

Comparison of Self-Esteem in Visually Impaired Adults who Participate in Sport and those who do not: A Cross-Sectional Study

Görme Engelli Yetişkinlerde Sporla İlgilenen ve İlgilenmeyen Bireylerin Özsaygı Düzeylerinin Karşılaştırılması: Kesitsel Bir Çalışma

Ayça Aracı^{1*}, Şehmus Aslan², Elif Kabul Gür³, Ümmühan Baş Aslan⁴, Bilge Çalık Başakçı⁴

1.Faculty Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Alanya Aladdin Keykubat University, Alanya, Antalya, Türkiye

2.Faculty Of Sports Sciences, Faculty of Sports Sciences, Pamukkale University, Denizli, Türkiye

3.Faculty Of Health Sciences, Department of Physiotherapy and Rehabilitation, Uşak University, Uşak, Türkiye

4.Faculty of Physiotherapy and Rehabilitation, Pamukkale University, Denizli, Türkiye

ABSTRACT

Aim: Self-esteem is an important psychological concept for mental health. The aim of our study was to compare the levels of self-esteem between visually impaired adults who participate in sports and those who do not.

Method: A total of 85 visually impaired adults were included in the study, including 42 who participate in sports and 43 who do not. A personal information form and the Rosenberg Self-Esteem Scale were used for data collection.

Results: The mean age of the visually impaired adults who participate in sports was 20.86±3.0 years, while it was 20.88±2.92 years for those who do not participate in sports. Among the visually impaired adults who participate in sports, 22 were female and 20 were male, while among those who do not participate in sports, 26 were female and 17 were male. The analysis revealed that the self-esteem of visually impaired adults who participate in sports was statistically significantly higher than that of those who do not participate in sports (p=0.001). It was also observed that the self-esteem of both female and male visually impaired adults who participate in sports was statistically significantly higher than their counterparts who do not participate in sports (female p=0.001, male p=0.020).

Conclusion: It was concluded that participation in sports increases self-esteem in visually impaired adults regardless of gender. In this context, it should be emphasized that participation in sports should be expanded among visually impaired individuals.

Keywords: visual disability, self-esteem, psychological well-being, sports participation, adult

ÖZ

Amaç: Benlik saygısı ruhsal sağlık için önemli bir psikolojik kavramdır. Çalışmamızın amacı, spor yapan ve yapmayan görme engelli bireylerin benlik saygısı düzeylerini karşılaştırmaktır.

Yöntem: Çalışmaya spor yapan 42 ve spor yapmayan 43 olmak üzere toplam 85 görme engelli çalışmaya dahil edildi. Araştırmada bireyler için düzenlenmiş kişisel bilgi formu ve Rosenberg Benlik Saygı Ölçeği kullanıldı.

Bulgu: Spor yapan görme engelli erişkinlerin yaş ortalaması 20.86±3.0 yıl iken, spor yapmayanların 20.88±2.92 yıl idi. Spor yapan görme engelli erişkinlerin 22'si kadın, 20'si erkek iken; spor yapmayanların 26'sı kadın, 17'si erkek idi. Yapılan analiz sonucunda, spor yapan görme engelli erişkinlerin benlik saygılarının yapmayanlara göre istatistiksel açıdan anlamlı düzeyde daha yüksek olduğu (p:0.001) görüldü. Spor yapan hem kadın hem de erkek erişkin görme engelli bireylerin benlik saygılarının spor yapmayan kendi hemcinslerine göre istatistiksel açıdan anlamlı düzeyde daha yüksek olduğu (kadın p:0.001, erkek p:0.020) görüldü.

Sonuç: Spor yapmanın cinsiyetten bağımsız olarak görme engelli erişkinlerde benlik saygısını artırdığı sonucuna varıldı. Bu bağlamda, görme engelli bireylerde spora katılımın yaygınlaştırılması gerektiği vurgulanmalıdır.

Keywords: Görme engeli, benlik saygısı, psikolojik iyi oluş, spor katılımı, yetişkin

Received: 20/03/2024 Accepted: 23/04/2024 Published (Online): 30/04/2024

*Corresponding Author: Ayça Aracı, Faculty Of Health Sciences, Department of Physiotherapy and Rehabilitation, Alanya Aladdin Keykubat University, Alanya, Antalya, Türkiye. mail: uyanayca@gmail.com

Orcid: 0000-0002-1089-3370

To cited: Aracı A, Aslan Ş, Kabul Gür E, Baş Aslan Ü, Çalık Başakçı B. Comparison of Self-Esteem in Visually Impaired Adults Engaged and Not Engaged In Sports: Cross-Sectional StudyActa Med. Alanya 2024;8(1): 72-77 DOI: 10.30565/medalanya.1455770

Introduction

"Self" refers to an individual's perceptions and feelings about themselves. Individuals need to ask themselves questions such as: "Who am I?", "What are my goals?", "What is right and wrong?", "What can I do or how should I behave?", "What are my values?", "Should I help others or just think of myself?", to evaluate themselves¹ and to understand "Self". To provide logical answers to these questions, individuals need to control their emotions and act rationally. The self develops consciously or unconsciously based on the answers to these questions. To maintain mental health, individuals need to establish a balance between their designed self and their actual self [1].

Self-esteem is expressed through many concepts such as self-respect, self-confidence, self-acceptance, self-worth, self-liking, self-approval, and self-satisfaction [2]. Self-esteem is critical to a successful and satisfying life focusing on feeling psychologically good. Roessler defines self-esteem as the ability to evaluate one's personal progress or regression [3].

On the contrary, people with low self-esteem lack self-respect, self-confidence, easily fall into hopelessness, struggle to fit into society, and tend to develop psychological behaviors against such negativity [1].

For people with disabilities, self-assessment of their abilities in social life is the best measure of self-esteem. Many educators, psychologists, therapists, social workers, and disability sports experts emphasize that skill and success in physical abilities contribute significantly to the development of self-concept.⁴ The level of self-esteem is negatively affected by the decrease in physical activity; as physical activity decreases, so does self-esteem [5,6].

According to the literature, individuals with high self-esteem are generally more open to active and social relationships, while those with low self-esteem tend to feel weak, inferior, and under pressure in society [7].

Physical activity can improve health, physical fitness, functional independence, and quality

of life for both nondisabled and disabled individuals. Proponents of sport and recreation as rehabilitation believe that participation in sport, exercise, and recreational activities increases self-esteem and overall quality of life for both nondisabled and disabled individuals [8]. It has been emphasized that disabled athletes have better social relationships in society compared to non-athletic disabled individuals [9].

The majority of visually impaired people can be passive in interpersonal relationships and have difficulty forming healthy relationships and expressing themselves [10]. Although many researchers have examined behaviors that affect self-esteem and concluded that physical activity contributes positively to self-esteem, the relationship between self-esteem and physical activity remains unclear [11].

Since self-esteem is an important psychological concept for mental health, it is important to investigate the effects of sports and exercise on self-esteem in visually impaired individuals. The aim of our study was to investigate the effect of sport on self-esteem in visually impaired people.

Methods

Our study population consisted of members of Denizli Visually Impaired Sports Club. In this club, there are memberships available for 150 visually impaired people, both those who participate in sports and those who do not. The study included visually impaired people between the ages of 18 and 50 who volunteered to participate and who had been physically active for at least two days a week for two years. Participants were unable to walk independently, had diagnosed heart disease, or had hearing, physical, or mental disabilities were not included in the study. All potential participants who met the inclusion and exclusion criteria were verbally informed about the study in a face-to-face interview. In addition, a written document containing details of the study was provided. If the individual volunteered to participate in the study, they were asked to sign an informed consent form. Participants were informed that they were free to withdraw from the study at any time. The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki, and ethical approval was obtained

from the Pamukkale University Non-Interventional Clinical Research Ethics Board/03,30.01.2018/60116787-020/8336.

In the study, a Personal Information Form and the Rosenberg Self-Esteem Scale were used.

Personal Information Form: The Personal Information Form included details such as "age, gender, parental education level, parental employment status, areas requiring assistance, physical activity status, and type of sport in which the individual participates". Information on participants' medical history and visual acuity was obtained from existing club records. Assessments were conducted via face-to-face interviews by the same researchers

Rosenberg Self-Esteem Scale: The Rosenberg Self-Esteem Scale (RSES) is a self-report test developed by Rosenberg (1965). The validity and reliability of the scale were tested by Çuhadaroğlu (1986). Consisting of 63 items and 12 subscales, this scale includes multiple-choice questions and 4-point Likert-type options. Accordingly, scores range from (0-6), with scores between 0-1 indicating high self-esteem, scores between 2-4 indicating moderate self-esteem, and scores between 5-6 indicating low self-esteem [12,13].

Statistical Analysis: Data were analyzed using the IBM SPSS Statistics 22 software package. Continuous variables were presented as mean \pm standard deviation or median (minimum/maximum), while categorical variables were presented as numbers and percentages. Normal distribution of the data was assessed using the Kolmogorov-Smirnov test. The Mann-Whitney U test was utilized to compare independent group differences. To study the relationship between categorical variables, Chi-Square Test was calculated. Any p value less than 0.05 was considered statistically significant.

Results

Demographic and clinical data of the visually impaired adults are presented in Table 1. Eighty-five visually impaired adults were included in the study. Among the visually impaired adults participating in sports, 22 were female and 20 were male, while among those not participating

in sports, 26 were female and 17 were male (Table 1). The mean age of the participants who participate in sports was 20.87 ± 2.94 years, while those not participating in sports had a mean age of 20.88 ± 2.92 years (Table 1).

The analysis revealed that visually impaired adults participating in sports had statistically significantly higher self-esteem compared to those not participating in sports ($p=0.001$). It was found that the self-esteem of both female and male visually impaired adults participating in sports was statistically significantly higher than that of female and male visually impaired adults not participating in sports (female $p=0.001$, male $p=0.020$) (Table 2).

Discussion

In this study, we compared self-esteem levels of visually impaired adults who participate in sports with those who do not, and we found that participating in sports increased self-esteem in both male and female visually impaired adults. As visual impairment decreases, self-esteem and social interactions are reported to increase [14]. However, the level of visual impairment of the individuals was not measured in this study. We are interested in studying the impact of sports participation on self-esteem. In this regard, the literature reports that participation in sports, exercise, and recreational activities increases self-esteem in disabled veterans [9].

Similar to our study, a dissertation study by Uygun (2016) compared the differences in self-design among 40 visually impaired individuals based on whether they participated in sports or not, and found that visually impaired students who participated in sports had better self-designs [15].

In our study comparing the self-esteem of visually impaired adults who participate in sports with those who do not, we found that visually impaired individuals who participate in sports have higher self-esteem than those who do not. Gençay and Özcan (2019) compared the self-esteem and life satisfaction of visually impaired people who participate in sports and concluded that as the self-esteem of visually impaired people who participate in sports increases, so does their life satisfaction. Based on this, it can be assumed

Table 1. Demographics of Visually Impaired Adults

	Sports Participants (n:42)	Non-Sports Participants (n:43)	p
Age (Years) (Mean±SD)	20.86±3.0	20.88±2.92	0.915**
	n(%)	n(%)	
Gender (Female/Male)	22(52.4)/20(47.6)	26(60.5)/17(39.5)	0.452*
Father's Education Level			0.232*
-Illiterate	3(7.1)	1(2.3)	
-Literate	1(2.4)	4(9.3)	
-Primary School	10(23.8)	14(32.6)	
-Secondary School	5(11.9)	9(20.9)	
-High School	14(33.3)	12(27.9)	
-University	9(21.4)	3(7.0)	
Mother's Education Level			0.831*
-Illiterate	3(7.1)	4(9.3)	
-Literate	3(7.1)	7(16.3)	
-Primary School	12(28.6)	13(30.2)	
-Secondary School	11(26.2)	10(23.3)	
-High School	7(16.7)	5(11.6)	
-University	6(14.3)	4(9.4)	
Father's Occupation -Not working	5(11.9)	4(9.3)	0.697*
-Working	37(88.1)	39(90.7)	
Mother's Occupation -Not working	17(40.5)	21(48.8)	0.438*
-Working	25(59.5)	22(51.2)	
Duration of Disability -Since birth	23(54.8)	34(79.1)	0.022*
-Acquired later	19(45.2)	8(18.6)	
Need for Assistance			
-Eating -Yes	-	1(2.3)	0.320*
-No	42(100)	42(97.7)	
-Meal Preparation -Yes	1(2.4)	1(2.3)	0.987*
-No	41(97.6)	42(97.7)	
- Dressing/Undressing -Yes	-	-	-
-No	42(100)	43(100)	
-Bathing -Yes	-	1(2.3)	0.320*
-No	42(100)	42(97.7)	
-Shaving -Yes	-	2(4.7)	0.157*
-No	42(100)	41(95.3)	
-Hair Combing -Yes	-	-	0.309*
-No	42(100)	43(100)	
Sport Discipline			
-Futsal	10(23.8)		
-Goalball	7(16.7)		
-Chess	9(21.4)		
-Athletics	9(21.4)		
-Football	3(7.1)		
-Swimming	4(9.5)		

**Mann Whitney U Test, *Chi-Square Test,

that sports may have a positive effect on the self-esteem of visually impaired people and related psychosocial factors [16].

Dalbudak and Yiğit (2019) evaluated self-esteem based on whether hearing-impaired people participate in sports, they found no difference in self-esteem scores [17]. Saygılı et al. (2015) observed in their study that there was no difference in self-esteem scores based on sports participation [18]. In this sense, our study shows that there is a significant relationship between sports participation and self-esteem, contrary to the literature.

Table 2. Intergroup comparison results of visually impaired adults

Variables	Rosenberg Self-Esteem Scale			
	n	Mean±SD	Min/Max	p*
Sports participants	42	25.97 ±4.06	10/30	0.001
Non-sports participants	43	19.86 ±6.27	4/10	
Female sports participants	22	28.00 ±3.45	18/30	0.001
Female non-sports participants	26	20.50 ±6.24	7/30	
Male sports participants	20	25.00 ±4.54	10/30	0.020
Male non-sports participants	17	22.00 ±6.42	4/27	

* Mann Whitney U test, $p^* < 0.05$

Augestad (2017) reviewed publications evaluating self-esteem in visually impaired children and young adolescents conducted in 15 different countries between 1998 and 2016 [14]. It was noted that only 7 of the publications included in the study had more than 100 participants, indicating a small sample size. Of the 26 publications they reviewed, 5 found that the self-esteem of visually impaired children was low or very low compared to non-disabled children [15]. No significant differences were found in 7 publications. Some of these publications emphasized positive differences in favor of visually impaired children. Some studies have found differences by age group. The significant differences found in the study results were related to the impact of disability severity on self-esteem. In this regard, two studies found that the severity of visual impairment did not affect self-esteem, whereas four other studies found the opposite [19,20]. The level of visual impairment was not specified in our study. However, it was

observed that exercise in particular had a positive effect on the self-esteem of visually impaired people. As emphasized in the literature, exercise is seen as a method and tool to reduce the negative effects of disability on personal development for people with disabilities [10,21,22]. Exercise is seen as a method and tool to reduce the negative effects of disability on personal development for people with disabilities [8].

High levels of physical activity with health benefits are possible for children and adolescents with visual impairments. According to the World Health Organization (WHO), physical inactivity is a major health problem [23]. The education system, the sports system, and society in general do not pay enough attention to people with disabilities. Therefore, it is increasingly recognized that the problem does not lie with the disabled individual, but rather with the structures, practices, and attitudes that prevent individuals from using their abilities [23].

Limitations

The main limitation of our study is the small sample size. The secondary limitation is that the individuals included in our study have a specific age range. However, the fact that this is a cross-sectional study, the the maximum number of visually impaired people were reached in the province where the study was conducted constituted a small population, and that visually impaired people participating in sports were part of this population, caused the population of our study to be a more isolated group.

It is recommended that further studies be conducted with a larger sample size evaluating more parameters.

Conclusion

In the light of the information obtained from the study, it can be said that visually impaired people find peace with themselves and experience positive emotions in life by participating in sports. It is therefore concluded that sport plays a significant role in this regard. The positive impact of sport on people with disabilities has been demonstrated. Self-esteem affects the quality of an individual's life, and to improve the self-esteem

of visually impaired people, it is recommended that they be encouraged to participate in sports and recreational activities that allow them to lead an active life.

Conflict of Interest: The authors declare no conflict of interest related to this article.

Funding sources: The authors declare that this study has received no financial support.

Ethical approval: In this study, national and international ethical rules are observed.

Pamukkale University Non-Interventional Clinical Research Ethics Board/03,30.01.2018/ 60116787-020/8336.

ORCID and Author contribution: A.A. (0000-0002-1089-3370): Conception, Materials, Analysis and/or Interpretation, Writing. **Ş.A. (0000-0003-4685-2957):** Design, Conception, Materials, Analysis and/or Interpretation, Writing. **E.G.K. (0000-0003-3209-1499):** Statistic, Processing, Literature Review, Writing. **U.B.A. (0000-0001-6483-503x):** Supervision, Resource, Writer, Critical Review. **B.B.Ç. (0000-0002-7267-7622):** Supervision, Resource, Writer, Critical Review.

Peer-review: Externally peer reviewed.

Acknowledgement: Authors, thanks to participants

REFERENCES

1. Tazegül Ü. The investigation of the effect of sports on personality. *JASS*. 2014;25(1):537-544. doi: 10.9761/JASSS2352.
2. Veselska Z, Madarasova Geckova A, Gajdosova B, Orosova O, van Dijk JP, Reijneveld SA. Socio-economic differences in self-esteem of adolescents influenced by personality, mental health and social support. *Eur J Public Health*. 2010;20(6):647-52. doi: 10.1093/eurpub/ckp210.
3. Roessler EB, Pangborn RM, Sidel JL, Stone H. Expanded statistical tables for estimating significance in paired—preference, paired—difference, duo—trio and tri-angle tests. *J of food Science*. 1978 ;43(3):940-3. doi: 10.1111/j.1365-2621.1978.tb02458.x
4. Wilson PE, Clayton GH. Sports and disability. *PM R*. 2010 Mar;2(3):46-54; quiz S55-6. doi: 10.1016/j.pmrj.2010.02.002.
5. Aslan Ş, Aslan UB, Uyan A. Comparison of self-esteem in physically disabled people according to participating sports. *J. of Human Sciences*. 2017;14(4):4032-40.
6. Aslan UB, Aslan Ş, Ay S. Comparison of self-esteem between hearing impaired people who participated sports or do not. *J of Sport & Kinetic Movement*. 2023; 41(1):4-10. doi: 10.52846/jskm/41.2023.1.1.
7. Alizadeh A, Cobuliev Z. Psychological and social factors influencing the development of sports for athletes with disabilities in tajikistan. *Sport Psychology Studies*. 2021;10(35):19-36.
8. Laferrier JZ, Teodorski E, Cooper RA. Investigation of the impact of sports, exercise, and recreation participation on psychosocial outcomes in a population of veterans with disabilities: A Cross-sectional study. *Am J Phys Med Rehabil*. 2015;94(12):1026-34. doi: 10.1097/PHM.0000000000000263.
9. Côté-Leclerc F, Boileau Duchesne G, Bolduc P, Gélinas-Lafrenière A, Santerre C, Desrosiers J, et al. How does playing adapted sports affect quality of life of people with mobility limitations? Results from a mixed-method sequential explanatory study. *Health Qual Life Outcomes*. 2017 Jan 25;15(1):22. doi:10.1186/s12955-017-0597-9.
10. Papadopoulos K. The impact of individual characteristics in self-esteem and locus of control of young adults with visual impairments. *Res Dev Disabil*. 2014;35(3):671-5. doi: 10.1016/j.ridd.2013.12.009.
11. Van Nispen RM, Virgili G, Hoeben M, Langelan M, Klevering J, Keunen JE, et al. Low vision rehabilitation for better quality of life in visually impaired adults. *Cochrane Database Syst Rev*. 2020;1(1):CD006543. doi:10.1002/14651858.CD006543.pub2.
12. Winch RF. Society and the adolescent self-image (book review).By Morris Rosenberg. Princeton, New Jersey:Princeton University Press,1965.326 pp. Social forces. 1965;44(2),255-6. doi:10.1093/sf/44.2.255.
13. Petersen W. Self-esteem and the adolescent: society and the adolescent self-image. Morris Rosenberg. Princeton University Press, Princeton, NJ.1965;148(3671):804. doi:10.1126/science.148.3671.804.
- 14.
15. Augestad LB, Elmer S. Self-concept and self-esteem among children and young adults with visual impairment: A systematic review. *Cogent Psychol*. 2017;4(1). doi :10.1080/23311908.2017.1319652.
16. Uygun F. Comparison of the differences personality design of visually disabled who do or don't sport actively. 2016. Master's Thesis. Amasya Üniversitesi.
17. Özcan SN, Gençay S. Investigation of self-esteem and life satisfaction of visually impaired individuals who do sports. *Inter. JSHSR*. 2023;10(94):813-818. doi:10.26450/jshsr.3634.
18. Dalbudak İ, Yiğit Ş. Investigation of the self-esteem levels of hearing-impaired individuals who do and do not do sports. *Turkish Studies-Social Sciences*. 2019;14(4):1387-9. doi: 10.29228/TurkishStudies.22857.
19. Saygılı G, Kesercioğlu T, Kırıktaş H. The effect of educational level on self-esteem. *Turkish Int J of Special Education and Guidance & Counselling*. 2015;4(1):1-8. ISSN: 1300-7432.
20. Huurre TM, Komulainen EJ, Aro HM. Social support and self-esteem among adolescents with visual impairments. *J of Visual Impairment & Blindness*. 1999;93(1):26-37. doi: 10.1177/0145482X9909300.
21. Pinquart M, Pfeiffe JP. Identity development in German adolescents with and without visual impairments. *J of Visual Impairment & Blindness*. 2013;107(5):338-349. doi: 10.1177/0145482X1310700.
22. Were CM, Indoshi FC, Yalo JA. Gender differences in self-concept and academic achievement among visually impaired pupils in Kenya. *Educational Research*. 2010;1(8):246-52.
23. Giese M, Greisbach M, Meier M, Neusser T, Wetekam N. 'I usually never got involved': understanding reasons for secondary students with visual impairments leaving mainstream schooling in Germany. *Eur J of Special Needs Education*. 2022;37(2):264-77. doi: 10.1080/08856257.2021.1872997.
24. Dawn R. Educational achievement and psychosocial transition in visually impaired adolescents: Studies from India. Springer. 2018. doi: 10.1007/978-981-10-6644-3.