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Welcome to TOJRAS

Message from the Editor

The Online Journal of Recreation and Sport- TOJRAS was first published in 2012. The article publishes original, qualified and sufficient research papers in the field of physical education and sport, sport management, recreation and education of coaching to contribute to the field of sport both in Turkey and in the world. The publication language of the journal is English. The referees and editors of TOJRAS are field experts and the articles are reviewed by them according to their field expertise. The main goal of TOJRAS is to assure a fruitful and academic platform for the authors, referees, and the members of science and advisory board and the contributors to the enhancement of science in the light of the rules of ethics.

We would like to welcome and thank you for your online journal interest which helped TOJRAS to gain popularity and dignity among academic publications locally and internationally so that we can bring various and profound studies in the field of sport by valuable researchers. In addition to them, teachers, teacher trainers, parents, and students around the world have visited TOJRAS for five years continuously. It means that TOJRAS has contributed to the dissemination of new trends in sport education and research to all over the world for years. We hope that this latest issue will also follow our global educational goal.

TOJRAS provides its readers with the opportunity of meeting different aspects on sport education so that they can expand their study fields. Also, the content is freely accessible without charge to the user or to his/her institution. In addition, any views expressed in this publication are the views of the authors and are not the views of the Editor and TOJRAS.

TOJRAS thanks and appreciates the editorial board and reviewers who have contributed a lot to the submissions of this issue for their valuable contributions.

Call for Papers

TOJRAS invites you for article contribution. Submitted articles can be about all aspects of sport education. The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJRAS. Manuscripts must be submitted in English.

TOJRAS is guided by its editors, guest editors and advisory boards. If you are interested in contributing to TOJRAS as an author, guest, editor or reviewer, please send your CV to info@tojras.com.

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ANALYSIS OF THE PERCEPTION LEVELS OF STUDENTS AND ACADEMICIANS REGARDING MOBBING AND ORGANIZATIONAL JUSTICE ACTS*

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ABSTRACT

According to the answers given to questions concerning the negative acts questionnaire by students who participated in the research, significant differences were observed between the perceptions of students who studied in the departments of Physical Training and Sports Teaching, Sports Management, Coaching, and Recreation, respectively. According to the Tukey test results, the perception level of the Physical Training and Sports Teaching students regarding negative acts was

significantly different from those of the Sports Management and Recreation students. A significant negative and low level relationship was observed between the level of exposure to negative acts of instructors and interactional justice dimension of the organizational justice. According to this, it can be claimed that as the level of negative acts faced by academicians increases, their perception of organizational justice decreases, even if only slightl

Key Words: Academician, Mobbing, Organizational Justice, Students

1. INTRODUCTION

The present situation in our higher education system has an importance with respect to integration to the society as well as with respect to the creation of new paradigms required by the society. On the other hand, qualified scientific studies help meet the requirements of the society (Gedikoglu, 2005). The word “Mob” is mostly associated with violence and suggests an illegal group of people. The word mob in English refers to a group of people that is a gang, a group of hooligans or a violent group (Gunduz & Yilmaz, 2008). Some researchers, who prefer the term mobbing, claim that the term bullying suggests personal and physical aggression, while mobbing suggests psychological harassment by one or more people as a group. According to these researchers, mobbing consists mainly of strategic, indirect and collective psychological harassment events. Another difference is that studies on bullying have mostly focused on the personality and destructive acts of the bully (Davenport et. al. 1999). Generally, two main types of mobbing are described. The first one is emotional and the second one is strategic mobbing. In emotional mobbing, the events take place between two people. Although it generally takes place between superiors and subordinates, it can also take place between superiors. Strategic mobbing is carried out to intentionally oppress employees in an organization. Especially companies that operate in the private sector force their employees who they want to dismiss to resign through mobbing (Campo & Fattorini, 2007). The majority of those who face mobbing, experiences detachment from social life and permanent emotional psycho-traumas, which take effect in the rest of their lives (Leymann & Gustafsson, 1996). When we take a look at the development of organizational justice as a concept, we can see that the concept of “social justice” has developed according to organizations (Eker, 2006). The concept of justice analyzes honest or dishonest behavioral patterns of individuals in organizations. As a result, because it has considerable influence on the inner dynamics of the society, it is the most important issue on justice that has to be strictly emphasized in the present societies (Rebore, 2001). Organizational justice is a scientific topic that has been investigated in the areas of Organizational Psychology and Organizational Behavior fields during the recent years (Colquitt, 2001; in Cropanzano & Greenberg, 1997). This concept was used for the first time by Greenberg (1987) (Moorman, 1991). Organizational justice theories as concept can be approached in two ways. The reactive-proactive process is analyzed under four different headlines with respect to content.

Some theories have been also created under some of these headlines. The reactive process of justice is the tendency of working individuals to keep away or avoid unjust acts. On the other hand, proactive theories focus on acts, which working individuals have developed in order to provide justice. Process concepts related to justice are interested in some subjects such as the determination of wages and promotions (Greenberg, 1987).

2. MATERIAL AND METHOD

The Descriptive survey model known as the “Descriptive Model” or the “Survey Research” in the literature was used in this study. The survey model is a research model which allows testing past or present hypotheses related to the research subject or collecting and describing data that are used to answer questions regarding the research subject (Karasar, 1999).

The relational screening model on the other hand, is a research model which aims to determine the presence and degree of covariance between two or more variables. Relational analysis is carried out in two ways. These are correlation and comparisons. In the relational survey model, the differences between the students’ perception of mobbing from instructors and organizational justice were analyzed (Zaimoglu Ozturk, 2011). Most of this interest in justice is related to the increase in the perception of justice regarding the distribution of the rights of employees who work in organizations (Johnson et al 2006).

Sample

The population of the study was carried out in the academic year between 2014 and 2015 and consisted of academicians and students from the Uşak University Faculty of Sports Sciences in the Uşak county town and the Erciyes University School of Physical Training and Sports in the Kayseri province. Using the random method, a total of 29 academicians (5 female and 24 male) and a total of 268 students (87 female and 181 male) were selected from different departments as follow: 150 students from the Physical Training and Sports Teaching Department; 67 students from the Sports Management Department; 16 students from the Coaching Department, and 35 students from the Recreation Department.

Data Collection

The “Negative Acts Questionnaire” (NAQ) was developed by Einarsen and Skogstad (1996) with the purpose of identifying employees who faced psychological harassment in the workplace. The original Norwegian version of the questionnaire consists of 21 articles. All articles refer to behavioral terms and the concepts of intimidation or psychological harassment were never mentioned directly in the questionnaire.

The negative acts questionnaire (NAQ), which was adapted to Turkey by Cemaloğlu (2007) as a 21-question questionnaire using the help of experts of three different languages, was used in this study in order to measure psychological harassment. The questionnaire was used with the permission of researcher Cemaloğlu and after obtaining it from the Bergen Bullying Institute in Norway. Cemaloğlu reported that as a result of a factor analysis, he obtained the total variance of the questionnaire as .71, the Cronbach’s alpha as .94, and the factor loads between .59 and .87 (Cemaloglu, 2007).

The reliability analysis of the negative acts questionnaire resulted in an internal consistency value of 0.93 Cronbach’s alpha.

Academician

Cronbach's Alpha	Cronbach's Based Standardized Items	Alpha on N of Items
,929	,932	21

Students

Cronbach's Alpha	Cronbach's Based Standardized Items	Alpha on N of Items
,933	,932	21

Data Collection

The results that were obtained in the research were evaluated using the statistical methods available in the SPSS 13.0 Software Package. In the research results and evaluation section the following were presented: the frequency distribution of the demographic characteristics of the research participants; the means and the standard deviation values of the questions concerning negative acts and the perceptions of organizational justice; the reliability analysis used to identify the suitability of the data for statistical analysis; the Independent Samples T test used to identify the presence of a significant difference between the two groups in the gender variable; and the One-Way ANOVA test used to identify the presence of significant difference between more than two groups in the independent variables including

age, title, working period, department, class, level of doing sports, current residence location, and hometown. Correlation analysis was applied in order to determine how the mobbing faced by instructors and students influenced their perceptions of organizational justice.

3. FINDINGS

1- Correlation Table Showing the Relationship between Negative Acts and the Organizational Justice's Interactional Justice Dimension

		Negative Acts	Interactional Justice Dimension
Negative Acts	Pearson Correlation	1	-0,370 **
	Sig. (2-tailed)		0,048
	N	29	29
Interactional Justice Dimension of Organizational Justice	Pearson Correlation	-0,370 **	1
	Sig. (2-tailed)	0,048	
	N	29	29

** The two-way correlation is significant at $P=0.05$.

A significant negative and low level relationship was observed between the level of exposure to negative acts by academicians and the organizational justice's interactional justice dimension ($p<0.05$, $r = -0.37$). According to this, we may claim that as the level of negative acts faced by instructors increases, the instructors' perception of organizational justice decreases, although even only slightly. (Table 1).

2- Results One Way ANOVA Test Results Showing the Presence of Differences between Groups Related to the Students' Residential Location Variable

	Sum Squares	Mean Squares	F	P
Negative Acts Questionnaire	6,111	2,037	4,196	0,006
Organizational Justice (Distributional Justice Dimension)	1,975	0,658	0,756	0,520
Organizational Justice (Treatment Justice Dimension)	5,081	1,694	2,262	0,082
Organizational Justice (Interactional Justice Dimension)	5,611	1,870	2,517	0,059

In the negative acts questionnaire and the organizational justice questionnaire, according to the one-way ANOVA test that showed whether there was any difference between the groups depending on the current residence location of the students, a significant difference was determined between the groups for the questions related to the negative acts questionnaire ($p < 0.05$). (Table 2).

3- The Tukey HSD Test Results that Show the Group Differences for the Students' Department Variable

Variables	(I) Department	(J) Department	Difference Between Means (I-J)	P
Negative Questionnaire	Physical Training and Sports Teaching	Sports Management	0,390	0,001
		Coaching	-0,237	0,548
		Recreation	0,412	0,008
	Sports Management	Physical Training and Sports Teaching	-0,390	0,001
		Coaching	-0,627	0,006
		Recreation	0,022	0,999
	Coaching	Physical Training and Sports Teaching	0,237	0,548
		Sports Management	0,627	0,006
		Recreation	0,649	0,010
	Recreation	Physical Training and Sports Teaching	-0,412	0,008
		Sports Management	-0,022	0,999
		Coaching	-0,649	0,010
Organizational Justice (Interactional Justice Dimension)	Physical Training and Sports Teaching	Sports Management	0,146	0,657
		Coaching	0,002	1,000
		Recreation	0,470	0,020
	Sports Management	Physical Training and Sports Teaching	-0,146	0,657
		Coaching	-0,143	0,932
		Recreation	0,325	0,271
	Coaching	Physical Training and Sports Teaching	-0,002	1,000
		Sports Management	0,143	0,932
		Recreation	0,468	0,274
	Recreation	Physical Training and Sports Teaching	-0,470	0,020
		Sports Management	-0,325	0,271
		Coaching	-0,468	0,274

According to the answers given to questions concerning the negative acts questionnaire by students who participated in the research, significant differences were observed between the perceptions of students who studied in the departments of Physical Training and Sports Teaching, Sports Management, and Coaching and Recreation, respectively. According to the Tukey test results:

- The perception level of Physical Training and Sports Teaching students regarding negative acts was significantly different from those of Sports Management and Recreation students.
- The perception level of Physical Training and Sports Teaching students regarding

negative acts was significantly different from those of Sports Management and Recreation students.

According to the answers given to questions concerning the organizational justice's interactional justice dimension by students who participated in the research, a significant difference were observed between the perceptions of students who studied in the departments of Physical Training and Sports Teaching and Recreation, respectively. According to the Tukey test results, the perception level of Physical Training and Sports Teaching students regarding the interactional justice dimension was significantly different from that of the Recreation students. (Table 3).

4- One Way ANOVA Test Results Showing the Presence of Differences between Groups Related to the Students' Department Variable

	Sum of Squares	Mean Squares	F	P
Negative Acts Questionnaire	11,973	3,991	8,616	0,000
Organizational Justice (Distributional Justice Dimension)	2,665	0,888	1,023	0,383
Organizational Justice (Treatment Justice Dimension)	0,285	0,095	0,124	0,946
Organizational Justice (Interactional Justice Dimension)	6,592	2,197	2,972	0,032

In the negative acts questionnaire and the organizational justice questionnaire, according to the one-way ANOVA test that showed whether there was any difference between the groups depending on the department of the students, a significant difference was determined between the groups for the questions concerning the negative acts questionnaire and the organizational justice's interactional justice dimension ($p < 0.05$). (Table 4).

5- One Way ANOVA Test Results Showing the Presence of Differences between Groups Related to the Students' Class Level Variable

	Sum of Squares	Mean Squares	F	P
Negative Acts Questionnaire	0,117	0,039	0,077	0,972
Organizational Justice (Distributional Justice Dimension)	1,478	0,493	0,564	0,639
Organizational Justice (Treatment Justice Dimension)	5,255	1,752	2,342	0,074
Organizational Justice (Interactional Justice Dimension)	6,145	2,048	2,764	0,042

In the negative acts questionnaire and the organizational justice questionnaire, according to the one-way ANOVA test that showed whether there was any difference between the groups depending on the class level of the students, a significant difference was determined between the groups for the questions related to the organizational justice's Interactional Justice Dimension ($p < 0.05$). (Table 5).

4. CONCLUSIONS AND CONCLUSION

Negative relationships were identified between mobbing and organizational justice. In addition it was also observed in the research that mobbing significantly affected organizational justice. It can be claimed that the results obtained in the study were similar with those in the available literature (Simsek et al. 2015; Maslach et al. 2001; Utkutug et al. 2012; Eroglu, 2009; Zapf and Claduaia, 2001). If there is injustice in legal procedures, given decisions, and their implementation in organizations, the organizational cynicism perception of employees may increase. One of the major tools that support the work of employees in the organization and ensure their motivation is the fairness of the practices (Cetin et al. 2013; Toremeh, 2001). Thus; sociological studies in the organizations can be carried out to prevent mobbing. According to the results of the study of (Seekin & Demirel 2014; Tekleab et al. 2005). According to Mimaroglu (2008), the reason for operational justice to increase organizational cynicism may be that employees may become skeptical in the absence of

justice (Akt: Kalagan, 2009). In another study by Ozdeveci (2003), it was reported that individuals may display aberrant and aggressive acts when they sense injustice. It was concluded that individuals display negative acts towards their managers and co-workers in order to end injustice. In a study carried out by Semmer et al. (2010) as case study 1 (199) and case study 2 (205), it was found out that there is a negative relationship between organizational justice and counterproductive acts.

A significant negative and low level relationship was observed between the level of exposure to negative acts for academicians and the organizational justice's interactional justice dimension. According to this, we may claim that as the level of negative acts faced by instructors increases, their perception of organizational justice decreases, although even only slightly. A significant relationship was not observed between the level of exposure to negative acts for students and the organizational justice's distributional justice dimension.

According to the answers given by the participating students in the research to the questions related to the organizational justice's Interactional Justice Dimension: Significant differences were observed between Class 1 and Class 4 Students and Class 2 and Class 4 students. According to the Tukey results in Table 17, the perception level regarding the interactional justice dimension of Class 4 students was observed to be significantly higher than those of Class 1 and Class 2 students.

According to the answers given to relevant questions concerning the negative acts questionnaire by the students, significant differences were observed between the perceptions of students who studied in the departments of Physical Training and Sports Teaching, Sports Management, and Coaching and Recreation, respectively. According to the Tukey test results:

- The perception level of Physical Training and Sports Teaching students regarding negative acts was significantly different from those of Sports Management and Recreation students.
- The perception level of Physical Training and Sports Teaching students regarding negative acts was significantly different from those of Sports Management and Recreation students.

According to the answers given to relevant questions concerning the organizational justice's interactional justice dimension by students who participated in the research, a significant difference were observed between the perceptions of students who studied in the departments

of Physical Training and Sports Teaching and Recreation, respectively. According to the Tukey test results, the perception level of Physical Training and Sports Teaching students regarding the interactional justice dimension was significantly different from those of Recreation students.

According to the answers given to questions concerning the negative acts questionnaire by students who participated in the research, significant differences were observed between the perceptions of students who resided in the student house, public dormitory, and their families. According to the Tukey test results, the perception levels of students who resided in the student house and the public dormitory regarding negative acts was significantly higher than those who resided with their families.

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INVESTIGATION OF MENTAL WELL-BEING AND AGGRESSION LEVEL OF KARATE-DO ATHLETES

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ABSTRACT

This study is conducted to evaluate the aggression and mental well-being levels of karate-do athletes and determinate the effects of some variables. The study group consists of 103 male and 65 female participants who were chosen among the karate do athletes of 5 sports club which is in business in the city of Ankara. During the data collection, Aggression Inventory which has been designed as 30 question and three sub-tests by Kiper (1984), and Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), which has been designed by Tennant et al. (2007) was translate to Turkish after the reliability and validity studies by Keldal (2015) made up of 14 questions and one dimension. Descriptive statistics, t-test, ANOVA and Tukey test were used in the analysis of the data. Internal consistency reliability is .91 for mental well-being and .80 for aggression scales in the study. When all the results are considered, it can be seen that the well- being level and aggression level of people doing karate-do are in high level, most of the participants shows passive aggression. And, it can also be seen that the mental there is a difference between well-being level and participants who have middle level of a belt. Agression level changes by style of the branch, participants who does kata more, have higher total aggression points and have more passive aggression levels.

Findings show that; destructive aggression level increases when participants lack of medal. In addition, there were no statistically significant differences between mental well-being and aggression levels of the participants and gender, age, marital status, educational status, level of income they perceived, presence of other athletes in their families and selecting to the national team variables. According to correlation analysis which is to analyze mental well-being, aggression and sub-tests of aggression points; there was a weak positive correlation between mental well-being and passive aggression while there was a negative correlation between mental well-being and assertiveness sub test of aggression. As a result of the research, it is seen that that karate-do athletes who do kata have a high degree of aggression and those who have blue belt as a karate-do belt have higher mental well-being level. These results show that karate athletes make expression of passive aggressiveness. Having a medal for this sample group is a more combative image, but when we look at the hierarchical belt system, we find that the participants in the blue belt status, which is known as the middle level, have a higher level of mental well-bein

Key Words: Karate-do, aggression, mental well-being.

1. INTRODUCTION

The term "karate-do" is the most common abbreviated term for karate, which is expressed in the form of an art of unarmed defense. In Japanese; kara; empty, te; hand, do; means art, so that karate can also be called empty hand-made art of defense. This branch, which is based on equilibrium, breath and reaction time, also forms a philosophy on the mental education of the individual at the same time. The karate, which develops a hierarchical training scheme and continues to do so with the same principles and techniques since its inception, is also seen as a means of providing a mental discipline for the individual at the same time. The karate-do branch which aims to make the individual step out of battle with peace, first with his own mind and after discipline, removes violence and provides a peaceful emotional feeding. Karate-do is divided into competition-based and concentration-based imaginary competitions. Kumite is a kind of combat which is done with rival, kata is a form of combat as if there is a rival while you do imaginary combat. Karate-do athletes might do both of them as well. Both kata and kumite benefits about improvement. Every work towards the karate-do branch contributes to the development of values such as self-control, competence, defense, self-esteem. Among these values, karate-do may also affect the level of well-being.

Well-being is an important issue for the field of psychological counseling. Since the absence of disease does not mean that it is better than psychological, it is necessary for the person to have the best solution for the problem beyond solving the problem in psychological counseling (Tuzgöl Dost, 2005a). Subjective well-being, pleasant affection, unpleasant affect and life satisfaction. In the individual's life, the subjective good is high when the pleasant affects outweigh the unpleasant emotions and the cognitive judgment about the quality of the person's life is positive. Cognitive judgments related to positive emotions and satisfaction can be related to various living spaces such as marriage and work, and their sum reflects general life satisfaction. Apart from the general concept of well-being in research on good formation, various concepts such as subjective well-being, psychological well-being, life satisfaction, well-being, and positive affect are also used (Diener, 2006; Tuzgöl Dost, 2005b). Well-being is also included in the literature as subjective well-being, mental well-being and psychological well-being. At this point, aggression, which forms another part of our research, lies in the face of mental well-being. In this context, it is first necessary to define aggression definition, according to Aronson, Wilson and Akert (2012) aggression intentionally indicates harm or

suffering behaviors. This behavior can be physical or verbal; It may or may not reach its goal. It is still aggression. We can split the aggressiveness into two as hostile aggression and instrumental aggression. While there are aggressive behaviors that originate from anger feelings in hostile aggression and that do not hurt or injure, purpose does not suffer in instrumental aggression. On the other hand; Taylor, Peplau and Sears (2015), aggression is the most lenient definition of behavioral or learning approaches; Behave any way that hurts others. The good thing about this definition is that the behavior itself determines whether a particular behavior is aggression. It is up to us to decide whether or not the behavior at this point hurts. In that point it is a curiosity that, perspective about aggression of individuals engaged in defense sports.

The initial point of the study was how the mental wellbeing levels of individuals engaged in defense sports were influenced by their ability to play defense sports, as well as the level of aggression. In this context; Karate-do sample group is reached and, the research question and sub problems was searched.

2. MATERIAL AND METHOD

This study is conducted to evaluate the aggression and mental well-being levels of karate-do athletes and determinate the effects of some variables. The study group consists of 103 male and 65 female participants who were chosen among the karate do athletes of 5 sports club which is in business in the city of Ankara. During the data collection, Aggression Inventory which has been designed as 30 question and three sub-tests by Kiper (1984), and Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), which has been designed by Tennant et al. (2007) was translate to Turkish after the reliability and validity studies by Keldal (2015) made up of 14 questions and one dimension.

Aggressiveness Inventory consists of 30 items and contains three sub tests. These; Destructive aggression, assertiveness and passive aggression. Each sub test in the inventory is defined by 10 questions.

- Items related to destructive aggression; 1, 2, 3, 13, 14, 15, 22, 23, 24, 29
- Assertiveness related materials; 4, 5, 6, 10, 11, 12, 19, 20, 21, 28,

- Passive aggression related items are 7, 8, 9, 16, 17, 18, 25, 26, 27, 30. The material used in the inventory is the questionnaire and the response paper. The questions "do not fit me at all", "do not fit me a bit", "do not obey me", "undecided" "It fits very well with me".

The mental well-being scale was used during the research. The scale consists of 14 positive items and has a 5-point Likert-type answer key. A minimum score of 14 can be taken from the scale, and the highest score is 70. High scores from the scale indicate high mental (psychological) well-being.

3. FINDINGS

In this chapter, there are findings related with the variables which belong to the participators, mental well-being, aggression and sub-tests of aggression scale and also findings related with comparisons of different variables.

1- The frequency and percentage distribution of demographic variables of participators

		N=(168)	
	Variable	f	%
Gender	Female	65	61,3
	Male	103	38,7
Age	20<	68	40,5
	20-30	82	48,8
	30>	18	10,7
Marital Status	Married	22	13,1
	Single	146	86,9
Education status	Primary School	49	29,2
	Secondary School	79	47,0
	High school	25	14,9
	Undergraduated	15	8,9
Percieved Income Level	Low	45	26,8
	Middle	99	58,9
	High	24	14,3
Presence other athletes in the family	Yes	72	42,9
	No	96	57,1
Having which belt	Yellow and below	19	11,3
	Orange	25	14,9
	Green	20	11,9
	Blue	24	14,3
	Brown	35	20,8
	Dojo Black	31	18,5
	Federation Black	14	8,3
Which style do you do more	Kata	75	44,6
	Kumite	93	55,4
Having a medal	Yes	78	46,4
	No	90	53,6
Selecting to national team	Yes	14	8,3
	No	154	91,7

Table 1 shows the information about the individuals' gender, gender, age, marital status, educational status, perceived income level, having another athlete in the family, having which

belt, which style do you do more, having a medal, selecting to national team variables. According to the collected data, it is observed that 61,3 % of the participants are males, 38,7 % of them are females, and the predominant age group is 20-30 with a rate of 48,8%. Marital status of the participants is mostly single (% 86,9), education status of the participants is highly at secondary school level with the rate of 47,0 %. When the perceived income status is observed, it is understood that 58,9 % of participants belong to middle income group. Most of the participants have no other athletes in the family (%57,1) and most of them have brown belt (%20,8). Participants largely doing kumite %55,4 while kata athletes have % 44,6 percent of total participants. As having a medal of the participants is assessed it is observed that while individuals who are lack of medal are 53,6%, have a medal are 53,6%. Lastly, most of the participants are not selected to the national team %91,7 with highly average.

2- The arithmetic average and standard deviation values of mental well-being, aggression scales and aggression scale's sub-tests

	N=(168)			
	Min.	Max.	\bar{x}	ss
Mental well-being	21,00	70,00	60,80	9,04
Agression	30,00	188,00	124,88	22,14
Destructive aggression	10,00	70,00	47,69	10,60
Assertiveness	10,00	70,00	25,18	11,14
Passive aggression	10,00	77,00	52,00	11,65

Arithmetic average and standard deviation value of mental well-being, aggression scales and aggression scale's sub-tests are shown in Table 2. As Table 2 is observed that a high frequency of mental well-being (60,80 \square 9,04) and aggression (124,88 \square 22,14). When sub-tests are analyzed, it was determined that the highest value of arithmetic average is in passive aggression sub-test (52,00 \square 11,65), and the lowest value of arithmetic average is assertiveness sub-test (25,28 \square 11,14).

3- The results of t test between mental well-being, aggression scale, sub-tests of aggression scale and gender variable

	Gender	N	\bar{x}	ss	t	p
Mental well-being	Male	103	60,81	10,12	0,01	0,99
	Female	65	60,80	7,071		
Agresion	Male	103	123,80	21,96	-0,791	0,43
	Female	65	126,58	22,49		
Destructive aggression	Male	103	46,61	11,26	-1,669	0,09
	Female	65	49,40	9,27		
Assertiveness	Male	103	25,82	11,06	0,937	0,35
	Female	65	24,16	11,29		
Passive aggression	Male	103	51,36	12,16	-0,891	0,37
	Female	65	53,01	10,81		

*p<0,05 is statistically significant.

There is no meaningful relationship between mental well-being, aggression scale, sub-tests of aggression scale and gender variable. Beyond that result; in this sample group male participants indicates more mental well-being points than girls (60, 81 □□10,12) with a bit difference. Female participants revealed higher aggression level than boys (126,58 □□22,49), mostly in assertiveness sub-test (24,16 □□11,29). This findings show that; girls have more assertiveness than boys.

4- The results of t test between mental well-being, aggression scale and sub-tests of aggression scale and doing doing which style more variable

	Style	N	\bar{x}	ss	t	p
Mental well-being	Kata	75	59,66	10,18	-1,476	0,14
	Kumite	93	61,73	7,94		
Agresion	Kata	75	130,00	21,96	2,743	0,00*
	Kumite	93	120,75	21,53		
Destructive aggression	Kata	75	50,73	10,10	3,448	0,01*
	Kumite	93	45,23	10,40		
Assertiveness	Kata	75	25,34	12,10	0,169	0,86
	Kumite	93	25,05	10,38		
Passive aggression	Kata	75	53,92	10,40	1,927	0,05
	Kumite	93	50,46	12,41		

*p<0,05 is statistically significant.

The level of aggression of participants who do kata is higher than participants who do kumite. The level of destructive aggression of participants who said that they do more kumite is higher than kata athletes.

5- The results of t test between mental well-being, aggression scale and aggression scale's sub-tests and having medal variable

	Having Medal	N	\bar{x}	ss	t	p
Mental well-being	Yes	78	59,74	10,15	-1,427	0,15
	No	90	61,73	7,90		
Aggression	Yes	78	121,76	20,50	-1,705	0,09
	No	90	127,57	23,25		
Destructive aggression	Yes	78	45,76	10,83	-2,212	0,02*
	No	90	49,35	10,16		
Assertiveness	Yes	78	24,84	11,11	-0,365	0,71
	No	90	25,47	11,22		
Passive aggression	Yes	78	51,15	11,79	-0,881	0,37
	No	90	52,74	11,55		

*p<0,05 is statistically significant.

The level of destructive aggression of those who say they have a medal from participants is higher than those who say that they do not have medals.

6-The results of ANOVA among mental well-being, aggression scale and aggression scale's sub-tests and having which belt variable

	Belt	N	\bar{x}	Ss	F	P
Mental Well-Being	Yellow and below	19	63,26	4,08	2,854	0,01*
	Orange	25	62,84	4,515		
	Green	20	59,25	12,28		
	Blue	24	64,00	4,13		
	Brown	35	56,22	13,38		
	Dojo Black	31	60,41	7,131		
	Federation Black	14	62,92	7,18		
	Total	168	60,80	9,04		
Aggression	Yellow and below	19	127,94	25,05	0,318	0,92
	Orange	25	125,40	23,01		
	Green	20	126,35	18,67		
	Blue	24	127,70	20,68		
	Brown	35	122,17	18,58		
	Dojo Black	31	121,96	26,76		
	Federation Black	14	126,07	23,56		
	Total	168	124,88	22,14		
Destructive aggression	Yellow and below	19	48,42	9,30	1,111	0,35
	Orange	25	48,24	8,82		
	Green	20	49,00	10,34		
	Blue	24	51,37	9,20		
	Brown	35	45,20	11,67		
	Dojo Black	31	45,54	12,01		
	Federation Black	14	48,50	11,23		
	Total	168	47,69	10,60		
Assertiveness	Yellow and below	19	27,26	10,85	0,97	0,44
	Orange	25	22,60	10,64		
	Green	20	26,75	12,98		
	Blue	24	21,70	10,87		
	Brown	35	26,57	11,78		
	Dojo Black	31	26,58	9,81		
	Federation Black	14	24,14	11,25		
	Total	168	25,18	11,14		
Passive aggression	Yellow and below	19	52,26	12,37	0,77	0,59
	Orange	25	54,56	10,19		
	Green	20	50,60	10,03		
	Blue	24	54,62	9,60		
	Brown	35	50,40	10,83		
	Dojo Black	31	49,83	14,63		
	Federation Black	14	53,42	13,45		
	Total	168	52,00	11,65		

*p<0,05 is statistically significant.

According to ANOVA results; There is a significant difference between the belts of the brown belt yellow, orange blue and federation black. According to this, the lowest mental well-being is shown by the brown belt while the highest mental well-being by the blue belt.

7- The relationship of mental well-being, aggression and sub-tests of aggression points

		Mental well-being	Aggression	Destructive aggression	Assertiveness	Passive aggression
Mental well-being	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	168				
Aggression	Pearson Correlation	,043	1			
	Sig. (2-tailed)	,576				
	N	168	168			
Destructive aggression	Pearson Correlation	,135	,818**	1		
	Sig. (2-tailed)	,081	,000			
	N	168	168	168		
Assertiveness	Pearson Correlation	-,278**	,442	,047	1	
	Sig. (2-tailed)	,000	,000	,548		
	N	168	168	168	168	
Passive aggression	Pearson Correlation	,225**	,733**	,600**	-,160**	1
	Sig. (2-tailed)	,003	,000	,000	,038	
	N	168	168	168	168	168

*p<0,01 **p<0,05 are statistically significant.

According to correlation analysis which is to analyze mental well-being, aggression and sub-tests of aggression points; there was a weak positive correlation between mental well being and passive aggression ($r = 0.225$, $p < 0.01$), while there was a negative correlation between mental well being and assertiveness sub test ($r = -0.278$, $p < 0.01$).

4. DISCUSSION AND CONCLUSION

In this research, aggression levels and mental well-being levels of karate-do athletes is examined. It has been researched whether there is an impact of the variables such as gender, educational status, perceived income level, presence other athletes in the family, having which belt, doing which style more, having a medal, selecting in national team of the karate-do athletes. In reference to data collected at the end of the research the results below are found out:

According to the collected data, it is observed that 61,3 % of the participants are males, 38,7 % of them are females, and the predominant age group is 20-30 with a rate of 48,8%. Marital status of the participants is mostly single (% 86,9), education status of the participants is highly at secondary school level with the rate of 47,0 %. When the perceived income status is observed, it is understood that 58,9 % of participants belong to middle income group. Most of the participants have no other athletes in the family (%57,1) and most of them have brown belt (%20,8). Participants largely doing kumite %55,4 while kata athletes have % 44,6 percent of total participants. As having a medal of the participants is assessed it is observed that while individuals who are lack of medal are 53,6%, have a medal are 53,6%. Lastly, most of the participants are not selected to the national team %91,7 with highly average. Participants have high frequency of mental well-being and aggression. When sub-tests are analyzed, it was determined that the highest value of arithmetic average is in passive aggression sub-test, and the lowest value of arithmetic average is assertiveness sub-test.

The well- being level and aggression level of people do karate-do are in high level, most of the participants shows passive aggression. And, it can also be seen that the mental well-being level is in a relationship with having a belt. Aggression level changes by style of the branch, participants who does kata more, have higher total aggression points and have more passive aggression levels. Findings show that; destructive aggression level increases when participants lack of medal. In addition, there were no statistically significant differences between mental well-being and aggression levels of the participants and gender, age, marital status, educational status, level of income they perceived, presence of other athletes in their families and selecting to the national team variables. According to correlation analysis which is to analyze mental well-being, aggression and sub-tests of aggression, there was a weak positive correlation between mental well being and passive aggression while there was a negative

correlation between mental well-being and assertiveness sub test of aggression. Parallel studies have been found in the literature (Kulaksızoğlu and Topuz, 2014) but we have also encountered studies that are opposite to our research. For example Eryılmaz and Öğütölmüş (2010) researched well-being of adolescents by some variables. Their study includes 541 (270 females and 271 males) adolescents who were between ages 14-18. According to results, conscientiousness, extraversion and neuroticism are the most important traits as a predictors for adolescents' subjective wellbeing. In another study, Eryılmaz and Ercan (2011) aimed to investigate subjective well-being in terms of gender, age groups and personality characteristics in their research conducted with 699 participants; men in the 26-45 age group had higher subjective well-being than women; Have found that individuals in the 19-25 age group have a lower level of subjective well-being than individuals in both the 14-17 and 26-45 age groups.

In a different subject of Çöplü's (2015) research whether a beloved increases mental well-being or not. Gender, physical appearance satisfaction, and continuing department satisfaction variables considered to affect mental well-being when the data were collected were included in the study. The study group consisted of 659 (336 female, 323 male) students. The mental well-being of university students did not show any significant difference according to the relationship status variable. However, mental well-being was found to be higher in those who were related. The mental well-being of university students did not differ significantly in terms of gender change as in their research. In terms of physical appearance and continuing department satisfaction variables, mental well-being of university students shows a significant difference. In other words, those who are satisfied with their education and those who are satisfied with their physical appearance have higher levels of mental well-being. In another research, Koçak and Tatay (2016) aimed to compare the academic success, subjective well-being and their loneliness levels of the adolescents having both broken and unbroken families. It has been discovered that, there are significant differences between the subjective well-being, the academic success, and the total loneliness levels, of the adolescents having broken and unbroken families. However a significant difference could not be found between the academic success, as in our research, the subjective wellbeing and the total loneliness levels of the adolescents in terms of gender.

There is no significant difference between perceived income level and mental well-being level in our research but Tatlıoğlu's (2015) study, there is a difference between income level and mental well-being level. The study of university students in relation to the relationship between monthly income and expenditure level and their psychological well-being has revealed that income shows a significant relation to psychological well-being and psychological well-being increases parallel to income as it does not in our research.

There is plenty of research about mental well-being, well-being, subjective well-being researches by taking different sample groups. For example; In Sarı and Kermen's (2015) research, subjective well-being as a predictor of peace attitudes is studied. According to the results of the research, the attitudes of adolescents towards peace and positive affects which are sub-dimensions of subjective well-being and satisfaction in family relations and relationships between satisfaction and life satisfaction in important people are significant. Another research finding is that the attitudes of the adolescents towards peace do not differ according to sex. It is also another finding that investigates that positive emotions and satisfaction in family relationships are predictive of peace attitudes. In another research; prediction of subjective well-being of university students via self regulation, humour, social self-efficacy and stress-coping strategies is examined and emotional regulation, humor styles, self-efficacy and coping strategies have been found to be important variables in explaining the well-being of students as a result (Özbay and et al., 2012). According to Keyes, Shmotkin and Ryff (2002) subjective well-being is to assess life in terms of satisfaction and balance between positive and negative interaction; Psychological well-being requires a sense of harmony with the existential difficulties of life. The authors assume that these research trends are conceptually related but empirically different and their combinations differ according to sociodemographic and personality traits. The data were obtained from a national sample of 3,032 Americans aged 25-74 years. They found that as age, education, outward and conscientiousness increased, and when neuroticism decreased, the likelihood of a rise in subjective well-being and psychological well-being increased. Participants who were younger and more educated were found to be statistically different from our research results, with higher levels of subjective well-being. Chaefer et al. (2017) report that superior educational and occupational attainment, greater life satisfaction, and higher-quality relationships. Findings draw attention to "enduring mental health" as a revealing psychological phenotype and suggest it deserves further study. Gardner

and Oswald (2007) investigated whether or not money affects well-being in their research, compared to two control groups - one with no wins and the other with small wins - these individuals go on to eventually shows significantly better psychological health. Two years after a lottery win, the average measured improvement in mental wellbeing.

In another study Coon and et al. (2011) compared the effects on mental and physical wellbeing, health related quality of life and long-term adherence to physical activity, of participation in physical activity in natural environments compared with physical activity indoors. In this empiric study, the results shows that feelings of calmness may be decreased following outdoor exercise. This study suggested that; Large, well designed, longer term trials in populations who might benefit most from the potential advantages of outdoor exercise are needed to fully elucidate the effects on mental and physical wellbeing. In addition to this; when the literature is examined, many researches have been done with mental well-being (Christopher, 1999; Daaleman,1999; Linley, 2009; Shek, 1999; Wood, 1989).

On the other hand we have found aggression level is differentiated by having medal and doing kata more variables and it is not differentiated by gender, educational level, marital status, perceived income level and so on. In the literature, researchers studied mostly about gender and age variable and aggression level. For instance; Eroğlu (2009) made a comparison between high school and university students in terms of the dimensions of aggression behaviors and related factors and found difference according to sex and age. According to this result, male students who are both high school and university students have higher aggression scores than female students, students with younger ages were also found to have higher aggression scores. In other study, high school students with different parental attitudes significantly affected the level of aggression by gender variable, and males tend to be more aggressive than female students (Tuzgöl, 2000). Yalçın (2007) also studied a similar issue and found no significant relationship between aggression and gender change. In Karataş (2008) research on anger and aggression in high school students, it was observed that male students also showed higher level of aggression than female students. Arslan et all. (2010) in the paper of Aggression and Interpersonal Problem Solving in Adolescents, have examined the aggression level of the participants and they found that, boys have more aggression points than girls.

In addition, Dervent, Arslanoglu and Şenel (2010) found that the gender variable did not affect the level of aggression in parallel with our research. They study from all the students

(female,male), who do sports have more assertiveness levels than who do not do sports. Although there is no difference according to sexuality, the girls who participate in sport activities have more assertiveness characteristic than boys. According to sexuality among the students who do not participate in sport activities, no significant difference was found. In their study; participation in to sport has no effects on reducing of agresivity in high school students however it increases assertiveness. In addition students participated in to sport and female students are more asssertive than non participated and male students. Alp et all (2014) have the same results; they have found when the aggressiveness levels of the participants has been evaluated according to genders of participants, even it has been observed that the boys' aggressiveness scores are higher than girls, this difference is statistically meaningless. And there was no meaningfull relationship between participating sport activities or not.

Contrary to these researches, Shokoufeh (2014) is the result of a survey of the level of personality and aggression of sportsmen who are interested in different branches and non-sports individuals. Found that sporting individuals are more extroverted than non-sporting individuals and that their aggression characteristics are lower than those who do not. Surveys aimed at comparing sports participants and non-sports participants are found in the literature (Şekertekin and Gençdoğan, 2003, Şekertekin, 2003). Ersoy, Tazegül and Sancakli (2012) investigated the level of aggression of the wrestlers and evaluated the aggressiveness of the wrestlers according to age, sport age and highest degree variables. There was no statistically significant difference in the aggressiveness levels of these variables. Moreover, according to the research of Gündoğdu (2010), the income situation has an effect on aggression, but our research does not reveal a meaningful relationship between income status and aggression.

As a result of the research, it is seen that that karate-do athletes who do kata have a high degree of aggression and those who have blue belt as a karate-do belt have higher mental well-being level. These results show that karate athletes make expression of passive aggressiveness. Having a medal for this sample group is a more combative image, but when we look at the hierarchical belt system, we find that the participants in the blue belt status, which is known as the middle level, have a higher level of mental perception. The studies about karate-do field is very few. It is necessary to reach more athletes and examine the relations about their psychosocial situations to get know these athletes well and attain them by newly equipped sports plans.

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EXAMINATION OF REACTION TIME AND BALANCE RELATION IN CHILDREN BETWEEN THE AGES 9-13

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ABSTRACT

The aim of this study was to explain the relationship between reaction times (right-left hand visual and auditory) and balance (static balance) in children between the ages 9-13. 74 male and 46 female, as a total of 120 students between the ages 9-13 from Ankara Batı College were voluntarily participated in this study. Visual and auditory reaction times were measured by Newtest 1000 reaction timer and Flamingo Balance Test was used to test static balance of players. The data was analyzed by using "Non-parametric Spearman Correlation Test" in SPSS software. The average visual reaction time of subjects for right and left hand were $448,33 \pm 156,05$ msec and $447,88 \pm 142,70$ msec respectively, Right and left subjects' auditory reaction time was $451,95 \pm 166,83$ msec and $460,48 \pm$

$166,24$. Right and left dynamic balance scores were obtained $30,37 \pm 38,23$ sec and $30,72 \pm 41,84$ sec. respectively. As a result of the research subjects' reaction to the right visual balance with the right ($r = -212$; $p < 0.05$) and left-balance ($r = -183$; $p < 0.05$), The right balance with the right auditory reaction ($r = -235$, $p < 0.05$) negative correlation was found between scores. Age of the subjects with the right visual reaction ($r = -600$; $p < 0.05$), the left hand visual reaction ($r = -599$, $p < 0.05$), right-hand visual reaction ($r = -571$, $p < 0.05$), the left hand visual reaction ($r = -544$, $p < 0.05$) negative relationship found between the variables. However, there is no relationship between the balance and age variables.

Key Words: Children, reaction time, balance, exercise.

INTRODUCTION

Each person has ability of moving but improvement rate of this ability differs from person to person. Measurement of this improvement is determined by sensory-motoric structure of the person(Tudor & Gregory, 2006). Balance ability is also the component of this structure. It is defined as holding the body in balance and protecting the situation during and after the body changes its place(Altay, 2001). Landing ability of the gymnast after a movement by keeping his balance and getting proper position ability of a football player by keeping his balance according to the ball coming by controlling the position of his team players and opponent in the same time or keeping balance ability of a basketball player when he lands with ball after rebound which he goes with opponent are very important in terms of performance(Erkmen, 2006). It is considered that reaction time of a person who completes the movement in controlled and balanced way to a new stimulus is shorter and in this point shortness of reaction time is also important. Reaction time is a inherited feature which determines the time between the first muscular reaction of a person against stimulus or realizing the movement(Tudor & Gregory, 2006). It is known that during growth period, reaction time improves very quickly and the highest level is obtained in above 15 years and below 20 years, it follows a stable line in adult level⁴. Although movement education in children has positive effect on reaction time and balance(Çakiroğlu, Sökmen, & Arslanoğlu, 2013; Polat, 2009), it is not mentioned whether there is a association between reaction time and balance or not. The aim of this study was to explain the relationship between reaction times and balance variables in children between the ages 9-13.

MATERIAL AND METHOD

74 male and 46 female, as a total of 120 students between the ages 9-13 from Ankara Batı College were voluntarily participated in this study. Visual and auditory reaction times were measured by Newtest 1000 reaction timer and Flamingo Balance Test was used to test static balance measurement(Colakoglu et al., 2014). Height was measured by “Holtain” brand stadiometer and weight was measured by Tanita brand bascule. Visual and auditory reaction times of experimental objects were measured by Newtest 1000 reaction timer. In the measurement of reaction times, it was paid attention to make measurement in a quiet and luminous place. 1 trial and later 3 measurements against sound and light stimulus were taken from each experimental object. The best value of the last 3 measurements was recorded as score of experimental objects in milimetric. Flamingo Balance Test was used to test static balance measurement of experimental objects participated into the research. Experimental object stepped up on balance equipment in 50 cm length and 4cm height and 3 cm width and stood in balance and the time which experimental object stood in balance was determined by chronometer and recorded in second. Data obtained from the research were analyzed in $p<0.05$ significance level using non-parametric Spearman correlation test in SPSS (Statistical package for social sciences) package program.

RESULTS

Table 1. Average and Standard deviation values of height, weight, reaction and balance parameters of the group participated into the research.

	Height (m)	Weight (kg)	BKİ	Visual Right Hand Reaction (ms)	Visual Left Hand Reaction (ms)	Auditory Right Hand Reaction (ms)	Auditory Left Hand Reaction (ms)	Balance Right Foot (sn)	Balance Left Foot (sn)
Mean	1,49	44,50	19,93	448,33	447,88	451,95	460,48	30,38	30,72
Median	1,49	42,00	19,44	422,50	425,50	445,00	452,50	17,89	17,22
Standard Deviation	0,10	12,06	3,97	156,06	142,70	166,84	166,25	38,23	41,85
Minimum	1,27	24,0	12,42	180	202	160	160	1,89	2,86
Maximum	1,73	72,0	32,41	866	898	1152	1126	240,51	298,77

In table 2, values of experimental objects were determined as follows average height is $1,49 \pm 0,10$ cm, weight is $44,50 \pm 12,06$ kg, body mass index is $19,93 \pm 3,97$ and average visual reaction times respectively right and left are $448,33 \pm 156,05$ msn and $447,88 \pm 142,70$ msn, auditory reaction times respectively right and left are $451,95 \pm 166,83$ msn and $460,48 \pm 166,24$, right and left balance scores are $30,37 \pm 38,23$ sn and $30,72 \pm 41,84$ sn.

Table 2. Distribution of students participated into the research according to age.

	9	10	11	12	13	Total
Frequency	15	22	16	50	17	120
Percentage	12,5	18,3	13,3	41,7	14,2	100

Table 3. Correlation of balance and reaction times of the group participated into the research.

VARIABLES	Age	Visual Right Hand Reaction (ms)	Visual Left Hand Reaction (ms)	Auditory Right Hand Reaction (ms)	Auditory Left Hand Reaction (ms)	Balance Right Foot (sn)	Balance Left Foot (sn)
Age	1,000	-0,600*	-0,599*	-0,571*	-0,544*	0,059	-0,006
Visual Right Hand Reaction (ms)		1,000	0,737*	0,756*	0,773*	-0,212*	-0,183*
Visual Left Hand Reaction (ms)			1,000	0,760*	0,807*	-0,170	-0,102
Auditory Right Hand Reaction (ms)				1,000	0,857*	-0,235*	-0,104
Auditory Left Hand Reaction (ms)					1,000	-0,168	-0,091
Balance Right Foot (sn)						1,000	0,630*
Balance Left Foot (sn)							1,000

*Correlation is statistically significant in 0.05 level.

In Table 3, a negative relation was determined between right visual reaction and right balance ($r=-0,212$; $p<0,05$) and left balance ($r=-0,183$; $p<0,05$), right visual reaction and right balance ($r=-0,235$; $p<0,05$) scores of experiment objects. While a negative relation was found between age and right visual reaction ($r=-0,600$; $p<0,05$), left hand visual reaction ($r=-0,599$; $p<0,05$), right hand auditory reaction ($r=-0,571$; $p<0,05$), left hand auditory reaction ($r=-0,544$; $p<0,05$) variables, there is no relation between age and balance variables.

DISCUSSION AND RESULT

Although it is encountered that balance and reaction time are examined separately in the literature, there is limited studies examining particularly the balance and reaction relation. Cuisinier et al. observed that postural balance in children between the ages of 7-11 increased with age linearly(Cuisinier, Olivier, Vaugoyeau, Nougier, & Assaiante, 2011). Kiselev et al. found that reaction time to various stimulus shortened depending upon the age in the study of children between the ages of 4-5-6(Kiselev, Espy, & Sheffield, 2009). Lida et al. found that simple reaction time decreased as age increases significantly in the study which they conducted on 153 children between the ages of 6-12(Iida, Miyazaki, & Uchida, 2010). Mickle et al. (2011) found that balance increases with age in 84 children between the ages of 8-12(Mickle, Munro, & Steele, 2011). In our study, while negative relation was found between age and right visual reaction ($r=-.600$; $p<0,05$), left hand visual reaction ($r=-.599$; $p<0,05$), right hand auditory reaction ($r=-.571$; $p<0,05$), left hand auditory reaction variables ($r=-.544$; $p<0,05$), there is no relation between age and balance variables ($p<0,05$). Findings show parallelism with studies excluding Cuisinier et al. Vuilema and Nougier compared the gymnasts with football and handball players in their study. They stated that there is no difference between groups in balance and reaction time measurement(Vuillerme & Nougier, 2004). In another study it was found that there is no relation between reaction times and dynamic balance scores of elite man badminton players in their study(Arslanoğlu, Aydoğmuş, Arslanoğlu, & Şenel, 2010). Ihira et al.(2011) found that reaction time increased depending upon the increase of balance loss in the study(Ihira, Furuna, Makizako, & Miyabe, 2009). There is no negative relation between right visual reaction and right balance ($r=-.212$; $p<0,05$) and left balance scores of experimental objects ($r=-.183$; $p<0,05$), between right auditory reaction and right balance ($r=-.235$; $p<0,05$) scores of objects ($p<0,05$). Findings support the study of Ihira et al.As a result, a negative

relation was found between reaction times and age of children in the ages of 9-12. Accordingly it is considered that reaction time decreases due to increase in children' control on movements and the effect of age factor in addition to this control increase.

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THE PROFILE OF THE INDIVIDUALS JOINING TO THE INDOOR SPORTS ACTIVITIES ORGANIZED BY THE SPORTS CORPORATION OF ISTANBUL METROPOLITAN MUNICIPALITY*

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ABSTRACT

The aim of this study is to determine the general features of the participants attending indoor leisure activities of the Sports Corporation of İstanbul Metropolitan Municipality. This study was conducted with 1400 individuals from 21 districts of the İstanbul city performing indoor sports programs in 60 Public School gymnasiums under the sponsorship of The Sports Corporation of İstanbul Metropolitan Municipality. The subjects were able to access to the sports activities freely, three times per week for

five hours each session after the teaching hours of the schools, which was an opportunity for the public to join to the sports activities. The half of the participants was female and 50% were male. According to our results, 12,8% of the participants were under the age of 15 years, 33% were between 16-25 years, 26,6% were between 26-35 years, 24,3% were between 36-50, and only 3,4% percent were over 51 years. Among the participants 49% were married, 51% were single, and their education levels were as follows; 26,2%

Key Words: Free sports, profiles, sports participation.

INTRODUCTION

Today, transportation became easier with developing technologies especially in city life. Unfortunately, the situations like this, in turn, can lead the individuals to live more sedentary lifestyles. Research shows the positive relationship between hours of work and ill-health (Sparks et al.) and that “those who sat for long periods at work did not compensate for this lack of activity by adopting less-sedentary behaviors” (Jans et al 2007). There are also studies that open dialogs on whether a sport fields themselves have been fulfilling their promises for the society and specific groups (Yaprak and Amman 2009, Kemaloğlu et al 2016). Overall, the patterns of time use and physical activity behaviors in daily life change differently depend on the changes in a particular place (Gershuny, 2003).

Considering the impact of physical inactivity on the risk of developing a number of chronic diseases (WHO, 2007), local authorities were directed variety investments to tackle these issues. Some research shows the willingness and responsibilities of local authorities in this regard (Çoban & Devecioglu 2006).

Therefore, various campaigns and investments are made including in the leisure and sports fields. One of them is the indoor sports as public leisure activities supported by the government. The aim of this study is to basically determine the general features of the participants attending indoor leisure activities of the Sports Corporation of Istanbul Metropolitan Municipality.

METHOD

This study was conducted with 1400 individuals from 21 districts of the Istanbul city performing indoor sports programs in 60 Public School gymnasiums under the sponsorship of The Sports Corporation of Istanbul Metropolitan Municipality. The subjects were able to join to the sports activities free of charge, three times per week for five hours at each session after the teaching hours of the schools, which was an opportunity for the public to join to the sports activities.

FINDINGS

According to our results, participants’ 50% were female, 50% were male (Table 1). The 12,8% were under the age of 15 years, 33% were between 16-25 years, 26,6% were between 26-35years, 24,3% were between 36-50, and only 3,4% percent were over 51 years (Table 2).

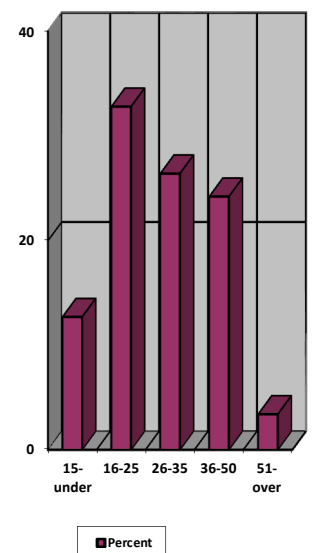
Table 1. Gender Distributions

	Frequency	Percent	Valid Percent
Female	700	50,0%	50,0%
Male	700	50,0%	50,0%
Total	1400	100,0%	100,0%

These figures also show gender distribution of Istanbul population.

Table 2. Age Distribution and Graphic

Age	Frequency	Percent	Valid Percent	Cumulative Percent
15 – under years	178	12,7%	12,8%	12,8%
16 – 25 years	459	32,8%	33,0%	45,7%
26 – 35 years	370	26,4%	26,6%	72,3%
36 – 50 years	339	24,2%	24,3%	96,6%
51 – over years	47	3,4%	3,4%	100,0%
Missed	7	0,5%	-	-
Total	1400	100,0%	-	-



Most of the people that have participated in our survey are young groups which points out that young population is more concerned with sports activities.

Among the participants, 49% were married, 51% were single (Table 3), and their education level was as follows; 26,2% primary school, 48,8% high school, 22,9% university graduates and 2% was having post-graduate degrees (Table 4).

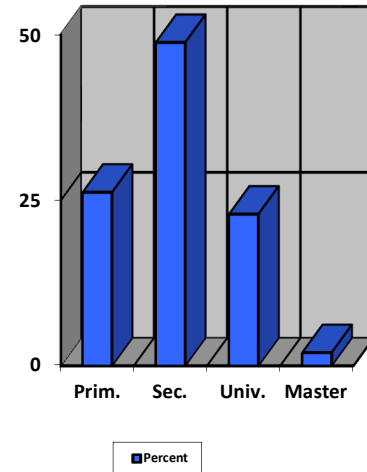
Table 3. Distribution of Marital Status

	Frequency	Percent	Valid Percent
Married	686	49,0%	49,0%
Single	713	50,9%	51,0%
Missed	1	0,1%	-
Total	1400	100,0%	-

No significant differences were observed between the fractions of married and single individuals who are participating in sport activities.

Table 4. Distribution of Educational Level and Graphic

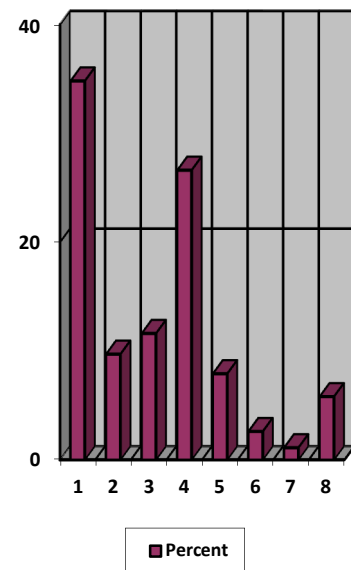
	Frequency	Percent	Valid Percent	Cumulative Percent
Primary	353	25,2%	26,2%	26,2%
Secondary	658	47,0%	48,8%	75,1%
University	309	22,1%	22,9%	98,0%
Master	27	1,9%	2,0%	100,0%
Missed	53	3,8%	-	-
Total	1400	100,0%	-	-



The individuals joining to the indoor sports activities are mostly graduated from a secondary school. Most of the participants (34,8%) were students, 26,6% were house wife, 11,6% were officers, and 1,1% were unemployed (Table 5).

Table 5. Occupational Distribution and Graphic

	Frequency	Percent	Valid Percent	Cumulative Percent
1. Students	482	34,4%	34,8%	34,8%
2. Free Professional	134	9,6%	9,7%	44,4%
3. Officer	161	11,5%	11,6%	56,0%
4. Housewife	369	26,4%	26,6%	82,6%
5. Workers	110	7,9%	7,9%	90,6%
6. Retired	36	2,6%	2,6%	93,2%
7. Unemployed	15	1,1%	1,1%	94,2%
8. Other	80	5,7%	5,8%	100,0%
Missed	13	0,9%	-	-
Total	1400	100,0	-	-

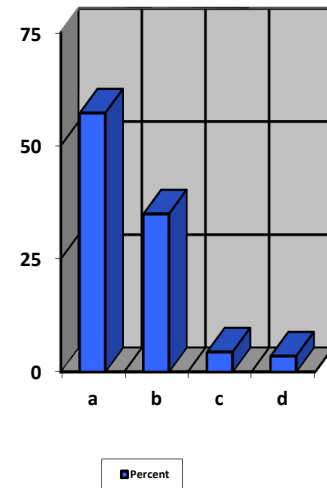


The individuals participating the indoor sports activities are mostly the students and housewives.

According to the monthly income classification, the income of the 57,2% were 1000 TL and less, 34,9% were between 1001-2000TL, 4,4% were between 2001-3000TL, and 3,5% were earning over 3001 TL (Table 6).

Table 6. Level of Income Distribution and Graphic

	Frequency	Percent	Valid Percent	Cumulative Percent
a. 1000 TL and under	685	48,9	57,2	57,2
b. 1001-2000 TL	418	29,9	34,9	92,1
c. 2001-3000 TL	53	3,8	4,4	96,5
d. 3000 TL and over	42	3,0	3,5	100,0
Missed	202	14,4	-	-
Total	1400	100,0	-	-



Most of those individuals, joining to the indoor sports activities, have lower income level.

DISCUSSION AND CONCLUSION

Municipalities provide several programs about sports and leisure activities besides other services (Çoban and Devecioğlu 2006). We searched Istanbul Metropolitan Municipality, a municipality that is willing to provide sports services and have represented a good example in this manner. We were able to reveal the profile of the individuals participating in indoor sports facilities. We can say that there is no dominant sex participating in sports in these facilities, unlike the imbalanced participation rates reported in other sport fields (Yaprak and Amman 2009).

However, in terms of the age, we can say that there is more participation in young ages. According to the continuity theory of aging, “leisure participation in old age is often a

continuation of previous participation” (Agahi et al 2006). Therefore, the participation rates in these public leisure facilities may increase in older ages in future, owing to the younger generations’ increased chance to participate today.

There is no much difference in participation ratios of single and married groups. There were more individuals with lower educational and financial levels participating in these activities. In addition, those individuals, joining to the indoor sports activities, are mostly from young members of lower-income-families and from housewives.

In conclusion, the overall profile of the individuals joining to the indoor sports activities organized by the sports corporation of Istanbul Metropolitan Municipality shows that the diverse or disadvantaged groups can participate in physical activities if opportunity was given. However, according to the studies point to the changing experiences and perceptions of different groups (such as women) regarding the public leisure services (Yaprak and Amman 2009, Üzüm et al 2016), the research and practice to improve the quality of these services and experiences of participants should be considered. Besides, Ağaoglu (2013) has reached results showing that mayors (66,7%) were not following the changes regarding public leisure activities (Ağaoglu 2013). On the other hand, Çoban. & Devecioglu (2006) found that mayors were ambitious and acted responsibly to provide sport services for all (Çoban. & Devecioglu 2006). Therefore, the existing municipality law (Nr. 1580, article 15) that for example promotes establishing and running facilities and stadiums for play, sports and game as the responsibilities of a municipality and the results of the current study on the diverse profiles of participants can be positive aspects if further measures to increase quality is considered.

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