

THE RELATIONSHIP BETWEEN LIFE SATISFACTION AND BODY IMAGE IN AMPUTEE AND DISABLED SOCCER PLAYERS IN TURKIYE

A RELAÇÃO ENTRE A SATISFAÇÃO COM A VIDA E A IMAGEM CORPORAL EM JOGADORES DE FUTEBOL AMPUTADOS E DEFICIENTES EM TURKIYE*

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Abstract: The purpose of this study was to the relationship between life satisfaction and body image in amputee and disabled soccer players in Turkiye. 102 football players with lower extremity competing in different leagues in the 2019-2020 amputee football season voluntarily participated in the study. A quantitative research method was used in the research. Satisfaction with Life Scale and Amputee Body Image Scale (ABIS) were used to collect data. SPSS package program was used for the data analysis. Pearson correlation coefficient was used to identify the relationship between satisfaction with life scale and amputee body image scale. As a result of the study, it was found that, in amputee football players with lower extremity amputation, there was a highly negative relationship between satisfaction with life score and ABIS overall score ($r=-0.790$; $P=0.000$) and between satisfaction with life score and ABIS social factor score ($r=-0.776$; $P=0.000$), and a moderately negative relationship between satisfaction with life score and ABIS personal factor score ($r=-0.684$; $P=0.000$) and between satisfaction with life score and ABIS functional factor score ($r=-0.610$; $P=0.000$). In conclusion, as the amputee football players' level of satisfaction with life increased, so did their positive perception about their body image.

Keywords: Life Satisfaction. Body Image. Soccer Players. Disabled.

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Resumo: O objetivo deste estudo foi a relação entre a satisfação com a vida e a imagem corporal em jogadores de futebol amputados e deficientes em Türkiye. 102 jogadores de futebol com extremos inferiores competindo em diferentes ligas na temporada 2019-2020 do futebol amputado participaram voluntariamente do estudo. Um método de pesquisa quantitativa foi utilizado na pesquisa. Para a coleta de dados foram usadas a Escala de Satisfação com a Escala de Vida e a Escala de Imagem Corporal do Amputado (ABIS). O programa SPSS foi utilizado para a análise dos dados. O coeficiente de correlação Pearson foi utilizado para identificar a relação entre a satisfação com a escala de vida e a escala de imagem corporal do amputado. Como resultado do estudo, verificou-se que, em jogadores de futebol amputados com amputação de extremidades inferiores, havia uma relação altamente negativa entre a satisfação com a escala de vida e a pontuação total da ABIS ($r=-0,790$; $P=0,000$) e entre a satisfação com a escala de vida e a pontuação do fator social da ABIS ($r= -0. 776$; $P=0,000$), e uma relação moderadamente negativa entre a satisfação com o índice de vida e o índice de fator pessoal ABIS ($r= -0,684$; $P=0,000$) e entre a satisfação com o índice de vida e o índice de fator funcional ABIS ($r= -0,610$; $P=0,000$). Em conclusão, à medida que o nível de satisfação dos jogadores de futebol amputados com a vida aumentava, aumentava também sua percepção positiva sobre sua imagem corporal.

Palavras-chave: Satisfação com a vida. Imagem corporal. Jogadores de futebol. Deficientes.

1. INTRODUCTION

Amputation, the removal of all or part of a limb due to the loss of function and vitality for various reasons in the womb or after birth (Yazıcı, 2012; Şener and Erbahçeci, 2001), is a serious medical and psycho-social condition that can affect the individual's quality of life, autonomy, and well-being (Ahmadark, 2014). There are many causes of amputation including burning, freezing (Karataş, 1986), severe traumas (Erdem, 1996), tumors, cancers, infectious diseases (Şener and Erbahçeci, 2001), diabetes, vascular diseases, neurological diseases, traffic, work, and home accidents, amelia, phocomelia, and hemimelia (Özyürek, 2009). Amputation is divided into two categories: lower extremity and upper extremity. Lower extremity amputation is the amputation of an individual's whole leg or just part of it for any reason. Previous studies show that amputation reduces individuals' participation in physical activities, self-esteem, and body perception (Holzer et al., 2014; Peroni et al., 2017; Shields et al., 2015).

Although amputation is externally perceived as a physical deficiency or injury, it has some social and psychological effects on individuals (Gözaydinoğlu, 2013; Gallagher, 2004; Wetterhahn et al., 2002; Geertzen et al., 2001). Most of the psychological effects are due to the changes in the physical appearance. Body image is defined as the psychological state that occurs as a result of change in an individual's appearance (Tylka and Wood-Barcalow, 2015). Body image affects individuals emotionally, physically, and functionally as

well as psychologically. In addition, individuals want their physical appearance to be good and their body integrity to be protected. They perceive physical appearance as a prerequisite for acceptance or welcome in society and their environment. Deterioration in physical appearance can cause a decrease in the self-confidence, self-esteem, and satisfaction with life (Gözaydinoğlu, 2013; Rumsey and Harcourt, 2004). Quality of life is related to individuals' hopes, expectations, and feelings about themselves, and it refers to the result of a comparison of individuals' self-perceived social status with others. Many variables such as age, gender, education level, socio-economic level, state of health, and religious beliefs play a role in shaping expectations (Durmaz and Atamaz, 2006; Civitci, 2015; Ülker Tümlü et al., 2013). The primary purpose of quality of life is to determine to what extent an individual is satisfied with their physical, psychological, and social functions and economic conditions (Dilbaz, 1996).

Various studies have reported that sports have some positive effects on amputees such as satisfaction with life, body image, psychological and physiological well-being (Bragaru et al., 2011). Amputees can choose a sports branch generally depending on their amputation level and physical capacity. Athletes with a lower extremity amputation and good physical condition tend to prefer sports branches like amputee football, athletics, and swimming, while those limited more due to amputation prefer wheelchair sports or sports branches in which the upper extremities are active. In Turkey, the majority of cases (between 80 and 85%) with amputation falls under the category of lower extremity amputation (Akarsu, 2013). Therefore, the amputee football players with lower extremity amputation from various leagues were included in this study. Amputee football was first invented in 1980 by Don Bennett, who had an amputated leg due to a boat accident. One day while his son was playing basketball in the backyard, the ball fell in front of Don Bennett and he kicked the ball back to his son. Later, with the idea that a soccer ball can be kicked like this, he started to lay the foundations of amputee football. The first tournament was held in Washington, Seattle, USA in 1984, under the name of the International Amputee Football Tournament. Organizations and tournaments held from the past to the present have contributed to athletes positively in terms of body image and satisfaction with life (WAFF, 2020).

In the literature, there are studies on amputee body image and satisfaction with life, but their research population consists of individuals with a sedentary lifestyle (Aran et al., 2018; Gözaydinoğlu, 2017; Kulkarni et al., 2014; Akyol et al., 2013; Bayramlar et al., 2007).

In the literature, there is a limited number of studies on the relationship between satisfaction with life and body image in amputee athletes. In this context, the purpose of this study is to examine the relationship between satisfaction with life and body image in amputee football players and to contribute to the literature in this regard. It is recommended that such studies be carried out with multiple repetitions and multiple subjects in order to establish a norm, measure different parameters that will contribute to sports science, and the results of these scientific studies be shared with the practitioners, that is, trainers.

2. METHODOLOGY

This study was carried out with the participation of the football players with lower extremity amputation who competed in different leagues in the 2019-2020 amputee football season. Before the study, the athletes were informed about the research, and those who agreed to participate in the study were included in the study.

2.1. Study Sample

102 football players with lower extremity amputation competing in different leagues in the 2019-2020 amputee football season voluntarily participated in the study. Their mean age was 26.46 ± 8.074 years, their mean height was 172.94 ± 8.111 cm, their mean body weight was 65.74 ± 10.118 kg, and their mean body mass index was 22.03 ± 3.472 kg/m².

2.2. Data Collection Tools

Satisfaction with Life Scale: The satisfaction with life scale measures the individuals' satisfaction with life and evaluates the situations they have experienced in the past and would like to experience in the future. The interpretation of the scores is as follows: 5-9, very dissatisfied; 10-14, dissatisfied; 15-19, partially dissatisfied; 20, undecided; 21-25, partially satisfied; 26-30, satisfied; and 31-35 very satisfied (Durak et al., 2010; Diener et al., 1985).

Amputee Body Image Scale (ABIS): The scale was developed by Breakey in 1997. The Turkish validity and reliability of the scale were tested by Bayramlar et al. in 2007. The scale score ranges between 20 and 100. The lower the score, the better the perception about body image (Bayramlar et al., 2007; Safaz et al., 2010).

2.3. Data Analysis

SPSS 20.00 package program was used for the data analysis. Descriptive data were expressed as arithmetic mean and standard deviation, minimum and maximum values. As a result of the normality analysis, it was found that the data showed a normal distribution (between -1.5 and +1.5), and Pearson correlation coefficient was used for the correlation relationship (Tabaschnick and Fidell, 2013).

3. RESULTS

102 football players with lower extremity amputation (57 with above-knee amputation, 45 with below-knee amputation) from different leagues participated in the study. Table 1 shows the distribution of the participants' physical characteristics (age, height, and body weight). Table 2 shows the relationship between the athletes' satisfaction with life and their ABIS overall score and the scores for sub-factors.

Table 1. Distribution of The Participants' Physical Characteristics.

	N	Min	Max	X	SD
Age (years)	102	13	51	26.46	8.074
Height (cm)	102	150	193	172.94	8.111
Body Weight (kg)	102	41	103	65.74	10.118
Body Mass Index (kg/m²)	102	16.36	35.64	22.03	3.472

As can be seen in Table 1, it was found that the amputee football players' mean age was 26.46 ± 8.074 years, their mean height was 172.94 ± 8.111 cm, their mean body weight was 65.74 ± 10.118 kg, and their mean body mass index was 22.03 ± 3.472 kg/m².

Table 2. Relationship of the Participants' Satisfaction with Life with their Overall Amputee Body Image and its Factors.

		Satisfaction with Life
Satisfaction with Life (X: 25.98, SD: 6.51)	r	1
	P	
ABIS-Personal Factor (X: 19.46, SD: 5.81)	r	-.684**
	P	.000
ABIS-Social Factor (X: 12,11, SD: 5.26)	r	-.776**
	P	.000
ABIS-Functional Factor (X: 9,65, SD: 3.69)	r	-.610**
	P	.000
Overall ABIS (X: 38,23, SD: 15.05)	r	-.790**
	P	.000

** p<0.01

As can be seen in Table 2, it was found that the athletes' mean score for satisfaction with life was 25.98 ± 6.51 , their mean scores for ABIS personal, social, and functional factors were 19.46 ± 5.81 , 12.11 ± 5.26 , and 9.65 ± 3.69 , respectively, and their mean score for overall ABIS was 38.23 ± 15.05 .

When the relationships between the parameters were analyzed, it was found that there was a highly negative relationship between satisfaction with life score and ABIS overall score ($r = -0.790$; $P = 0.000$) and between satisfaction with life score and ABIS social factor score ($r = -0.776$; $P = 0.000$). Moreover, a moderately negative relationship was found to exist between satisfaction with life score and ABIS personal factor score ($r = -0.684$; $P = 0.000$) and between satisfaction with life score and ABIS functional factor score ($r = -0.610$; $P = 0.000$). According to these results, it can be asserted that as the amputee football players' level of satisfaction with life increased, so did their positive perception about their body image.

4. DISCUSSION

As a result of the study, it was found that the amputee football players' mean age was 26.46 ± 8.074 years, their mean height was 172.94 ± 8.111 cm, their mean body weight was 65.74 ± 10.118 kg, and their mean body mass index was 22.03 ± 3.472 kg/m², their mean score for satisfaction with life was 25.98 ± 6.51 , their mean scores for ABIS personal, social, and functional factors were 19.46 ± 5.81 , 12.11 ± 5.26 , and 9.65 ± 3.69 , respectively, and their mean score for overall ABIS was 38.23 ± 15.05 . It was found that there was a highly negative relationship between their satisfaction with life score and ABIS overall score ($r = -0.790$; $P = 0.000$) and between their satisfaction with life score and ABIS social factor score ($r = -0.776$; $P = 0.000$), and a moderately negative relationship between their satisfaction with life score and ABIS personal factor score ($r = -0.684$; $P = 0.000$) and between their satisfaction with life score and ABIS functional factor score ($r = -0.610$; $P = 0.000$).

In the related literature, Aran et al. (2018) examined the relationship between the perception about body image and satisfaction with life in 57 individuals (43 men, 14 women) with a lower extremity amputation. They reported that there was a moderately negative relationship between the score for satisfaction with life scale and the scores for overall ABIS ($r = -0.515$ $p = 0.001$), ABIS personal factor ($r = -0.330$ $p = 0.012$), and ABIS

social factor ($r = -0.393$ $p = 0.003$), and a low negative relationship between the score for satisfaction with life scale and the score for ABIS functional factor ($r = -0.268$ $p = 0.044$). In conclusion, they asserted that the perception about amputee body image improved as the level of satisfaction with life increased. Although this is similar to our result, the level of relationship found in our study was higher than theirs (Table 2).

In another study on the effects of the perception about body image and compliance with the prosthesis on cognitive performance in transfemoral amputees, Gözaydinoğlu (2017) used the Nottingham health profile (NHP) scale for satisfaction with life and ABIS for body image. She reported that the participants' mean ABIS score was 50.58 ± 16.65 , and there was a moderately positive relationship between their ABIS score and satisfaction with life score ($r = 0.604$ $p = 0.000$). The mean ABIS score was found to be 38.23 ± 15.05 in our study. Her result does not support ours in this regard. In NHP scale, the lower the score, the higher the level of satisfaction with life. Therefore, the positive relationship reported in her study and the negative relationship found in our study are the same. When evaluated from this point of view, her results support ours in that there is a significant relationship between satisfaction with life and ABIS.

In their study examining the body image and quality of life in 20 individuals aged 40-80 years with lower extremity amputation, Kulkarni et al (2014) reported that the participants had a poor level of satisfaction with life and were much concerned about their body image. This result does not support our results. This might be due to the differences between the studies in terms of age group, the number of participants, and the status of doing sports.

In another study examining quality of life in individuals with amputations, Akyol et al. (2013) attempted to find an answer to the question "Do post-amputation pain, functional status, and emotional status affect quality of life and perception about body image in people with lower limb amputation?" They used NHP to measure satisfaction with life and ABIS to measure the perception about body image. As a result of the study, they reported that there was a negative relationship between ABIS and NHP's sub-factors energy ($r = -0.553$), pain ($r = -0.683$), and emotion ($r = -0.677$), and a positive relationship between ABIS and NHP's sub-factors sleep ($r = 0.514$), social isolation ($r = 0.234$), and physical disability ($r = 0.780$). In NHP scale, the lower the score, the higher the level of satisfaction with life. The factors positively correlated with ABIS are the desired condition, and therefore, their results support ours.

Bayramlar et al. (2007) carried out a study with the participation of 50 individuals with below-knee amputation to test the validity of the Turkish version of the amputee body image scale. They reported that the participants' mean score for overall ABIS was 51.0 ± 17.6 , and their mean scores for ABIS personal, social, and functional factors were 22.0 ± 7.2 , 17.4 ± 8.4 , and 11.6 ± 3.7 , respectively. As for the relationship between ABIS and satisfaction with life (NHP), they reported the relationship of satisfaction with life with ABIS personal factor as $r=0.269$, ABIS social factor as $r=0.319$, ABIS functional factor as $r=0.242$, and the overall ABIS as $r=0.315$. They also reported that there was a significant difference between the participants' satisfaction with life in terms of overall ABIS ($p < 0.05$), but no significant difference in terms of sub-factors ($p > 0.05$). Their result of significant difference in terms of overall ABIS supports our study.

Breakey (1997) examined the satisfaction with life in 90 individuals with lower extremity amputation and reported that the male participants' satisfaction with life score was 20.5. In our study, this score was found to be 25.98 ± 6.51 . So, Breakey's result supports ours. Breakey reported the male participants' mean score for ABIS as 31. In our study, this score was found to be 38.23 ± 15.05 for the individuals with lower extremity amputation. Breakey's result does not support our results in this regard.

5. CONCLUSION

In conclusion, it was found that there was a statistically significant, negative relationship between the amputee football players' scores for satisfaction with life scale and amputee body image scale, indicating a positive relationship between satisfaction with life and body image. So, as the amputee football players' level of satisfaction with life increased, so did their positive perception about their body image. Moreover, it was found that social factors had more effect on the relationship between body image and satisfaction with life.

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