



ISSN: 2636-848X

DOI: 10.46385/tsbd.769555

**Türk Spor Bilimleri
Dergisi**
Türk Spor Bil Derg

Cilt 3, Sayı 2
Ekim 2020, 81-87

**The Journal of Turkish
Sport Sciences**
J Turk Sport Sci

Volume 3, Issue 2
October 2020, 81-87

İD Sarp ŞENOL¹

İD İttr TARI CÖMERT²

İD Hülya YÜKSELOĞLU³

İD Seda UĞRAŞ³

İD Dilek SALKIM İŞLEK³

İD Erkut TUTKUN⁴

¹ İstanbul Okan University

² Fatih Sultan Mehmet Vakıf
University
Faculty of Letters

³ İstanbul University
Faculty of Medicine

⁴ Uludağ University
Faculty of Sport Sciences

Sorumlu Yazar/Corresponding Author:

E. Tutkun

e-mail: erkuttutkun@gmail.com

Geliş Tarihi: 14.07.2020

Kabul Tarihi: 26.10.2020

ORIGINAL RESEARCH
ORJİNAL ARAŞTIRMA

The Relationship Between Self Esteem Depression Anxiety and Stress Levels and Life Satisfaction in Licensed Swimmers Aged Between 14-25 Years

Abstract

The purpose of this study is to examine the relationship between self-esteem, depression, anxiety and stress levels and life satisfaction in licensed swimmers between 14-25 years of age. The study was carried out with the information obtained from 105 licensed swimmers random sample methodology was used with snowball method and who continue to work in Fenerbahçe Sports Club, Galatasaray Sports Club, Kınalıada Water Sports Club and ENKA Sports Club, which are in the province of Istanbul between January 2017 and March 2017. According to study findings from T test, a statistically significant relationship was found between gender and life satisfaction. There was a statistically significant relationship between age, self-esteem, depression, anxiety and stress level and life satisfaction. Although there was a statistically significant relationship swimming year and self-esteem, depression, anxiety level and life satisfaction, there was no statistically significant relation between swimming year and stress level. If it is desired to obtain high performance from athletes, athletes from early ages should be kept away from training and competition to raise their concerns.

Keywords: Licensed swimmer, self esteem, depression, anxiety, stress, life satisfaction

14-25 Yaş Arası Lisanslı Yüzücülerde Benlik Saygısı Depresyon Kaygı ve Stres Düzeyleri ile Yaşam Doymu Arasındaki İlişki

Özet

Bu çalışmanın amacı, 14-25 yaş arası lisanslı yüzücülerde benlik saygısı, depresyon, anksiyete ve stres düzeyleri ile yaşam doymu arasındaki ilişkiyi incelemektir. Çalışma, kartopu yöntemi ile yapılmıştır. Fenerbahçe Spor Kulübü, Galatasaray Spor Kulübü, Kınalıada Su Sporları Kulübü ve ENKA Spor Kulübü'nde faaliyetlerine devam eden 105 lisanslı yüzücünün rastgele örnekleme metodolojisinden elde edilen bilgileri gerçekleştirilmiştir. Çalışma Ocak 2017-Mart 2017 arasında yapılmıştır. Araştırma bulgular istatistiksel olarak T testinde tabi tutulmuştur. Elde edilen araştırma bulgularına göre cinsiyet ile yaşam doymu arasında istatistiksel olarak anlamlı bir ilişki bulunmuştur. Yaş, benlik saygısı, depresyon, anksiyete ve stres düzeyi ile yaşam doymu arasında istatistiksel olarak anlamlı bir ilişki vardı. Yüzme yılı ile benlik saygısı, depresyon, anksiyete düzeyi ve yaşam doymu arasında istatistiksel olarak anlamlı bir ilişki olmasına rağmen, yüzme yılı ile stres düzeyi arasında istatistiksel olarak anlamlı bir ilişki yoktur. Sporculardan yüksek performans elde edilmek isteniyorsa erken yaşlardan itibaren sporcular kaygı ve stresi yönetme becerilerini geliştirmek için eğitilmelidir.

Anahtar Kelimeler: Lisanslı yüzücü, benlik saygısı, depresyon, anksiyete, stres, yaşam doymu

To cite this article; Şenol, S., Tari-Cömert, İ., Yükseloğlu, H., Uğraş, S., Salkım-İşlek, D., & Tutkun, E. (2020) The relationship between self esteem depression anxiety and stress levels and life satisfaction in licensed swimmers aged between 14-25 years. *The Journal of Turkish Sport Sciences*, 3(2), 81-87.

INTRODUCTION

Sports is expressed as activities aimed at contestants and winners, who desire a physical, mental and technical effort, which creates excitement and enhance the aesthetic sense of the audience (Akandere, 2003). Swimming is one of the main branches of sport that enables the development of the body and the spiritual characteristics that constitute the basis of all sports branches. It develops skills, coordination, endurance, speed, quickness, flexibility and mobility and gives self-confidence, friendly playing and competitiveness behaviors. In sport activities that explain the mental, psychological, physiological and sociological development of the individual, swimming sport has a special importance (Akin & Çetin, 2007; Arslan et al., 2011).

Self-esteem is the self-love of a person, although knowing personal inadequacy and believing that everyone has an unconditional value as a human being (Budak, 2005). Depression is a syndrome characterized thought, sadness, slowing down of physiological functions and behavior. Anxiety is irrational fear created by fear or expectation of danger (Chow, 2005). According to Lazarus and Folkman (1984), stress is a relationship between the individual and environment, that the resources of the individual are forced or exceeded, and that the well-being is endangered (Corbin & Lindsey, 1988).

Life satisfaction is defined as a positive assessment of the whole life of the individual in accordance with the criteria determined by an individual (Çuhadaroğlu, 1986). In this context, life satisfaction of athletes can be affected by many factors (İkizler, 1993). Some of these include happiness from everyday life, meaning attributed to living, harmony in achieving goals, positive individual identity, physically self-esteem, coping with healthy stress, economic, security and social relations (Diener et al, 1995). In recent years, many studies in the field of sports psychology in Europe and the United States talk about the benefits of sport and physical activities in terms of psychosocial health. However, a limited number of studies have been conducted in our country.

Purpose of the Research

The aim of this research is to examine the relationship between self-esteem, depression, anxiety and stress levels and life satisfaction in licensed swimmers between 14-25 years of age.

METHODS

Research Group

The research sample consists of licensed swimmers, aged between 14-25, engaged in sports in Turkey. In the sample, 105 licensed swimmers were in the study group who played Fenerbahçe Sports Club, Galatasaray Sports Club, Kınalıada Water Sports and ENKA Sports Club which are located in İstanbul. Study was conducted between January to March 2017. The sample group was selected randomly sample methodology was used with snowball method.

Procedure:

The data were collected by the researcher by visiting the sports clubs. Informed consent form was taken from the participants. Ethics committee approval was received from the ethics committee of TR Haliç University on 29.12.2016. Filling scales for interviews lasted an hour. The aim and importance of the research were explained in order to ensure that the participants were comfortable while answering the data collection tools.

Data Collection Tools

Demographic Data Form

Specialized demographic data form used in the study that was prepared by the researcher to determine the demographic characteristics of the licensed swimmers.

The Satisfaction with Life Scale (SWLS)

The Satisfaction with Life Scale was developed by Diener et al., (1995) to measure life satisfaction in general. Adaptation of the scale to Turkish was done by Köker in 1991. Köker (1991) applied The Satisfaction with Life Scale three weeks apart. Köker found the test-retest consistency coefficient as .85. In addition, the internal consistency coefficients calculated for the reliability of the scale were found to be between 0.81 and 0.86 for all age groups. The Satisfaction with Life Scale has a 7-point Likert-type rating, consisting of 5 items, strongly disagree, strongly agree. The lowest score that can be taken from this scale consisting of one dimension and five items is 5 and the highest score is 35. As the score obtained from the scale increases, the satisfaction of life increases. The Cronbach Alpha coefficient of this study was found to be 0.82 in a good consistency.

Depression Stress and Anxiety Scale (DASS 42)

Depression Stress and Anxiety Scale (DASS) was developed by Lovibond and Lovibond (1995), with consisting 42 items, 14 of which are depression, 14 of which are anxiety and 14 of stress. DASS 42 is an assessment tool to evaluate itself which is composed of 42 items and 3 subscales. It has a quaternary rating system ("0" = Never, "1" = Sometimes, "2" = Frequently, "3" = Always) and there are 14 items in each subscale (Karadağ, 2013). The high scores of each of the depression, stress, and anxiety dimensions indicate that the individual's status. The adaptation of the scale to Turkish was published by Akın and Çetin in 2007. As a result of the item analysis for DASS, corrected item - total correlations ranged from 0.51 to 0.75. The Cronbach Alpha (α), internal consistency coefficients of the DASS were found to be 0.89, depression, anxiety and stress subscales for the whole scale were 0.90, 0.92, and 0.92, respectively. The test-retest reliability of the scale showed that the correlation coefficients between the two applications were 0.98 ($p < .001$) for all three subscales and .99 for the whole scale. For this study, Cronbach Alpha (α) was found to be 0.95 for depression, anxiety and stress scale. The Cronbach Alpha coefficient in this study was found to be 0.92.

The Self-Esteem Rating Scale

This scale, developed by Morris Rosenberg, was adapted to Turkish by Çuhadaroğlu in 1986. No special training is required for the use of the scale. This is a 26 paper-pen test; it can be applied as a group with no time limit. The scale consists of 4 options, which I strongly disagree, disagree, agree with, and strongly agree. In this study Cronbach Alpha coefficient was found as 0.74.

Data Analysis

This research method was planned according to the relational scanning method. SPSS (Statistical Package for Social Sciences) Windows 22.0 program was used to process and interpret the data. Firstly, the obtained data was transferred to this program and then analyzes were started. "T test" was used to determine differences in Depression, Anxiety and Stress levels of the participants and to calculate Self-esteem subscales. In addition, "t test" was used to describe the relationships between life satisfactions. One-way analysis of variance was performed for the relationship between depression, anxiety and stress rates, self-esteem and life satisfaction. Frequency analysis was used for demographic data. The chi-square test was used to explain the relationships of the sub-problems.

RESULTS

In this study, which examines the relationship between self-esteem, depression, anxiety and stress levels and life satisfaction in licensed swimmers, results were presented in order below.

There was statistically significant relationship between gender and life satisfaction, gender and depression, anxiety, stress, self-esteem, continuity of anxiety. Male swimmers' continuity of anxiety scores was higher than female swimmers ($p < 0.000$) (Table 1).

Table 1. Sub-dimension Averages and Comparisons of Life Satisfaction Depression Anxiety Stress and Self-Esteem by Gender Variable

	Mean	SD	t	df	p
Life Satisfaction	-23.28	5.10	-46.69	104	.000*
Depression	-6.14	5.30	-11.86	104	.000*
Anxiety	-6.66	5.80	-11.77	104	.000*
Stress	-12.20	7.78	-16.06	104	.000*
Self-Esteem	.47	.90	5.32	104	.000*
Continuity of Anxiety	-2.05	1.35	-15.52	104	.000*
Trusting People	-.18	.95	-1.93	104	.056
Sensitivity to Criticism	-.53	1.18	-4.61	104	.000*
Depressive Affection	.05	1.25	.46	104	.642
Fancifulness	-.04	1.63	-.29	104	.766
Psychosomatic Symptoms	-.62	2.44	-2.63	104	.010
Threats in Interpersonal Relations	.25	1.15	2.28	104	.024
Discussions					
Degree of Participation in Discussions	.72	1.02	7.24	104	.000*
Parental Interest	.65	1.30	5.15	104	.000*
Relationship with Father	-.26	1.33	-2.04	104	.044*
Psychic Isolation	.86	.91	9.75	104	.000*

* p<.005

The relationship between gender and trusting people was not statistically significant. Male swimmers' sensitivity to criticism scores were higher than female swimmers ($p<0.000$). The relationship between gender, fancifulness and depressive affect was not statistically significant. There was a statistically significant relationship between gender and psychosomatic symptoms ($p<0.000$). Mean score of psychosomatic symptoms of male swimmers was higher than female swimmers. Mean score of threat in interpersonal relationships of female swimmers was higher than male swimmers ($p<0.000$). There was a statistically significant relationship between gender and the degree of participation in discussions, female swimmers had higher scores ($p<0.000$). Female swimmers' parental interest was higher than the male swimmers ($p<0.000$). There was a statistically significant relationship between gender and relationship with father as male swimmers' relationship of father were higher ($p<0.000$). Mean score of psychic isolation of female swimmers were higher than male swimmers ($p<0.000$).

Table 2. Sub-dimension Averages and Comparisons of Life Satisfaction Depression Anxiety Stress and Self-Esteem by Age Variable

	Mean	SD	t	df	p
Life Satisfaction	-7.20	5.47	-13.46	104	.000*
Depression	9.94	6.36	16.01	104	.000*
Anxiety	9.41	6.84	14.10	104	.000*
Stress	3.88	8.71	4.56	104	.000*
Self-Esteem	16.55	2.99	56.62	104	.000*
Continuity of Anxiety	14.02	3.12	46.06	104	.000*
Trusting People	15.90	2.84	57.37	104	.000*
Sensitivity to Criticism	15.55	3.06	51.96	104	.000*
Depressive Affection	16.14	2.95	55.95	104	.000*
Fancifulness	16.03	3.42	48.02	104	.000*
Psychosomatic Symptoms	15.45	3.87	40.92	104	.000*
Threats in Interpersonal Relations	16.34	3.11	53.74	104	.000*
Degree of Participation in Discussions	16.80	2.93	58.67	104	.000*
Parental Interest	16.74	3.20	53.48	104	.000*
Relationship with Father	15.81	2.87	56.31	104	.000*
Psychic Isolation	16.95	2.96	58.63	104	.000*

* p<.005

There was a statistically significant relationship between age and life satisfaction, depression, anxiety, stress, self-esteem, continuity of anxiety, trusting people, sensitivity to criticism, depressive affect,

fancifulness, psychosomatic symptoms, threats in interpersonal relations, degree of participation in discussions, parental interest, relationship with father and psychic isolation ($p < 0.000$).

Table 3. Sub-dimension Averages and Comparisons of Life Satisfaction Depression Anxiety Stress and Self-Esteem by Year of Swimming Variable

	Mean	SD	t	sd	p
Life Satisfaction	-21.30	5.11	-42.67	104	.000*
Depression	-4.16	5.27	-8.09	104	.000*
Anxiety	-10.21	7.81	-13.39	104	.000*
Stress	-.07	1.40	-.55	104	.580
Self-Esteem	2.45	1.01	24.66	104	.000*
Continuity of Anxiety	-.07	1.40	-.55	104	.000*
Trusting People	1.80	.91	20.18	104	.000*
Sensitivity to Criticism	1.44	1.32	11.21	104	.000*
Depressive Affection	2.03	1.22	17.06	104	.000*
Fancifulness	1.93	1.72	11.50	104	.000*
Psychosomatic Symptoms	1.35	2.55	5.42	104	.000*
Threats in Interpersonal	2.23	1.27	17.98	104	.000*
Relations					
Degree of Participation in	2.70	1.01	27.21	104	.000*
Discussions					
Parental Interest	2.63	1.38	19.57	104	.000*
Relationship with Father	1.71	1.32	13.30	104	.000*
Psychic Isolation	2.84	.95	30.44	104	.000*

* $p < .005$

There was a statistically significant relationship between year of swimming and life satisfaction, depression, anxiety, self-esteem, swimming and the continuity of anxiety, trusting people, sensitivity to criticism, depressive affect, fancifulness, psychosomatic symptoms, threats in interpersonal relations, degree of participation in discussions, parental interest, relationship with father and psychic isolation points ($p < 0.000$) but the relationship between the year of swimming and stress was not statistically significant ($p > 0.05$).

DISCUSSION and CONCLUSION

In the present study, 54.3% of participants were male and 45.7% of them were female, total of the sample was 105. The age of the sample was between 14 and 25 years. Educational status of was found as 1.9% middle school student, 70.5% high school student and 27.6% university student. The distribution of the sample according to the swimming years was 4.8% with a license of 4 to 6 years, 46.7% with a license for 6-9 years, and 48.6% with a license for at least 9 years.

When the scientific literature was examined, it was seen that these variables are examined separately in both swimmers and in different sports branches. However, there were not many studies that examine these variables together. The importance of this study was that all these variables were considered together. It was defended that sport is a phenomenon that increases the quality of life of the individual.

In addition to providing physical benefits, sporting reduces stress, affects the individual positively and is among the treatment methods of some psychiatric rehabilitation programs (Köroğlu, 2015). The relationship between physical exercise and mental health was frequently examined in recent years. Studies on mental health have shown that physical exercise had a positive effect on mental health (Lazarus, 1993). In this context, in a study examining the effects of sports on depression and mental health, it was concluded that it had an important role in the treatment of depression. Arslan et al. (2011) found that there were significant differences in the prevalence of depression among sportsmen and non-sportsmen. It was determined that the prevalence of depression increased in people who did not do sports. In another study examining the level of depression among university students who did sports and not, it was found that the students who did sports did not have depression levels compared to those who did not (Morgan et al,1971).

Raglin et al. (1991) reported that anxiety levels of professional athletes were high and depressive symptoms and signs of chronic fatigue occurred during intensive training periods. In this study, there is a significant change in anxiety level according to gender, age and swimming year in accordance with scientific literature. It is thought that the level of anxiety is increased not only for sportive performances of swimmers during adolescence and early adulthood but also for life decisions. Swimmers are preparing for swimming races and preparing for exams increase their anxiety levels. Also, it is thought that anxiety levels differ because of the special features of adolescence period.

In studies examining life satisfaction among university students in various countries, factors such as age, stress, physical health status, parental attitudes, personality traits, variables related to education are stated to play a role on life satisfaction (Mutrie & Biddle 1995). However, the results of the study conducted in these countries should be kept in mind as a result of the error in the evaluation of the data in question. Because life satisfaction is significantly affected by cultural properties and value systems (Öztürk & Uluşahin, 2011). Life satisfaction levels of the students of Çanakkale Onsekiz Mart University School of Physical Education and Sports were found to be high, life satisfaction scores of female students were higher than the scores of male students (Özgen, 2012). However, no significant difference was found. However, there was no significant difference in terms of life satisfaction levels between the departments of Physical Education Department and Sports Management and Coaching Training (Raglin et al, 1991). According to the results of the analysis, there was no significant difference between depressive affect and gender and self-esteem subscales. A study in parallel with this finding found no significant difference between gender variable and depressive affect levels (Rask et al, 2002).

According to Corbin and Lindsey (1988), exercise seems to increase the capacity to cope with stress (Tahılloğlu, 1999). In studies investigating the relationship between self-esteem and gender, it is generally seen that men's self-esteem is higher than girls (Taşgit, 2012; Tel & Köksalan, 2008). When the relationship between gender and self-esteem was examined in the swimmers, a statistically significant relationship was found between them but in this study, female swimmers self-esteem was higher than male swimmers.

Studies in the field of sport psychology reveal that sports life have an extremely complex structure. In the beginning of sports, the basic psychological conditions of athletes should be determined and followed up at certain intervals. Obtaining high performance from athletes from early ages, they should be kept away from training and competition to raise their concerns. In order to keep the life satisfaction and self-esteem of the athletes at a high level, award arrangements should be made and feedback should be given during (positive) training and competition and frequently after. Psycho training on depression, anxiety and stress and coping strategies is recommended for managers, coaches, athletes' parents and athletes. In addition, psychologists and psychiatrists should be appointed within the clubs in order to provide psychological support to the needs of the athletes. Seminars should be organized to inform and raise awareness of athletes and their families. Except for sporting activities, activities that will improve the self-esteem of the athletes should be implemented. Evaluation studies can be done periodically to measure and follow depression, anxiety and stress levels of the swimmers.

Many of the increasing research in the field of sports psychology in Europe and America in recent years mention the benefits of sports and physical activities in terms of psychosocial health. Many studies support this idea (Urartu, 1994). However, a limited number of studies have been conducted in our country. In this study, the relationship between self-esteem, depression, anxiety and stress level and life satisfaction in licensed swimmers aged 14-25 years were examined. Thus, it is aimed to provide ground for future research on the subject in our country.

REFERENCES

Akandere, M. (2003). Spor yapan ve yapmayan öğrencilerin depresyon düzeylerinin incelenmesi. *Spor ve Tıp Dergisi*, Sendrom,4(2), 1.

- Akın, A. & Çetin, B. (2007). The depression anxiety and stress scale (dass): the study of validity and reliability. *Educational Sciences: Theory & Practice*, 7(1).
- Arslan, C., Güllü, M. ve Tutal, V. (2011). Spor yapan ve yapmayan ilköğretim öğrencilerinin depresyon durumlarının bazı değişkenlere göre incelenmesi. *Niğde Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, 5(2), 20-132.
- Budak, S. (2005). Psikoloji Sözlüğü. Ankara: Bilim ve Sanat Yayınları.
- Chow, H. P. H. (2005). Life satisfaction among university students in a canadian prairie city: a multivariate analysis. *Soc Indic Res*, 70,139-150.
- Corbin, C. B., Lindsey, R. (1988). Concepts of Physical Fitness With Laboratories. Brown & Benchmark.
- Çuhadaroğlu, F. (1986).Adölesanlarda benlik saygısı. Yayınlanmamış Uzmanlık Tezi. Ankara:Hacettepe Üniversitesi. Tıp Fakültesi.
- Diener, E., Emmons, R.A., Larsen, R. J. & Griffin, S. (1995). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1),71-75.
- İkizler C. (1993). Sporda Başarının Psikolojisi. (1.Baskı). İstanbul: Alfa Basım Yayım Dağıtım.
- Karadağ, D. (2013). *Yüzme antrenörlerinin bir liderlik özelliği olan iletişim becerilerinin yüzücülerin motivasyonları üzerindeki etkisi*. Yayınlanmamış Yüksek Lisans Tezi. Marmara Üniversitesi. Sağlık Bilimleri Enstitüsü, İstanbul.
- Köker, S. (1991). *Normal ve sorunlu ergenlerin yaşam doyumu düzeylerinin karşılaştırılması*. Yayınlanmamış Yüksek Lisans Tezi. Ankara Üniversitesi. Sosyal Bilimler Enstitüsü. Ankara.
- Koroğlu, E. (2015). Psikiyatri Sözlüğü. Ankara: Boylam Psikiyatri Enstitüsü.
- Lazarus, RS.(1993).From psychological stress to the emotions: a history of changing outlooks, *Annual Reviews in Psychology*, 44,1-21.
- Lovibond, P. F. & Lovibond, S. H. (1995). The Structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the beck depression and anxiety inventories. *Behaviour Research and Therapy*, 33(3), 335-343.
- Morgan, P.M., Roberts, J.A. Feinerman, A.D. (1971). Psychologic effect of acute physical activity. *Archives of Physical Medicine & Rehabilitation*, 52, 422-425.
- Mutrie, N. & Biddle S.J.H. (1995). The effects of exercise on mental health in non- clinic populations. *European Perspectives on Exercise and Sport Psychology*. Champaign, IL: Human Kinetics: 50-70.
- Özgen, F. (2012). *Çanakkale on sekiz mart üniversitesi beden eğitimi ve spor yüksekokulu öğrencilerinin yaşam doyumu düzeylerinin incelenmesi*. Yayınlanmamış Mezuniyet Tezi. Çanakkale On Sekiz Mart Üniversitesi, Çanakkale.
- Öztürk, O.,Uluşahin, A. (2011). Ruh Sağlığı ve Bozuklukları (11. Baskı). Ankara: Nobel Tıp Kitapevleri.
- Raglin, JS., Morgan W.P. & O'Connor PJ. (1991). Changes in mood states during training in female and male collage swimmers. *Int J Sports Med*, 12, 585-589.
- Rask, K., Astedt-Kurki, P. & Laippala, P. (2002). Adolescent subjective well-being and realized values. *J Adv Nurs*.
- Tahıllıoğlu, A. (1999). *Kara harp okulu erkek yüzme takımının bazı antropometrik ölçülerinin incelenmesi ve değerlendirilmesi*. Yayınlanmamış Yüksek Lisans Tezi. Gazi Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.
- Taşgıt, M.S. (2012). *Üniversite öğrencilerinin benlik saygısı ve karar verme düzeylerinin incelenmesi*. Yayınlanmamış Doktora Tezi. Karamanoğlu Mehmet Bey Üniversitesi. Sosyal Bilimler Enstitüsü. Karaman.
- Tel, M., Köksalan, B. (2008). Öğretim üyelerinin spor etkinliklerinin sosyolojik olarak incelenmesi-Doğu Anadolu örneği. *Erat University Journal of Social Science*, 18(1), 261-278.
- Urartu, Ü. (1994). Yüzme Teknik-Taktik-Kondisyon. (I. Baskı). İstanbul: İnkılap Kitapevi.