



# Perceived exercise benefits and barriers among Turkish women: a pilot study

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## Research Article

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**Purpose:** Physical activity protects against many chronic diseases such as osteoporosis, diabetes, depression and cardiovascular diseases. Recent Turkish studies have indicated a higher physical activity level in men as compared to women population. The purpose of this study was to determine the perceived benefits and barriers to exercise in Turkish women.

**Methods:** Two hundred and eighty women volunteers aged between 24-63 years participated in the study. Women answered questions related to physical activity and they rated statements related to the benefits and barriers to exercise. **Results:** 69.7% of study participants did not do any exercise. When ranked from highest to lowest; perceived benefits and barriers of exercise were physical, psychological and social health benefits, environmental and personal barriers and timelessness. **Conclusion:** Based on the results, Turkish women's attitudes about doing exercise can be understood to some extent. There is a need for further comprehensive studies with larger samples.

**Keywords:** Women, Exercise, Health benefits.

## Türk kadınları arasında algılanan egzersiz yararları ve bariyerleri: pilot çalışma

**Amaç:** Fiziksel aktivite, osteoporoz, diyabet, depresyon ve kalp damar hastalıkları gibi birçok kronik hastalığa karşı koruyucudur. Son yıllarda Türkler tarafından yapılan çalışmalarda gösterilmektedir ki; kadın popülasyonunda fiziksel aktivite düzeyi erkeklere kıyasla daha düşüktür. Bu çalışmanın amacı, Türk kadınlarında algılanan egzersiz yararları ve bariyerlerini belirlemektir. **Yöntem:** Yaşları 20-63 arasında değişen 208 gönüllü kadın çalışmaya katıldı. Kadınlar fiziksel aktivite hakkında soruları cevapladılar, egzersizin yararları ve bariyerleri ile ilgili ifadeleri oranladılar. **Sonuçlar:** Çalışmaya katılanların % 69.7'si egzersiz yapmamaktaydı. Yüksekten düşüğe doğru oranlandığında; algılanan egzersiz yararları ve bariyerleri; fiziksel sağlık yararları, psikolojik sağlık yararları ve sosyal sağlık yararları ve çevresel bariyerler, kişisel bariyerler ve zamansızlıktı. **Sonuç:** Bu çalışmanın sonuçlarına dayanarak; Türk kadınlarının egzersiz yapma hakkındaki düşünceleri kısmen anlaşılabilir. Gelecekte daha geniş örneklemli ve kapsamlı çalışmalara ihtiyaç vardır.

**Anahtar kelimeler:** Kadın, Egzersiz, Yarar.

Physical activity protects against many chronic diseases such as osteoporosis, diabetes, depression, cardiovascular disease and improves quality of life in women.<sup>1-2</sup> Some developments in the twenty-first century: such as industrialization, urbanization and economic improvements, lead to physical inactivity especially in the developmental countries.<sup>3</sup> According to literature, especially in some groups such as women, low-income individuals, elder people, identifying and handling the physical activity barriers are very important.<sup>4-6</sup> It has been reported that, most of women of all ages and ethnic groups do not engage in physical activity; and also that risk of being sedentary is higher in midlife women than younger women and men.<sup>7</sup> Recent Turkish studies indicated a higher physical activity level in men as compared to women population.<sup>8-10</sup> Based on Turkish National Burden of Disease Report; physical inactivity percentages for women in 15-29, 30-44, 45-59, and 60-69 age ranges are 70.0, 68.7, 80.0, and 40.0%, respectively.<sup>10</sup>

Either in our country or in the world, pursuits for promoting or encouraging regular physical activity among adults has been continued. Brown et. al highlighted that it was needed to update the evidence relating physical activity to health in women. They remarked that there were differences related to patterns of energy expenditure in paid and unpaid work, commuting, and in leisure time between the women and men.<sup>11</sup>

Cultural norms affect the physical activity goals of a woman.<sup>12</sup> Based on this genuineness, it is expected that perceived benefits and barriers to physical activity will be different. To our knowledge, there are limited studies about the benefits and barriers of exercise in Turkish women.<sup>13-14</sup> Purpose of this study were to determine the benefits and barriers to exercise in Turkish women.

## METHODS

This study was planned according to Helsinki Declaration. Each subject was thoroughly informed about the study procedures before informed consent was obtained.

Two hundred and eight volunteer women aged between 24-63 years (mean±SD= 37.13±10.34 years) participated to the study and were asked to answer some questions about doing exercise. Firstly socio-demographic variables (such as age, weight, height, education level) were evaluated. Secondly participants were asked whether they do aerobic exercise (walking, jogging etc.) or not, and then women who do exercise, were asked weekly exercise frequency. Women, whose exercise frequency was less than 3 times per week, were thought as irregular exercising women.

In the last two parts of the questions, subjects rated statements related to the benefits and barriers to exercise as “I agree” and “I disagree”. Contents of statements were partially based on those used in previous women studies.<sup>15-18</sup>

All interviews were conducted in Turkish, by same interviewer and completed approximately 10 minutes.

### Statistical analysis:

The data were analyzed by using SPSS version 10.0. The results of the perceived benefits and barriers to the physical activity were presented by using descriptive statistics. The present data is preliminary and should be used to define perceived barriers to physical activity in Turkish women.

## RESULTS

The demographic characteristics of the women are shown in Table 1. 30.3% of study participants were made to exercise irregularly, 69.7% of study participants were not made to do any exercise. 15.3% of women were less educated, 61.1 % of women were married and 54.8% of them were working.

Among all the participants, when ranked from highest to lowest, perceived benefits of exercise were physical health benefits (99%), social health benefits (95.7%) and psychological health benefits (94.2%) (Table 2). Also perceived benefits of exercise were examined in both irregular exercising and non-exercising women. Ranking was similar in the groups (the irregular exercising women- non-exercising) women physical health benefits (100-

98.6%), social health benefits (95.2-95.9%) and psychological health benefits (95.2-93.8%) (Table 3).

**Table 1. Sociodemographic characteristics of women.**

	n	%
<b>Age distribution (years)</b>		
24-40	132	63.5
41-63	76	36.5
<b>Exercise status</b>		
Exercising	63	30.3
Non-exercising	145	69.7
<b>Body mass index (kg/m<sup>2</sup>)</b>		
<i>Irregular Exercising women</i>	<i>63</i>	
≤25	37	58.7
25-30	20	31.7
30-35	6	9.6
>35	-	0
<i>Non-exercising women</i>	<i>145</i>	
≤25	93	64.1
25-30	38	26.2
30-35	11	7.6
>35	3	2.1
<b>Marital status</b>		
Single (solitary)	7	3.4
Single (living with family)	64	30.7
Married	127	61.1
Widowed	10	4.8
<b>Educational level</b>		
<i>Irregular Exercising women</i>	<i>63</i>	
Primary school	2	3.2
Secondary school	5	7.9
High school	21	33.3
University graduate	35	55.6
<i>Non-exercising women</i>	<i>145</i>	
Primary school	15	10.4
Secondary school	10	6.9
High school	48	33.1
University graduate	72	49.7
<b>Employment status</b>		
Part-time working	8	3.8
Full-time working	106	51
Retired	21	10
Housewife	60	28.9
Student	13	6.3

Each group benefits were examined also by subheadings. The biggest physical health benefit was musculoskeletal health in two groups of women (Table 3). In the context of psychological

health benefits of exercise; positive effect on self esteem outshined the other psychological benefits (Table 3). Among social health benefits, a facilitative effect of exercise on adaptation to social environment was more meaningful (Table 3).

Similarly, based on participants' answers; perceived barriers of exercise ranked from highest to lowest. When all participants were considered together; ranking was: environmental barriers (15.9%), personal barriers (13.5%), and timelessness (9.1%) (Table 4). When groups were evaluated separately; once again environmental barriers were most common barriers reported by two groups (Table 5).

Most rating environmental barrier was "high cost of exercise" in both groups (Table 5). Belief that "doing exercise is exhaustive activity" was most prominent personal barrier in the irregular exercising group (3.2%) despite that, "doing exercise is boring activity" was highest ranked personal barrier in the non-exercising group (9.7%) (Table 5). On the other hand, preferring to participate to other leisure time activities such as watching TV, going to cinema rather than exercise was most important cause of the timelessness (Table 4) (Table 5).

## DISCUSSION

Regular exercise is considered as important component of healthy life style.<sup>1,2</sup> But, more than 60 % of adult women fail to exercise to realize the health benefits.<sup>19</sup> It was demonstrated that, women who are sedentary are twice as likely to develop cardiovascular diseases compared to women who are not sedentary.<sup>20</sup> Cardiovascular diseases have higher death rates, more recurrent episodes and more frequent cause of hospital admission in women than in men.<sup>21</sup> Similarly, the coronary morbidity and mortality in premenopausal Turkish women approaches that of Turkish men.<sup>22</sup>

Perceived benefits of exercise, determine the value of the person to exercise. If the person believes it is beneficial, he/she will gain the habit of exercise easily. On the contrary, perceived

**Table 2. Perceived benefits to exercise among all participants (N=208).**

	I agree		I disagree	
	n	%	n	%
<b>Exercise has physical health-related benefits</b>	206	99	2	1
Exercise improves musculoskeletal health	197	94.7	11	5.3
Exercise prevents heart diseases	193	92.8	15	7.2
Exercise provides weight control	99	47.6	109	52.4
<b>Exercise has psychological health-related benefits</b>	196	94.2	12	5.8
Exercise improves self-esteem	182	87.5	26	12.5
Exercise helps to coping with stress	136	65.4	72	34.6
Exercise improves well-being	179	86.1	29	13.9
<b>Exercise has social health-related benefits</b>	199	95.7	9	4.3
Exercise allows the socialization	145	69.7	63	30.3
Exercise develops new friendships	127	61.1	81	38.9
Exercise makes it easy to fit the social environment	193	92.8	15	7.2

**Table 3. Perceived benefits to exercise among irregular exercising women (N=63) and non-exercising women (N=145).**

	Irregular exercising				Non-exercising			
	I agree		I disagree		I agree		I disagree	
	n	%	n	%	n	%	n	%
<b>Exercise has physical health-related benefits</b>	63	100	0	0	143	98.6	2	1.4
Exercise improves musculoskeletal health	60	95.2	3	4.8	137	94.5	8	5.5
Exercise prevents heart diseases	58	92.1	5	7.9	135	93.1	10	6.9
Exercise provides weight control	37	58.7	26	41.3	62	42.8	83	57.2
<b>Exercise has psychological health-related ben.</b>	60	95.2	3	4.8	136	93.8	9	6.2
Exercise improves self-esteem	58	92.1	5	7.9	124	85.5	21	14.5
Exercise helps to coping with stress	45	71.4	18	28.6	91	62.8	54	37.2
Exercise improves well-being	55	87.3	8	12.7	124	85.5	21	14.5
<b>Exercise has social health-related benefits</b>	60	95.2	3	4.8	139	95.9	6	4.1
Exercise allows the socialization	44	69.8	19	30.2	101	69.7	44	30.3
Exercise develops new friendships	36	57.1	27	42.9	91	62.8	54	37.2
Exercise makes it easy to fit the social environ.	57	90.5	6	9.5	136	93.8	9	6.2

**Table 4. Perceived barriers to exercise among all participants (N=208).**

	I agree		I disagree	
	n	%	n	%
<b>I do not do exercise because of environmental barriers</b>	33	15.9	175	84.1
It costs too much money to exercise	17	8.2	191	91.8
There is a lack of knowledge about exercise.	15	7.2	193	92.8
My family members or my friends do not encourage me to exercise	10	4.8	198	95.2
<b>I do not do exercise because of personal barriers</b>	28	13.5	180	86.5
Exercise is boring for me	15	7.2	193	92.8
Exercise may cause injury	13	6.2	195	93.8
Exercise tires me	17	8.2	191	91.8
<b>I do not do exercise because of timelessness</b>	19	9.1	189	90.9
Exercise takes too much time from my family responsibilities	7	3.4	201	96.6
Exercise takes too much time from my work-related responsibilities	6	2.9	202	97.1
I prefer to do other social activities (TV, cinema) in my leisure times	11	5.3	197	94.7

**Table 5. Perceived barriers to exercise among irregular exercising women (N=63) and non-exercising women (N=145).**

	Irregular exercising				Non-exercising			
	I agree		I disagree		I agree		I disagree	
	n	%	n	%	n	%	n	%
<b>I do not do exercise because of env. barriers</b>	6	9.5	57	90.5	27	18.6	118	81.4
It costs too much money to exercise	1	1.6	62	98.4	16	11.0	129	89.0
There is a lack of knowledge about exercise.	5	7.9	58	92.1	10	6.9	135	93.1
Family/friends do not encourage me to exercise	0	0	63	100	10	6.9	135	93.1
<b>I do not do exercise because of personal barr.</b>	3	4.8	60	95.2	25	17.2	120	82.8
Exercise is boring for me	1	1.6	62	98.4	14	9.7	131	90.3
Exercise may cause injury	1	1.6	62	98.4	12	8.3	133	91.7
Exercise tires me	2	3.2	61	96.8	15	10.3	130	89.7
<b>I do not do exercise because of timelessness</b>	1	1.6	62	98.4	18	12.4	127	87.6
Ex. takes too much time from my family resp.	1	1.6	62	98.4	6	4.1	139	95.9
Ex. takes too much time from my work-rel. resp.	0	0	63	100	6	4.1	139	95.9
I prefer to do other social activities in leisure t.	1	1.6	62	98.4	10	6.9	135	93.1

barriers are an individual's own evaluations of the obstacles in the way of his/her adopting exercise behavior. Many individuals do not engage in sufficient physical activity due to low perceived benefits and high perceived barriers to exercise. Identification of benefits and barriers to physical activity may be considered as first step for encourage healthy life style among women. Later, it should be find a solution for the barriers.<sup>23</sup>

Regular physical activity, help to increase muscle mass, strength, power and endurance which are essential contributing factors for the improvement of musculoskeletal health.<sup>1,2,20</sup> Exercise also improves psychological well-being. Sleep patterns, mood and mental health improve through active life style. Exercise declines stress, anxiety and depression levels and improves self-esteem.<sup>24-27</sup> In addition, some social benefits of exercise are known such as changing life style, helping interact with different people and socialization.<sup>28,29</sup>

The studies that assessed benefits to physical activity among women reported different results. When literature was reviewed; younger women have reported benefits such as life enhancement, increased feelings of well-being, physical fitness, improved mental health, social interaction, body image, and overall health promotion benefits but

older women reported the benefits related to the aging process.<sup>17,23</sup>

One comprehensive study evaluated perceived benefits and barriers to physical activity in a sample lived in the 15 EU countries. When the results of the study examined; to maintain good health, to release tension, to get fit for women were preferential benefits. A small number of women thought that the exercise may improve socialization.<sup>23</sup> Lovell and co-worker's study assessed physical activity benefits and barriers among British Female University Students who do not exercise. According to the assessment results, physical performance was the most significant benefit, psychological contribution and preventive health were not important, although social interaction was least important benefit.<sup>16</sup>

Our study indicated that, a considerable number of the Turkish women are aware of the all physical, psychological and social positive effects of regular exercise. Literature stated that higher education may increase awareness of the benefits of exercise.<sup>30</sup> Although most of participants do not do regular exercise, approaching 90% level of awareness about the benefits of exercise may be explained by high level of education; in the irregular exercising group % 56 of the participants, also in the non-exercising group 50% of the participants graduated from university.

As for physical health related benefits of exercise, one finding is interesting: only 43% of non-exercising and 59% of irregular exercising Turkish women thought that exercise provides weight control and prevents obesity. In previous studies, it was observed that, women's general physical activity goals were related to body shape and to weight loss.<sup>31-33</sup> When body mass index value was over 25 kg/m<sup>2</sup>, it was considered as obesity or overweight in our study among both exerciser and non exerciser women, the percentage of obesity was low (41% and 36%). So obesity may be not a problem for Turkish women in this study, they did not consider weight control effect of exercise as important.

In the context of psychological health benefits of exercise, positive effect on self confidence was the highest ranked item. Self esteem may be considered as the key to happy and successful life. It has been reported that, perceived sport competence, physical condition, body image and strength, which are subcomponents of exercise contribute to self-esteem.<sup>34</sup> Because of regular exercise has become popular among Turkish women in recent years,<sup>13</sup> this finding is hopeful for our population.

It was observed that, our sample's awareness about the social benefits of exercise was similar to the physical and psychological benefits. The item that, "exercise facilitates compliance with the social environment" was marked more than the others. Based on the finding, we thought that: perceptions of Turkish women related to social and psychological benefits of physical activity are consistent. Improving self-esteem will help adaptation to social life.

It was shown that women have some barriers to engaging in regular physical activity.<sup>35,36</sup> Age, marital status, socioeconomic status and education level are elementary demographic variables which are closely associated to physical activity behavior. Although results varied from culture to culture; being married, lower income and education level reduced participation in physical activity.<sup>37-39</sup> On the other hand, some life events such as leaving family homes, starting work, entering a marital or de facto relationship, and becoming mothers more

affect to physical activity among younger women than older women,<sup>40</sup> whereas barriers related to being old and having poor personal health were more important for older women.<sup>17,23</sup>

Despite of similar perceptions about benefits to physical activity in two groups, all barriers to physical activity were more ranked by non-exercising women than irregular exercising women. The findings were not surprising, but meaningful. Based on these findings, important of some barriers were more clearly understood.

When we evaluated all participants' perceptions about the barriers to physical activity, the result was surprising: none of sub-group barriers which consisted of environmental barriers, personal barriers, and timelessness, were not important limiting factors in physical activity participation. Even environmental barrier, which was the highest ranked barrier, reached only 15.9%. In this sense, not assessed to stage of readiness to exercise in our population is may be a problem of the study.

On the other hand, "exercise is an expensive activity" was the most common barrier among environmental and all other barriers in non-exerciser women. In our opinion, developing some strategies such as reduce the cost of exercise, easy transport to exercise areas may help to acquire exercise habits in Turkish women.

Lack of time which is primarily related to personal and family responsibilities has been reported as most common physical activity barrier in women studies.<sup>5,23,35,36,41</sup> In the European Union Study, female participant's most important barriers to increase physical activity are work or study commitments.<sup>23</sup> One study which has been completed in USA, included 4140 adults and 39% of women indicated that, lack of time and motivation were primary causes for inadequate physical activity.<sup>5</sup> According to Nishida and co-workers' study; Japanese women did not exercise because of lack of time related to job and family responsibilities.<sup>41</sup>

Contrary to the literature; in Turkish non-exercising women, timelessness does not seem like an important barrier. Family or work responsibilities with low participation rates were

not considered as physical activity barriers. This outcome may be the point to be emphasized because of it reflected that Turkish women have no idea of participating in sports and exercise. Among women who postulated that their exercise level were inadequate; lack of leisure time was one of important exercise barriers.<sup>5</sup>

The study's results related to the barriers were compared with recent study that included Turkish women. Caregiver duties, lack of time related to family and work responsibilities and economic difficulties such as availability of exercise facilities were determined as foremost barriers;<sup>13</sup> only similarity is related that, high cost of exercise was most notable environmental physical activity barriers among our participants. Other results are rather different from ours. The majority of women in our study have not the habit of exercising in spite of that, all women in the other study performed in physical activity at least two times in a week. This circumstance may explain the difference related to the barriers between the two samples.

**Study limitations:** Our study's population comprised of only 208 women and all participants live in Ankara. Because of these limitations, it is not possible that to have general information about Turkish women's perceived exercise benefits and barriers.

**Conclusion:** Based on this pilot study's results, a group of Turkish women's attitudes about to doing exercise could be understood partially. Turkish women know the benefits of exercise and have not important barriers to exercise. However, despite of these results, they do not do exercise regularly. Generalization of this study may be limited, but the results may lead to develop effective strategies to encourage Turkish women to maintain healthy active life style. Surely there is need comprehensive studies with larger samples in the future.

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