

The effects of judo sport on life skills

Authors' Contribution:

- A** Study Design
- B** Data Collection
- C** Statistical Analysis
- D** Manuscript Preparation
- E** Funds Collection

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Abstract

Background and Study Aim:

Life skills are generally defined by the World Health Organization (WHO) as the skills required to cope with the demands and challenges of daily life. Life skills training aims to facilitate the development of psychosocial skills necessary to cope with the demands and challenges of daily life. This study aims is knowledge about the effect of sports, specifically judo, on life skills in different variables of communication, emotional skills, goal settings, leadership, social skills, teamwork, and time management.

Material and Methods:

The study was conducted out on 947 judo athletes (542 male, 405 female) who participated in judo competitions in different sports clubs, different ages, and categories. Athletes are mostly between 15-17 years (37.1%). Generally, the sample group consists of young athletes. The proportion of male athletes (57.2%) is slightly higher than female athletes (42.8%). It is the most common year of judo practice with 5-6 years (24.1%). For this study, the "Effect of Sport on Life Skills" scale (Turkish version) was used.

Results:

There was a statistically significant difference in communication, emotional skills, goal setting factors, leadership, social skills, teamwork, and time management. Besides, depending on the results of Anova, the variable of the year of doing judo sport by the participants. There was a statistically significant difference in time management, communication, and leadership factors.

Conclusions:

Judo sport has special importance in gaining life skills through sports. In acquiring life skills through judo, it is important to consider gender and the year of doing judo sport.

Keywords:

communication • emotional skills • goal setting leadership • social skills • teamwork • time management

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Authors have declared that no competing interest exists

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A Likert scale – is

a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research, such that the term (or more accurately the **Likert-type scale**) is often used interchangeably with **rating scale**, even though the two are not synonymous [31].

Physical activity – *noun*

exercise and general movement that a person carries out as part of their day [32].

Martial arts – *plural noun*

any of various systems of combat and self-defence, e.g. judo or karate, developed especially in Japan and Korea and now usually practised as a sport [32].

Combat sport – *noun*

a sport in which one person fights another, e.g. wrestling, boxing and the martial arts [32].

INTRODUCTION

There are studies indicating that sports can be a valuable training area for young participants as it supports important life skills [1], and it is also a suitable environment for adolescents to develop their inner and interpersonal life skills [2].

Life skills training programs are effective in supporting the development of individuals, increasing life skills, ensuring social adaptation, and preventing problem behaviors in the youth period [3]. Improving life skills can strengthen individuals' ability to meet their demands and can help deal with many emerging problems such as poverty, suicide, drug use, sexual harassment, juvenile crimes, and anti-social activities [4].

Life skills are generally defined by the World Health Organization (WHO) as the skills required to cope with the demands and challenges of daily life. Life skills training aims to facilitate the development of psycho-social skills necessary to cope with the demands and challenges of daily life. Following the studies carried out on many different life skills programs, the World Health Organization has determined the basic life skill areas as decision making, problem-solving, creative thinking, critical thinking, communication, interpersonal skills, self-awareness, empathy, coping with emotions, and coping with stress [5].

Agnew et al. [6] stated that there is a need to address the general lack of understanding of how life skills are learned and the impact of life skills training on long-term behavioral changes. It is evident from many studies that there is a need to determine how knowledge is acquired through life skills training programs. At this stage, it is important to learn many skills that we define as life skills through sports and to gain life skills in sports. Bowley et al. [1] suggest that by encouraging children to participate in sports more, they should be encouraged to acquire basic life skills at an earlier age and learn the most important life skills they need.

Athletes participating in programs that are integrated with sports and life skills training can improve their sports skills. Life skills program provides young athletes with the knowledge and skills necessary to deal successfully with the complex realities of life. Also, it increases the chances of young people with improved life skills and improved goal setting, problem-solving

and positive thinking abilities to become better students, better athletes, and more engaged and productive community members [7, 8].

It can be said that sports provide an excellent opportunity for individuals to learn skills that can help them make positive and effective decisions [5, 7, 8, 6, 4, 9], as well as providing an environment where they can acquire skills in time management, appropriate planning, coping with difficulties and adapting to a new situation [4]. Besides, sports have many psychological and social benefits beyond improving physical skills. Therefore, sports can be used to teach young people important life skills such as teamwork, goal setting, problem-solving, decision making, leadership, time management, cognitive, emotional, communication, and social skills. The acquisition of life skills through sports in childhood and youth makes the issue even more important because it will prepare them for adulthood [10] and the determination and application of life skills training programs will contribute to the change and development processes of young athletes [5, 7, 8, 11, 3, 4, 6, 10, 9].

Athletes can develop these skills by applying life skills in situations other than sports [12]. In addition to helping young people to be successful in sports activities, life skills can also contribute to an individual's success in a non-sports environment if they are transferred appropriately and correctly. Life skills include techniques and skills that are important and useful for professional life. The role of sportive activities in teaching life skills is important both for the individual and society [7, 13].

Many of the skills learned in sports involve processes that can be transferred to other areas of life such as performing under pressure, solving problems, setting goals, communicating, managing both success and failure, working with a team and within a system, and receiving feedback and benefit from it [8]. In addition to managing these processes, the promotion of physical activity and other health-enhancing behaviors is particularly valuable as it can significantly aid in achieving higher life satisfaction as Kuśnierz et al. [14] point out.

For athletes, life skills transfer represents an ongoing vital process in their personal development, in which they internalize the skills learned in sports and apply them to multiple areas of

life. Athletes may be missing valuable opportunities to learn and practice important life skills, so coaches must be conscious and committed to creating opportunities for learning and transfer of these skills [12].

In many studies mentioned above, it was stated that life skills are important and that life skills can be developed especially through sports. Furthermore, evidence has been presented that these skills acquired through sports can be transferred to other areas of life. Doing sports provides many benefits for the mental and physical health of the individual.

Judo is not just a sport or a way of self-defense. It is the art or system that teaches how to win politely, precisely, and with dignity. Its two pillars, "better use of energies" and "well-being for all", are the foundation of judo sport [15]. With these aspects, life skills are also important for judo sport, and the judo athlete has to struggle with all the difficulties he faces in life like their opponent in the judo competition. Demiral and Demir [16] claim that judo is a teacher in life and perceive judo as a school because judo teaches how we should stand in this life as well as how to fight standing up.

According to the International Judo Federation (IJF), judo is not only an Olympic sport but also an educational tool. IJF believes that judo values will provide "life skills" to children. Moreover, the goal of the IJF is structurally to introduce more children to judo sport and to make it a standard part of the physical education curriculum in schools [11]. It is especially important for IJF that children get acquainted with judo while growing up and gain life skills through judo.

This study aims is knowledge about the effect of sports, specifically judo, on life skills in different variables of communication, emotional skills, goal settings, leadership, social skills, teamwork, and time management.

MATERIAL AND METHODS

Participants

The study was carried out on 947 judo athletes (542 male, 405 female) who participated in judo competitions in different sports clubs, different ages, and categories. Participants' ages mostly range from 12 to 29 years old. All participants

are athletes having participated in judo training and having competed in at least one competition. Athletes are mostly between the ages of 15-17 (37.1%). In general, the sample group consists of young athletes. The proportion of male athletes (57.2%) is slightly higher than female athletes (42.8%). The range of 5-6 years of judo training (24.1%) are the most experienced athletes (Table 1).

Measuring tool

For this study, the *Life Skills Scale for Sport* scale, which was developed by Cronin and Allen [17] and translated into Turkish, validity and reliability of which was studied by Aak and Düz [18], was used. The scale is a 5-point Likert-type scale and consists of 31 questions and 7 factors. Factors consist of "communication", "emotional skills", "goal setting", "leadership", "social skills", "teamwork", and "time management". Cronbach's alpha value of the scale was found to be (0.964). For the Turkish version, the test-retest correlation coefficient was 0.81, and the internal consistency coefficient was 0.77. The first part of the scale incorporates information and consent, the second part includes demographic information, and the last part consists of Likert-type questions.

Table 1. Socio-demographic statistics of judo athletes (n = 947).

Variable	N	%
Age		
12-14	287	30.3
15-17	351	37.1
18-28	235	24.8
>29	74	7.8
Total	947	100
Gender		
Female	405	42.8
Male	542	57.2
Total	947	100
How many years have you been doing judo sport?		
1-2	181	19.1
3-4	160	16.9
5-6	228	24.1
7-8	153	16.2
>9	225	23.8
Total	947	100

Statistical analysis

The data obtained in the study were analyzed statistically with the SPSS 21.0 program. The differences between the groups (Independent-Sample Test and One-Way ANOVA) were evaluated by applying statistical methods, and the statistical significance level was accepted as $p < 0.05$.

Research ethics

The researchers informed the participants about the scale applied and the purpose of the research. Participants declared that they understood the process. Researchers declared and committed that the personal information of the participants and the data collected will not be used for any purpose other than research. The research was approved by Kocaeli University Institutional Ethics Review Board (Ethics Committee number: E.26158; Meeting: 5, Number: 2).

RESULTS

There is no statistically significant difference in factors according to the ANOVA results of the *Life Skills Scale for Sport* according to the age range variable of the participants ($p > 0.05$) (Table 2).

There is a statistically significant difference in communication, emotional skills, goal setting factors, leadership, social skills, teamwork, and time management ($p < 0.05$) according to the independent samples t-test results of the *Life Skills Scale for Sport* according to the gender variable of the participants (Table 3).

There is a statistically significant difference in communication, leadership factors, and time management ($p < 0.05$) according to the ANOVA results of the *Life Skills Scale for Sport* according to the variables of the year of doing judo sport of the participants. The significant difference in the time management factor is between those who have a year of doing judo sport for 1-2 years and those who have a year of doing judo sport for 7-8 years ($p = 0.047$). The significant difference in the communication factor stems from those who have a year of doing judo sport between 9 years & above and those who have a year of doing judo sport between 1-2 years ($p = 0.002$). Those who have a year of doing judo sports between 9 years and those who have a year of doing judo sports 3-4 years ($p = 0.048$). The significant difference in the leadership factor is between those who have a year of doing

judo sport for 1-2 years and those who have a year of doing judo sports for 9 years or above ($p = 0.005$) (Table 4).

DISCUSSION

As sports can be a valuable field of education for young participants due to its capacity to teach important life lessons [1], the acquisition of life skills through sports in childhood and youth makes the subject even more important [10]. Studies on the positive effects of sports on people cannot be ignored, and sports are used as a training tool [19]. It is seen in studies that sports experience may affect health-related life skills [7].

There is substantial evidence that martial arts and its training have a positive effect on personality [20]. Considering the basic principles of judo sport and its application in the high-performance dimension, it is seen that critical thinking ability and problem-solving skills play an effective role [21]. In this study, it was seen that among the variables, the effect of sports on life skills, especially on the effect of judo on life skills, was found to be influenced by gender in the factors of the scale. In addition, significant differences were found in terms of communication, leadership and time management, according to the participating year of judo sport.

For more than a quarter of a century, the issue of gender equality in education has become one of the global and central issues of its policies. The situation does not look very different in sports either. The gender factor is one of the most important factors of academic studies.

Some demographic characteristics of athletes such as gender, sports experience, sports format are effective in the development of skills through sports [4]. Karademir [22] stated that sports activities are more effective on female students than male students and playing in school teams provides more positive gains in life skill levels. According to Fernández et al. [23], emotional intelligence appears more frequently and at higher levels in women, while anxiety levels appear to be prevalent in judo and wrestling, but lower in female athletes.

It has been observed that various internal and interpersonal life skills are developed and transferred to other fields in young people participating in sports.

Table 2. ANOVA Results of the *Life Skills Scale for Sport* according to the age range variable of judo athletes (n = 947).

Factors	Age (years)	\bar{x}	SD	F	p
Communication	12-14	16.79	3.02	1.523	0.207
	15-17	16.84	2.81		
	18-28	17.2	2.67		
	29 & above	17.34	3.25		
Emotional skills	12-14	16.99	3.1	0.107	0.956
	15-17	17.02	2.93		
	18-28	16.89	3.11		
	29 & above	16.91	3.02		
Goal setting	12-14	18.15	2.4	0.159	0.924
	15-17	18.11	2.43		
	18-28	18	2.63		
	29 & above	18.12	2.58		
Leadership	12-14	21.47	3.41	2.136	0.094
	15-17	21.23	3.39		
	18-28	21.94	3.04		
	29 & above	21.66	3.74		
Social skills	12-14	17.44	2.74	1.333	0.262
	15-17	17.07	2.97		
	18-28	16.97	3.07		
	29 & above	17.24	3.14		
Teamwork	12-14	26.43	3.69	0.231	0.875
	15-17	26.19	3.97		
	18-28	26.37	3.73		
	29 age & above	26.23	4.54		
Time management	12-14	17.61	2.59	0.143	0.934
	15-17	17.63	2.31		
	18-28	17.5	2.58		
	29 & above	17.58	2.98		

Young people involved in sports programs identified, both explicitly taught and not taught by the program. defined and applied other life skills [24].

provide an educational framework for improving life skills, but peers, families, and coaches play a key role.

Additionally, life skills training carried out within the framework of the sports theme simultaneously develops both sports skills and life skills such as goal setting, problem-solving, and positive thinking, which are very important for life. In this way, better students, athletes, curious and productive individuals can be raised [8]. Holt et al. [26] argue that sport can

Today, when the success achieved in sports is compared to the number of males and females in that branch, it tends to reach better levels in favor of females in terms of performance success. As a result of our study, it can be said that there was a difference at the expected level in terms of gender factor in terms of the acquisition and use of life skills through sports.

Table 3. Independent samples t-test results of the *Life Skills Scale for Sport Scale* according to the gender variable of judo athletes (n = 947).

Factors	Gender	\bar{x}	SD	t	p
Communication	Male	16.73	3.01	-2.735	0.006*
	Female	17.25	2.68		
Emotional skills	Male	16.71	3.23	-3.098	0.002*
	Female	17.32	2.71		
Goal setting	Male	17.8	2.64	-4.167	0.000*
	Female	18.48	2.2		
Leadership	Male	21.19	3.52	-3.441	0.001*
	Female	21.94	3.06		
Social skills	Male	16.91	3.13	-3.173	0.002*
	Female	17.52	2.63		
Teamwork	Male	25.85	4.1	-4.273	0.000*
	Female	26.93	3.46		
Time management	Male	17.31	2.69	-3.929	0.000*
	Female	17.96	2.22		

There are different studies in the literature about the starting age of sports and its reflections on life. When the studies were examined, comparisons were made in different age groups and the effect of starting sports at an early age was emphasized in such studies. Studies have become widespread in pre-school, secondary education, high school, and higher education age groups. In our study examining the effect of sports (judo) on life skills, it was determined that the ages of athletes are in the age group that tries to be professional. This may draw attention to the intense interest they show in their sport. The finding that they have devoted at least 5-9 years to this sport in this age range is an indication that they put sports and judo in particular, an important place in their lives. This age range and judo experience are deemed important, especially in terms of showing leadership skills. Semiz. [26] one of the most important conclusions on skills is leadership skills. The phenomenon of leadership is important because of the need for people who can motivate and guide people towards common goals in every environment in which a community exists. Especially in the field of sports, good leaders are needed to guide individuals at the same time to show their performance in the best way and to achieve success.

Sport improves many life skills in young individuals such as teamwork, goal setting, taking initiative, respect for others, time management, leadership, problem-solving, decision-making, cognitive, emotional, communicative, and social skills [10] and especially develop positively in individuals between the ages of 10-14 and who do sports [22].

Khan et al. [4] showed that sport offers students an excellent opportunity to learn skills that can help them make positive and effective decisions. According to Karakoç [27], it is the basic philosophy of martial arts to educate and mature a person physically and spiritually as a whole.

Furthermore, sports participation, which reflects the values and characteristics of sports, facilitates the acquisition of respect for others, perseverance, self-confidence, and healthy habits, which are four life skills to be acquired [28].

It is observed that performance athletes are better than non-athletes in terms of their time management and time planning skills. Most studies show that an athlete's age also affects these skills [29]. Murakami [7] examined sports experience, sports activity characteristics and revealed

Table 4. ANOVA results of the *Life Skills Scale for Sport* according to the variable of judo athletes' year of doing judo sport.

Factors	Years of training	\bar{x}	SD	F	P	Tukey HSD
Communication	1-2	16.36	3.15	4.356	0.002*	9 years & above & 1-2 years (p = 0.002) 9 years & above & 3-4 years (p = 0.048)
	3-4	16.61	3.19			
	5-6	17.02	2.64			
	7-8	17.22	2.55			
	9 & above	17.43	2.78			
Emotional skills	1-2	16.49	3.42	1.831	0.121	
	3-4	16.94	2.83			
	5-6	16.94	2.86			
	7-8	17.24	2.97			
	9 & above	17.23	3.02			
Goal setting	1-2	17.62	2.64	2.068	0.083	
	3-4	18.11	2.69			
	5-6	18.21	2.09			
	7-8	18.23	2.4			
	9 & above	18.24	2.59			
Leadership	1-2	20.86	3.65	3.153	0.014*	1-2 years & 9 years & above (p = 0.005)
	3-4	21.34	3.53			
	5-6	21.56	3.05			
	7-8	21.66	3.26			
	9 & above	22.01	3.24			
Social skills	1-2	16.79	3.26	1.747	0.137	
	3-4	16.93	3.15			
	5-6	17.43	2.51			
	7-8	17.2	2.81			
	9 & above	17.37	3			
Teamwork	1-2	25.91	3.86	1.032	0.390	
	3-4	26.21	4.01			
	5-6	26.49	3.57			
	7-8	26.19	4.23			
	9 & above	26.62	3.83			
Time management	1-2	17.17	2.64	2.421	0.047*	1-2 years & 7-8 years (p = 0.047)
	3-4	17.41	2.78			
	5-6	17.68	2.36			
	7-8	17.93	2.12			
	9 & above	17.73	2.6			

that it affects the acquisition of health-related life skills. In our study, the results of the athletes who have practiced judo for a long time are in line with the results in the literature.

It is predicted that when the habit of doing sports is more, it increases the communication power with the year. Studies show that individual and team sports phenomena are also an important factor in communication skills. Although judo sport is included in combat sports, it is obvious that it makes a significant difference in the subjects participating in the study. According to the variable of years of doing judo sport, a significant difference was found in the factors of time management, communication, and leadership within the scope of this study. As Karakoç [27] points out, judo is a way to gain confidence, concentration, and leadership skills.

It is thought to be important that life skills training programs which provided through sports clubs and that they contain certain information about the applicability of sports skills to daily life [6]. The belief that sport can play an important role in shaping the multi-faceted development of young people and that it can provide a valuable learning experience is becoming widespread in policy, research, and community sports programs [9]. Developing basic life skills strengthens individuals' ability to meet today's demands and helps them cope with many emerging problems such as poverty, famine, suicide, drug use, sexual harassment, juvenile delinquency, and

anti-social activities [4]. Judo means training and researching the life and actions of the person as well as the mind and body [30].

When the results above are evaluated, it is a fact that the effects of judo, the starting age of judo, the year of judo, and gender on life skills cannot be ignored. Support programs should be developed and studies should be carried out to realize these results to start sports at an early age. It is important to implement programs for life skills in branches such as judo sports the main purpose of which is to address the multidimensional development of the individual.

CONCLUSIONS

According to the gender variable of judo athletes, it can be said that gender is effective in factors of communication, emotional skills, goal setting, leadership, social skills, teamwork, and time management.

According to the variable of the year of doing judo sport, it can be said that the year of doing judo sports is effective in the factors of time management, communication, and leadership within the scope of this study.

Judo sport has special importance in gaining life skills through sports. It is important to consider gender and the year of judo sport in acquiring life skills through judo sport.

REFERENCES

1. Bowley C, Cropley B, Neil R et al. A life skills development programme for youth football coaches: Programme development and preliminary evaluation. *Sport Exerc Psychol Rev* 2018; 14(1): 3-22
2. Hayball F, Jones MI. Life after sport examining life skill transfer following withdrawal from sport and compulsory physical education. *Sport Exerc Psychol Rev* 2016; 12(1): 4-13
3. Gümüşoğlu O, Küçük V. The effect of life skills training program on the team cohesion applied to young athletes. *Eurasian Res Sport Sci* 2019; 4(2): 97-111
4. Khan W, Khan S, Arif T et al. Role of sports activities in developing the important life skill of decision making; a psychological perspective. *Phys Educ Students* 2019; 23(4): 179-185
5. World Health Organization. Partners in Life Skills Education-Conclusions from A United Nations Inter-Agency Meeting. Department of Mental Health, Social Change and Mental Health Cluster Geneva; 1999 [accessed 2021 Feb 05]. Available from: https://www.who.int/mental_health/media/en/30.pdf
6. Agnew D, Jackson K, Pill S et al. Life skill development and transfer beyond sport. *Phys Cult Sport Stud Res* 2019; 84(1): 41-54
7. Murakami K, Tokunaga M, Hashimoto K. The relationship between health-related life skills and sport experience for adolescents. *Hum Perform Meas* 2004; 1: 1-14
8. Papacharisis V, Goudas M, Danish SJ et al. The effectiveness of teaching a life skills program in a sport context. *J Appl Sport Psychol* 2005; 17(3): 247-254
9. Ronkainen NJ, Aggerholm K, Ryba TV et al. Learning in sport: From life skills to existential learning. *Sport Educ Soc* 2021; 26(2): 214-227
10. Duz S, Aslan TV. The effect of sport on life skills in high school students. *Asian J Educ Train* 2020; 6(2): 161-168
11. Gutierrez-Garcia C, Astrain I, Izquierdo I et al. Effects of judo participation in children: a systematic review. *Ido Movement Cult J Martial Arts Anthropol* 2018; 18(4): 63-73
12. Pierce S, Kendellen K, Camiré M et al. Strategies for coaching for life skills transfer. *J Sport Psychol Action* 2018; 9(1): 11-20
13. Arif T, Khan S, Khan W. Role of sports in the development of hard work as a life skill-former athletes' perspectives. *New Horizons* 2019; 13(2): 79-92
14. Kuśnierz C, Nowak P, Goner K. Determinants of life satisfaction in martial arts practitioners and team-sports players. *Arch Budo* 2020; 16: 83-89

15. Gleser J, Lison S. Judo as therapy for emotionally disturbed adolescents: A pilot study. *Int J Adolesc Med Health* 1986; 2: 63-72
16. Demiral S, Demir A. Analysis of the metaphorical perceptions of judo sports 14-17 year old athletes for judo concept: a study of field. *J Phys Educ Sports* 2018; 12(3): 223-234
17. Cronin LD, Allen J. Development and initial validation of the Life Skills Scale for Sport. *Psychol Sport Exerc* 2017; (28): 105-119
18. Aak M, Duz S. Adaptation of life skills scale for sport into the Turkish culture. *Inonu U I Educ Sci J* 2018; 5(9): 74-86
19. Demir M, Filiz K. Effects of sport exercises on human organism. *J Kirsehir Educ Fac* 2004; 5(2): 109-114
20. alık F, Sertbas K, Yalcın I et al. Social physique anxiety levels of Turkish combat sports (martial arts) athletes and sedentary individuals. *Arch Budo* 2019; 15: 149-154
21. Demiral S. Critical thinking and problem-solving skills of visually impaired female national judo team athletes. *J Educ Train Stud* 2019; 7: 8-16
22. Karademir T. Sports in gaining life skills: A study on 10-14 years old students. *Asian J Educ Train* 2020; 6(3): 485-492
23. Fernandez MM, Brito CJ, Miarka B et al. Anxiety and emotional intelligence: Comparisons between combat sports. gender and levels using the trait meta-mood scale and the inventory of situations and anxiety response. *Front Psychol* 2020; 11: 130
24. Newman TJ. Life skill development and transfer: "They're not just meant for playing sports". *Res Social Work Prac* 2020; 30(6): 643-657
25. Holt NL, Tamminen KA, Tink LN et al. An interpretive analysis of life skills associated with sport participation. *Qual Res Sport Exerc* 2009; 1(2): 160-175
26. Semiz H. Effect of High School Students in Sports Leadership (Hendek Example) [master thesis]. Sakarya: Sakarya University Institute of Educational Sciences; 2011
27. Karako O. Judo ğreniyorum. Ankara: Spor Yayınevi; 2014
28. Chinkov AE, Holt NL. Implicit transfer of life skills through participation in Brazilian jiu-jitsu. *J Appl Sport Psychol* 2016; 28(2): 139-153
29. Zekioglu A, Tatar A, Turkmen M. Comparing of emotional intelligency according to gender among students of school of physical education and sport. *Int Peer-Reviewed J Humanit Acad Sci* 2015; 4(11): 42-46
30. Kano J. Judo. Istanbul: Okyanus Publishing; 2005
31. Likert R. A Technique for the Measurement of Attitudes. *Arch Psychol* 1932; 22(140): 1-55
32. Dictionary of Sport and Exercise Science. Over 5,000 Terms Clearly Defined. London: A & B Black; 2006

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