) olarak iki gruba ayrıldı ve katılımcılar çalışmaya gönüllü olarak katıldı. Çalışmadaki katılımcıların fiziksel aktivite düzeylerini belirlemek için Uluslararası Fiziksel Aktivite Anketi (UFAA) kısa formu kullanıldı. Araştırmada elde edilen veriler ışığında araştırma grubunun yaşa, beden kitle indeksine (BKİ) ve medeni duruma göre farklılaşmadığı, ancak kadınların çalışma durumları metabolik eşdeğer (MET) skorlarını etkilediği ve EH'lerin ÇK'ya göre daha yüksek fiziksel aktivite seviyesine sahip olduğu görüldü. Araştırma grubundaki çalışan kadınların iş hayatındaki inaktif yaşam alışkanlıkları onların fiziksel aktivite düzeylerini etkilediği ve iş hayatından geriye kalan yaşam alanlarında da çok hareketli olmadıkları görüldü.

Anahtar Kelimeler: BKİ, fiziksel aktivite, metabolik eşdeğer

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INTRODUCTION

Technological developments in the modern world have led to a sedentary lifestyle today more than in the past. These technological developments, which facilitate human life, have made sedentary life more common (Woessner et al., 2021).

While Puciato et al. (2020) emphasized the necessity of doing a necessary level of physical activity to be healthy, they stated that individuals who adopted sufficient physical activity levels (FAL) into their lives could have higher levels of the general quality of life, as well as higher levels above average, compared to other people.

Within the scope of this perception, physical activity is defined as a body movement created by the muscles that move the skeletal system, which results in the expenditure of power. Furthermore, physical activity covers leisure activities consisting of vocation, transportation, exercise, and sports activities in addition to unstructured recreation (Sancassiani et al., 2018). However, it is necessary to view physical activity from two perspectives. On one hand, activities such as housework, using the stairs, and walking movements during the day are generally included within the unstructured physical activity category while sports lessons under the supervision of a trainer and sports trainer, and fitness or gymnastics exercises are categorized as structured physical activities (Orhan, 2021).

As it is well-known, physical activities facilitate and enable numerous health benefits. Particularly, physical activity is associated with improving various health parameters in children, adolescents, and adults. Expert opinions on training principles are significant factors to capture this important relationship from the right angle while physical activity performed under the supervision of experts can positively affect the health of individuals. This is because physical activity can lead to exhaustion in the organism depending on the intensity of physical activity, which is conducted by expending energy depending on the regular movement of the skeletal muscle (Karaman et al., 2020). Therefore, it should be noted that one of the most important issues in physical activity is the intensity of the physical activity. Within this scope, the intensity of the physical activity is stated in metabolic equivalent of task (MET). MET can be summarized as the rate of work (exercise) or the ratio of metabolic rate to resting metabolic rate. 1 MET is defined as the energy cost of sitting quietly (Gibson et al., 2018). Accordingly, walking is stated as 3.3 METs while moderate-intensity physical activity equals 4.0 METs. Furthermore, high-intensity physical activity equals 8.8 METs. Via MET, the physical activity level of an individual can be calculated daily, weekly, or monthly and

categorized as inactive, minimally active, and very active accordingly (Savcı et al., 2006; Arıkan et al., 2008; Karadağ et al., 2018). Therefore, this study aimed to examine the changes in physical activity levels of women according to some variables.

METHOD

Ethical statement

This study was approved ethically by the scientific research publication ethics committee of Inonu University on the 10th session, 7th decision number and 12.05.2022. Also this study was carried out in accordance with the Helsinki Declaration 2008 principles.

Research design and type of research

This study is an observational one based on the data collection technique, a descriptive study based on causality, a cross-sectional study based on timing, and a descriptive of society based on the environment where it is conducted (Çaparlar & Dönmez, 2016).

Sample

The sample of the study consisted of housewives (HW) and working women (WW) between the ages of 20 and 57. The participants were divided into two groups, working women (WW; N=175) and housewives (HW; N=175). Before initiating the study, HW and WW were informed about the data collection process and the research. Then, voluntary consent forms were obtained from HW and WW. WW and HW in Malatya province, Turkey, formed the population of the study while the sample was limited to WW working in certain institutions in Malatya, Turkey. When determining working women those who spent more time at the deskbound were included in the study. These women were working in different institutions and occupation. Also the G-Power program was used to determine the sample size. In order to calculate the sample size, the mean, standard deviation and correlation levels of the groups obtained in previous studies or the ratios of the variables to each other should be known so that the effect size can be calculated based on these ratios and information. In line with the hypotheses of this research, experimental studies evaluating the physical activity levels of women were examined. As a result in the reference study for this research, the researcher calculated the effect size of the DEFABDA scale as 0.38 after carrying out the research. In the light of this information, $\alpha=0.05$ was taken as $1-\beta=0.90$ and each sample size was calculated as a total of 300 people with an effect size of 0.38. The sample of 300 people was divided into two groups as Group 1 (WW) of 150 people and Group 2 (HW) of 150 people. Although the sample size calculated in the study was at least 300 people, 175 people were reached for each group in this study, and the findings were reached on a total of 350

samples. Moreover the data collection process continued until 175 scales were reached in each group. However those who did not volunteer, did not fill the scale completely, did not deskbound, were not housewives were excluded.

Demographic information form

Within the framework of the study, the demographic information form conducted with the participants covered independent variables such as age, height, body weight, and marital status.

Body weight and height measurements

In the study, body weight was measured with an electronic scale (Seca, Germany) with an accuracy of ± 100 gr. During the measurements, the participants were taken on the scales with bare feet. Before the height measurements were conducted, the participants were asked to take off their shoes, and the participants' height measurements were conducted with a precision height meter (Densi S200) with an accuracy of 0.01 cm. Accordingly, the values that were measured were recorded for the data of the study.

BMI (Body mass index)

In the study, BMI values, formerly known as the Quetelet index indicating the nutritional status in adults, were obtained by dividing the body weight of all participants by the square of the individual's height in meters (kg/m^2) [body weight = (kg) / height (m^2)]. Accordingly, the participants were divided into four categories as underweight, healthy weight, overweight and obese based on their BMI values.

International physical activity questionnaire

In this study, the short form of the International Physical Activity Questionnaire (IPAQ) was used to determine the physical activity levels of the individuals. The international validity and reliability studies of the questionnaire were performed by Craig et al. This questionnaire provides information on sitting, walking, moderately intense activities, and time spent in intense activities. All the activities to be evaluated within the questionnaire require that each activity to be measured should be conducted for at least 10 minutes at a time. Accordingly, a score is obtained as "MET minute/week" by multiplying the minute, day, and MET values. According to the IPAQ, the "inactive" category corresponds to the lowest level of physical activity, indicating less than 600 METmin/week. The "minimally active" category involves a mix of walking, moderate, or vigorous activity for a minimum of 5 days, totaling at least 600-1499 MET-min/week. The "Hepa active" category comprises vigorous activity for 3 to 7 days,

amounting to a minimum of 1500-3000 MET-min/week (Craig et al., 2003). The Turkish validity and reliability study for the questionnaire was conducted by Öztürk (2005) with a sample of university students.

Statistical analyses

In the current study, the data were analyzed in SPSS 22.0 package software. To determine the normality of the data, Kolmogorov Smirnov, histogram plots, kurtosis and skewness, Q-Q plot, and branch-leaf graphs analyses were conducted. Accordingly, a normal distribution was observed. Additionally, independent samples t-test was used to determine the difference between the two groups. One-Way (ANOVA) variance analysis was conducted to compare more than two groups. In the study, the level of significance was regarded as $p < 0.05$.

RESULTS

Table 1. The average of the MET scores received by these individuals (Met-dk/hafta)

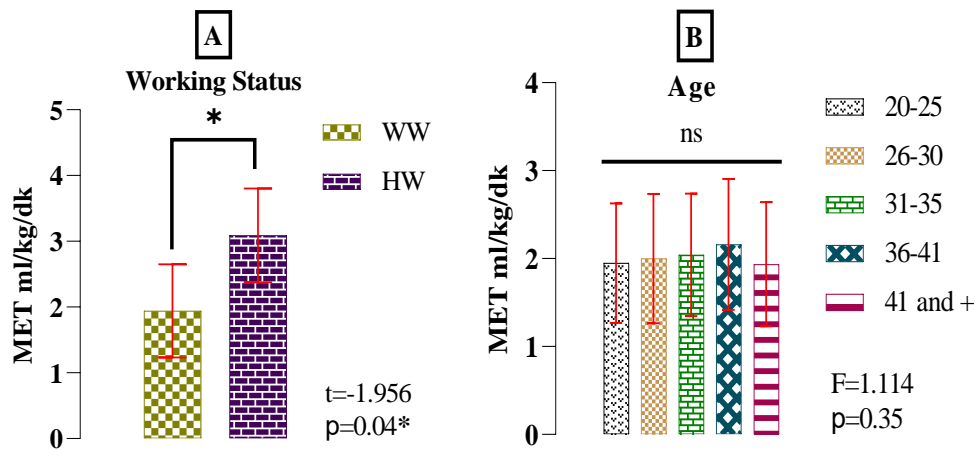
	N	Mean/SD	Min.	Max.	
MET Score	Inactive	102	276.0 ± 214.7	0.00	597.0
	Minimally Active	169	945.0 ± 215.0	600	1495.0
	HEPA Active	79	3160.0 ± 2012.9	1500.0	11522.0

According to Table 1, 102 of the participants in the study had inactive, 169 had minimally active and 79 had HEPA active MET scores.

Table 2. Frequency distributions based on age, BMI, employment, and marital status of the women in the study

Variable	Group	N	%
Age	20-25	59	16.9
	26-30	71	20.3
	31-35	73	20.9
	36-40	68	19.4
	41 and above	79	22.6
BMI	Underweight	20	5.7
	Healthy weight	168	48.0
	Overweight	120	34.3
	Obese	42	12.0
Working Status	WW	175	50.0
	HW	175	50.0
Marital status	Single	144	41.1
	Married	206	58.9

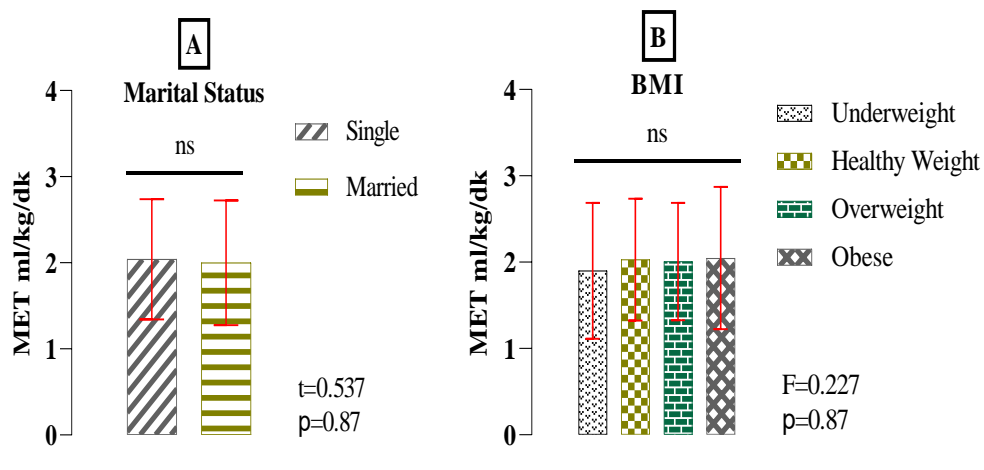
Table 2 shows the distribution of woman participating in the study on age, BMI, employment and marital status.



* $p < 0.05$, ns; non-significant result, MET; metabolic equivalent of task; WW; Working women; HW; housewives

Figure 1. Results of the analyses between the variables of working status and age

According to figure 1A, the MET scores of the participants in the study were significantly different based on the working status variable ($t = -1.956$, $p < 0.05$). According to this difference, the MET score levels of women in the HW group were higher than the WW group. According to figure 1B, when the MET scores of the participants in the study were evaluated in terms of the age variable, no significant difference was observed ($F = 1.114$, $p > 0.05$).



$p > 0.05$, ns; non-significant result, MET; metabolic equivalent of task, BMI; body mass index

Figure 2. Results of the analyses between the variables of marital status and BMI

According to Figure 2A, there was no significant difference between the scores obtained from the MET scores, marital status variables of the participants in the study ($t = 0.537$, $p > 0.05$). According to Figure 2B, there was no significant difference between the scores obtained from the MET scores BMI variables of the participants in the study ($F = 0.227$, $p > 0.05$).

DISCUSSION AND CONCLUSION

In the current study, it was determined that the MET scores of the participating women were significantly different based on the variable of working status ($p < 0.05$). According to this finding, the MET score levels of the women in the HW group were higher than the WW group. In other words, HW had a higher level of physical activity than WW. In another study, Arslan et al. (2007) stated that there was a significant difference between the physical activity levels of housewives and working women. In their study, the researchers reported that the body compositions of working women, in terms of weight, body mass index, waist circumference, waist-hip ratio, and body fat ratio, were at higher levels compared to housewives in addition to the finding that housewives had more lean muscle mass than working women. Najdi et al. (2011) stated that the majority of housewives had moderate/high FAL, emphasizing that HW were more active in the house. In a recent study to determine the energy spent by housewives according to different physical activity levels and areas, it was reported that almost all housewives had moderate and high FAL. Moreover, it was observed that the energy spent by housewives on moderate-intensity activities (MET-min/week) was more than on walking and high-intensity activities while the energy spent on home activities was more than the energy spent on active transportation and free time activities (Sağınç et al., 2020). However, when the literature was examined, certain studies stated that physical activity levels of WW were higher. When Van Ingen (2009) and Van Eijck (2009) examined the preferences of working and non-working women to participate in physical activities, they discovered that WW had a higher FAL. When Kitiş and Gümüş (2015) investigated the BMI values of HW and WW, they observed that 72% of HW and 50% of WW had a BMI of 25 kg/m² and above while it was reported that 50% of the remaining WW had a BMI level of 25 kg/m² and below. We believe that this dichotomy of physical activity levels that emerged in HW and WW in the literature depends on lifestyle, working conditions (desk job and others), occupational group, monthly income from the occupation, residence (village, town, and city center, and similar variables. Within this scope, Çingöz et al. (2021) conducted a study with unemployed participants who did not work in any job and participants working as police officers, academics, and in other professions (customer representatives, self-employed individuals, merchants, trainers, specialists, engineers, etc.). In this study, the researchers determined that the unemployed participants who did not work in a job had a higher level of perception toward leisure-time physical activity limiters compared to the participants working as police officers, academics, and other occupational groups.

In our study, when we evaluated the MET scores of the participants in terms of the age variable, there was no statistically significant difference. However, there is no significant difference, we can state that there were small increases in the mean MET scores of the participants between the ages of 20-41; therefore, there may be slight increases in the physical activity levels of the participants within this age range. On the other hand, the decrease in the mean MET scores in the participants aged 41 and above was remarkable. Therefore, we think that the mean MET score of the 41 and above age group in our study, namely, the decrease in the level of physical activity, could be the starting point for the threshold. Within this context, we believe that age could play an important role in the changes in the participants' mean MET scores or physical activity levels. When the literature was examined, it was observed that age did not have a significant effect on FAL when the MET scores of working and unemployed women with the same characteristics were compared (Arslan & Ceviz, 2006). However, in other studies, it was reported that age could affect physical activity levels. Wallace reported (2003) that physical activities differed as a function of age while Baştuğ et al. (2011) reported that physical activity levels decreased as the age variable was increased.

We observed a similar circumstance in the study of Korkmaz et al. (2013) where the decreases in physical activity levels were based on aging. When we review more recent studies, Abu Omar et al. (2021) observed that participation in sports was decreased as the age variable was advanced; however, this perspective was limited to participation in sports. Therefore, if we focus on this statement in terms of the difference between physical activity and sports, we think that the statement “there will be a decrease in the level of physical activity based on the advancement of age” is not strong. On the other hand, the number of people engaged in physical activity was decreased as the age variable was advanced, emphasizing that the age of the participants had a significant effect on their physical activity levels (Bácsné-Bába et al., 2021). Although various connections were established between the MET level, physical activity level, and age in the literature, we can state that age could affect the physical activity levels in most of the studies and that people would prefer to live a more sedentary lifestyle depending on the increase in age.

In the current study, there was no significant difference between the participants' MET scores and their marital status. In other words, the fact that the women participating in the study were married or single did not affect their FAL while they had similar MET scores (mean scores: married = 2.00 – single = 2.04). Doğan and Çaltekin (2021) conducted a study to compare the sleep quality and monocyte/high-density lipoprotein cholesterol ratio of

healthy women with various FAL and investigated the relationship between these variables (physical activity, sleep quality, and monocyte/high-density lipoprotein levels). In the study, it was reported that being single or married did not affect the physical activity levels of the participants. Additionally, Duray et al. (2021) investigated a sample composed of elderly participants and reported that marital status was not effective on the physical activity levels. Nevertheless, it was determined that the FAL of married participants in Şentürk's study was significantly lower than those who were single/divorced/widowed (Şentürk, 2020). Yıldırım et al. (2019) compared FAL based on marital status and discovered that single people had a significantly higher level of physical activity compared to married people. In another study, Sağınç et al. (2020) stated that married women spent more energy on moderate-intensity physical activity and household activities while single women spent more energy on walking and leisure time activities.

In our study, there was no significant difference when the participants in the study were compared in terms of their BMI values and the scores obtained from the mean MET scores. However, Laddu et al. (2017) reported that sedentary or geriatric women with low FAL had a higher BMI. On the other hand, Şentürk (2020) stated that the FAL of overweight people was higher than that of obese and overweight people. In another study, Katra and Korkmaz (2021) reported that the physical activity levels of the participants in the obese category were lower based on BMI levels compared to the overweight participants.

It was seen that the inactive lifestyle habits of the working women in the research group affected their physical activity levels and they were not very active in the living areas left behind from the business life. Therefore, both working women and their employers should support physically active behaviour to avoid worse consequences. Employers, in particular, should provide places where working women can be physically active and should create breaks and physical spaces that encourage them to engage in physical activity rather than taking breaks to meet their physiological needs such as eating and drinking.

GENİŞLETİLMİŞ ÖZET

GİRİŞ

Modern dünyadaki teknolojik gelişmeler, günümüzde geçmişe göre daha fazla hareketsiz bir yaşam tarzına yol açmıştır. İnsan hayatını kolaylaştıran bu teknolojik gelişmeler, hareketsiz yaşamı daha yaygın hale getirmiştir.

Puciato ve arkadaşları (2020), sağlıklı olabilmek için uygun düzeyde fiziksel aktivite yapmanın gerekliliğine vurgu yaparken fiziksel aktivite düzeyleri (FAD) yeterli olan bireylerin genel yaşam kalitesi diğer insanlara oranla ortalamanın üzerinde bir değere sahip olabileceğini ifade etmişlerdir.

İfade edilen bu görüş kapsamında fiziksel aktivite; güç harcanmasıyla sonuçlanan, iskelet sistemini hareket ettiren ve kaslar tarafından üretilen bir vücut hareketi olarak adlandırılmıştır. Dahası mesleki, ulaşım, egzersiz, spor ve yapılandırılmamış rekreatif hareketlerden oluşan boş zaman etkinlikleri olarak da karşımıza çıkmaktadır (Sancassiani ve ark., 2018). Ancak fiziksel aktiviteye iki açı ile bakmak gerekir. Bu açılardan ilki gün içerisinde hareketleri içeren ev işleri, merdiven kullanımı ve yürümek gibi yapılandırılmamış aktivitelerdir. İkincisi ise antrenör ve spor eğitmeninin gözetimi altında yapılan spor dersleri, fitness ve jimnastik egzersizleridir (Karaman ve ark., 2020).

Dolayısıyla bu çalışma, kadınların fiziksel aktivite düzeylerindeki değişimlerini bazı değişkenlere göre incelemeyi amaçladı.

YÖNTEM

Araştırma modeli

Bu araştırma veri toplama tekniğine göre gözlemsel, nedensellik ilişkisine göre tanımlayıcı, zamanlama ilişkisine göre kesitsel, uygulandığı ortama göre ise toplum tanımlayıcı bir araştırmadır (Çaparlar ve Dönmez, 2016).

Çalışma grubu

Araştırma grubu 20-57 yaş aralığında ev hanımları (EH) ile çalışan kadınlardan (ÇK) oluşmaktaydı. Katılımcılar EH (n=175) ve ÇK (n=175) şeklinde çalışan ve ev kadınları olarak iki gruba ayrıldı. Araştırmaya başlamadan önce EH'larına ile ÇK'lara veri toplama süreci ve araştırma hakkında bilgiler verildi.

Vücut ağırlığı ve boy ölçümleri

Vücut ağırlığı hassasiyeti ± 100 gr olan elektronik terazi (Seca, Germany) ile ölçüldü. Ölçümler yapılırken katılımcılar yalın ayak ile basküle çıkarıldı. Boy ölçümleri yapılmadan önce katılımcılardan ayakkabılarını çıkarmaları istendi ve 0,01 cm hassaslıkta boy ölçer aletiyle (Densi S200) katılımcıların boy ölçümleri alındı.

BMI (Body mass index)

Araştırmada, eskiden yetişkinlerde beslenme durumunu gösteren ve Quetelet indeksi olarak bilinen, BMI değerleri tüm katılımcıların vücut ağırlığının kişinin metre cinsinden boyunun karesine (kg/m²) bölünmesiyle elde edildi (vücut ağırlığı = (kg)/boy (m²)).

Uluslararası fiziksel aktivite anketi

Bu çalışmada bireylerin fiziksel aktivite düzeylerini belirlemek için Uluslararası Fiziksel Aktivite Anketi (UFAA - International Physical Activity Questionnaire) kısa formu kullanıldı.

Verilerin istatistiksel analizi

Elde edilen veriler SPSS 22.0 paket programda analiz edildi. Verilerin normalliğini belirlemek için Kolmogorov Smirnov testi yapıldı ve dağılım normaldi. İki grup arasındaki farklılığın belirlenmesi için Independent Samples t testi kullanıldı. İki'den fazla grup karşılaştırmalarında ise One Way ANOVA testi kullanıldı.

BULGULAR

Şekil 1'de görüldüğü gibi, çalışmaya katılanların MET puanları, çalışma durumu değişkenine göre anlamlı bir şekilde farklıydı. Bu farka göre EH grubundaki kadınların MET puan düzeyleri ÇK grubundan daha yüksek olduğu tespit edilmiştir.

Şekil 2'de görüldüğü gibi araştırmaya katılanların MET puanları yaş değişkeni açısından değerlendirildiğinde anlamlı bir fark tespit edilmemiştir.

Şekil 3'e göre, araştırmaya katılan katılımcıların medeni durum değişkenleri olan MET puanlarından aldıkları puanlar arasında anlamlı bir fark tespit edilmemiştir.

Şekil 4'e göre araştırmaya katılan katılımcıların MET puanları BMI değişkenlerinden aldıkları puanlar arasında anlamlı bir fark tespit edilmemiştir.

TARTIŞMA VE SONUÇ

Çalışmadaki kadınların MET puanlarından almış oldukları skor çalışma durumu değişkenine göre anlamlı düzeyde farklı olduğu tespit edildi ($p < 0,05$). Bu tespite göre EH grubundaki kadınların MET puan düzeyleri ÇK kıyasla daha yüksek seviyeydi. Yani çalışmadaki EH'ler ÇK'ya göre daha yüksek düzeyde fiziksel aktivite seviyesine sahipti (şekil 1A). Arslan ve arkadaşları (2007) ev hanımı ve çalışan kadınların fiziksel aktivite seviyeleri arasında anlamlı bir farkın olduğunu ifade ederek çalışan kadınların vücut kompozisyonları hakkında ÇK grubundaki kadınların kilo, beden kitle indeksi, bel çevresi, bel kalça oranı ve vücut yağ oranı açısından EH'ya göre daha yüksek seviyede olduğunu bildirmiştir.

Çalışmada katılımcıların MET puanlarını yaş değişkeni açısından değerlendirdiğimizde istatistiksel olarak anlamlı fark yoktu. Ancak anlamlı bir fark olmamasına rağmen 20-41 yaş aralığındaki katılımcıların diğer katılımcılara göre MET skor ortalamalarında küçük artışlar göze

çarpılmaktaydı. Bu yüzden bu yaş aralığındaki katılımcıların fiziksel aktivite seviyesinde artışların olduğu söylenebilir. Diğer yandan 41 ve üzerindeki yaş grubunda olan katılımcıların MET ortalama puanlarındaki düşüş dikkat değerdi. Bu sonuca göre MET skor ortalamasının, yani fiziksel aktivite düzeyindeki düşüşün bu yaştan itibaren başlangıç konusunda önemli bir eşik olabilir. Bu bağlamda, katılımcıların ortalama MET puanları veya fiziksel aktivite seviyelerindeki değişikliklerde yaşın önemli bir rol oynayabileceğine inanıyoruz. Literatür incelendiğinde, aynı özelliklere sahip çalışan ve işsiz kadınların MET puanları karşılaştırıldığında, yaşın FAD üzerinde anlamlı bir etkisinin olmadığı görülmüştür (Arslan & Ceviz, 2007). Ancak diğer çalışmalarda yaşın fiziksel aktivite düzeylerini etkileyebileceği bildirilmiştir. Wallace (2018) fiziksel aktivite seviyesinin yaşa göre farklılık gösterdiğini, Baştuğ ve arkadaşları (2011) yaş değişkeni arttıkça fiziksel aktivite düzeylerinin azaldığını bildirmiştir.

Araştırma grubundaki çalışan kadınların hareketsiz yaşam tarzı alışkanlıklarının fiziksel aktivite düzeylerini etkilediği ve iş hayatından geride kalan yaşam alanlarında çok aktif olmadıkları görüldü. Bu sonuç çalışan kadınlarda bazı sağlık sorunlarını tetikleyebilir. Bu nedenle, daha kötü sonuçlarla karşılaşmamak için hem çalışan kadınlar hem de işverenler fiziksel olarak aktif olma davranışını desteklemelidir. Özellikle işverenler, çalışan kadınlara fiziksel olarak aktif olabilecekleri mekanlar sunmalı ve yeme-içme gibi fizyolojik ihtiyaçlarını karşılamaları için verilen mola haklarından ziyade onların fiziksel aktivite yapmalarını teşvik edecek molalar ve fiziki mekanlar oluşturmalarıdır.

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KATKI ORANI CONTRIBUTION RATE	AÇIKLAMA EXPLANATION	KATKIDA BULUNANLAR CONTRIBUTORS
Fikir ve Kavramsal Örgü <i>Idea or Notion</i>	Araştırma hipotezini veya fikrini oluşturmak <i>Form the research hypothesis or idea</i>	Faruk AKÇINAR Nuray YİĞİTER
Tasarım <i>Design</i>	Yöntem ve araştırma desenini tasarlamak <i>To design the method and research design.</i>	Muhammet Enes YASUL
Literatür Tarama <i>Literature Review</i>	Çalışma için gerekli literatürü taramak <i>Review the literature required for the study</i>	Nuray YİĞİTER Yavuz YASUL
Veri Toplama ve İşleme <i>Data Collecting and Processing</i>	Verileri toplamak, düzenlemek ve raporlaştırmak <i>Collecting, organizing and reporting data</i>	Faruk AKÇINAR Yavuz YASUL
Tartışma ve Yorum <i>Discussion and Commentary</i>	Elde edilen bulguların değerlendirilmesi <i>Evaluation of the obtained finding</i>	Yavuz YASUL

Destek ve Teşekkür Beyanı/ Statement of Support and Acknowledgment

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Etik Kurul Beyanı/ Statement of Ethics Committee

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This study was conducted with the decision of Inonu University Ethics Committee dated 12.05.2022 and numbered 60263016- 050.06.04-E.416800.



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