

## Reviewing perceived exercise benefits and barriers among sports employees

Gulsum Bastug<sup>1</sup>, Seyit Ahmet Kocacan<sup>2</sup>

<sup>1</sup>Muğla Sıtkı Koçman University, Faculty of Sports Sciences, Mugla, Turkey

<sup>2</sup>Muğla Sıtkı Koçman University, Institute of Social Sciences, Mugla, Turkey

gbastug@mu.edu.tr

### Abstract

The purpose of this study was to examine perceived exercise benefits and barriers in sports employees. The sample of the research consists of a total of 200 sportsmen consisting of Antalya youth services and trainer and sports specialist working in the sports center and physical education teachers working in the schools related to national education. The Exercise Benefits/Barriers Scale developed by Sechrist, Walker and Pender (1987), Turkish validation and reliability tests of which were performed by Ortabağ (2009), was employed to determine the exercise benefits and barrier levels of the participants. In the evaluation of the data, frequency analysis, t test and ANOVA test were used. As a result; it was found that there were significant differences between perceived exercise benefits and barriers and variables of marital status, adequate nutrition, exercising. It was identified that the single employees had higher level of perceived exercise benefits and barriers than the married employees. There was also a significant difference between perceived exercise benefits and adequate nutrition. On the other hand; there was not a significant difference between perceived exercise barriers and adequate nutrition. There was also a significant discrepancy between perceived exercise benefits and exercising. However; no significant difference was found between perceived exercise benefits and barriers and variables of age and gender. Also; average perceived exercise barriers were higher among female employees than male employees.

**Keywords:** Sports employees, perceived exercise benefit/barrier

## INTRODUCTION

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Exercise is the whole of scheduled physical activities performed for fitness, physical performance, and weight control or maintaining health (Thompson, Gordon and Pescatello, 2009). Regular physical activity has been reported to be useful for improving physiological and psychological health (Biddle, Gorely and Stensel, 2004). Exercise offer numerous advantages such as increasing strength, endurance and flexibility of muscles, reducing and maintaining weight, as well as decreasing risks for cardiovascular diseases and thrombosis, blood lipid and glucose levels, improving psychological status and sleep quality, bone mineral density, and preventing some cancers and reducing chronic pain (Lee et al. 2012). Exercise are reported to play a crucial role in preventing and treating diseases (Ardıç, 2014). An active life style enhances energy and vitality and strengthens one's energy and will to live (Mavric et al., 2014). Perceiving benefits of health promoting behaviors, internal and external factors, motivation of individuals, health status and perceiving benefits of behavior are effective upon health improving behaviors (Öz, 2004; Sabuncu et al., 1993). It is important for the individual to understand his or her illness and health. Based on this perception, health behaviors, awareness is strengthened and the individual controls his / her health (Baltaş et al., 2008). In order to gain health benefit, it is recommended that physical activities should be done moderately and regularly (Pender et al., 2006). Individuals may perceive various barriers to positive health behaviors on individual and social basis depending on different reasons like psychological, cultural, individual factors. Barriers are internal and external factors that prevent health promoting behaviors from being realized. Among barriers to positive health behaviors are physical and psychological characteristics, motivation and environmental factors (Maurer and Smith, 2000). Barriers to regular physical activities may include being too busy to do physical exercises in professional life, family and daily routines, having the idea that physical activities are not necessary because of the assumption that a normal body weight is maintained, fear of injuries, not playing sports before, not enjoying doing exercises alone, weather conditions, not feeling safe when doing exercises alone, health problems and lack of proper places for physical activities in residential areas (WHO, 2016.) As exercise benefit perception prevails over exercise barrier perception, possibility to perform positive health behaviors increases (Baltaş et al., 2008; Maurer and Smith, 2000; Tabak, 2000). It is pointed out that there is a positive correlation between perceived exercise benefits and doing exercises (Esposito and Fitzpatrick, 2011). It is thought that sports employees (coaches, sports specialists, physical education teachers) are important in terms of the formation of exercise benefits and obstacles perceptions, awareness of exercise benefits, elimination of exercise barriers, and liking sport to other people in society. In this sense, investigation of exercise benefit and barrier gains importance. It is argued that maximizing exercise benefits and minimizing exercise barriers are important for human health. In the current study; the aim was to review level of perceived exercise benefits and barriers among physical education teachers, trainers and sports experts who worked in sports field.

## METHOD

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The sample of the research consists of a total of 200 sportsmen consisting of Antalya youth services and trainer and sports specialist working in the sports center and physical education teachers working in the schools related to national education. The Exercise Benefits/Barriers Scale developed by Sechrist, Walker and Pender (1987), Turkish validity and reliability tests of which were performed by Ortabağ (2009), was employed to determine the exercise benefit/barrier levels of the participants.

The Exercise Benefits/Barriers Scale

"Exercise Benefit/Barrier Scale" was developed by Sechrist, Walker and Pender in 1987. Cronbach Alpha coefficient of the scale was 0.95. Cronbach Alpha coefficients of EBBS-subcales ranged

between 0.95 and 0.86 (Sechrist, Walker and Pender, 1987). Turkish validity and reliability tests of the scale were performed by Ortabağ (2009) in the study titled as Validity and Reliability of the Exercise Benefits/Barriers Scale for Female University Students in Turkey. In the study of Ortabağ, Cronbach Alpha coefficient of the scale was 0.92. In the current study, Cronbach Alpha coefficient of the scale was found to be 0.91. The scale is consisted of a total of 43 items. There are two subscales of the scale: Exercise Barrier Scale and Exercise Benefit Scale. Each subscale can independently be used. A score obtained from all the items provides score of the Exercise Benefit/Barrier Scale. The scale can be used and scored as a whole or two different scales. Items of the scale are marked in Likert format with the following codes: from Strongly Agree to Strongly Disagree. Items of the Barrier Scale are 4, 6, 9, 12, 14, 16, 19, 21, 24, 28, 33, 37, 40 and 42 while items of the Benefit Scale are 1, 2, 3, 5, 7, 8, 10, 11, 13, 15, 17, 18, 20, 22, 23, 25, 26, 27, 29, 30, 31, 32, 34, 35, 36, 38, 39, 41 and 43. The lowest score is 43 while the highest score is 172. The higher a score is, the more one believes in exercise benefits. Total score of Benefit Scale ranges from 29 to 116 while total score of Barrier Scale ranges from 14 to 56. Therefore; the higher a score is, the higher one perceives of barriers to exercise.

### Data Analysis

Frequency analysis, significance test (t test) of the difference between two averages and ANOVA test were used to assess the data. For the analyses of the data; frequency analysis, significance test (t test) of the difference between two averages and ANOVA test and Post-hoc TUKEY test were employed.

## RESULTS

**Table 1.** Descriptive characteristics of sports employees

Variables		N	%
Age	19-23	59	29.5
	24-28	67	33.5
	29-33	33	16.5
	≥34	41	20.5
Sex	Female	96	48.0
	Male	104	52.0
Marital status	Single	150	75.0
	Married	50	25.0
Adequate nutrition	Yes	56	28.0
	No	144	72.0
Exercising	Yes	198	99.0
	No	2	1.0
Status of exercising	Never	24	12.0
	1-2 days a week	106	53.0
	≥3-4 days a week	70	35.0
	Total	200	100.0

As seen in Table 1; 33.5% of the participant sports employees belonged to 24-28 age group, 29.5% of them to 19-23 age group; %48 of them were female, 52% of them were male and 25% of them were married (n:50), 75% of them were single (n:150). 72% of the participants thought that they did not have an adequate nutrition (n:144), 99% of them told that they played sports (n:198) and 53% of the participants stated that they did exercise 1-2 days a week (n:106).

**Table 2.** Assessment of perceived exercise benefit/barrier in terms of age variable

Perceived exercise benefit/barrier	Age	N	$\bar{X}$	$\sigma$	F	p
Perceived exercise benefit	19-23	59	1.66	.34	1.537	.206
	24-28	67	1.60	.29		
	29-33	33	1.62	.21		
	$\geq 34$	41	1.53	.31		
Perceived exercise barrier	19-23	59	2.00	.48	1.727	.163
	24-28	67	1.89	.32		
	29-33	33	1.93	.27		
	$\geq 34$	41	1.82	.41		

As seen in Table 2, there was not a significant discrepancy between perceived exercise benefit/barrier and age variable ( $p > 0.05$ ). Average scores of perceived exercise benefit and perceived exercise barrier were higher among those sports employees aged 19-23 years than other age groups [respectively,  $(1.66 \pm 0.34)$   $(2.00 \pm 0.48)$ ].

**Table 3.** Assessment of perceived exercise benefit/barrier in terms of gender variable

Perceived exercise benefit/barrier	Gender	N	$\bar{X}$	$\sigma$	t	p
Perceived exercise benefit	Female	96	1.61	.31	-.094	.925
	Male	104	1.61	.29		
Perceived exercise barrier	Female	96	1.92	.39	.075	.940
	Male	104	1.91	.39		

As seen in Table 3, there was not a significant difference between perceived exercise benefit/barrier and gender variable ( $p > 0.05$ ). It was found that average score of perceived exercise barrier was higher among female employees than male employees.

**Table 4.** Assessment of perceived exercise benefit/barrier in terms of marital status variable

Perceived exercise benefit/barrier	Marital status	N	$\bar{X}$	$\sigma$	t	p
Perceived exercise benefit	Single	150	1.64	.30	2.472	<b>.014*</b>
	Married	50	1.52	.30		
Perceived exercise barrier	Single	150	1.96	.39	2.987	<b>.003*</b>
	Married	50	1.77	.37		

As seen in Table 4, there was a significant difference between perceived exercise benefit/barrier and marital status variable ( $p < 0.05$ ). Average score of perceived exercise benefit was  $1.64 \pm .30$  among the single sports employees while it was  $1.52 \pm .30$  among married sports employees. On the other hand;

average score of perceived exercise barrier was  $1.96 \pm .39$  among the single sports employees while it was  $1.77 \pm .37$  among married sports employees. It was seen that perceived exercise benefit/barrier of the single sports employees was higher than married sports employees.

**Table 5.** Assessment of perceived exercise benefit/barrier in terms of adequate nutrition variable

Perceived exercise benefit/barrier	Adequate nutrition	N	$\bar{X}$	$\sigma$	t	p
Perceived exercise benefit	Yes	56	1.51	.37	2.415	<b>.006*</b>
	No	144	1.64	.26		
Perceived exercise barrier	Yes	56	1.85	.48	1.306	.036
	No	144	1.94	.35		

As seen in Table 5, a significant difference was found between perceived exercise benefit and adequate nutrition variable ( $p < 0.05$ ) whereas there was not a significant difference between perceived exercise barrier and adequate nutrition variable ( $p > 0.05$ ). Average score of perceived exercise benefit was  $1.51 \pm 0.37$  among those sports employees who had an adequate nutrition while it was  $1.64 \pm 0.26$  among those sports employees who did not have an adequate nutrition. As for score of perceived exercise barrier; it was  $1.85 \pm 0.48$  among those who had an adequate nutrition while it was  $1.94 \pm 0.35$  among those who did not have an adequate nutrition.

**Table 6.** Assessment of perceived exercise benefit/barrier in terms of exercising variable

Perceived exercise benefit/barrier	Exercising	N	$\bar{X}$	$\sigma$	Post Hoc	F	P
Perceived exercise benefit	Never <sup>1</sup>	24	1.70	.38	1-2 2-3	3.320	<b>.038*</b>
	1-2 days a week <sup>2</sup>	10 6	1.63	.22			
	$\geq 3-4$ days a week <sup>3</sup>	70	1.54	.36			
Perceived exercise barrier	Never	24	1.93	.42		.197	.821
	1-2 days a week	10 6	1.93	.29			
	$\geq 3-4$ days a week	70	1.89	.50			

As seen in Table 6, a significant discrepancy was found between perceived exercise benefit and exercising variable ( $p < 0.05$ ) while there was no significant discrepancy between perceived exercise barrier and exercising variable ( $p > 0.05$ ). Average score of perceived exercise benefit was  $1.70 \pm 0.38$  among those saying that “I never exercised in a week”,  $1.63 \pm 0.22$  among those saying that “I exercised 1-2 days a week” and  $1.54 \pm 0.36$  among those saying that “I exercised  $\geq 3-4$  days a week”. Average score of perceived exercise barrier was  $1.93 \pm 0.38$  among those saying that “I never exercised in a week”,  $1.93 \pm 0.22$  among those saying that “I exercised 1-2 days a week” and  $1.89 \pm 0.50$  among those saying that “I exercised  $\geq 3-4$  days a week”. It was noted that in terms of perceived exercise benefit, there was a significant difference between those sports employees stating that they never exercised in a week and those sports employees stating that they exercised 1-2 days a week and between those sports employees

stating that they exercised 1-2 days a week and those saying that they exercised  $\geq 3-4$  days a week. It was interesting that perceived exercise benefit was higher among those sports employees stating that they never exercised.

## **DISCUSSION and CONCLUSION**

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Demographic information of sports employees participating in the survey; 29.5% of the participant sports employees belonged to 19-23 age group, 33.5% of them to 24-28 age group; %48 of them were female employees, 52% of them were male employees; 25% of them were married, 75% of them were single; 72% of the participants thought that they did not have an adequate nutrition; 99% of them told that they played sports and 53% of the participants stated that they did exercise 1-2 days a week (Table 1). There was not a significant discrepancy between perceived exercise benefit/barrier and age variable but average scores of perceived exercise benefit and perceived exercise barrier were higher among those sports employees aged 19-23 years than other age groups (Table 2). No significant difference was found between perceived exercise benefit/barrier and gender variable. It was identified that average score of perceived exercise barrier was higher among female employees than male employees; which may – according to us- have resulted from the fact that women in our society did not have time or had a limited time for exercising at home and professional life (Table 3). In a study of women with exercise benefit and disability perception, excessive workload, irregular working hours, lack of time and space for exercise, and physical difficulties were found to be factors that prevented women from exercising (Doğan and Ayaz, 2015). In another study in which perceived exercise benefits and barriers were examined among female university students, perceived barriers to exercise were reported as physical exertion, time expenditure, exercise milieu and family discouragement (Lovell, Ansari and Parker, 2010). In another study; younger and older non-exercising groups of women were compared in terms of barriers to do physical activities and total barrier perception was found considerably higher among the older age group ( $\geq 28-35$  years) (Ansari and Lovell, 2009). There was a significant difference between perceived exercise benefit/barrier and marital status variable. Perceived exercise benefit/barrier was higher among the single sports employees than married sports employees. Life of an adult individual is different before and after marriage. We are of the opinion that the correlation between duties and responsibilities imposed by marriage and transition to a regular life is one reason for highly perceived exercise benefit (Table 4). Individuals' live styles influence both their quality of life and length of life (Karadeniz et al., 2008). It was explored that perceptions of health responsibilities of the married people are stronger than those single (Ayaz, Tezcan and Akıncı, 2005). Since marriage results in an orderly life style, it may be suggested that healthy life behaviors of the married people are higher (İlhan, Batmaz and Akhan, 2010). Findings of this study were similar to the findings of the current study. There was a significant discrepancy between perceived exercise benefit and adequate nutrition variable while no significant discrepancy was found between perceived exercise barrier and adequate nutrition variable. Perceived exercise benefit/barrier of those without adequate nutrition habits is higher. If individuals do not care about nutrition and do not have a regular and balanced nutrition, we think that they create a positive perception of exercise benefits (Table 5). It was found that, exercise score of those who told that they had adequate and balanced nutrition was also high (Yalçınkaya, Özer and Karamanoğlu, 2007). A significant discrepancy was found between perceived exercise benefit and exercising variable while there was no significant difference between perceived exercise barrier and exercising variable. It was interesting that perceived exercise benefit was higher among those sports employees stating that they never exercised in a week (Table 6). In a study on health care employees' perceived exercise benefit/barrier, it was identified that perceived exercise barrier was higher among those nurses who did not have any opportunity to exercise, had a disease that prevented them from exercising, did not exercise

regularly and exercised 1-2 days a week, took medication regularly, were overweight and obese (Doğan and Ayaz, 2015). According to Australian Queenslanders Health Survey reports (2008), it was noted that 53% of adult population were not aware of benefits of physical activities enough, nearly one of four adults (27.7%) were sedentary for 7 hours a day and spent 4.7 hours a day sedentarily. Ratio of diseases caused by lack of activity was 6.2% among men while it was 6.8% among women (Queensland Health, 2008). In the study of Gyurcsik (2006), barriers to physical activities among university students were examined and it was identified that these barriers were social activities (52%), work burden (74%), financial impossibilities (lack of money) (3%) and transportation (62%). In another study aimed at determining the perceived exercise benefit and disability of university students, physical difficulty, time allocation, exercise environment, lack of exercise in the family were determined as exercise-disabled (Lovell, Ansari and Parker, 2010). In a study of health employees' exercise benefit and disability perception, the perceived benefit scores were found significantly higher in sports and exercise practitioners (Bakır ve Hisar, 2016).

As a conclusion; it was found that there were significant differences between perceived exercise benefit/barrier and variables of marital status, adequate nutrition, exercising. It was identified that the single employees had higher level of perceived exercise benefit/barrier than the married employees. There was also a significant discrepancy between perceived exercise benefit and adequate nutrition but there was not a significant difference between perceived exercise barrier and adequate nutrition. There was also a significant difference between perceived exercise benefit and exercising. However; no significant difference was found between perceived exercise benefit/barrier and variables of age and sex. It was also identified that average score of perceived exercise barrier was higher among female employees than male employees. It is recommended that sports employees should be informed of healthy life and perceived exercise benefit/barrier and importance of exercises should be emphasized. It is recommended to increase the number of participants by using different variables. It is recommended that training programs for sport employees should be organized to encourage exercise.

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