

## THE COMPARISON OF STRESS AND BURNOUT LEVELS OF 13-15 AGED SPORTMEN BLINDS

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### Abstract

**Purpose.** At this study, it was aimed to investigate the stress and burnout levels of 13-15 aged sportmen blinds.

**Material and Method.** Kayseri Blind Handicapped Primary Education Scholl Sport club's 13-15 aged, B3 level blind handicapped 15 sportmen as test group, from the same school 13-15 aged, B3 level blind handicapped 15 sedentary as control group were joined voluntarily. Test and control groups were performed stress inventory included 10 questions. These questions were prepared the five likert type included "never=1, rarely=2, sometimes=3, often=4, always=5". Test and control group were performed Maslach Burnout inventory(MBI). MBI had 22 questions which evaluated burnout in 3 dimensions, were Emotional Exhaustion (EE), Depersonalization (D) and Personal Accomplishment (PA). Datas were recorded on computer by using SPSS 13.0 packet programme. Aritmetic mean, standart deviation, standart error, minimum and maximum values were used for presentation of datas. For statistical analysis, independent-t test was performed. The statistical significance was set at  $p < 0.05$ .

**Results:** As a result of the study, while no meaningful difference was found at age, emotional exhaustion, depersonalization, personal accomplishment and stress average ( $p > 0.05$ ), a non-statistical decrease of emotional exhaustion, depersonalization, personal accomplishment and stress average parameters in favour of blind handicapped sportmen. We concluded that sportive activities had a positive effect on handicapped people's stress and burnout levels even if it was a little

**Key Words:** Blindness, Stress, Burnout.

### Purpose

Handicapped is described as a person which loses one of their physical, mental, sensorial, and social abilities because of any reasons from birth or later, has difficulties about adapting to social life and daily necessity and needs protection, care, rehabilitation, counseling and support services (N.M. Çakmak, 2008).

It is an accepted reality that Blind handicapped people has a special position according to comparement to other illnesses and handicappeds. This special position shouldn't be depend on seen rate of handicapped people's in society, it is depend on hardness and complexity problems belong to this handicapped groups' physiologic, improvemental and educational (T. Günaydin, 1993).

Blindless can be described in two ways commonly. These are legal and educational description of blindless. Legal description which is used by medicine area, is eye's losing 10% of vision power. (Y. Özsoy, M. Özyürek, S. Epirek, 1998)

Stress is a very complex concept which is not easy to describe, Stress is first defined by H. Selye (1977) while searching for female hormones. Before Selye, the term "stress" was used to describe a mental strain or unwelcome. Walter Cannon defined stress as "an external factor affecting bodily homeostasis". Cannon, introducing the term "homeostasis" and "fight or flight" response to stress is believed to do the first researches about stress (B. Sayiner, 2006)

H. Selye (1977) is described stress as body's uncertain reaction to any force which is done itself. (E. Göçet, 2006)

Burn out was put forward as concept by H. Freudenberger at 1974. (R. Balay, A. Engin, 2007)

Burnout syndrome can cause a general decrease of work quality and can be associated to important psychological effects, including depression, anxiety, conflicts with colleagues, indifference and cynicism with patients, increasing alcohol/drugs intake, family strain, relationship breakdown and increased irritability (B.J. Kelly, L. Todhumter, B. Raphael, 1996). Burnout is described as emotional exhaustion, depersonalization and Personal Accomplishment syndrome of human because of intense relations with other. (C. Maslach, 1982).

Another description is "failure, inside out burn, becoming worn out by the over-expenditure of energy, force or resources"(Juliana Inhauser Riceti Acioli, J. Barboza, R. Beresin, 2007). The aim of this study is to compare the stress and burnout levels of 13-15 aged sportmen and sedentaries.

### Method

#### Participants

At this study, Kayseri Blind Handicapped Primary Education Scholl Sport club's 13-15 aged, B3 level blind handicapped 15 sportmen as test group, from the same school 13-15 aged, B3 level blind handicapped 15 sedentary as control group were joined voluntarily. Test group were trained athletics and goal-ball 2 hours a day, 3 times in a week and totally 2 years. Control group weren't performed any sport branch.

#### Measure

At this study, volunteers were performed 3 questionnaires voluntarily. These questionnaires were demographic properties, stress inventory and maslach

burnout inventory. Demographic properties were included age, experiences, educational level, sport branches, stress inventory was used from Odabaşı's (2006) thesis included 10 questions. These questions were prepared the five likert type included "never=1, rarely=2, sometimes=3, often=4, always=5". (Y. YALÇIN, 2009, C. Kyriacou, P Y. Chien, 2004)

The Maslach Burnout Inventory (MBI) was developed by Maslach and Jackson (1981). (R. Balay, A. Engin, 2007, H. Taşdöven, 2005).

MBI has 3 dimensions. The three dimensions of the inventory are: Emotional Exhaustion (EE) consisting of 9 items, Depersonalization (D) consisting of 5 items and Personal Accomplishment (PA) consisting of 8 items (R. Balay, A. Engin, 2007, J. Dorman, 2003).

These, three dimensions, constitute burnout that: emotional exhaustion, which refers to feelings of being depleted of one's emotional resources,

representing the basic individual stress component of the syndrome; depersonalization, which refers to negative, cynical, or excessively detached responses to other people at work, representing the interpersonal component of burnout; and reduced personal accomplishment, which refers to feelings of decline in one's competence and productivity and to a lowered sense of efficacy, representing the self-evaluation component of burnout (C. Maslach, 1993)

#### Data Analysis

Data was recorded on computer by using Package programe which is called SPSS13.0. While showing datas, mean, standart deviation, standart error of mean, avarage, minimum value, maxmim value were given. Kolmogorow Smirnov test were performed whether normal range or not. Normal range was found. Independent- t test was performed for comparing independent groups. Meaningful level was accepted as 0.05.

## Results

Table I. Comparment of Burnout and Stress Levels of Blind Handicapped Athletes and Setanteries

Parameters	Groups	n	X <sub>min</sub> -X <sub>max</sub>	X±SD	Sx	t	p
Emotional Exhaustion (EE)	Athlete	15	7-20	12,80±4,52	1,17	-1,045	0,305 <sup>ns</sup>
	Sedanter	15	7-21	14,47±4,21	1,09		
Depersonalization (D)	Athlete	15	5-17	10,33±3,92	1,01	-1,792	0,084 <sup>ns</sup>
	Sedanter	15	7-21	12,80±3,61	0,93		
Personal Accomplishment (PA)	Athlete	15	10-35	24,27±7,81	2,02	0,250	0,805 <sup>ns</sup>
	Sedanter	15	16-34	23,67±5,02	1,30		
Stres Avarage	Athlete	15	1,9-3,8	2,45±0,52	0,13	-1,057	0,300 <sup>ns</sup>
	Sedanter	15	1,2-3,6	2,68±0,65	0,17		

\*P<0.05, ns: not significant, X±SD: mean ± standart deviation, Sx: Standart error of mean, Xmin: Minimum value, Xmax: Maxmim Value

No meaninigful difference were found at the Emoutional Exhaustion, Depersonalization, Personal Accomplishment and Stress Level of Handicapped Athletes and setanteries(p>0.05).

## Discussion And Conclusion

Sport is a concept which contributes to individuals living healthy, increases their productivity and provides their social lifes. If sport was done as professional, sportmen could be one of the most famous person of societies. Trainers' relationships with sportmen is very important for reaching to aims (Y. Yalçın, 2009). This situation sportmen will have treasure from their participated sports so that, blind handicapped sportmen's stress and burnout levels will be minimum.

While meaningful differences weren't found blind handicapped sportmen's emoutiona exhaustion, depersonalization, personal accomplishment and stress parameters, (p>0.05), not significant decrease were found at emoutional exhaustion, depersonalization and stres avarages in favor of blind handicapped sportmen.

Even if there were no meaningful difference, this decrease in favour of blind handicapped sportmen. We think that this data can create possible new article ideas which are on more volunteers.

We think that blind handicapped which were participated this study, weren't all sportmen, is an important reason for gettiing these results. Maybe recreational sportive exercercise can effect their stres and burnout levels positively.

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## ANGIOTENSİN-CONVERTİNG ENZYME POLYMORPHİSM IN ELİTE TAEKWONDO ATHLETES OF TURKİSH AND AZERBAİJAN TAEKWONDO TEAMS

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### Abstract

A few attempts have been made to shed light upon the influence of genes in making an Olympic champion. The aim of our study is to elucidate the genetic differences among 18 athletes from National Turkish and Azerbaijan taekwondo teams. Athletes were defined as elite. Angiotensin converting enzyme (ACE) genotypes of athletes were analyzed by polymerase chain reaction technique (PCR) in this study.

The ACE gene is located on human chromosome 17 expressing three genotypes within the intron 16 of the related gene structure. These genotypes are classified as I and D alleles which are termed as insertion and deletion, respectively. Genomic DNA was isolated from peripheral blood and blood stain samples of control and sportsmen. First of all, the genotyping of ACE gene was performed by site specific ACE primers using PCR. To avoid mistyping, each sample found to have the DD genotype was amplified by inserting specific primers. As a result, 18 samples including 2 II genotype, 11 ID genotype and 5 DD genotype were determined by conventional PCR. Allele frequencies were determined by gene counting. Genotype and allele frequencies between groups were compared by Chi-square test. P values of >0.05 were not considered statistically significant. There was no difference in ACE genotype frequencies between sedentary group and elite athletes.

Key words: Angiotensin converting enzyme (ACE), taekwondo, athletic performance, polymerase chain reaction.

### Introduction and research objective

Recent advances in genetic research have provided new opportunities for maintaining health and identifying athlete and persons. The development of

technology for DNA sequencing and genotyping has allowed the identification of the individual genetic traits that contribute to athletic performance.