

*Full Length Research Paper*

# The relation between self esteem levels and life quality levels of disabled and non-disabled tennis sportsmen

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Received 27 November, 2014; Accepted 2 February, 2015

This research was carried out to determine the self esteem and life quality levels of disabled and non-disabled tennis sportsmen; and also to set forth the relation between their self esteem and life quality levels. The research group consists of total 44 sportsmen including 22 disabled tennis sportsmen ( $n_{(female)}=9$ ,  $n_{(male)}=13$ ) and 22 non-disabled tennis sportsmen ( $n_{(female)}=9$ ,  $n_{(male)}=13$ ). The personal information form developed by researchers, the World Health Organization Quality of Life Scale-National Short Form in Turkish (WHOQOL-BREF TR) and the Rosenberg Self Esteem Scale developed by Rosenberg (1965) and adapted into Turkish by Çuhadaroğlu (1986) was used as data collection tool in the research. Whether data showed a normal distribution or not was studied with the Kolmogorov-Smirnov test; and at the end of this study, the t-test was used for the pair comparisons because data showed a normal distribution. The Pearson Product-Moment Correlation Coefficient technique was performed in testing whether there was a significant correlation between the two scale points. The significance level was regarded to be 0.05 in the research. At the end of the research, it was determined that the life quality levels of disabled sportsmen and non-disabled sportsmen were high generally, but their self esteem was at a medium level. In comparing the life quality levels of sportsmen in accordance with the state of disability in the sportsmen, while no significant differences were observed in the physical, social and environmental-tr areas, a statistically significant difference was in favor of the disabled sportsmen psychologically. In comparing the self esteem levels in the sportsmen as per whether the sportsmen were disabled or non-disabled, even if it was seen that the non-disabled sportsmen's self esteem levels were higher than the disabled sportsmen, this difference was not statistically significant. Furthermore, it was found that there was not any significant correlation between the self esteem levels and the life quality levels of the disabled and non-disabled sportsmen.

**Key words:** Self esteem, life quality, wheelchair tennis, disabled, sport.

## INTRODUCTION

Developing countries, which know the positive effects of sport on people, have given very much importance to sport and made effort to be active in each field of sport, to

address large masses, allocate budgets and make public consciousness of this topic. Sport and physical activity programs, which are effective and attractive instruments

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in valuing people's leisure time, increasing their physical, psychological, social and health levels, have become very significant since they increase individuals' life quality (Aldinç et al., 2004; Çokluk et al., 2011). Many efforts are made in motivating disabled individuals to do sport and exercise.

Disability is described as limitation and failure in roles expected from people of all age, gender, social and cultural factors due to any disturbance or any impairment. Disabled people are also defined as persons that have lost any organ or function and having abnormal conditions in their bones, joints and muscles because of various reasons (Özer, 2001; Aydın, 2004).

Disabled people join in any sport or any physical activity. This makes them to discover their different identities and roles, gives them opportunities to change their perceptions, stimulates the feeling of group and reduces their awareness of obstacles. Also, sport plays an important role to involve in sharing and socialising; it also gives spiritual structure as well as structures personal identity. It helps individuals to have self confidence, keep balance, have muscle control, move freely and coordinately, thus making individuals experience a quality life and having increased joy of life (Gür, 2001; Groff et al., 2009; Ergün and Baltacı, 2011; Ergun, 2011; Özer, 2001; Pense et al., 2011).

Life quality includes a complete personal goodness situation rather than a personal health condition and without any criteria. Therefore, it is a difficult, abstract concept to measure (Eser et al., 2008; Kurt and Çetinkaya, 2008; Çokluk et al., 2011). Persons' physical health, psychological conditions, independence levels, social relations, beliefs and interactions with environment are dealt with in life quality (TWG 1998). One of the most important factors included in this concept is health. "Results such as obesity, diabetics, hypertension occur in people without competence in intellectual activities of sportmen or persons with special care" (İnal, 2011). Also, health conditions, economic situations, family-friend relations, employment opportunities or freedom in life styles, educational opportunities, living place and environments have effect on life quality (Tüzün and Eker, 2003).

Due to inequalities in many fields of disabled individuals' lives, their involvement in social life is limited. This reduces their life quality and results in a passive life (Çokluk et al., 2011). When a person regards himself negatively, this causes low self confidence and self esteem. On the other hand, self esteem is generally described as an individual's own perceptions, feelings, opinions and personal evaluations (Tiryaki and Morali, 1992). When a person confirms or does not confirm himself, this points to an individual's personal judgements as successful, valuable or capable. Disabled people need sport at least like normal people. As for undeniable benefits sport gives to non-disabled persons, the same situation is a matter of subject for disabled ones (Lewis et al., 2005; Loovis, 2005).

Sport type to be chosen in disabled ones must be

appropriate for any disabled person's capacity. As disability issue isolates the disabled from normal persons, it also isolates oneself from disabled ones except from its own disability type and even from individuals with disability at different degrees in its own disability type (Tatar 1995). That is why trainers need to guide adolescents or children into appropriate sports in terms of their physical capacity, genetic characteristics, abilities and skills (İnal, 2011).

The wheel-chair tennis branch, which just started developing in Turkey, has the same size like the normal tennis court, and is played with the same rackets and balls. The one difference is to allow a ball hop on the ground twice (TMPK 2012). In competitions, a classification is done by dividing people into two groups, including adults aged below and over 18. If a group called quad has more disabilities in hand and foot, they can use battery-operated wheelchairs. This is a group which experiences meniscus operation and can jump. They are not able to do permanent sport activities, and cannot compete without taking any reports from doctor. The other group depends on wheelchairs. They have complete paralysis of the lower half of the body including both legs (paraplegy). The groups with disabilities in hand and foot called amputation can compete in the same championship. Turkey Physically Disabled Federation gave rules for these championships based on the ethical rules and classification types of "International Paralympic Committee".

It is clear that all types of physical education and sport activities which can be performed by physically disabled people play important roles in making disabled people harmonious individuals in society by providing physical, mental, emotional and social development to them (Tatar, 1995; Tatar, 1997; Başer, 2002; Sevindi, 2002; İnal, 2011). It is given that sport will have positive effects on self-identification of disabled individuals like in healthy individuals (Baştuğ et al., 2011).

It is stated that disabled people are subjected to discrimination and inequality in many areas from their birth and throughout their lives. As a result, they experience a passive life and have difficulties in adapting to social life.

This study aims to analyze the effects of sport activities on disabled and non-disabled people; it aims to determine the self esteem and life quality levels of sportmen of wheel-chair tennis (which just began in our country) and non-disabled tennis sportmen and to show the relations between self esteem and life quality levels.

## MATERIAL AND METHOD

### Research group

Within this research, the screening model was used for describing the current situation. Screening models are research approaches which give information about any previous or current situation as it is. Any event, individual or object which becomes a research topic, is evaluated in its own conditions and as it is. Any effort is not made

to change and affect these. Relational screening models are research models which aim to define availability and/or degree of changes between two and more variables (Karasar, 2003).

The research group consisted of a total of 44 sportmen including 22 physical disabled tennis sportmen ( $n_{(female)}=9$ ,  $n_{(male)}=13$ ) and 22 normal tennis sportmen ( $n_{(female)}=9$ ,  $n_{(male)}=13$ ), who participated in Turkey championships within the body of Turkey Physically Disabled Sport Federation. The group, which did licensed sport at least for five years in any sport branch in the past, had lower limb amputated and regularly had trainings for six weeks; and the group of sportmen who were non-disabled and only interested in tennis as amateurs was included in this study.

### Measurement tool

As data collection tool in the research, a personal information form developed by researchers, a Turkish National Short Form of World Health Organization Quality of Life Instrument (WHOQOL-BREF TR) and a "Rosenberg Self Esteem Scale" developed by Rosenberg (1965) and adapted to Turkish by Çuhadaroğlu (1986) were used.

The Turkish National Form of World Health Organization Quality of Life Instrument (WHOQOL-BREF TR): WHOQOL-Bref (TR) is a scale consisting of 26 questions: two from the general section and one each from the other 24 sections in the original scale (whoqol-100). WHOQOL-Bref involves 4 fields contrary to the long scale. There are not any separate sections. This scale does not have a total score. Each field has a maximum score of 20 or 100 points. The score used depends on the researcher's choice. When a Turkish version of 27 questions (27<sup>th</sup> question is a national one) is used, the environmental area score is named Environment-TR. In this regard, the Environment-TR area score is used instead of the environment score. When the points increase, the quality of life increases as well (Aydemir and Köroğlu, 2006). In this research, 100 points score was used.

The validity and reliability of Turkish form was done by Eser et al. (1999a, 1999b). In the physical field, the questions were asked about performing daily activities, dependence on drugs and treatment, dynamism and tiredness, activeness, pain and disturbance, sleep and rest, working power. In the mental field, the questions were about positive and negative feelings, self esteem, body image and physical appearance, morality, personal beliefs, thinking, learning and focusing; in the social relations field, the questions were about relations with other persons, social support and sexual life. The environment dimension of the scale involved the questions on house environment, physical security and safety, material resources, health services, leisure time activities, physical environment and transportation (Eser et al., 1999a, 1999b).

In accordance with the decision made in the 1<sup>st</sup> Europe WHOQOL Symposium held in Leipzig in 1997, it was agreed that the users gather their data from the WHOQOL Turkey Center with a summary report giving information about their works (Karabilgin 2001). The estimation of section points was made by the WHOQOL Turkey Center.

**Rosenberg Self Esteem Scale:** The Rosenberg Self Esteem Scale was developed by Morris Rosenberg in 1963 (Rosenberg, 1965). After its validity and reliability works were done in USA, it was used in many researches as a tool. In our country, the reliability and validity works of the scale were made by Füsün Çuhadaroğlu in 1986; its validity coefficient was found to be 0.71. By using the test-retest reliability method, its reliability coefficient was also found to be 0.75 (Çuhadaroğlu, 1986).

The Rosenberg Self Esteem Scale is a scale of multiple-choice 63 questions. The scale consists of twelve sub-dimensions. These sub-categories are named as self esteem, sustainability of self concept, reliance on people, sensitiveness to critics, depressive

affect, fancifulness, psychosomatic symptoms, feeling of threat in inter-persons relations, involvement in discussions, mother-father care, relation with father and psychic isolation. Rosenberg suggested that the sub-scales can be separately used in researches if required. To achieve the aim of the research, the first 10 articles of the scale were used for measuring self esteem.

**The Sub-Dimension of Self Esteem:** In comparisons with numerical measurements, self esteem is regarded as high (0-1) points, medium (2-4) points, low (5-6) points. The bullet in the scale give points. There are no bullets near items when given tests. It will be enough to take 1 point when chosen the 2 bulleted responses from 3 questions for Article I and 1 point when chosen the 1 bulleted response from 2 questions for Article II and Article IV. In other articles, each bulleted response is valued at 1 point.

According to the scale's own evaluation system, the subjects take points between 0 and 6. The points from the scale become higher. This shows that the self esteem level decreases.

0-1 point: High Self Esteem  
2-4 points: Medium Self Esteem  
5-6 points: Low Self Esteem

Since five of the questions involved in the questionnaire (1, 2, 4, 6, 7) were associated with positive feelings about oneself, they were completely evaluated; since the other five questions (3, 5, 8, 9, 10) dealt with negative expressions about oneself, the likert type rating was inverted, then subjected to evaluation and finally analyzed by obtaining total scores for each individual (Tekdemir, 2013).

### Data analysis

The Kolmogorov-Smirnov test was done to analyze whether data showed a normal distribution or not and as a result of the analysis, the t-test was performed for the pair group comparisons since data showed a normal distribution. The Pearson Product-Moment Correlation Coefficient technique was chosen in testing whether there was a significant relation between the two scale points. Data were analyzed in the computer SPSS (Statistical Package For Social Scientists for Windows Release 18.0) program; its significance was estimated, and the results are given in tables as appropriate for the aim of the research.

### FINDINGS

Of the physically disabled tennis sportmen involved in the research, 59.1% ( $n=13$ ) were males and 40.9% ( $n=9$ ) were females; their average age was  $\bar{X}=31.5$ . Those who graduated from primary schools were 13.7% ( $n=3$ ); from high schools, 54.5% ( $n=12$ ) and from universities, 31.8% ( $n=7$ ). Of the normal tennis sportmen involved in the research, 59.1% ( $n=13$ ) were males and 40.9% ( $n=9$ ), females; their average age was  $\bar{X}=22.0$ , and they were all university graduates.

Table 1 shows the t-test results of the comparisons of area averages of the Whoqol-Bref (TR) scale in the disabled and non-disabled tennis sportmen. We can say that disabled and non-disabled tennis sportmen's life quality levels were generally high; the perceived life quality levels were higher in the non-disabled sportmen physically and the in disabled people psychologically, socially and environmentally.

**Table 1.** T-test results showing area averages of WHOQOL-BREF (TR) scale in disabled and non-disabled tennis sportmen.

	State of disability	n	$\bar{X}$	SS	Sd	t	P
Physical Area	Disabled Sportman	22	74.83	13.20	42	-0.801	0.428
	Normal Sportman	22	78.08	13.69			
Psychological Area	Disabled Sportman	22	76.70	9.93	42	2.340	0.024*
	Normal Sportman	22	65.15	20.91			
Social Area	Disabled Sportman	22	71.96	18.99	42	0.630	0.532
	Normal Sportman	22	68.18	20.83			
Environmental Area -TR	Disabled Sportman	22	64.26	11.94	42	0.523	0.603
	Normal Sportman	22	62.37	12.05			

\*P&lt;0.05.

**Table 2.** T-test results showing comparisons of self esteem levels of disabled and non-disabled tennis sportmen.

	State of disability	n	$\bar{X}$	SS	Sd	t	P
Self Esteem	Disabled Sportman	22	2.54	0.73	42	0.322	0.749
	Normal Sportman	22	2.45	1.10			

**Table 3.** Relation between total points of self esteem scale and area points of WHOQOL-BREF (TR) scale in disabled sportmen.

		WHOQOL-BREF (TR) Scale Areas			
		Physical Area	Psychological Area	Social Area	Environmental Area -TR
Self esteem	r	0.149	0.273	-0.018	0.245
	P	0.508	0.219	0.937	0.271
	n	22	22	22	22

As statistically compared to the area averages of the Whoqol-Bref (TR) scale about whether the sportmen were disabled or not, while there were not any significant differences in the physical ( $t_{(42)}=-0.801$ ;  $P>0.05$ ), social ( $t_{(42)}=0.630$ ;  $P>0.05$ ) and environmental-tr ( $t_{(42)}=0.523$ ;  $P>0.05$ ) areas, there was a significant difference in the psychological ( $t_{(42)}=2.340$ ;  $P<0.05$ ) area. In the psychological area, the disabled sportmen's perceived life quality levels were statistically higher than the non-disabled sportmen.

Table 2 shows the t-test results of comparisons of self esteem levels in the disabled and non-disabled tennis sportmen. We can say that the disabled and non-disabled tennis sportmen's self esteem levels were at a medium level.

When the self esteem levels were compared in accordance with the state of disability in the sportmen, there were not any statistically significant differences even if the non-disabled tennis sportmen's self esteem levels were higher than those of the disabled sportmen ( $t_{(42)}=0.322$ ;  $P>0.05$ ).

In Table 3, there was not a significant relation between

the point averages of the self esteem scale and the point averages of the WHOQOL-BREF (TR) scale concerning the physical ( $r=0.149$ ;  $P>0.05$ ), Psychological ( $r=0.273$ ;  $P>0.05$ ), social ( $r=-0.018$ ;  $P>0.05$ ) and environmental-tr ( $r=0.245$ ;  $P>0.05$ ) areas of the disabled sportmen who participated in the research.

In Table 4, there was not a significant relation between the point averages of the self esteem scale and the point averages of the WHOQOL-BREF (TR) scale concerning the physical ( $r=0.128$ ;  $P>0.05$ ), pschological ( $r=-0.236$ ;  $P>0.05$ ), social ( $r=0.090$ ;  $P>0.05$ ) and environmental-tr ( $r=-0.314$ ;  $P>0.05$ ) areas of the normal sportmen who participated in the research

## DISCUSSION

Involvement in any sport is considered to have positive effects on activities such as enjoying life, feeling good and fulfilling daily life activities (Groff et al., 2009). Looking at life quality, many researches show that involvement in sport develops life quality in disabled

**Table 4.** Relation between total points of self esteem scale and area points of WHOQOL-BREF (TR) scale in normal sportmen.

		WHOQOL-BREF (TR) scale areas			
		Physical area	Psychological area	Social area	Environmental Area-TR
Self esteem	r	0.128	-0.236	0.090	-0.314
	P	0.570	0.291	0.692	0.154
	n	22	22	22	22

people (Devine, 2004; Santiago and Coyle, 2004; Ploeg et al., 2008).

In our study, it was observed that the life quality levels were usually high in the disabled and non-disabled sportmen. In the average results of the Whoqol-Bref (TR) scale, we can say that the life quality levels of the disabled sportmen spiritually, socially and environmentally were higher. But the life quality levels of the physically non-disabled sportmen were higher than those the disabled ones. In Çetin et al.'s study (2011), wheelchair basketball sportmen's average points from the Whoqol-Bref (TR) scale were evaluated. It was presented that the sportmen's life quality levels physically, spiritually, socially and environmentally were very high. These results are similar to our study. The difference is life quality level is seen in physical field, because we studied only disabled group.

There is a general opinion that life quality is higher in healthy individuals in comparison to disabled individuals. But it is a known fact that involvement in physical activities increases life quality of both disabled and non-disabled individuals. Indeed, Altun et al. (2011) suggested that life quality in people doing sport as professional or amateur ones was higher than the ones not doing sport. Hanna et al. (2006) also stated that acute and chronic physical exercises improved any individual's life quality and positively affected one's physical and psychological condition; furthermore, Değirmenci's study (2006) showed that there were not any significant differences between obese and healthy individuals in social and environmental areas. All of them support our study.

This research indicated that the disabled and non-disabled sportmen had self esteem at a medium level. Koocher (1971) informed that the acquired new motor skills enhanced self competency or perceived competency feelings and this led to increase in self esteem. And these comply with our study results as well.

When compared to the self esteem levels in accordance with the state of disability in the sportmen, even if the non-disabled sportmen' self esteem levels were higher than the disabled sportmen, the relevant difference was not statistically significant here. Considering similar researches in literature, Valley's saying (1992) that doing exercises had positive effects on self esteem (Tiggeman and Williamson, 2000). Vincent (1976), Schumaker et al. (1986) and Salokun (1990) say that sportmen had higher self esteem than the ones not doing

sport. Sherrill et al. (1990) say that disabled young sportmen had higher self esteem than disabled ones not doing sportmen. Schaefer and Proffer (1989) say that disabled sportmen who participated in the wheel-chair competitions have high self esteem. All these support our study.

## Conclusion

In conclusion, a statistical difference was not observed between self esteem and life quality levels of physically disabled and non-disabled sportmen. However, this balance was considered to be disrupted between disabled individuals doing sport and disabled ones not doing sport. Disabled sportmen and healthy non-disabled sportmen showed similar results in terms of life quality and self esteem. This indicated that sport has the same effects on individuals generally. Disabled sportmen's self esteem and life quality were at the same level with those of healthy sportmen due to the positive effects of sport. Owing to sport, disabled people have self-confidence as they engage in their groups and society. This makes them feel better spiritually. We can say the physically disabled sportmen who participated in our study could do daily works on their own, live independently and have sport backgrounds; thus we obtained similar results.

## Conflict of Interests

The author has not declared any conflict of interests.

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