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Original article

RELATIONSHIP BETWEEN PHYSICAL ACTIVITY LEVELS AND WELL-BEING OF INDIVIDUALS

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Abstract

Objectives. This research was conducted to investigate the relationship between individual physical activity levels and mental well-being.

Methods. Research is planned in a descriptive relational type. The research population have created an institution for education and adult individuals from accepting all individuals to participate in research without going to the sampling method were included in the sample. The study consisted of 118 individuals who agreed to participate in the study sample. Sociodemographic information form, International Physical Activity Questionnaire (Short Form) and Mental Well-Being Scale were used to collect data. The data were collected by the researchers using face-to-face interview method. Numerical percentages, t test, variance analysis and Pearson correlation analysis were used in the evaluation of the data.

Results. When the sociodemographic characteristics of the individuals were examined, the average age was $43,12 \pm 2,27$, 62,2% were female, 58,8% were single, 44,5% were high school graduates, 69,7% 38.6 of them are civil servants. When the scores obtained from the physical activity questionnaire were evaluated, it was determined that 47,88% were inactive and 52,12% were minimal active. The mean score of the mental wellbeing scale was $32,27 \pm 4,47$. There was a strong positive correlation between physical activity levels and mental well-being of individuals ($r = -0,796$, $p = 0,01$).

Conclusions. In line with the results of this research; women, primary school graduates, city dwellers and government official servants in terms of physical activity and mental well-being were at risk in terms of general health and mental well-being. The mental well-being of individuals decreased as the average of physical activity scores decreased.

Key words: Adults, physical activity level, well-being.

Introduction

Physical activity has positive effects on physical, mental health and psychological well-being. Regular physical activity promotes quality of life by strengthening psychological well-being and physical functioning (Haskell et al., 2007). There is growing evidence demonstrating that exercise can be effective in improving the mental well-being of the general public, largely through improved mood and self-perceptions (Fox 1999). It is stated that physical activities have positive effects on the quality of life of the individuals (Acil, Doğan & Doğan 2008). The physical activity applied to improve healthy living behaviors can improve the life quality of the individual. In studies showing the relationship between mental well-being and physical activity, physical activity has been shown to reduce the symptoms of depression (Brown et al., 2005, Strawbridge et al., 2002). Similarly, another study

reported that physical activity increased self-esteem, decreased anxiety, increased stress tolerance, increased sleep quality, and increased mental well-being (Fox 1999). Similar results were obtained with the study by Moljord et al (2014), and it was found that physical activity promoted mental well-being and was significant in reducing depressive symptoms. De Mello et al. (2013) found that those who did not do physical activity showed symptoms of anxiety and depression twice as much as those who did not. In a meta-analysis study conducted by Rebar and colleagues (2015), it was also stated that active sportsmen had a preventive effect on the development of anxiety disorder. In recent years there has been an increase in work on the development of mental health of physical activity.

It is stated that regular physical activity has a positive effect on self-esteem (Gacar, & Yanlıç, 2012), it is protective effect against depression

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(Ekinci, 2014) and increases assertiveness levels (Inan, 2010), & Gangwisch, 2009). Stanton, Happell, & Reaburn, (2014) reported that there was a large number of studies indicating that participation in long-term physical activity prevented depression. Today, due to the increase in the prevalence of obesity and physical inactivity, physical inactivity is within the social health problems. In a study conducted by Rehn et al., It was stated that the whole society should be directed to the exhaust for the prevention of chronic diseases, prevention of obesity and improvement of health, and physical activity should be given importance at national or international level.

Lifelong regular physical activity is important in terms of physical and mental health. In this context, it is important to determine the relationship between physical activity and mental well-being in adult individuals. This research was conducted to investigate the relationship between individual physical activity levels and mental well-being.

Research Questions

1. Is there a relationship between physical activity and mental well-being?
2. Are sociodemographic characteristics influencing individual physical activity levels?

Methods

Research is planned in a descriptive relational type. The study's sample consisted of adult individuals who came to an institution for training and all individuals who agreed to participate in the survey without going to the sample selection method were included in the sampling. 118 individuals who agreed to participate in the survey formed a sample of the study. Sociodemographic information form, International Physical Activity Questionnaire (Short Form) and Mental Well-Being Scale were used to collect data. The data were collected by the researchers using face-to-face interview method. Numerical percentages, t test, variance analysis and pearson correlation analysis were used in the evaluation of the data.

Personal Information Form

In the Personal Information Form, demographic questions such as age, gender, educational status, marital status, place of residence and profession were included.

International Physical Activity Questionnaire

In this study, the short form of the International Physical Activity Questionnaire was used to determine the physical activity levels of the

individuals. For this survey, conducted by the International validity and reliability study of Craig et al, validity and reliability study of university students in Turkey are made by Ozturk. the criterion is that each activity should be done at least 10 minutes at a time. A score of "MET-minute / week" is obtained by multiplying the minutes, days and MET values (times of resting oxygen consumption). Physical activity levels were found to be physically inactive (<600 MET / week), low level of physical activity (600-3000 MET-min / week) and adequate physical activity level (> 3000 MET- min / week). The calculation of energy expenditure for physical activity is multiplied by the weekly duration (min) of each activity and the MET energy values for the International Physical Activity Questionnaire. Thus, for each individual, energy consumption related to severe, moderate, walking, sitting, and total physical activity was obtained in the MET- min / week unit.

The Warwick-Edinburgh Mental Well-Being Scale

Tennant et al. (2007) were developed to measure the mental well-being of individuals living in the UK. The Warwick-Edinburgh Mental Well-Being Scale is composed of 14 items and deals with the positive mental health of individuals, including psychological well-being and subjective well-being. Scale is in likert type of 5 and it is taken at least 14 and 70 points from the scale. Your score is scored (1 = not at all, 2 = not agreeing, 3 = somewhat agreeing, 4 = agreeing, 5 = fully agreeing). All the things you measure are positive. It is accepted that the score taken from the scale increases in the case of residual goodness. The reliability of your scale was studied with 16 and older individuals. Cronbach's Alfa internal consistency reliability coefficient was 0.92, which was adapted to Turkish by Keldalı (2015), validity and reliability scale (Keldalı, 2015).

Collection of data

The data of this study were collected by face-to-face interview technique from adult individuals who came to an institution.

Ethical and Legal Dimension of the Study

In order to be able to carry out the research, it is started after the institutional leave and approval from the individuals. The verbal permission of the individual was taken before the investigation began. The principle of "Illuminated Consent" has been fulfilled by the principle of "autonomy", which states that patients can be withdrawn without seeking them whenever they want, by explaining the purpose of the

research, the duration and the procedures to be carried out during the research. Before the forms to be used in the research were given, necessary explanations were made orally and care was taken to create a silent environment with little stimulation during application.

Evaluation of Data

After the data were collected, the option that each individual indicated for each item on the scales was entered into the SPSS 21 program by the researchers and the total scores of the individuals from the scales were calculated. Pearson's correlation analysis was used to evaluate the relationship between number and percentage distributions in the evaluation of the study's demographic data, t-test and variance analysis to assess the relationship between socio-demographic characteristics and the International Physical Activity Questionnaire, and International Physical Activity

Questionnaire and Mental Well-being Scale. The results were assessed at 95% confidence interval and $p < 0.05$ significance level.

Results

When the sociodemographic characteristics of the individuals were examined, the average age was $43,12 \pm 2,27$, 62,2% were female, 37,8% were male, 58,8% were single, 41,2% were married, 21% 44.5%, high school and 33.6% are university graduates, 30.3% are in the districts, 69.7% are in the city and 31.1% are workers, 38% 6 of them are civil servants, 22.7% are self-employed and 7.6% are not working any jobs. When the scores obtained from the physical activity questionnaire were evaluated, it was determined that 47,88% were inactive and 52,12% were minimal active. The mean score of the mental wellbeing scale was 32.27 ± 4.47 (Table 1).

Table 1. Participants' Physical Activity Levels and Internet Dependency Scale Score Averages

Physical Activity	n	%
Inactive (<600 MET-min/week)	57	47,88
Minimal Aktive ($600-3000$ MET- min/week)	61	52,12
The Warwick-Edinburgh Mental Well-Being Scale	x\pmSD 32.27 \pm 4.47	Min-Max 16-47

When the socio-demographic characteristics and physical activity levels of the individuals were compared, it was found that 35.3% of the women and 12.6% of the males were inactive, 22.7% of the primary school graduates, 15.1% of the high school graduates, 16.1% of those who live in the city are inactive and 31.6% of the people living in the city are inactive and 16.6% of the workers are free 10.9% of

the occupational owners and 11.8% of the unemployed were inactive due to physical activity and the difference was statistically significant ($p < 0,05$). While 27.7% of the married and 20.7% of the bachelors were found to be inactive due to physical activity, the difference was found to be statistically insignificant ($p > 0,05$) (Table 2)

Table 2. Evaluation of sociodemographic characteristics and physical activity levels of individuals

Physical Activity	Inactive (<600 MET- min/week) n (%)	Minimal Aktive (600-3000 MET- min/week) n (%)	Test Value
Gender			
Female	42(35,3)	32(26,7)	t=0,167
Male	15(12,6)	29(24,4)	p=0.02*
Marital Status			
Married	33(27,7)	31(26,0)	t=1.204
Single	24(20,2)	30(25,2)	p=0.08
Educational Level			
Primary scholl	27(22,7)	10(8,4)	F=2,228
High scholl	18(15,1)	21(17,6)	p=0.01*
University	12(10,1)	30(25,2)	
Place			
Town	20(16,8)	43(36,1)	t=0,753
City	37(31,1)	18(15,1)	p=0.02*
Work			
Worker	9(7,6)	17(14,3)	F=3,452
Officer	21(17,6)	10(8,4)	p=0.03*
Self-employment	13(10,9)	15(12,6)	
Not working	14(11,8)	19(16,0)	

*p<0,05

There was a strong positive correlation between physical activity levels and mental well-being of individuals ($r = -0,796$, $p = 0,01$).

Table 4. Relationship between physical activity and mental well-being of individuals (r, p)

Variable	X ± SS	r , p deęeri
Physical Activity Scale	886,35±27,03	r=-0,796
The Warwick-Edinburgh Mental Well-Being Scale	32,27±4,47	p=0,01*

p<0,05*

Discussion

According to the findings obtained from this study, it was found that near to half of the individuals participating in the study (47.88%) and half of them (52.12%) were inactive. It was found that females (35.3%) were inactive compared to males (12.6%). In addition, residents, primary school graduates and civil servants were found to be physically inactive.

Similar to this study, men were found to have higher levels of physical activity than women (Acree et al., 2006; Hallal et al., 2003).

The relationship between physical exercise and well being has increasingly been on the rise in recent years. Although the message from physiological surveys revealed general advantages of exercise in terms of physical health, the equivalent

psychological literature revealed a more complex relationship (Scully, 1998). Physical activity is also suggested as a potential protective agent that reduces mental health problems and the prevalence of suicidal behavior among adolescents. For example, in one study, participation in physical activity is associated with positive effect, self-esteem increases physical and psychosocial well-being (Brosnahan et al 2004). According to the research results, it is reported that physical activity is one of the effective treatment methods in depression and anxiety disorders, and that physical activity can be as effective as drug treatment in depression and anxiety disorders (Swan & Hyland. This study also found a strong correlation between physical activity and mental well-being in the positive direction.

Conclusion

In line with the results of this research; In terms of physical activity, women, primary school graduates, city dwellers and civil servants have been involved in the risk group for physical inactivity. In terms of mental well-being, women, primary school graduates, city dwellers and civil servants also took part in the risk group. The mental well-being decreased as the average of individual physical activity scores decreased.

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