

# Analysis of the Health Beliefs of Physical Education and Sports Teachers Regarding Sportive Recreational Activities

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## Abstract

This paper aimed to analyze the health beliefs of physical education and sports teachers regarding sportive recreational activities in the extent of their socio-demographic features. The study sample consisted of 286 (101 male & 185 female) physical education teachers. In the study to collect data, we used the “Health Belief Scale for Sportive Recreational Activities” scale. In analyze of the data, first, we calculated Cronbach’s Alpha, Skewness and Kurtosis values. Then we used One Way Anova and Independent samples t-test at 95% confidence level. We used Tukey’s HSD as second degree test. Analyze results showed that the participants had a high level of health belief regarding sportive recreational activities. Besides, there were significant differences in the variable health belief according to marital status, and believe in the ideas that sportive recreational activities are useful for mental and physical health as well as the treatment of chronic diseases. However, there was not any significant differences according to gender and number of weekly activities performed. As a conclusion present study showed that PE & sports teachers see sportive recreational activities

as a preventive against diseases and better health.

**Keywords:** Health belief, Recreational activity, Physical education teacher

## 1. Introduction

The right to life and health is one of the fundamental human rights. Contemporary health policies aimed at protecting, maintaining and improving this right, and thus concentrate on individuals' responsibilities regarding their health and enabling them to display behaviors that will improve their health (Ayaz, Tezcan, & Akıncı, 2005). Health occupies a vital position in people's lives. As defined by the World Health Organization, health is not limited to the absence of a disease or disability and refers to a complete physical, mental, and social well-being (Çakırçalı, 2000). It is a concept that is related to all aspects of life, such as welfare, mental and emotional capacity, and psychological state. In today's world, health involves life quality and satisfaction (Edelman & Mandle, 1998). And, a healthy lifestyle is ensured by sufficient and regular exercise, a balanced diet, non-smoking, and stress management (Esin, 1997).

We can analyze health behaviors through the health belief model. The model was first developed by a group of psychologists who worked for the United Nations Public Health Service in 1950 (Aristizabal Castano & San Martin, 1998). Health Belief Model is the first model to have been adapted from behavioral sciences. Thanks to this model, some people started to take responsibilities in terms of protecting themselves from diseases (Stanhope & Lancaster, 2000).

We know that many diseases are because of our stressful life and participation in recreational activities is considered as one of the most effective solutions for reducing stress. Thanks to recreational activities an individual can relieve themselves, feel positive, and cleanse their minds (Bammel & Burrus-Bammel, 1996). Derived from Latin, "recreation" can be defined as a process of restructuring and regeneration. In the Turkish language, the word is often used interchangeably with the term leisure (Üstün & Ersoy, 2016). It is also used to refer to relieving and enjoyable activities in which an individual or social group participate in their free time (Karaküçük, 2005). The variety of recreational activities has gradually increased over time, and it started to be associated with health protection. Thanks to recreational activities, various slogans such as lifelong sports, sports for a healthy life, and wellness have been so far used to increase the number of people participating in sportive activities (Kalyon, 2000).

Because the sedentary lifestyle has recently increased as a result of technological developments, individuals have started to become less satisfied with their lives. Additionally, individuals' decreasing physical activities have resulted in different diseases and disorders within time. Recreational exercises are considered as preventive health services and have recently gained importance in Turkey and around the world. These activities positively contributed to individuals' health beliefs and commitments. In this respect in the present study we focused on physical education and sports teachers' health beliefs regarding to sportive recreational activities and tried to find out answers to the following research

questions:

RQ1: What is the health belief level of physical education teachers regarding to sportive recreational activities?

RQ2: Is there a significant difference between married and single teachers' levels of health beliefs regarding sportive recreational activities?

RQ3: Is there a significant difference between male and female teachers' level of health beliefs regarding sportive recreational activities?

RQ4: Is there a significant difference among teachers' level of health belief regarding sportive recreational activities in terms of the number of weekly sportive recreational activities performed?

RQ5: Does the idea that recreational activities are useful for mental and physical health have a significant effect on teachers' health beliefs regarding sportive recreational activities?

RQ6: Does the idea that recreational activities are useful for the treatment of chronic diseases have a significant effect on teachers' health beliefs regarding sportive recreational activities?

## **2. Material and Method**

### *2.1 Study Group*

A total of 286 physical education teachers (101 male and 185 female) working in different cities participated in the study. Fifty-seven of these teachers are married, and two hundred and twenty nine of them are single.

### *2.2 Data Collection Tools*

In the present study, the “Health Belief Scale for Sportive Recreational Activities” and “Personal Information Form” were used as data collection tools. Ertüzün, Bodur, and Karaküçük (2013) initially developed the scale using explanatory factor analyze method. Explanatory factor analyze method is a method that researchers use to explore the structure of their data (Osborne & Fitzpatrick, 2012). Besides, they examined the reliability of the scale by calculating Cronbach's Alpha ( $\alpha = .88$ ) and test re-test correlations. The scale has five subscales as perceived seriousness (*e.g.*, Participating in sportive recreational activities is vital for all of my body functions), perceived barriers (*e.g.*, I am afraid of being injured while participating in sportive recreational exercises), physical benefit (*e.g.*, I believe that my excretory system works more regularly when I do recreational exercises), psycho-social benefit (*e.g.*, I believe that recreational exercises have positive effects on my mental health), and self-efficacy (*e.g.*, For participating in recreational exercises, I sacrifice from my economic condition), and twenty-one items anchored with a 5-point Likert type scale (1 = strongly disagree ... 5 = strongly agree) (Ertüzün et al., 2013). Personal information form included different demographic questions addressing teachers.

### *2.3 Procedure*

In the study, we collected the data online via Google Forms. First, we transformed the scale

into the online form and mailed it to the teachers who are the members of a google group. The survey conducted voluntarily. Then we transformed the data into the SPSS for the data analysis.

### 2.4 Data Analysis

In analyze of the data first, we controlled the normality assumptions (skewness and kurtosis) and Cronbach's Alpha ( $\alpha = .91$ ). Then, in this respect, we applied One Way Anova and independent samples t-test as the hypothesis tests at the 95% confidence level. We also used Tukey's HSD as a second-degree test.

## 3. Results

Table 1. Total scale scores

Scale	N	Min.	Max.	Mean	Sd.	Skewness	Kurtosis	Alpha
Health Belief Scale for Sportive Recreational Activities	286	21	105	83.85	15.65	-1.217	.895	.91

According to analyze results, skewness and kurtosis values displayed normal distribution and Cronbach's Alpha value was found to be sufficient. Besides, we found that the participants had a high level of health belief.

Table 2. T-test Result according to marital status

Health Belief Subscales	Marital status	N	Mean	Sd.	t	p
Perceived seriousness	Married	57	16.08	2.98	-1.241	.216
	Single	229	15.88	3.43		
Perceived barriers	Married	57	12.98	2.39	-.579	.563
	Single	229	12.62	2.76		
Physical benefit	Married	57	17.05	3.13	-.429	.668
	Single	229	16.31	3.73		
Psychosocial benefit	Married	57	20.33	4.05	-2.003	.046
	Single	229	21.17	4.58		
Self-efficacy	Married	57	14.63	2.88	-.484	.628
	Single	229	14.86	3.41		
Total score	Married	57	81.08	13.28	-1.140	.255
	Single	229	80.86	16.21		

According to independent samples t-test results although there was not any significant difference in the variable health belief in the perceived seriousness, perceived barriers, physical benefit and self-efficacy subscales as well as total score, there was a significant difference in the psychosocial benefit subscale ( $t_{.05} = -2.003$ ;  $p < .05$ ) single teachers scoring ( $21.17 \pm 4.58$ ) higher than married ones ( $20.33 \pm 4.05$ ).

Table 3. T-test Result according to gender

Health Belief Subscales	Gender	N	Mean	Sd.	t	p
Perceived seriousness	Men	101	15.59	3.48	.405	.686
	Women	185	16.10	3.27		
Perceived barriers	Men	101	12.57	2.76	.886	.376
	Women	185	12.76	2.66		
Physical benefit	Men	101	16.33	3.81	1.376	.170
	Women	185	16.52	3.53		
Psychosocial benefit	Men	101	20.28	4.71	-1.260	.209
	Women	185	21.39	4.33		
Self-efficacy	Men	101	14.6931	3.47777	-.483	.629
	Women	185	14.8919	3.22679		
Total score	Men	101	79.4851	16.37291	.094	.925
	Women	185	81.6919	15.23573		

According to analyze results there was not any significant difference in the variable health belief according to gender in any subscales and the total score.

Table 4. One Way ANOVA test results related to the number of weekly activities

Health Belief Subscales	N of weekly performed sportive recreational activities (walking, jogging, etc.)	N	Mean	Sd.	F	p
Perceived seriousness	0-2 days	161	15.91	2.99	.985	.375
	3-5 days	99	16.15	3.54		
	6-7 days	26	15.11	4.49		
Perceived barriers	0-2 days	161	12.83	2.34	.861	.424
	3-5 days	99	12.62	2.94		
	6-7 days	26	12.11	3.62		
Physical benefit	0-2 days	161	16.53	3.26	.852	.427
	3-5 days	99	16.57	3.78		
	6-7 days	26	15.57	4.99		
Psychosocial benefit	0-2 days	161	20.72	4.03	.744	.476
	3-5 days	99	21.33	4.93		
	6-7 days	26	21.5	5.39		
Self-efficacy	0-2 days	161	14.75	3.06	.131	.877
	3-5 days	99	14.95	3.49		
	6-7 days	26	14.73	4.13		
Total score	0-2 days	161	80.76	13.66	.301	.740
	3-5 days	99	81.64	17.03		
	6-7 days	26	79.03	21.34		

According to One way ANOVA results there was not any significant difference in the variable health belief in the subscales as well as the total score according to number of performed weekly sportive recreational activities ( $p > .05$ ).

Table 5. T test results related to the idea that sportive recreational activities are useful for mental and physical health

Health Belief Subscales	The idea that recreational activities are useful for mental and physical health	N	Mean	Sd.	t	p
Perceived seriousness	Yes	252	16.08	3.36	2.224	.027
	No	34	14.73	3.04		
Perceived barriers	Yes	252	12.84	2.65	2.446	.015
	No	34	11.64	2.79		
Physical benefit	Yes	252	16.62	3.56	2.111	.036
	No	34	15.23	3.92		
Psychosocial benefit	Yes	252	21.29	4.52	3.058	.002
	No	34	18.82	3.62		
Self-efficacy	Yes	252	14.95	3.26	1.88	.061
	No	34	13.82	3.52		
Total score	Yes	252	81.8	15.54	2.666	.008
	No	34	74.26	15.08		

According to independent samples t test result there were significant differences in the variable health belief in perceived seriousness subscale ( $t_{.05} = 2.224$ ;  $p < .05$ ), perceived barriers subscale ( $t_{.05} = 2.446$ ;  $p < .05$ ), physical benefit subscale ( $t_{.05} = 2.111$ ;  $p < .05$ ), psycho-social benefit subscale ( $t_{.05} = 3.058$ ;  $p < .01$ ) and in the total score ( $t_{.05} = 2.666$ ;  $p < .01$ ). However, there was not any significant difference in the self-efficacy subscale ( $t_{.05} = 1.88$ ;  $p > .05$ ).

Table 6. T test results related to the idea that sportive recreational activities are useful for the treatment of chronic diseases

Health Belief Subscales	The idea that recreational activities are useful for the treatment of chronic diseases	N	Mean	Sd.	t	p
Perceived seriousness	Yes	234	16.23	3.36	3.362	.001
	No	52	14.53	2.92		
Perceived barriers	Yes	234	12.93	2.7	3.200	.002
	No	52	11.63	2.37		
Physical benefit	Yes	234	16.81	3.65	3.532	.000
	No	52	14.88	3.1		
Psychosocial benefit	Yes	234	21.22	4.48	1.753	.081
	No	52	20.01	4.42		
Self-efficacy	Yes	234	15.07	3.32	2.749	.006
	No	52	13.69	3.04		
Total score	Yes	234	82.27	15.69	3.178	.002
	No	52	74.76	14.01		

According to independent samples t test result there were significant differences in the variable health belief in perceived seriousness subscale ( $t_{.05} = 3.362$ ;  $p < .001$ ), perceived barriers subscale ( $t_{.05} = 3.200$ ;  $p < .01$ ), physical benefit subscale ( $t_{.05} = 3.532$ ;  $p < .001$ ), self-efficacy subscale ( $t_{.05} = 2.749$ ;  $p < .01$ ) and in the total score ( $t_{.05} = 3.178$ ;  $p < .01$ ). However, there was not any significant difference in the psychosocial benefit subscale ( $t_{.05} = 1.753$ ;  $p > .05$ ).

## 5. Discussion and Conclusion

This paper aimed to investigate perceived health beliefs of physical education and sports teachers related to sportive recreational activities in the extent of their personal features. In the study the analyze results revealed that physical education teachers' level of health beliefs were high. Similarly, Yalcin and Arslan (2016) reported a high level of health belief for university students. Besides, when we analyzed the effect of the marital status on teachers' level of health beliefs, we found significant differences between the married and single teachers in the psychosocial benefit sub-scale. In general, married teachers had a higher mean scale score. When we investigate the literature, we can see studies with similar or different results. For instance, a study reported that married individuals had a higher mean scale score compared to single individuals (Walker, Volkan, Sechrist, & Pender, 1988). Furthermore, in another study, researchers found that married individuals had a higher score of health responsibility compared to single individuals and pointed out that married people had a



higher level of healthy behaviors because marriage provided them with a natural lifestyle (Ayaz et al., 2005).

In the study, we analyzed the effect of gender on the health beliefs of the participants. However, we could not find any gender-based differences. So we can say that both male-female teachers had similar health beliefs regarding sportive recreational activities. In their study conducted on nursery students, Al-Kandari and Vidal (2007) reported no significant differences between female and male students' mean scale scores, which overlaps the findings of the present study. However, another study found a significant difference between female and male students' mean scores and the former had a higher score compared to the latter in the sub-scales of health responsibility and nutrition (Özyazıcıoğlu, Kılıç, Erdem, Yavuz, & Afacan, 2011). Contrary to our results, Tokuç and Berberoğlu (2007) reported higher health belief for female teachers than males.

According to analyze results, the differences between participants' number of daily recreational activities did not have a significant effect on their level of health beliefs. In their study, Beydağ, Uğur, Sonakın, and Yürügen (2014) reported that students' participation in sportive and recreational activities had a significant effect on their health behaviors. So our finding showed diversity with Beydağ et al.'s (2014) findings.

Analyze results also showed that there was a significant difference in favor of physical education teachers who agreed on the idea that recreational activities are useful for mental and physical health. This significant difference observed in the mean scale and sub-scale scores. The findings demonstrated that participation in such sportive recreational activities had a significant effect on health belief regarding sportive recreational activities. This result of the study can be associated with the fact that recreational activities are mainly physical activities that contribute to both mental and physical well-being. However, in their study Likawunt, Samuel, and Yitagessu (2018) reported that only a few of the people undertook health oriented leisure activities when they seek for health. Besides, we found a significant difference in favor of physical education teachers who agreed on the idea that recreational activities are useful for the treatment of chronic diseases. Similar to the previous finding, this difference observed in the mean scale and sub-scale scores. As stated before health is a concept that is related to all aspects of life, such as welfare, mental and emotional capacity, and psychological state. In the literature various studies reported that individuals participating in physical activities were healthier (e.g., Wiese, Kuykendall, & Tay, 2018; Yu, Hou, & Miller, 2018).

As a conclusion present study showed that participants had a high health belief regarding to sportive recreational activities, and this belief showed difference according to marital status, the idea that sportive recreational activities are useful for mental and physical health, and the idea that sportive recreational activities are useful for the treatment of chronic diseases. So we can say that the participants see sportive recreational activities as a preventative against diseases and as a tool for a better health. However, literature showed that minority of the people who seek for health undertake health oriented leisure activities (Likawunt et al., 2018). Besides, although many health care fields have utilized social and behavioral science models

or frame works to better understand compliance with preventative health behaviors (Gabriel, Hoch, & Cramer, 2019) there is still lack of related research. So, we believe that present study is likely to contribute to the both existing and future studies when it comes to health belief regarding recreation and exercise. However, further studies must analyze the relationship between sportive recreational activities and possible effects on public health in depth.

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