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ANALYZING OF THE EXERCISE ADDICTION IN INDIVIDUALS ENGAGED WITH INDIVIDUAL AND TEAM SPORTS

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ABSTRACT

Objective of this study is to analyze the exercise addiction in individuals in chosen provinces of Turkey engaged with individual and team sports, definition of the addiction levels of athletes engaged with individual and team sports. 904 students engaged with individual and team sports participated voluntarily the research. The questionnaire form, in which the demographic characteristics of the participants were questioned, and an Exercise Addiction Scale (EAS-21) and Personal Data Form have been applied. For the statistical analysis of the data IBM SPSS (Statistical Package for Social Sciences) 22.0 package has been used. For the data distribution and definition of the rates of answers given to the questions the

Frequency analysis, and for the definition of the differences between the variables the Anova (Scheffe) and Independent T-test has been applied. Results are presented as (\bar{X}) for average and (SS) for standard deviation and $P < 0,05$ value has been considered as significant. Consequently, has been decided that 26 individuals among the participants are addicted, according to the rates of performing weekly exercises no difference has been found between the Exercise Addicts and the Symptomatic groups, while the difference in the asymptomatic groups has been considered as significant.

Key Words: Free time management, university student, academic success

INTRODUCTION

Exercise is definable as physical activities, which involve repeated, regular, planned body movements, which are performed on regular basis (Baltacı and Düzgün, 2008). While the performance of regular exercises ensures that the individual feels him-/herself physically and psychologically good (Bouchard et.al. 2009; Hagan, 2001), it is in a position of being a factor which also assists in reducing many health problems (Adams et.al., 2003, Uzun, 2007). Nevertheless some researches are emphasizing that exercises performed in excessive and uncontrollable extent may harmful and may create addiction (Yates, 1991; Szabo, 1995; Szabo, 1998). Continuously increasing the duration, frequency, strength of the exercise, the fact that the exercise routine gets out of control and representing negative characteristics like maintaining distance to social activities, lack of time spent with family and friends due to exercise performance, giving priority to exercise behavior over the life order, sleeping disorders, anxiety and depression in case of nonperformance of exercise are definable as exercise addiction (Adams and Kirkby, 2002; Zmijewski and Howard 2000; Hausenblas and Downs, 2002; American Psychiatric Association, 1994).

In foreign literatures studies are available which indicate the existence of symptoms for exercise addiction (Berczik et al., 2012; Hamer and Karageorghis, 2007; Vardar, 2012). However studies are required, where this situation is analyzed in respect of the individual and team sports in Turkey. Therefore, this study has been performed with the objective to define the level of detecting exercise addiction in athletes performing individual and team sports.

MATERIAL AND METHOD

Totally 904 students consisting from 296 female and 608 male students educating in the physical education and sports departments of universities in Turkey's provinces (Erzincan, Kahramanmaraş, Kayseri, Kütahya, Erzurum, Kastamonu) chosen randomly participated to the study voluntarily. Objective was to analyze exercise addiction symptoms of athletes, who are students engaged with individual and team sports, and to define the addiction levels of athletes performing individual and team sports. A questionnaire form, in which demographic characteristics were questioned, and the Exercise Addiction Scale-2, developed by Hausenblas HA. and Downs DS. (2002) and adapted by Yeltepe H and Ikizler H.C. (2008) into Turkish were applied to the participants.

Exercise Addiction Scale-21: The EAS-21 was developed by the Exercise and Sports Science Department of the Florida University, Heather A. Hausenblas from the Exercise Laboratory and the KEBÖ-21, Kinesiology Department of the Pennsylvania State University, Daniel Symons Downs from the Exercise Psychology Department in five stages deploying a sample group of totally 2420 individuals. During the analysis performed in result of the retesting studies of the performed test a significance has been found in the $P < 0,001$ level, and the alpha level calculated as (Cronbach) $\alpha = 0,95$ has been evaluated as perfect. The scale is applicable individually or as a group on the ones over the age 18. Answers were arranged in accordance with the 6's Likert Scale as (1) for never and (6) for always. The total duration for response to the Exercise Addiction Scale-21 has been foreseen as approx. 5 minutes. The EAS-21, which is prepared based on the drug addiction criteria of SDM-IV (Diagnostic and Statistical Manual for Mental Disorders – IV) and consisting from 21 questions) provides following information:

- 1- Score average of exercise addiction symptoms.
- 2- Distinguishes following:
 - a) Exercise addicts
 - b) Symptomatic of non-addicts
 - c) Asymptomatic of non-addicts

3- Determination of following situations regarding the individuals:

- a) Existence of physiological addiction (tolerance/symptoms of ceasing the exercise)
- b) Lack of physiological addiction (tolerance or syndrome of ceasing the exercise)

7 addiction criteria were taken as basis in the Exercise Addiction Scale-21, and individuals representing three or more of these criteria were classified as exercise addicts. Addiction range is defined based on the fact that the articles constituting the criteria received 5 or 6 points. Individuals answering these articles with a score ranging between 3-4 points are classified symptomatically and these individuals may be considered as representing theoretically exercise addiction risk. Finally, the individuals having scored the expressions in the scale with a point range of 1-2 are asymptotically classified as non-addicted (Yeltepe and İkizler, 2007).

And for the statistical analysis of the data the IBM SPSS (Statistical Package for Social Sciences) 22.9 package has been used. For the determination of the data distribution and rate of answers given to the questions frequency analysis was applied and for the determination of the differences between the variables the Anova (Scheffe) and Independent T-test has been applied. Results are provided as (\bar{X}) for average and (SS) for standard deviation, and the value $P < 0,05$ is considered as being significant.

FINDINGS

Table 1: Defining Statistics in Analyzing of the Distribution Among Data

Variables	Frequency	%
Exercise Addict	26	2,9
Symptomatic (Risk Bearer)	478	52,9
Asymptomatic (Non-Addict)	400	44,2
Female	296	32,7
Male	608	67,3
Individual Sports	383	42,4
Team Sports	521	57,6
One performing sports 1 day weekly	84	9,3
One performing sports 2 days weekly	163	18,0
One performing sports 3 days weekly	227	25,1
One performing sports 4 days weekly	177	19,6
One performing sports 5 days weekly	137	15,2
One performing sports 6 days weekly	62	6,9
One performing sports 7 days weekly	54	6,0

Inspection of the table shows following: study participants are distributed as follows: 2,9% are exercise addicts, 52,9 % are symptomatic, 44,2% are asymptomatic, 32,7% are female and 67,3 % are male students, and 42,4% of these are engaged with individual sports and 57,6% are engaged with team sports. In respect of the rate of performing sports on weekly basis, it is seen that the rate for at least 7 days weekly is 6,0, while the rate for maximum 3 days weekly is 25,1%.

Table 2: Distribution of rate of answers given to the questions

Questions	Never (1)	Rare (2)	Occasionally (3)	Generally (4)	Frequently (5)	Permanent (6)
1 Frequency %	60 6,6	143 15,8	266 29,4	192 21,2	128 14,2	114 12,6
2 Frequency %	112 12,4	161 17,8	234 25,9	206 22,8	115 12,7	76 8,4
3 Frequency %	50 5,5	122 13,5	208 23,0	219 24,2	178 19,7	127 14
4 Frequency %	134 14,8	196 21,7	217 24	190 21,0	103 11,4	64 7,1
5 Frequency %	172 19,0	255 28,2	250 27,7	123 13,6	71 7,9	33 3,7
6 Frequency %	85 9,4	190 21,0	287 31,7	198 21,9	105 11,6	39 4,3
7 Frequency %	84 9,3	193 21,3	300 33,2	186 20,6	81,0 9,0	60 6,6
8 Frequency %	126 13,9	171 18,9	254 28,1	185 20,5	103 11,4	64 7,1
9 Frequency %	267 29,5	217 24,0	156 17,3	118 13,1	91 10,1	53 5,9
10 Frequency %	70 7,7	155 17,1	228 25,2	220 24,3	135 14,9	96 10,6
11 Frequency %	133 14,7	205 22,7	237 26,2	166 18,4	103 11,4	60 6,6
12 Frequency %	154 17,0	231 25,6	220 24,3	162 17,9	94 10,4	43 4,8
13 Frequency %	82 9,1	172 19,0	260 28,8	205 22,7	118 13,1	67 7,4
14 Frequency %	84 9,3	195 21,6	245 27,1	214 23,7	116 12,8	50 5,5
15 Frequency %	88 9,7	173 19,1	249 27,5	202 22,3	119 13,2	73 8,1
16 Frequency %	181 20,0	189 20,9	204 22,6	170 18,8	101 11,2	59 6,5
17 Frequency %	94 10,4	180 19,9	230 25,4	192 21,2	131 14,5	77 8,5
18 Frequency %	146 16,2	239 26,4	235 26,0	152 16,8	86 9,5	46 5,1
19 Frequency %	332 36,7	187 20,7	183 20,2	103 11,4	73 8,1	26 2,9
20 Frequency %	138 15,3	231 25,6	239 26,4	159 17,6	93 10,3	44 4,9
21 Frequency %	98 10,8	193 21,3	240 26,5	180 19,9	130 14,4	63 7,0

Table 3: Comparison of Intergroup Variables

^{a,b}, difference between groups bearing different letters in the same line are significant ($p < 0.05$)

Variables	Exercise Addict		Symptomatic		Asymptomatic		F	P
	X	SS	X	SS	X	SS		
Weekly Exercise Number	4,54 ^b	,312	3,93 ^b	,312	3,09 ^a	,314	37,350	,000
Individual and Team Sports	1,42 ^a	,100	1,45 ^a	,100	1,40 ^a	,100	1,238	,291

The table inspection in respect of rates of performing weekly exercises; there was no difference between the exercise addicts and symptomatic groups, while the difference in the asymptomatic group has been determined as being significant. When inspecting in accordance with persons performing individual and team sports, it was determined that there is no difference among the groups ($p < 0.05$).

Table 4: Comparison of the ones performing individual and team sports and the subdivisions of Exercise Addiction

Sub Divisions	P	F	SS
1	,841	,040	,07476
2	,001	11,386	,07510
3	,018	5,590	,07795
4	,821	,051	,07424
5	,471	,520	,07505
6	,614	,255	,07623
7	,547	,364	,07790

1. I'm doing exercise in order to escape from stress
2. I'm doing exercise even if I get hurt or injured
3. I'm increasing continuously the strength of my exercise in order to get the desired effect and increase the benefit
4. I'm lacking of reducing my exercise frequency
5. I'm thinking of exercise even if I have to focus myself on business, lessons

6. I spending too much time for exercise
7. I'm doing exercise longer than I planned

In result of the table inspection it was determined, significant differences were determined between the situations mentioned in the 2nd sub division of the group of the ones performing individual and team sports (I'm doing exercise even if I get hurt or injured) and the ones mentioned in the 3rd group (I'm continuously increasing the strength of my exercise in order to get the desired effect and increase the benefit).

DISCUSSION AND RESULT

Many studies are available in literature researches, which constitute content from different respects regarding and correlated with exercise addiction and performed based thereon. In result of the literature inspection it is mentioned that the frequency of observing exercise addiction symptom within the community is 10%-35% along the diversity of exercise addiction diagnosis criteria (Costa et.al. 2012, Lejoyeux et.al. 2008, Vardar et.al.ç 2012, Viella et.al. 2011), while this rate is mentioned as 3%-5% in the results of researches performed with exercise addiction scales (Berczik et.al. 2012, Monoc et.al. 2012). In studies performed in restricted numbers performed in the Turkish population regarding this area, Bavlı et.al. (2011) determined that 7,1% of the group representing exercise addiction in individuals performing regularly sports, and this rate has been determined by Vardar et.al. (2012) as being 12%. In the results of our study it was determined that from the participants 2,9% are exercise addicts, 52,9% are symptomatic, 44,2% are asymptomatic, that 42,2% thereof are engaged with individual sports and 57,6% are engaged with team sports; and that the rate of performing sports weekly as at least 7 days weekly is 6,0%, while the maximum rate as 3 days weekly is 25.1%. And in the comparison of the ones performing individual and team sports and the exercise addiction's sub-division it was determined that significant differences exist between the situations mentioned under the 2nd subdivision of the ones performing individual and teams sports (I'm doing exercise even if I get hurt or injured) and the ones mentioned in the 3rd subdivision (I'm continuously increasing the strength of my exercise in order to get the desired effect and increase the benefit). In respect of rates of performing weekly exercise;

there was no difference between the group of Exercise Addicts and Symptomatic, it was determined that the difference in the group of asymptomatic is significant. When inspecting in respect of the ones engaged with individual and team sports, no significant difference has been determined between the groups ($p < 0.05$).

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