

# INTERNATIONAL REFEREED ACADEMIC JOURNAL OF SPORTS, HEALTH AND MEDICAL SCIENCES

PRINT ISSN: 2146-8508 - ONLINE ISSN: 2147-1711

ISSUE: 24 YEAR: 2017



## **PRIVILEGE**

**“Bu Dergi Türk Patent Enstitüsü Tarafından Marka Tescili İle Tescillidir”**

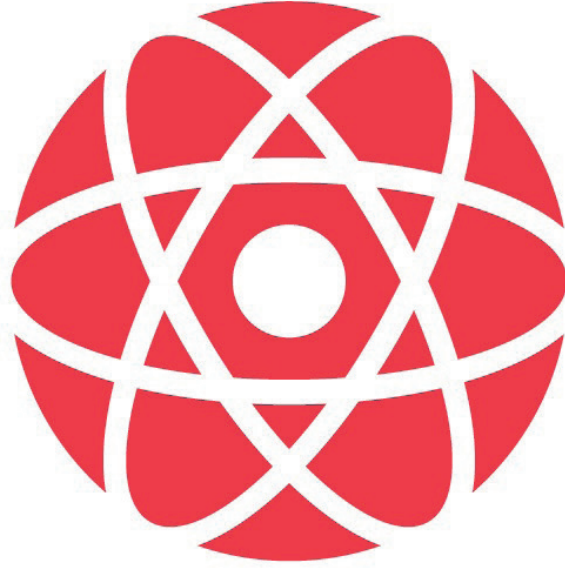
**(2015/04313-2015-GE-18969)**



**GÜVEN PLUS GRUP A.Ş.**

**[www.guvenplus.com.tr](http://www.guvenplus.com.tr)**

JOURNAL OF MANAGEMENT



**İSTANBUL**  
BİLİM VE AKADEMİSYENLER DERNEĞİ

[www.istanbulbilimveakademisyenlerdernegi.org](http://www.istanbulbilimveakademisyenlerdernegi.org)

## GENERAL INFORMATION ABOUT SSTB JOURNAL

- 1 1. Our journal is a refereed and internationally indexed journal. Each paper is evaluated by two referees who are field experts. The articles not reported as “issuable” positively by two field referees aren’t published in our journal. None of the author(s) can lay a claim on our journal in this case. Data, concerning the ethics committee of the studies, approved to be published in our journal, having the Ethics Committee Report, should be submitted to the editors in written and uploaded to the system with the article. Author(s) should take the responsibility of their articles, having the Ethics Committee Report, which were not submitted to the editors in written and were not uploaded to the system. None of the committees and the authorities in our journal are responsible for pecuniary and non-pecuniary damages. The committees and the authorities in our journal do not have any legal obligations. Author(s) have accepted this situation beforehand.
- 2 2. Author(s) cannot make a demand for the journal’s procedure concerning the academicians in journal’s referee board and other boards and other authorities. Even if so, they aren’t given any information, system process cannot be changed. Necessary information about our journal can be obtained from the website of the journal [www.sstbdergisi.com](http://www.sstbdergisi.com)
- 3 3. Our journal publishes four times a year, all articles in the relevant volume of journal are uploaded to the web system of the journal in one volume on the last day of the months “March, June, September and December” All readers can download the articles from the journal’s web system and the relevant paper “article” can be used on condition that our journal is cited. Readers can download all volumes of our journal for free.
- 4 4. All articles published in our journal are assured with certificate of quality (ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706) and trademark patent (2015/04313-2015-GE-18969). Articles published provide their authors with all kinds of legal rights and international assurance regarding their articles with quality, trademark, patent and doi information.
- 5 5. Our journal has both printed and online versions. Necessary information about our journal can be obtained from the T.R. Ministry of Culture with the number Print 2146-8508 Online ISSN NO: 2147-1711
- 6 6. Reference within the text should be (Yılmaz, 2015: 1) or (Yılmaz et al. 2015:1), in



the reference part YILMAZ, M., (2015). Futsal Competition Between University Athletes Who Participated Orientation And Motivation Of Conduct Investigation Of Success , SSTB International Refereed Academic Journal of Sports, Health and Medical Sciences Issue:15, Volume:5, pp.1-2. All authors must follow the latest volumes of our journal and apply the print format of the published articles in their own papers. It is an obligation to indicate the access date of the internet sources and the last accessed full internet link in the references and below the page by giving numbers.

- 7 7. References are arranged by the Turkish alphabet. The printing format in the last volume of the journal should be taken into account by all authors.
- 8 8. Our journal is an internationally indexed journal, and all articles and papers published in our journal are sent to relevant indices via e-mail by the publication date of the journal.
- 9 9. Original research, analysis, compilation, case study, project and book introduction “have to be in an article format” and these publications are also included.
- 10 10. All papers sent to the journal and uploaded to the system shouldn't be previously published, not evaluated and not rejected. All articles uploaded to the system are acknowledged that author(s) conform to these rules. Otherwise, our journal keeps its legal rights reserved. All material and moral responsibility regarding a negative situation belong to author(s). Our journal acts in line with the T.R. Law.

# CONTENTS

---

## RESEARCH and APPLICATION

**REKREASYON BÖLÜMÜ ÖĞRENCİLERİNİN  
SERBEST ZAMAN VE SPOR TİF AÇIDAN SERBEST  
ZAMAN FAALİYETLERİNE KATILIMLARININ  
İNCELENMESİ (FIRAT ÜNİVERSİTESİ ÖRNEĞİ)** 1-13  
*Yonca Süreyya SEZER, Baha Engin ÇELİKEL,  
Yüksel SAVUCU, Mustafa KARADAĞ, A. Serdar YÜCEL*

**OKÇULARIN EL KAVRAMA KUVVETİNE BİRİM  
ANTRENMANIN ETKİSİ** 14-26  
*Süreyya Yonca SEZER, Baha Engin ÇELİKEL, Ercan GÜR,  
Yüksel SAVUCU*

**ANALYSIS ON THE CYBER VICTIMIZATION AND  
AWARENESS OF CLASSIFICATION BASKETBALL  
REFEREES IN TURKEY** 27-41  
*Serdar ORHAN, Engin AKARSU, A. Serdar YÜCEL,  
Yüksel SAVUCU*

**BEDEN EĞİTİMİ ÖĞRETMENLERİNİN ETİK İKLİM  
PERSPEKTİFİNDEN BAĞIMSIZLIK ALT BOYUTUNUN  
İNCELENMESİ** 42-47  
*Gokhan ACAR, Barbaros Serdar ERDOĞAN*

## RESEARCH and LITERATURE

**ÇOCUKLARDA İNVAZİV İŞLEMLER SIRASINDA  
DİKKATİ BAŞKA YÖNE ÇEKME TEKNİKLERİNİN  
KULLANIMI** 48-60  
*Ayşegül ÖZDEMİR, Meltem KÜRTÜNCÜ*

**Chief Editor**

Çetin YAMAN

**Deputy Chief Editor**

Ayça GÜRKAN  
Gülten HERGÜNER  
Metin YAMAN  
Nuran AKYURT  
Nilgün ULUTAŞDEMİR  
Ümran SEVİL

**Editor**

Ayhan AYTAÇ  
Ayşe ÇEVİRME  
Fatih ÇATIKKAŞ  
Nejla GÜNAY

**System Editor**

Michael KUYUCU

**Health Sciences Editor**

Ayça GÜRKAN  
Emre YANIKKEREM  
Sezer ER GÜNERİ  
Seyhan HİDİROĞLU  
Ümran SEVİL

**Health Sciences Editorial Assistant**

Özlem DEMİREL BOZKURT  
Saliha ÖZPINAR

**Turkish Language Editor**

Gülsemin HAZER  
Yakup POYRAZ

**English Language Editor**

Gökşen ARAS  
Sinem HERGÜNER

**Field Editor**

Ayşe Ferda OCAKÇI  
Ayhan AYTAÇ  
Ali AYDINLAR  
Ahmet ERGÜLEN  
Besim AKIN  
Canan ALBAYRAK  
Cem KOPUZ  
Fazilet KAYAŞELÇUK  
Fahri ERDOĞAN  
Fatih KILINÇ  
Faruk ANDAÇ  
Gülgün ERSOY  
Hülya UZUN  
İlkin ÇAVUŞOĞLU  
İnci ALİCAN  
Kadir EMRE AKKUŞ  
Kaya YILDIZ  
Mehmet Faik ÖZÇELİK  
Mustafa TALAS  
Mustafa ÖNER UZUN  
Mehmet BAYANSALDUZ  
Murat ÇİLLİ  
Sevilay YILDIZ  
Selvinaz SAÇAN  
Ümran SEVİL  
Veli DUYAN

**Editor in Chief**

Ercan ŞAHBUDAK  
Gülten HERGÜNER  
Mehmet BAYANSALDUZ

**Measurement and Evaluation Editor**

Gökhan DELİCEOĞLU

**Sports Science Editor**

Ali Serdar YÜCEL  
Gülten HERGÜNER  
Serdar TOK  
Metin YAMAN

**Sports Sciences Assistant Editor**

Ali Serdar YÜCEL  
Ayşe TÜRKSOY  
Kubilay ÖCAL

**Technical Editor**

Ozan KARABAŞ  
Hakan AÇIKGÖZ  
Mümin ŞAHİN

**International Scientific Committee**

Anni VANHATALO  
Anthony BLAZEVIK  
Alexandra PAPAIOANNOU  
Craig WILLIAMS  
Christopher BELL  
Drew HARRISON  
David MARTIN  
David BUTLER  
Edward S. GROOD  
Frank R. NOYES  
Gregory P. BOIVIN  
Jerilynn C. PRIOR  
Jacques BROWN  
Jonathan D. ADACHI  
Keijo HAKKINEN  
Karl ERICKSON  
Mark BIRNLEY  
Nicola MAFFULLI  
Peter FEDORLF  
Susan I. BARR  
Sharief HENDRICKS  
Sean CUMMING  
Tim ELCOMBE  
Tim MEYER  
William J. KRAEMER

**Legal Consultants**

Att. Fevzi PAPAĞI  
Att. İbrahim DURSUN  
Att. Nazmi ARİF  
Att. Onur BAYKAN  
Att. Rozerin SEDA KİP  
Att. Yasemin ÖZ

## DISCIPLINES

- DOPING AND ERGONOMICS HELP
- OTHER MEDICAL SCIENCES
- ADULT AND PEDIATRIC PERIOD  
SPORTS TRAUMATOLOGY
- HEALTH MANAGEMENT
- SPORTS SCIENCE
- ACTIVITIES AND SPORTS SPORTS  
REHABILITATION SERVICES AFTER  
SURGERY
- SPORTS MEDICINE
- SPORTS INJURIES AFTER  
TREATMENT AND PREVENTION OF  
DISABILITY
- SPORTS STEERING AND  
APPLICATIONS
- SPORTS NUTRITION
- SPORT PSYCHOLOGY
- ATHLETES HEALTH
- ATHLETIC PHYSICAL PROBLEMS  
DETECTED MUSCULOSKELETAL
- ATHLETIC PERFORMANCE  
DEVELOPMENT
- MEDICAL BIOLOGICAL SCIENCES
- MEDICAL HISTORY AND ETHICS
- AGING PERIOD OF SPORTS HEALTH



## SCANNED INDEXES



## OUR OTHER MAGAZINES

1. International Peer-Reviewed Journal of Nutrition Research	www.dbhadergisi.com
2. International Refereed Journal of Gynaccology And Maternal Child Health	www.jacsdergisi.com
3. International Refereed Journal of Orthopaedic Traumatology and Sports Medicine	www.otshdergisi.com
4. International Refereed Journal of Marketing and Market Researches	www.uhpadergisi.com
5. International Refereed Journal of Engineering and Natural & Applied Sciences	www.hmfdergisi.com
6. International Refereed Journal of Humanities and Academic Sciences	www.uhbabdergisi.com
7. International peer-reviewed Journal of Communication and Humanities Research	www.uhdergisi.com
8. International Refereed Journal of Family, Child and Education	www.aceddergisi.com
9. International Refereed Journal of Nursing Research	www.khsdergisi.com
10. International Refereed Journal Of Architecture and Design	www.mtddergisi.com
11. International Journal Of Psychiatry and psychological Researches	www.uhpdergisi.com
12. International Refereed Journal of Music Researches	www.uhmadergisi.com
13. International Refereed Journal of Researches on Economy Management	www.uheyadergisi.com
14. International Refereed Academic Social Sciences Journal	www.iibdergisi.com
15. Internatiol Refereed Journal of Occupational Health and Safety	www.isguvenligivecalisansagligidergisi.com
16. National Multidisciplinary Refereed Journal of Social Sciences and Research	www.msbadergisi.com
17. International Refereed Journal of Agricultural Economy and Energy Management	www.teeydergisi.com
18. International Refereed Journal of Active Aging and Intergenerational Solidarity	www.aktifyaslanmadergisi.com





Assoc. Prof. Dr. Çetin YAMAN  
Chief Editör

**Dear readers, precious scholars.,**

In this issue of our journal, there are a total of 05 research, application, literature, and compilation studies. In this issue of the journal, we would like to express our sincere thanks to the authors who support us with their valuable studies. We would also like to express our thanks and appreciation to the precious arbitration committee members who never leave us alone and enable this issue to meet with our dear readers with their worthful efforts and contributions, as they have done in each issue. We also greatly appreciate the efforts of the editorial board, system management, and the precious scholars taking place in the editorial board for making an effort in the background of the publication of this journal. Dear scientists, we still continue our applications and works to enable our journal to be in different indices. Our announcements about the evaluation of the studies published in our journal to be assessed by different readers and literatures also still continue. We have also speeded up our communication studies and the delivery of the journal and its issues to scientists and scholars all around the world. The next issue of our journal will reunite with the readers in December, 2017. In the hope of reuniting and meeting with you again with our next issue, we sincerely wish you, dear readers and precious scholars of the science world happiness, peace, goodness, and days full of science. Peace be with you, yours respectfully.

*(In any kind of study requiring ethical board report in our journal, author(s) is/are obliged to enter the data of necessary ethical board report while uploading their publication in editorship and journal system. Our journal, publication board, grant holder, editorial office, referee and science boards do not undertake any responsibility for a problem to occur under any circumstances and conditions. Author(s) is/are obliged to give this information to journal in written. All liability in this issue belongs to author(s)).*

*As per the “5187” of Press Law, material and emotional damage arising from the actions via published works, the content and legal responsibility of the publications published in our journal within the scope of m-13-14 unilaterally belong to author(s). Our journal, executive board, referees, editor, science board and publisher don’t accept these obligations. The scientifically valuable papers with scientific content which contribute to literature are accepted and published in our journal. Apart from this, the papers with political, legal and commercial content which are against the intellectual property rights are not accepted. in case of a possible negative situation, author(s) is/are regarded as accepting and undertaking all kinds of possible material and emotional damage beforehand. Therefore, our journal’s management and other boards don’t accept any responsibility regarding the second, third and other persons and institutions under any condition. in this sense, a legal sanction on our journal and its boards is out of question. The content and the current status of the papers belong to author(s) and our journal only takes part in the publication of these papers and contribution to literature. Respectfully announced to all readers, public and followers by publication.*

**Dear readers, precious scholars.,**

In this issue of our journal, there are a total of 05 research, application, literature, and compilation studies. In this issue of the journal, we would like to express our sincere thanks to the authors who support us with their valuable studies. We would also like to express our thanks and appreciation to the precious arbitration committee members who never leave us alone and enable this issue to meet with our dear readers with their worthful efforts and contributions, as they have done in each issue. We also greatly appreciate the efforts of the editorial board, system management, and the precious scholars taking place in the editorial board for making an effort in the background of the publication of this journal. Dear scientists, we still continue our applications and works to enable our journal to be in different indices. Our announcements about the evaluation of the studies published in our journal to be assessed by different readers and literatures also still continue. We have also speeded up our communication studies and the delivery of the journal and its issues to scientists and scholars all around the world. The next issue of our journal will reunite with the readers in December, 2017. In the hope of reuniting and meeting with you again with our next issue, we sincerely wish you, dear readers and precious scholars of the science world happiness, peace, goodness, and days full of science. Peace be with you, yours respectfully.

*(In any kind of study requiring ethical board report in our journal, author(s) is/are obliged to enter the data of necessary ethical board report while uploading their publication in editorship and journal system. Our journal, publication board, grant holder, editorial office, referee and science boards do not undertake any responsibility for a problem to occur under any circumstances and conditions. Author(s) is/are obliged to give this information to journal in written. All liability in this issue belongs to author(s)).*

*As per the “5187” of Press Law, material and emotional damage arising from the actions via published works, the content and legal responsibility of the publications published in our journal within the scope of m-13-14 unilaterally belong to author(s). Our journal, executive board, referees, editor, science board and publisher don’t accept these obligations. The scientifically valuable papers with scientific content which contribute to literature are accepted and published in our journal. Apart from this, the papers with political, legal and commercial content which are against the intellectual property rights are not accepted. in case of a possible negative situation, author(s) is/are regarded as accepting and undertaking all kinds of possible material and emotional damage beforehand. Therefore, our journal’s management and other boards don’t accept any responsibility regarding the second, third and other persons and institutions under any condition. in this sense, a legal sanction on our journal and its boards is out of question. The content and the current status of the papers belong to author(s) and our journal only takes part in the publication of these papers and contribution to literature. Respectfully announced to all readers, public and followers by publication.*



## REKREASYON BÖLÜMÜ ÖĞRENCİLERİNİN SERBEST ZAMAN VE SPORİF AÇIDAN SERBEST ZAMAN FAALİYETLERİNE KATILIMLARININ İNCELENMESİ (FIRAT ÜNİVERSİTESİ ÖRNEĞİ) <sup>1</sup>

### INVESTIGATION OF THE LEISURE ACTIVITIES OF RECREATION DEPARTMENT STUDENTS IN TERMS OF LEISURE ACTIVITIES AND SPORTS (SAMPLE OF FIRAT UNIVERSITY)

Yonca Süreyya SEZER<sup>1</sup>, Baha Engin ÇELİKEL<sup>2</sup>, Yüksel SAVUCU<sup>3</sup>, Mustafa KARADAĞ<sup>4</sup>,  
A. Serdar YÜCEL<sup>5</sup>

<sup>1-5</sup> Firat University, Faculty of Sports Sciences, Elazığ / Turkey

ORCID ID: 0000-0003-3072-8302<sup>1</sup>, 0000-0002-8429-969X<sup>2</sup>, 0000-0002-2749-6806<sup>3</sup>, 0000-0002-0299-4198<sup>4</sup>,  
0000-0002-4543-4123<sup>5</sup>

**Öz: Amaç:** Bu çalışma Firat Üniversitesi Rekreasyon Bölümü öğrencilerinin serbest zaman ve sportif açıdan serbest zaman faaliyetlerine katılımlarının incelenmesi amacıyla gerçekleştirilmiştir. **Yöntem:** Araştırmada veri toplama aracı olarak katılımcıların serbest zaman ve sportif açıdan serbest zaman faaliyetlerine katılımlarını ölçmeye yönelik 3 bölümden oluşan bir anket kullanılmıştır. Verilerin analizinde SPSS paket programından faydalanılarak frekans, yüzde analizleri, cross-tabs ve ki-kare testi kullanılmıştır. Çalışma grubunu Firat Üniversitesi Spor Bilimleri Fakültesi Rekreasyon Bölümü öğrencileri oluşturmaktadır (70 erkek ve 30 kız). Katılımcıların **Bulgular:** 1 haftalık serbest zaman süreleri (%56) 8 saat ve üstüdür. Evdeki serbest zamanlarını %34 TV izleyerek, %18'i müzik dinleyerek, %14'ü spor yaparak geçirmektedir. Ayrıca spor yapanların çoğunluğu erkektir. Ev dışındaki serbest zamanlarda ise %71'i spor yapmaktadır. Katılımcıların çoğunluğu (%32) serbest zaman faaliyetlerinin eğlenceli ve (%22) mutluluk verdiğini ifade etmiştir. **Sonuç:** Çalışma sonunda serbest zaman ve sportif açıdan serbest zaman faaliyetlerine katılım konusunda cinsiyet değişkenine göre katılımcıların fakültelerinde olmasını istedikleri serbest zaman değerlendirme faaliyet alanları açısından anlamlı farklılık bulunmuştur. Erkeklerin daha çok sınıflar ve bölümler arası sportif müsabakalar, bayanların ise sağlık için spor programlarına talepleri olduğu tespit edilmiştir. Sportif açıdan erkeklerin futbol, taekwando ve yüzme ağırlıklı tercih nedeni iken, bayanlarda ise halk oyunlarının ağırlıklı tercih nedeni olduğu görülmüştür.

**Anahtar Kelimeler:** Serbest zaman, Rekreasyon, Öğrenci, Spor

**Abstract: Objective:** This study was aimed to investigation of the leisure activities of Firat University Recreation Department students in terms of leisure activities and sports. **Method:** A questionnaire consisting of 3 parts was used to measure the leisure participation as a data tool of the participants in the study and in terms of leisure activities and sports. Frequency, percentage analysis, cross-tabs and Chi-square test was used to analyze the data. Experimental group consisted of Firat University Sports Science Faculty Recreation department students (70 males and 30 females). **Results:** 1 weekly leisure time of the participants (56%) was 8 hours and up. Participants spend their time by watching TV 34%, listening to music 18%, doing sport 14% at home. Also the majority of participants who doing sport was men. 71% of them are doing sport in their free time outside. Most of them (32%) expressed that leisure activities are fun and happiness (22%). **Conclusion:** At the end of the our research, it has been found that there are significant differences in terms of leisure activities and sports in participate to the leisure activities according to the gender variable of the participations who want to be areas of leisure assessment in their faculty. It has been identified that males usually want to participate between the class and departments sports competitions most females also want to participate for sports programs for health. It had been seen that while males have mainly preferred soccer, taekwondo and swimming, females have also preferred folk dances.

**Key Words:** Leisure, Recreation, Student, Sport

Doi: 10.17363/SSTB.2017.3.2

(1) Corresponding Author: A. Serdar YÜCEL, Firat University, Faculty of Sports Sciences, Elazığ / Turkey, alsetu\_23@hotmail.com, Received: 03.05.2017, Accepted: 19.09.2017, Type of article (Research -Application) Conflict of Interest: None / "None of Ethics Committee"



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## INTRODUCTION

Leisure time activities are a concept that has been defined in various ways until today. Leisure time is shortly defined by Roberts (2006) and Tezcan (1994) as the time that remains after work, sleep and necessities and the leisure time activities as the activities done in this time. This approach creates some limitations and contradictions within itself, especially in the modern societies in which unemployed people, housewives, temporary unemployed people and retired people exist (Roberts, 2006; Tezcan, 1994: 76; Hills et al, 2000: 770). According to another definition, leisure time is defined as the time spent apart from work and required activities. In another words, leisure time is also defined as the arbitrarily used time paid to resting before and after the obligatory activities such as eating, sleeping, working, company managing, going to school, doing homework and housework. Additional, leisure time also involves attending to events of art, politics, sports and etc. to pursue the personal development in the time remaining from the work life and daily works (Tezcan, 1982: 10). With all these discourses, leisure time is seen as a process accepted as the time period in which the personal control is maintained without any external forces, no payment is taken and satisfactory experiences are lived, and which happens itself, and recalls joy, pleasure and happiness feelings (Mieczkowski, 1990; Önder, 2003:

35). Meanwhile, it is also known that human beings have basic needs, social needs being in the lead. Again, alongside the social needs, humans also have physical and emotional needs. Today, humans makes for sports to make best of their free times to meet these needs and try to engage in the activities through which they can demonstrate their skills (Hacıcaferoğlu et al, 2012: 14).

For employed people and students, making use of the leisure time effectively is seen as an important activity. Because these activities ensure that people dispose of their exhaustion and stress caused by working life and that they are more happy and successful in their social and personal lives. For an employed person to be deemed to be successful, s/he needs to be successful in his/her personal life as well, to have various hobbies and to be able to pay enough time to his/her private life (Aydoğan and Gündoğdu, 2006: 217-232). In the places where leisure time education is weak; strong, constructive and creative institutions and traditions about leisure time have not been established and where this culture is not settled, leisure time controls reside in ordinary and certain patterns. Leisure time shall be seen as a way of human elevation and human follows that path by realising itself. There is no need for a special training on how to use the leisure time and what can be done about these activities. This training





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

happens itself and expressing this training as a free time causes misinterpreting and misuse of these activities. Leisure time training, traditionally, is seen as teaching the knowledge and the skills. This training ensures the effective use of leisure time programs and also exist in the mass education. Making use of leisure time in a constructive and wise way is accepted as the target of the leisure time training (Tezcan, 1994: 76). Various elements have forced leisure time training to change in terms of aim and function in the twentieth century. The developments in human rights, science and technology and the changes in the socio-economic status of the society have caused the expectations from the training to rise and have forced the leisure time training to change in the favour of the individual by pressuring the traditional education. Leisure time training has been an important element within the changing educational understanding. Also, it has supported the education directly and indirectly outside of the common education (Torkildsen, 1992: 25).

To be able to make an inference in line with the aim of the study, free time and recreation notions shall be defined. In this case, *free time* is known as the status of being independent and disconnected to feel joy and pleasure that remains completely outside of the time period shared for work and obligatory needs and gives personal satisfaction (Karaküçük, 2001:

58). Besides, it is the time that the individual gets free from all challenges and connections both for him/herself and for others and gets busy with an activity s/he chooses in his/her own discretion. It is also defined as the time the individual can freely use as s/he wants (Bakır, 1990: 22). In another definition, it is expressed as the time that the individual has the right to use as s/he wants and that remains after performing work, life and obligatory responsibilities (Tezcan, 1982: 10). *Recreation*; comes from the Latin recreation word that means renewal, revealing some things again or reconstruction. What is important is that human beings are socialised and reveal their creativeness and skills. Turkish meaning of the word is to make use of the free time. Recreation, which is a social institution, a compilation of knowledge and a professional working field in modern terms, is a full and happy device of life that is independent from work, valuable in itself and that meets many important need of the individual. Recreation, while being defined as a basic and modern need of humans, covers the entirety of the activities, trainings, opportunities and consultancy services that are valuable for the free time of humans. According to Bayer, recreation is the compilations of the activities that help humans relax, entertain and interested which clings them to the life or to gain a physical and mental vitality by engaging in these activities. The activities that the people engage



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

in to regain, protect or maintain their physical and mental health that is threatened by the intense work life, routine life style or negative environmental effects, and that are done individually or within a group by choice, within free time that is completely independent and disconnected from the time that is shared for work and obligatory needs and they is done to ensure personal satisfaction and to get joy and pleasure (Karaküçük, 1999: 57).

This study was conducted to investigate Fırat University, Sport Sciences Faculty, Recreation Department students' the leisure time and their participation to leisure time activities in terms of sports.

## MATERIAL and METHOD

The research dimension of the study is based on Students (n=100) of Fırat University, Faculty of Sports Sciences, Department of Recreation. The data collection tool used in the

research is a survey form which was used before and which consists of 3 parts that aims to measure the leisure time of participants and their participation in the leisure time activities in terms of sports. In the analysis of the data, SPSS package program was used and frequency, percentage analyses and chi square test were performed.

## RESULTS

In this part of the research, statistical distribution of the data acquired in relation to Fırat University, Faculty of Sport Sciences, Department of Recreation students' the leisure time and their participation to leisure time activities in terms of sports. Table 1 demonstrates the personal information of the participant students, Table 2 demonstrates the numerical distribution of the ideas of students on making use of leisure times and Table 3 demonstrates the ideas on the evaluation of the recreational activities of the students.

**Table 1. Personal Information of the Students of Fırat University, Faculty of Sport Sciences, Department of Recreation**

Variable	Distribution	f	%
Gender	Female	30	30
	Male	70	70
	Total	100	100
Age	25 and Below	93	93
	26 – 30	6	6
	31 – 36	1	1
	Total	100	100



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

As seen in Table 1, 30% of the participant are females and 70% are males. When the table is reviewed in regard to age variable, it is seen that 93% of the participant students are 25

years old or younger, 6% is between 26-30 years of age and 1% is between 31-36 years of age.

**Table 2. Distribution of Students' Ideas on Making Use of their Leisure Time and Chi Square Test Table in relation to Comparison of these Ideas in regard to Gender Variable**

Variable	Distribution	F	%	P
How Many Hours Of Leisure Time Do You Have In A Week?	1-3	22	22	,343
	4-7	22	22	
	8-11	22	22	
	12 And More	34	34	
	<b>Total</b>	<b>100</b>	<b>100</b>	
What Kind Of Activities Do You Do In Your Leisure Time At Home?	I Watch TV	34	34	,134
	I Do Handiworks	2	2	
	I Read Books	17	17	
	I Grow Flowers	3	3	
	I Listen To Music	18	18	
	I Do Sports	14	14	
	I Do Housework	3	3	
	Other	9	9	
	<b>Total</b>	<b>100</b>	<b>100</b>	
Which Activities Do You Engage In More In The Leisure Time You Spend Out Of House?	Sports Activities	71	71	,468
	Social, Cultural And Artistic Activities	13	13	
	Touristic And Fun Trips	6	6	
	Skill Developer And Occupational Activities	4	4	
	Other	6	6	
	<b>Total</b>	<b>100</b>	<b>100</b>	



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

How Are You Influenced By The Activities Of Making Use Of Leisure Time?	I Find Them Relaxing	21	21	,346
	I Find Them Entertaining	32	32	
	I Find Them Pleasurable And Joyful	22	22	
	I Find Them Instructive And Educational	9	9	
	I Feel Relaxed And Less Anxious	12	12	
	Affects My Health Positively	4	4	
	<b>Total</b>	<b>100</b>	<b>100</b>	
What Kind Of Activities And Facilities Does Your Faculty Have To Make Use Of Leisure Times?	Student Sports Halls	80	80	,746
	Public Sports Halls	6	6	
	Entertainment Activities	5	5	
	Courses And Seminars About Various Occupations	4	4	
	Sport Activities For Health	4	4	
	Short And Long Term Touristic And Introductory Trips	1	1	
	<b>Total</b>	<b>100</b>	<b>100</b>	
What Are The Leisure Time Activities That Does Not Exist In Your Faculty But You Would Like Them To?	Various Sports Competitions Between Classes And Departments	31	31	,001
	Sport Programs For Health	10	10	
	Activities Of Nature Sports	22	22	
	Activities Of Entertainment	24	24	
	Activities For Occupational Development	13	13	
	<b>Total</b>	<b>100</b>	<b>100</b>	
What Are The Types Of Facilities Of Leisure Time Activities That Do Not Exist In Your Faculty But You Would Like Them To?	Student Sports Hall And Swimming Pool	51	51	,518
	Theatre, Cinema Hall Etc.	34	34	
	Sport Tracks For Health	13	13	
	Other	2	2	
	<b>Total</b>	<b>100</b>	<b>100</b>	

In Table 2, frequencies and percentages of the idea of students who participated in this research, on how they make use of their leisure time.

### *Students;*

Have responded to the question ‘how many hours of leisure time do you have in a week?’ as 12 hours and more (34 – 34%) as the most



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

answer and between 1-11 hours (22 -22%) as the least answer;

Have said that they mostly watch TV in their free time at home (34 -34%) and the thing they do least is doing housework with (3 -3%);

Have stated that the thing they do most in their leisure time outside of the house is to engage in sports activities with (71 – 71%) and the thing they do least is to engage skill developing and occupational activities;

Have responded the question asking them how they are influenced with the activities to make use of the leisure time as they find it entertaining with the highest rate (32 – 32%) and as they find it affecting their health positively with the least rate;

Have said that the least of facilities and activities they have in their faculty to make use of their leisure time is the touristic and introductory long and short term trips (1 – 1%) and the most they have is student sports halls (80 – 80%);

Have stated that the activities of leisure time they do not have but they would most like to have as various sports competitions between classes and departments with (31 – 31%) and that they would like least to have as sports programs for health with (10 – 10%);

Have expressed that the facilities of leisure time they do not have but would most like to have as student sports halls and swimming pool with (51 – 51%) and they would like least as other with (2 -2%).

Reviewing the significance level of the ideas of students who answered the question ‘what are the activities to make use of leisure time that do not exist in your faculty but you would like them to?’, it is seen that there is a significant difference ( $p<0,05$ ) between them.

Analysing the chi square test results of other variables in regard to gender variable, no significant difference ( $p>0.05$ ) could have been observed.



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**Table 3. Distribution of the Students' Ideas on Assessment of the Recreational Activities in respect to Sports and Chi Square Test Table in relation to the Comparison of these Ideas in regard to Gender Variable**

Variable	Distribution	F	%	P
Sport Branch Of The Student	Football	28	28	,008
	Volleyball	18	18	
	Basketball	2	2	
	Handball	4	4	
	Racket Sports	4	4	
	Aerobics – Gymnastics	2	2	
	Swimming	11	11	
	Folklore – Modern Dance	9	9	
	Taekwondo – Judo – Combatting Sports	12	12	
	Athletics	2	2	
	None of above	8	8	
	<b>Total</b>	<b>100</b>	<b>100</b>	
For How Long Do You Do These Activities In A Week?	1 – 3 Hours	63	63	,624
	4 – 6 Hours	19	19	
	6 Hours and more	18	18	
	<b>Total</b>	<b>100</b>	<b>100</b>	
If You Do Not Participate In These Activities, Please Specify The Reason	Economic Insufficiency	37	37	,197
	Reluctance For Sports	14	14	
	Intense Course Programs	15	15	
	Lacking Equipment Suitable for the Sport	34	34	
	<b>Total</b>	<b>100</b>	<b>100</b>	

In Table 3, frequency and percentage distributions of participant students' ideas on assessment of recreational activities.

Reviewing which of the sportive leisure time activities students most engage in to make use of their leisure time in and out of the faculty, the most distribution is seen to be foot-





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

ball with (28 -28%) and the least is aerobics – gymnastics with (2 -2%).

Reviewing for how long the students engage in these activities in a week, it is seen that the most answer is between 1-3 hours with (63 – 63%) and the least is 6 hours and more with (18 -18%).

The students have responded the reason not to engage in these activities as the economic insufficiency as the most given answer with (37 -37%) and reluctance for sports as the least given answer with (14 -14%).

Analysing the chi square results of the research in respect to gender variable, no significant difference ( $p>0.05$ ) can be seen in any of the items.

As a result of the research, in respect to leisure time and participation to leisure time sports activities, the ideas of the participants represent a significant difference in relation to the gender variable about the leisure time use activity areas, in that males rather prefer sportive competitions between classes and departments while females prefer sport programs for health; in addition, analysing the results in terms of sports, males lean towards football, taekwondo and swimming while females lean towards folklore mostly.

## DISCUSSION

People can get vital satisfaction from the activities they engage in in their leisure time and get distance themselves from the anxiety and stress of the daily life. Leisure times is a free area through which individual adapts to the society and express him/herself (Sabbağ and Aksoy, 2011: 14). In this scope, the research is important with this aspect. Besides, as a result of this study, the ideas of the students of Fırat University, Faculty of Sport Sciences, Department of Recreation on their participation to leisure time activities have been analysed. Fırat University and Elazığ Province has a more advantageous location in terms of sports facility establishment compared to surrounding provinces. As stated by the participant students, it is seen that the sport facilities in the university to make use of the leisure time are open for students. In the research, reviewing the weekly leisure times of the students, it is determined that an important deal of students have at least 8 hours of leisure time in a week. “Mansuroğlu (2002), in a similar study, have made a determination that students have leisure time of 5 hours within the week days and 10 hours in the weekends. Equivalent to this determination, the researcher reported that students to not have problems with having leisure time” (Mansuroğlu, 2002: 53-56).



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

Looking at with what kind of an activity the leisure time out of the house is spent, it is seen that students mostly engage in sport activities mostly. In line with the findings acquired, it can be said that the sports facility establishment at university and province level is sufficient and therefore that students benefit from these facilities effectively. Özdilek, Demirel and Harmandal, (2009), in their study named “Comparison of the Reasons Why Students Studying in School of Physical Education and Sports in Dumlupınar and Sakarya Universities Participate In Leisure Time Activities and Their Participation Levels”, have conducted a poll to 365 students studying in School of Physical Education and Sports in Dumlupınar and Sakarya Universities to determine their demographic structures, the reasons why they participate in leisure time activities and participation levels. In this application, it was determined that 19.9% of the students engage in sports activities in their leisure times (Özdelik et al., 2007: 2). Schrag and Strattman (2009) in their study have stated that the students from urban and rural areas have a high participation in music listening and sports groups (Schrag and Strattman, 2009: 156). Göktaş and Çolak (2006), have stated that personnel working in public institutions participates in sportive activities with a high rate as 52% in the leisure time activities outside of their institutions (Göktaş and Çolak, 2006).

Analysing the ideas of the students on in what way they were influenced by the leisure time activities, they have said that they find these activities rather fun, relaxing and pleasurable. Therefore, it can be concluded that such activities performed in leisure times achieve its objective. Sabbağ and Aksoy (2011: 18), in a study on leisure time activities of university students and employees, have stated that reasons of these students and employees participating in these leisure time activities were learning new things for male students (28.1%), being happy for female students (27.8%), being happy for male employees (33.8%) and getting free from a monotonous life for female employees (25.0%). Yetiş (2008) stated in his study that employees rather prefer being with friends, that they participate in leisure time activities because it is a nice environment and that many of them have expressed that they find these activities relaxing, resting and distancing from work stress (Yetiş, 2008: 40). Kandaz and Hergüner (2006), in their study named “Analysing How Teachers of Physical Education and Sports Use Their Leisure Times (Sakarya Province Sample)” have placed physical convenience and being health in the first rank with 63.8% within the reasons of participating in the leisure time activities (Kandaz and Hergüner, 2006: 16). Additionally, these researchers have determined in their study that the first two reasons for not participating in these leisure time activities



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

even though the participants of the survey stated that they wanted to participate in such activities as financial incapability with 43.6% and insufficient time with 30.1% (Kandaz and Hergüner, 2006: 16).

Analysing the answer of the students on the leisure time activities that do not exist in their faculty but they would like them to, the answers are seen to be mostly sport competition between classes and departments, activities of entertainment and nature sports. It is thought that paying attention to these demands of the students would be an important element in the effective use of leisure time. Reviewing the sportive activities students engage in at branch basis, it is seen that they engage in these sports 1 to 3 hours a week. Considering the weekly leisure time determine within this study, it can be said that this time is very short. It is thought that it will be convenient to conduct researches investigating the reasons of this situation. In the study of Hacıcaferoğlu et al. (2013), it has been observed that when the participation duration of university students in leisure time activities is analyzed by month, week, day and hour; the participation is the most intense for the options of 2 and 4 months a year, 2 and 3 days a week and 2 and 3 hours a day; they participate in these activities as a result of the personal attempts. Batmaz et al (2013) have suggested in their study that it is essential that families and instructors

encourage students to the sports. They have stated that students shall grow effectively in Turkish educational system and become healthy, informed, self-refreshing sportsmen who grow up with a sports culture and earn the social value they deserve (Batmaz et al, 2013: 68). In this study, it is concluded that provincial directorates of youth and sports, universities and local administrations shall increase the numbers of facilities on sports, art and culture and that students shall benefit from these at maximum level. Considering that students do not participate in social and cultural activities due to economic incapability and equipment insufficiency, duty of meeting these needs also fall to public entities and institutions.

As a result of the study, in respect to leisure time and participation to leisure time activities in respect to sports, a significant difference is found in respect to leisure time use activity fields that participants want in their faculties in line with the gender variable. Males prefer rather sportive competition between classes and departments while females demand sport programs for health. In sportive aspect, males prefer football, taekwondo and swimming mostly while females prefer folklore mostly.

For students to participate more in leisure time activities, it can be suggested that plan-



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

ning is done in line with course hours and sport hall suitability.

## REFERENCES

**AYDOĞAN, İ., GÜNDOĞDU, F.B., (2006).**

Bayan öğretim elemanlarının boş zamanlarını değerlendirme etkinlikleri. Sosyal Bilimler Enstitüsü Dergisi, 2: ss.217-232

**BAKIR, M., (1990).** Importance of Recreation and Tourism Relation on Forming Tourism Policies, Doctoral Thesis, İstanbul University Institute of Social Sciences, İstanbul

**BATMAZ, H.Ç., YILDIRIM, F., COŞKUNER, Z., KARADAĞ, M., ATALI, A., (2013).** Expectation and Satisfaction Levels of Volleyball Players in Secondary Education Institutions (Elazığ Sample). Journal of New World Sciences Academy 2B0096, 8, (4), ss.65-74

**ÇİĞDEM, S., AKSOY, E., (2011).** Free Time Activities of University Students and Employee: Adıyaman Sample, Mehmet Akif Ersoy University Sosyal Bilimler Dergisi, Yıl:3, Sayı:4, ss.10-23

**GÖKTAŞ, Z., ÇOLAK, M., (2006).** “A Study on Recreation Ways of Personnel Working at Tax Office Directorate (Balıkesir Sample)”, International Sports Science Congress, Muğla, P-008

**HACICAFEROĞLU, S., GÜNDOĞDU, C., HACICAFEROĞLU, B., (2012).** Evaluation of Opinions of University Students on Sports Facilities and Organizations (İnönü University Sample), Spor ve Performans Araştırmaları Dergisi, Cilt:3, Sayı:1, s:43

**HACICAFEROĞLU, S., GÜNDOĞDU, C., HACICAFEROĞLU, B., YÜCEL, A.S., (2013).** Beden eğitimi ve spor yüksekokulu öğrencilerinin serbest zaman (rekreasyon) aktivitelerine katılımlarının belirlenerek incelenmesi (İnönü üniversitesi örneği), Spor ve Performans Araştırmaları Dergisi, 5 (1): 5-17, DOI: 10.17155/spd.23458

**HILLS, P., ARGYLE, M., RACHEL, R.R., (2000).** Individual differences in leisure satisfactions: an investigation of four theories of leisure motivation. Personality and Individual Differences, 28, ss.763-779

**KANDAZ GELEN, N., HERGÜNER, G., (2006).** Examining Recreation Ways of Physical Training and Sports Instructors (Sakarya Province Example), International Sports Science Congress, P-019, Muğla

**KARAKÜÇÜK, S., (1999).** Rekreasyon – Discretionary leisure activity, Bağırhan Yayınevi, Ankara, ss.55-60



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: C22-G22-M10-M19-M50 ID:352 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**KARAKÜÇÜK, S., (2001).** Recreation: discretionary leisure activity. (4.edition), Ankara, Gazi Kitabevi

**MANSUROĞLU, S., (2002).** Determining Free Time Characteristics and Outdoor Recreation Tendencies of Students of Akdeniz University, 15 (2), ss.53-56

**MIECZKOWSKI, Z., (1990).** World Trend in Tourism and Recreation. New York: Peter Lang Publishing

**ÖNDER, S., (2003).** A Study on Determining Recreational Tendency and Requests of Selçuk University Students. Selçuk University Ziraat Fakültesi Dergisi, 17 (32), ss.31-38

**ÖZDİLEK, Ç., DEMİREL, M., HARMANDAR, D., (2007).** “Comparing Participation Reasons and Levels of School of Physical Education and Sports Studying in Dumlupınar and Sakarya University”, Uluslararası İnsan Bilimleri Dergisi ISSN:1303-5134, C:4, s.2

**ROBERTS, K., (2006).** Leisure in Contemporary Society (2.baskı) Wallingford, UK: Cabi

**SABBAĞ, Ç., AKSOY, E., (2011).** Üniversite Öğrencileri Ve Çalışanların Boş Zaman Etkinlikleri: Adıyaman Örneği, Sosyal Bilimler Enstitüsü Dergisi, 3 (4): ss.10-23

**SCHRAG, K., STRATTMAN, K., (2009).** Free-Time Literacy Activities, Proceedings of the 5th Annual GRASP Symposium, Communication Sciences and Disorders, College of Health Professions, Wichita State University, pp:156-157

**TEZCAN, M., (1982).** Evaluation of free times in terms of sociology. Ankara: A.Ü. Yayını, s.10

**TEZCAN, M., (1994).** Sociology of Recreation, Atilla Kitabevi, Ankara, s.76

**TORKILDSEN, G., (1992).** Leisure And Recreation Management, Third Edition, s.25

**YETİŞ, Ü., (2008).** Recreation Habits of Public Officers working at Public Institutions: Tugsaş Sample, Beden Eğitimi ve Spor Bilimleri Dergisi, 10(2), ss.34-45



OKÇULARIN EL KAVRAMA KUVVETİNE BİRİM ANTRENMANIN  
ETKİSİ<sup>1</sup>EFFECT OF UNIT EXERCISE ON HAND GRIP STRENGTH OF THE  
ARCHERSYonca Süreyya SEZER<sup>1</sup>, Baha Engin ÇELİKEL<sup>2</sup>, Ercan GÜR<sup>3</sup>, Yüksel SAVUCU<sup>4</sup><sup>1-4</sup> University of Firat, Faculty of Sports Sciences, Elazığ / TurkeyORCID ID: 0000-0003-3072-8302<sup>1</sup>, 0000-0002-8429-969X<sup>2</sup>, 0000-0001-6690-828X<sup>3</sup>, 0000-0002-2749-6806<sup>4</sup>

**Öz: Amaç:** Araştırmanın amacı erkek okçularda bir birim antrenman öncesinde ve antrenman sonrasında el kavrama kuvvetindeki değişimin değerlendirilmesidir. Araştırmaya Elazığ ili gençlik spor müdürlüğü okçuluk takımı 16-19 yaş grubu, (n=16) sporcusu dahil edildi. **Yöntem:** Araştırma kapsamında deney grubuna antrenmana başlama öncesinde tüm test ve ölçümler (yaş, boy, vücut ağırlığı, spor yaşı, el kavrama kuvveti testi) yapıldıktan sonra antrenman bitiminin hemen ardından da aynı testler tekrarlanıp değerlendirildi. Bir birim antrenman programı ise okçuluk takımı antrenörünün uyguladığı o günün plan ve programda olan ısınma, soğuma ve hedefe 200 ok atışından oluşturuldu. İstatistiksel analizlerinde tanımlayıcı istatistik yapıldı, egzersiz öncesi ve sonrası el pençe kuvvetleri arasındaki anlamlılık düzeylerinin belirlenmesinde ise eşleştirilmiş örneklem t testi analizi yapıldı. Analizlerde önem düzeyi 0.05 olarak gösterildi. **Bulgular:** Sporcuların sağ el pençe kuvveti (n=16) egzersiz öncesinde  $41,4250 \pm 2,24892$  iken egzersiz sonrasında  $42,2875 \pm 2,24870$  ( $p<0,05$ ), sol el pençe kuvveti ise egzersiz öncesinde  $39,2125 \pm 2,04811$  iken egzersiz sonrasında  $39,3938 \pm 2,12762$  ( $p<0,05$ ) değerleri ile anlamlı bulundu. **Sonuç:** Sonuç olarak okçuluk sporcularında bir birim antrenman sonunda el kavrama kuvvetinde istatistiksel olarak pozitif yönde anlamlı bir artış olduğu görüldü. Bunun sebebinin ise antrenmanın orta şiddette doğru teknik hareketleriyle yapılmasından dolayı kas içi ısı ve koordinasyonun ve motivasyonun tam sağlanmasına bağlı olduğu söylenebilir.

**Anahtar Kelimeler:** Okçuluk, El Kavrama Kuvveti, Ok Atış Antrenmanı

**Abstract: Objective:** The purpose of this study is to evaluate the difference of hand grip strength for male archers before and after one unit exercise. The study incorporated sportsmen of 16-19 (n=16) from the archery team of Elazığ Provincial Directorate of Youth and Sports. **Method:** All tests and evaluations (age, height, body weight, sports age, hand grip strength test) applied to the experimental group before starting exercise under the research were applied to the sportsmen immediately after the end of the exercise and relevant evaluations made. One unit exercise program consisted of the warm-up, cool down and shooting 200 arrows on target which were scheduled by the coach of the archery team for that day. For descriptive statistics analysis, paired t-test was utilized to determine the significance levels of hand grip strengths before and after the exercise. Significance level was indicated as 0.05 in analysis. **Results:** While the right hand grip strength of the sportsmen (n=16) was  $41,4250 \pm 2,24892$  before the exercise, it was found significant as  $42,2875 \pm 2,24870$  ( $p<0,05$ ) after the exercise, and left hand grip strength determined as  $39,2125 \pm 2,04811$  before the exercise was found significant as  $39,3938 \pm 2,12762$  ( $p<0,05$ ) in the aftermath. **Conclusion:** Consequently, it is no wrong to say that a statistically positive increase was observed on the hand grip strengths of the archery sportsmen following a unit of exercise, and this was linked to the complete in-muscle warming and coordination due to exercise performed with moderate, correct techniques.

**Key Words:** Archery, Hand Grip Strength, Arrow Shooting Exercise

Doi: 10.17363/SSTB.2017.3.1

(1) Corresponding Author: A. Serdar YÜCEL, Firat University, Faculty of Sports Sciences, Elazığ / Turkey, alsetu\_23@hotmail.com, Received: 07.05.2017, Accepted: 21.09.2017, Type of article (Research -Application) Conflict of Interest: None / "None of Ethics Committee"





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## INTRODUCTION

Like shot, javelin and disk throwing are sports made with tools that are based on certain techniques and rules, archery is also a sport that is made with tools and consists of behaviours that should be performed technically interdependent and accordant ways. The goal in archery is also not getting a random success, but instead getting a deliberately earned bull's eye target success with a conscious and disciplined training (Ertan et al., 2005: 95-104). The most convenient time to begin archery is 12 to 14 years of age. And being a good archer takes 1.5 to 2 years. After initial period you pass onto youth group (16-18 years) and then to adults division which in total takes 4 to 6 years (<http://bilginaticilik.com>, 11.10.2017). In archery, almost all archers train over 1.5-2 hours in each training. This overlaps with the training hours applied in the world and with the training hours of high performance athletes. Analysing the training hours in relation to training efficiency, training quality and training programs for our archers to show higher performances can be the subject of other studies (Karanfilci et al., 2014: 112).

In archery which is an individual sport, the athlete pursues his competition until the evening with the throws beginning from the morning. The pulling weight of the bow is between 14-22 kg, changing from athlete to athlete. As 144 arrows are thrown during the

competition, excluding the trials, the athlete would have lifted  $144 \times 20 = 2880$  kg on average along the day (Kolayış and Mimaroglu, 2008: 11, 12).

Archery is defined as a sport that requires strength and endurance of the upper body, especially the shoulder muscles (Mann and Littke, 1989:85-92). Studies have shown that in an international event, a male archer pulls 45 pounds arc in a throw and during four days, he pulls at least 75 arcs a day (FITA 2006). This means that only in one day, approximately 3400 pounds (1546 kg) force in on the bone, bond and muscle structures (Karanfilci et al., 2014: 71).

Considering these numbers, it is seen that persistence in archery is important. However, the weight of the bow in each throw does not constitute the maximal strength. In one series of arrow throwing, each throw happens in 5 to 8 seconds on average. In this period, athlete must pull his arc, aim his target and complete his throw. There are many factors that affect this lining that appears to be very simple. We can separate these as internal and external factors. Internal factors can be ranged as arm and gripping strength, reaction time, concentration on the target, having sufficient condition and technical features and psychological condition. As for external factors, the sufficiency and convenience of the materials used, good weather conditions and quiet envi-



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

ronment can be mentioned. Bringing all these qualities together, reaching at the highest arm strength performance might become difficult. As mentioned above, more than one factor in arm wrestling may affect the competition performance (Kolayış and Mimaroglu, 2008: 12).

The hand is one of the most important components of the upper extremity affecting its functionality. Among the functions of the hand, gripping is a function that is important for the continuity of the daily life activities (Angyan et al., 2003:227). Therefore, gripping strength is accepted as an objective measurement in the assessment of upper extremity performance. (Biçer, 2013:21-32)

Studies showed that, alongside with being correlated with upper extremity muscle strength, the hand gripping strength is also related with general body muscle strength and pulmonary muscle strength (Ertan et al., 2003:39).

For this reason, the aim of this study is to reveal changes in the hand gripping strength which can affect the competition of male archers before and after one unit training.

## MATERIAL and METHOD

The sample of the study consists of 16 male athletes from 16-19 age group arm wrestling team of Firat University in Elazığ. The ages,

heights, body weights and sport histories of the subjects in the study were given in Table 1, together with their averages and standard deviations.

## Data Collection Tools

To determine the individualistic qualifications of the subjects, first, the records about the athletes were analysed and interviews with the administrative personnel were performed, in which information on Firat University operation, and life and educational conditions of the students were acquired. The administrative personnel and the athletes were informed about the study to be conducted.

The study is performed by voluntary participation of the archery team athletes and within this scope, in the training hall of Firat University arm wrestling team in Elazığ, before and after 2 hours period of training, age, height, body weight, sport history and hand gripping strength test measurements were taken and assessed.

The one unit training program applied on the day the measurements were taken consisted of warm up, cool down, and 200 arrow throwing to the target which were in that day's plan and program applied by the trainer.

## Applied Tests and Measurements,

**1- Age** (Age on the ID is used as a standard),



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**2- Height** (The device used is the height scale with 0.01m sensitivity),

**3- Body weight** (The device used is the digital bascule with 0.01kg sensitivity). The subjects were weighed on sensitive digital bascule (kg. unit) on bare foot and with only shorts on them. Height measurements were performed by subjects standing in upright position under the metal bar used fixedly in height scale. The metal bar was adjusted to remain on the head of the subject and the height was read on the metal bar in (cm) (Özer, 1992).

**4- Sports age** (The records of Elazığ Fırat University arm wrestling team were used).

**5- Gripping strength measurement** (The device used is Jamar hydraulic dynamometer). The gripping strength was performed from right and left hand by “Hand Dynamometer”. During the measurement, the subject

stood upright on foot and the measurement was taken without bending the arm that is being measured, without letting it touch to the body and with a slight distance from the body. Same process was repeated three times both for right and left arm and the best value was recorded in kilograms (Özer, 1992).

### Statistical Analysis of the Data

In the analysis of the averages and standard deviations of the demographic information, descriptive statistics was used; in determining the significance level between pre and post exercise hand gripping strength, paired sample t test analysis was used. The results are combined by tabling. Data were analysed via 22.0 software SPSS package program. The significance level in analyses were shown to be  $\alpha = 0.05$  (Özdamar, 1999).

### FINDINGS

**Table 1. Averages and Standard Deviations of Demographical Information (Descriptive Statistics)**

Variables	N	Min.	Max.	Mean	Std. Deviation
Age	16	16,00	19,00	17,8750	,91243
Height	16	1,62	1,83	1,7350	,09921
Weight	16	59,00	85,00	71,9375	8,74362
Sports Age	16	1,00	3,00	2,0625	,57373

When Table 1 is analyzed, it is observed that the average age of the participants is  $17.87 \pm 0.91$ , their average height is  $1.73 \pm$

$0.09$ , average weight is  $71.93 \pm 8.74$  and their average athletic age is  $2.06 \pm 0.5$ .



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**Table 2. Averages and Standard Deviations of Hand Gripping Strength in The First Training (Descriptive Statistics)**

Variables	N	Min.	Max.	Mean	Std. Deviation
Right – Before	16	28,20	58,50	41,4250	5,67358
Right – After	16	29,30	58,20	42,2875	5,94632
Left – Before	16	27,80	51,50	39,2125	5,17963
Left - After	16	37,30	55,40	39,3938	4,57823

When Table 2 is analyzed, it is observed that the average right hand gripping strength before the training is  $41.42 \pm 5.67$  and left hand

strength is  $39.21 \pm 5.17$  while the right hand gripping strength after the training is  $42.28 \pm 5.94$  and left hand is  $39.9 \pm 4.57$ .

**Table 3. The Significance Level between Pre and Post Training Hand Gripping Strength in The First Training (Paired samples statistics).**

Variables	N	Before the exercise	After the exercise	P
Right	16	41,4250 $\pm$ 2,24892	42,2875 $\pm$ 2,24870	0,000
Left	16	39,2125 $\pm$ 2,04811	39,3938 $\pm$ 2,12762	0,000

According to Table 3, while the right hand gripping strength of athletes (n=16) is  $41.4250 \pm 2.24892$  before the training and  $42.2875 \pm 2.24870$  (p<0.05) after the training, left hand

gripping strength is  $39.2125 \pm 2.04811$  before the training and  $39.3938 \pm 2.12762$  (p<0.05) after the training and these values are significant.

**Table 4. Averages and Standard Deviations of Hand Gripping Strength in The Second Training (Descriptive Statistics)**

Variables	N	Min.	Max.	Mean	Std. Deviation
Right – Before	16	30,40	60,70	43,3230	4,57151
Right – After	16	31,50	60,40	45,1375	6,93132
Left – Before	16	29,90	53,60	40,3145	4,67143
Left - After	16	38,30	57,50	41,3621	5,87153

According to Table 4, it is seen that the average right hand gripping strength of the par-

ticipants before the training is  $43.32 \pm 4.57$  and  $40.31 \pm 4.67$  for the left hand and the right



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

hand value after the training is  $45.13 \pm 6.93$   
and  $41.36 \pm 5.87$  for the left hand.

**Table 5. The Significance Level between Pre and Post Training Hand Gripping Strength in The Second Training (Paired samples statistics).**

Variables	N	Before the exercise	After the exercise	P
Right	16	43,3230 $\pm$ 2,21614	45,1375 $\pm$ 2,82621	0,000
Left	16	40,3145 $\pm$ 2,02341	41,3621 $\pm$ 2,22282	0,000

According to Table 5, while the right hand gripping strength of athletes (n=16) is  $43.3230 \pm 2.21614$  before the training, it is  $45.1375 \pm 2.82621$  (p<0.05) after the training; left hand

gripping strength is  $40.3145 \pm 2.02341$  before the training and  $41.3621 \pm 2.22282$  (p<0.05) after the training and these values are significant.

**Table 6. Averages and Standard Deviations of Hand Gripping Strength in The Third Training (Descriptive Statistics)**

Variables	N	Min.	Max.	Mean	Std. Deviation
Right – Before	16	31,20	60,42	44,5210	3,27151
Right – After	16	32,21	61,15	45,1775	4,14232
Left – Before	16	29,92	53,82	40,9135	3,37363
Left - After	16	38,57	57,70	41,3938	2,47222

According to Table 6, the average right hand gripping strength of the participants is  $44.52 \pm 3.27$  and  $40.91 \pm 3.37$  for the left hand be-

fore the training while the right hand gripping strength is  $45.17 \pm 4.14$  and left hand is  $41.39 \pm 2.47$  after the training.

**Table 7. The Significance Level between Pre and Post Training Hand Gripping Strength in The Third Training (Paired samples statistics).**

Variables	N	Before the exercise	After the exercise	P
Right	16	45,5210 $\pm$ 2,24892	45,1775 $\pm$ 2,34211	0,000
Left	16	40,9139 $\pm$ 2,11711	41,3938 $\pm$ 2,22137	0,000





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

According to Table 7, while right hand gripping strength of athletes (n=16) before the training is  $44.5210 \pm 2.24892$ , it is  $45.1775 \pm 2.34211$  ( $p<0.05$ ) after the training; left hand gripping strength before the training is  $40.9139 \pm 2.11711$  and it is  $41.3938 \pm 2.22137$  ( $p<0.05$ ) after the training and these values are significant.

## DISCUSSION

The most important finding of this study was that the training improves the hand gripping strength performance of the archers significantly. In the age, height, weight and sport history measurements of

the experiment group, there has not been a statistically significant change before and after the exercise.

Essentially, knowing the reaction and adaptation of our bodies to exercise, the damage the exercise creates (physiology, functional anatomy, sports medicine), how our body moves (biomechanics, kinesiology) and the effect of our brain and therefore our nerve system on the events (neurology) and determining the social and psychological status of the athlete is very important for the success (Kılınç et al., 2010:21).

Performance is the score the athlete concretely presents as a result of the combination of his physical, physiological, bio-motoric,

psychological, mental, technical and tactical factors. This score of the athlete is affected by more than one factor. From the training and kinesiology perspective, it is important to measure and test each factor affecting the performance and prepare the training plan and program in line with these measured values. In many sport branches, the researchers studied performance analyses with integrated approach. It is important to prepare training plans and programs as well as determining the strengths and weaknesses of the athletes (Clarys et al., 1990:242). The importance of the performance development with correct and planned training in archery sport as in all other branches arises during this training period (Wang and Landers, 1986:469).

Feeling of dominating on the arc and the arrow via hang gripping strength is important during throwing. How good an archer's domination on arc and arrow during the throw is, that much his self-confidence will boost and that decent and strong his throws will be. And this brings together a good throwing technique and success rate (Nicolay and Walker, 2005:611, 612). The gripping strength of the hand is accepted as an indicator of the muscle strength of the individual as well as an objective component of the functional integrity of upper extremity (Çalışkan and Gökbel, 1997:198). For humans, being able to use the left hand or both hands (ambidexterity) can





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

be an important advantage (İncel et al., 2002: 14). Considering that in many fields right hand is used with a rate of 80-90% and almost all defence and offence approaches are planned in this way, it is thought that being able to use both hands equally can be advantageous tactically and this situation can create important advantages for left hand users and ambidexter individuals. Also in archery sport, as both hands are used in gripping the arc and arrow, both right and left hand gripping strength provides advantage by playing an important role in affecting the performance and point scoring (Nicolay and Walker, 2005:612).

The effect of the strength on the success is accepted by everyone in all sports branches. The notion of the strength is misinterpreted especially by those who are not into sports and those who are but who do not closely follow the scientific development of sports. The strong athlete is generally considered to have a strong structure, is a go-getter, valiant and tough and the idea that such athletes are more successful shines.<sup>1</sup> Today, strength and the strong athlete is evaluated by proportioning the strength per weight they create, alongside with their body structures (Castro et al., 1995: 399; Winter and Maughan, 1991). Today, a strong athlete is the athlete that has static, main, concentric, eccentric strengths, speed strength, pure (absolute) strength, strength

limit, relative strength, starting strength, continuity in strength, sudden movement strength, dynamic isometric strength, special strength, and functional strength and that develops these strengths at its best as required by the sport branch and use them in the best way (Yesis, 2000). Especially in weight sports, the quality and quantity of the strength gain gradually more importance. Comparing heavyweights and lightweights, it is seen that lightweights are stronger and more successful compared to heavyweights as per the test and measurements applied and the results they gain in the competitions. This is also valid in team sports (Savaş and Uğraş, 2004:264). Hand gripping strength test is a test that measures fore arm strength rather than the general physical strength and test results are more valuable for the athletes that grip, throw or move (weight lifting, baseball, etc.). Therefore, hand gripping test results of sedentary individuals and those athletes who do not specifically use fore arm strength in their branches may resemble (Gilbert and Knowlton, 1983: 138).

In a study conducted by Saka and Yıldız after six weeks sports training, the hand gripping strength of participants increased by 5% in both hands, and one minute push-up, sit-up and pull-up numbers of participants increased by 36%, 27% and 45%, respectively (p<0,001) (Saka and Yıldız, 2008). In sports

1 (www.antrenmanbilgisi.com, 13.10.2017).



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

branches, the hand gripping strength is the indicator of the strength of the entire body for physical strength. Researchers state that hand gripping strength is directly related with the general strength structure and it is thought to give, in a sense, a general information about the physical strength (Niebuhr and Marion, 1990:96-101). Aydaş, in his study in 2000 on Turkey National Boxing Team (n=10, age=22.7±3.3), Military Police Boxing Team (n=10, age=22.8±1.5) and Bilkent University Boxing Team (n=10, age= 23.1±2.0) has found the right and left hand gripping strengths of the National Team as 45.3 and 41.9 respectively, the right and left hand gripping strengths of Military Police Boxing Team as 41.6 and 40.2 respectively and the right and left hand gripping strengths of Bilkent University Boxing Team as 44.1 and 42.8 respectively (Aydaş, 2000: 70). In the study of Sezer et al. (2017), it has been determined that the grip strength of wrist wrestlers before and after the training have been recorded and the grip strength before the training has been very well while this grip strength has reduced after the training (Sezer et al., 2017:198). Şener, in his study in 1994 named analysis on some of the conditional qualities of male swordplay national team consisting of 12 team members (age=21.0), found the unarmed (recessive) hand gripping strength of sword-players as 50.08 kg and armed (dominant) hand gripping strength as 53.91 kg on

average (Şener, 1994: 48). Hazar, in a study he conducted in 1992, found the relative gripping strength of 17 elite male wrestler as 0.657 kg. He reported the right hand gripping strength of the wrestler as 48.47 kg before and 52.29 kg after weight loss, and left hand gripping strength as 46.42 kg before and 48.59 kg after weight loss (Hazar et al., 1992). Also according to another study, after the last test, the right and left hand gripping strength of boxers were found to be 26.27 kg and 23.80 kg; same were found to be 27.87 kg and 22.67 kg for taekwondo athletes and 27.87 kg and 27.73 kg for karate players (Savaş and Uğraş, 2004:257-274). Aslankeser in his study, has found the isometric strength as 153±26 N. before the training in resting condition and as 167±66 n. after the training also in resting condition (Aslankeser, 2010: 78).

In this study, hand gripping values shows a parallel pattern with the values in the literature; however, the difference in our study is that the increase in the strength occurred after the training. In the first training, pre-exercise right hand value was (41,4250 ± 2,24892) and left hand value was (39,2125± 2,04811), and post-exercise right hand value was (42,2875 ± 2,24870) and left hand value was (39,3938± 2,12762) and these were found to be statistically significant (p<0,05) in positive direction. In the second training, pre-exercise right hand value was (43,3230±2,21614) and left hand



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

value was  $(40,3145 \pm 2,02341)$ , and post-exercise right hand value was  $(45,1375 \pm 2,82621)$  and left hand value was  $(41,3621 \pm 2,22282)$  and these were found to be statistically significant ( $p < 0,000$ ) in positive direction. In the third training, pre-exercise right hand value was  $(44,5210 \pm 2,24892)$  and left hand value was  $(40,9139 \pm 2,11711)$ , and post-exercise right hand value was  $(45,1775 \pm 2,34211)$  and left hand value was  $(41,3938 \pm 2,22137)$  and these were found to be statistically significant ( $p < 0,05$ ) in positive direction. As in sword-players, ensuring the high motivation in arc and arrow handling habits, the intensity of the arrow handling and throwing trainings and complete intra-muscle coordination in archery can be the reasons increasing the strength. As measurements are taken during the strength training period and as the stress of the training follows at a rate of 60%, it is thought that the fact that a post-exercise exhaustion does not occur, might have caused an increase in the hand gripping strength. Considering the abovementioned studies, it is seen that the hand gripping strengths of the athletes dealing with the same sports can even vary.

The aim of the physical training in archery is to gain the athlete a condition that can endure the competition conditions mentally and physically. An archer with a good physical condition is the one who developed his re-

flexes, controls his muscle strength and entire body better and accordingly has a higher performance, and develops this success consistently (Atalay, 1994). Exercises that strengthen the muscles, develop the respiratory and circulatory system and increase the body flexibility are those paid most attention in physical training program of arm wrestling (Kolayış and Mimaroglu, 2008: 14).

In our study, the experiment group is chosen from athletes that use their right hand as the dominant hand.

The hand gripping strength measurement values of the experiment group students who were subjected to one unit training taken before and after the training were compared statistically. According to these results, the right hand gripping strength of the experiment group showed a 0.8625 kg and left hand gripping strength showed a 0.1813 kg increase after the training. This negative decrease in the strength has been determined to be statistically significant. In the second training, the right hand gripping strength of the experiment group showed a 1.8145 kg and left hand gripping strength showed a 1.0476 kg increase after the training. In the third training, the right hand gripping strength of the experiment group showed a 0.6365 kg and left hand gripping strength showed a 0.4799 kg increase after the training. These positive increases in the strength after each training



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

have been determined to be statistically significant ( $p < 0.05$ ).

These types of studies are needed as there are limited literature knowledge on the subject and to find answers to the questions about what kinds of advantages and disadvantages the strength exercise tests of the archery athletes have.

In consequence, we can say that hand gripping strength is very important in archery sport and that it is one of the elements that affect the performance positively.

## REFERENCES

**ANGYAN, L., TECZELY, T., ZALAY, Z., KARSAI, Y., (2003).** Relationship Of Anthropometrical, Physiological And Motor Attributes To Sport-Specific Skills. Acta Physiology Hung 90(3): ss.225-231

**ASLANKESER, Z., (2010).** Effects of Anaerobic Trainings on Central - Peripheral Exhaustion and Recovery Processes”. Çukurova University Institute of Health Sciences Department of Physical Training and Sports Doctoral Thesis Adana

**ATALAY, N., (1994).** Okçuluk ve Eskrim Sporlarında Spora Bağlı Gelişen Postüral Deformiteler ve Rehabilitasyonu, Yüksek Lisans Tezi, G. Ü. Sağlık Bilimleri Enstitüsü

**AYDAŞ, F., (2000).** Comparing Selected Physical and Physiologic Characteristics of Turkey National Boxing Team and Other Boxers, Masters Thesis Ankara University Institute of Health Sciences, Ankara

**BİÇER S.Y. (2013).** “Effect of Reaction Speed on The Gunshot Hit Rates of Students in Police School” Aust. J. Basic & Appl. Sci., 7(2): ss.21-32

**CASTRO, M.J., MCCANN, D.J., SHAFFRATH, J.D., ADAMS, W.C., (1995).** Peak Torque Per Unit Cross-Sectional Area Differs between Strength-Trained and Untrained Young Adults. Medicine and Science in Sports and Exercise, 27(3): ss.397-403

**CLARYS, J.P., CABRI, J., BOLLENS, E., SLEECKX, R., TAEYMANS, J., VERMEIREN, M., VAN REETH, G., VOSS, G., (1990).** Muscular Activity of Different Shooting Distances, Different Release Techniques, and Different Performance Levels, with and Without Stabilizers, in Target Archery. Journal of Sports Sciences, 8, ss.235-257

**ÇALIŞKAN, S., GÖKBEL H., (1997).** “Relations between Hand Grip Power and Hand Preference with Hand Skills.” Genel Tıp Dergisi, 7: ss.195-203





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**EROĞLU, İ., AÇIKADA, C., TINAZCI, C., (1996).** Effect of Pulse, Lactic Acid Shooting Time of National Women Archery Team on Score during Trainings, 4th Sports Science Symposium. Hacettepe University

**ERTAN, H., KENTEL, B., TÜMER, S.T., KORKUSUZ, F., (2003).** Activation Patterns İn Forearm Muscles During Archery Shooting Human Movement Science, 22: ss.37-45

**ERTAN, H., KENTEL, B.B., TÜMER, T., (2005).** Reliability and Validity Testing of an Archery Chronometer. Journal of Sport Science and Medicine, 4, 95-104

**FİTA TÜZÜĞÜ VE KURALLARI-KİTAP 3 (2006).** Rules of Indoor Target Archery (Ertan, H., Yapar, A. Çev. Ertan, E. Ed

**GİLBERT, J.C., KNOWLTON, R.G., (1983).** “Simple Method To Determine Sincerity Of Effort During A Maximal İsomeric Test Of Grip Strength.” Am J Phys Med; 62: ss.135-144

**HAZAR, M., AYDOS, L., ELBEK Ş., DURMUŞ O., (1992).** The effect of falling of weight on Serum Testosterone and Cortisol Levels in Wrestlers and the relation with Endurance, Quick strength and Maxvo2. Hacettepe University, 2. Natio-

nal SporT Sciences Congress Abstracts, Ankara

**İNCEL, N.A., CECELİ E., DURUKAN B.P., ÖKEN Ö., ERDEM R.H., (2002).** “Evaluation of Effects of Sex and Hand Dominance on Hand Grip Power.” Romatizma, 17 (1) ss.12-16

**KARANFİLCİ, M., KABAK, B., HAMAMCILAR, O., ARSLANOĞLU, E., (2014).** Okçulukta spor yaralanmaları, Spor Genel Müdürlüğü, Sağlık İşleri Dairesi Başkanlığı yayınları, Ankara

**KILINÇ, F., CESUR, G., ATAY, E., ERSÖZ, G., KILIÇ, T., (2010).** Study on Physical, Physiologic and Force Factors that Affect Technical Shooting Performances of 10-14 Age Group Elite Female Archers. S.D.Ü. Tıp Fak. Derg: 17(3) /18-24

**KOLAYIŞ, EROĞLU, İ., MİMAROĞLU, E., (2008).** Effects of Pulse and Aiming Speed of Archery National Team on Shooting Score during Training Environment. Uluslararası İnsan Bilimleri Dergisi 5(1):1-18

**MANN, D.L., LITKE, N., (1989).** Shoulder injuries in Archery. Canadian Journal of Sport Sciences 14(2): ss.85-92

**NIEBUHR, B., MARION, R., (1990).** Voluntary Control Of Submaximal Grip Strength. Am J Phys Med Rehabil, 69: ss.96-101





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: H10-H11-L1-L2-L6-L10 ID:351 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**NİCOLAY, C.W., WALKER, A.L., (2005).**

“Grip Strength And Endurance: Influences Of Anthropometric Variation, Hand Dominance, and Gender.” Int J Ind Ergon; 35: ss.605-618

**ÖZDAMAR, K., (1999).** “Statistical Data Analysis with Package Programs” Kaan Kitabevi, Eskişehir

**ÖZER, K., (1992).** Anthropometric Measurements, Kazancı Matbaası, İstanbul

**SAKA, T., YILDIZ, Y., (2008).** Effects of Sport School Curriculum on Some Anthropometric and Functional Tests in Young Males, Niğde Üniversitesi Beden Eğitimi Ve Spor Bilimleri Dergisi Cilt 2, Sayı 1

**SAVAŞ S., UĞRAŞ A., (2004).** Effects of Eight-Weeks of Pre-season Trainings on Physical and Physiologic Characteristics of Male Box, Taekwondo and Karate Students in Universities.“Gazi Eğitim Fakültesi Dergisi, Cilt 24, Sayı 3, ss.257-274

**SEZER, S.Y., ÇELİKEL, B.E., YÜCEL, A.S., KARADAĞ, M., SAVUCU, Y.,**

**(2017).** Birim Antrenmanin Bilek Güreşçilerin El Pençe Kuvvetine Etkisi Journal Of Educational and Training Studies 5(6): ss.196-201

**ŞENER, H., (1994).** To investigation some conditional properties of Fencing National team athletes. master thesis, Ankara

**WANG, M.Q., LANDERS, D.M., (1986).** Cardiac Response and Hemispheric Differentiation During Archery Performance: A Psychophysiological Investigation. Psychophysiology, 23: s.469

**WINTER, E., MAUGHAN, R.J., (1991).** Strength and Cross-Sectional Area of the Quadriceps in Men and Women. Journal of Physiology-London. 438: ss.175-175

**YESİS M., (2000).** The Many Faces of Strength. California State University, Fullerton

## INTERNET SOURCES

<http://www.antrenmanbilgisi.com/relatif-kuvvet/>, Erişim tarihi: 13.10.2017

[http://bilginaticilik.com/?page\\_id=64](http://bilginaticilik.com/?page_id=64), erişim tarihi: 11.10.2017.

ANALYSIS ON THE CYBER VICTIMIZATION AND AWARENESS OF  
CLASSIFICATION BASKETBALL REFEREES IN TURKEY<sup>1</sup>TÜRKİYE'DE BASKETBOL KLASMAN HAKEMLERİNİN SİBER  
MAĞDURİYETLERİ VE FARKINDALIKLARININ İNCELENMESİSerdar ORHAN<sup>1</sup>, Engin AKARSU<sup>2</sup>, A. Serdar YÜCEL<sup>3</sup>, Yüksel SAVUCU<sup>4</sup><sup>1-3-4</sup> University of Firat, Faculty of Sports Sciences, Elazığ / Turkey<sup>2</sup> Austrian Basket Fighters Club Basketball Coaches Vienna / Austria

ORCID ID: 0000-0002-7988-5045, 0000-0003-3346-2466, 0000-0002-4543-4123, 0000-0002-2749-6806

**Öz: Amaç:** Bu çalışma, Türkiye'de basketbol klasman hakemlerinin siber mağduriyet ve farkındalığını araştırmak amacıyla yapılmıştır. **Yöntem:** Türkiye'de basketbol klasman hakemlerinin siber mağduriyetleri ve farkındalıklarının incelenmesi amacıyla yapılan bu çalışmaya; Türkiye Basketbol Liglerinde A, B ve C Klasmanlarında görev yapan toplam 206 basketbol hakemi katıldı. Basketbol hakemlerine; Arıcak ve ark. tarafından geliştirilen 14 maddelik Siber Duyarlılık Ölçeği ile aynı kişiler tarafından geliştirilen 24 maddelik Siber Mağduriyet Ölçeği uygulandı. Elde edilen veriler istatistik paket programında değerlendirildi, ikili karşılaştırmalarda parametrik testlerden T Testi, çoklu karşılaştırmalarda Anova kullanıldı. **Bulgular:** Araştırma sonucunda; basketbol hakemlerinin siber zorbalığa karşı yüksek düzeyde duyarlılık (= 36.29) gösterdikleri, erkek hakemlerin daha duyarlı oldukları, B klasman hakemlerinin diğer klasman hakemlerinden daha az duyarlılık sergiledikleri istatistiksel olarak anlamlı bulunurken; yaş, medeni durum, eğitim durumu, meslek, hakemlik tecrübesi, internette ilk girilen web adresi, günlük internet kullanım süresi, internete ulaşım mekanları ve internete ulaşım araçlarının siber zorbalığa karşı duyarlılığı etkilemediği tespit edildi. Diğer taraftan basketbol hakemlerinin yüksek düzeyde siber mağduriyet (=43.55) yaşadıkları, B klasman hakemlerinin diğer klasman hakemlerinden daha çok siber saldırıya uğradıkları ve günlük 9-12 saat internet kullananların daha az siber saldırılara maruz kalmaları istatistiksel olarak anlamlı bulunurken; cinsiyet, yaş, medeni durum, eğitim durumu, meslek, hakemlik tecrübesi, internette ilk girilen web adresi, internete ulaşım mekanları ve internete ulaşım araçlarının siber mağduriyete karşı duyarlılığı etkilemediği tespit edildi. **Sonuç:** Sonuç olarak, basketbol hakemlerinin siber zorbalığa duyarlılık göstermelerine rağmen siber mağduriyete maruz kaldıkları, ancak günlük internet kullanım süresinin mağduriyet ile ilişkili olmadığı söylenebilir.

**Anahtar Kelimeler:** Basketbol, Hakem, Siber Mağduriyet, Zorbalık, Siber Duyarlılık

**Abstract: Objective:** This study was carried out to investigate the cyber victimization and awareness of basketball referees in classification in Turkey. **Methods:** A total of 206 basketball referees working as A, B and C classification referees in Turkey Basketball Leagues participated in the study. Basketball referees were applied 14-item Cyber Sensibility Scale and 24-item Cyber Victimization Scale developed by Arıcak et al. Data obtained were analyzed with statistical package program. T-parametric tests and Anova test of variance analysis were performed for comparison. **Results:** In the results of the research, while basketball referees displayed more sensitivity against cyber bullying (= 36.29), male referees exhibited more sensitivity than females. B-classification referees have significantly less sensitivity than the referees of other classifications. It has been determined that age, marital status, education, occupation, refereeing experience, priorities on the internet, duration of daily internet use, place of access for the internet and the internet tools don't have any effect on cyber bullying. In other words, basketball referees had a high level of cyber victimization (= 43.55); however, B-classification referees were attacked than other classification referees and it was found significantly in term of daily 9-12 hours on the internet usage. Gender, age, marital status, education, occupation, refereeing experience, priorities on the internet, place of access for the internet and the internet tools were found to have no effect on cyber victimization. **Conclusion:** As a result, the basketball referees are exposed to cyber victimization despite the exhibition of sensitivity and it can be said that there is no relation between victimization and duration of daily internet use.

**Key Words:** Basketball, Referee, Cyber Victimization, Bullying, Cyber Awareness

Doi: 10.17363/SSTB.2017.3.3

- (1) *Corresponding Author: Serdar ORHAN, 2Austrian Basket Fighters Club Basketball Coaches Vienna / Austria, sorhan23@gmail.com, Received: 13.06.2017, Accepted: 27.09.2017, Type of article (Research -Application) Conflict of Interest: None / "None of Ethics Committee"*



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## INTRODUCTION

Violence and aggression is a type of behavior aiming to harm living and non-living beings. It isn't necessarily obligatory for this behavior to be physical. Every behavior that aims to give verbal and psychological harm is defined as aggression (Cited from Tiryaki, 2010: 149; Pulur vd., 2004: 244). Turkish Language Association defines bully as a person who doesn't allow the individuals - being under his thumb - the right of speech and freedom of act by relying on his power and defines bullying as exhibiting such behaviors.<sup>1</sup>

Cyber bullying is the deliberate and regular transmission of messages and pictures by the individual or a group to others, through information and communication technologies, for the purpose of hostility and intimidation (Patchin and Hinduja, 2006: 152; Ybarra and Mitchell, 2004a: 1310; Ybarra and Mitchell, 2004b: 319-336, Willard, 2005: 13). These texts can contain the messages with very serious content (death threats, profanity, insults, etc.). It also includes actions such as unauthorized reading of other people's e-mails or using their personal passwords, sending embarrassing messages, taking embarrassing pictures of the victim and spreading them (Cited by Erdur-Baker and Kavşut, 2007: 31-42)

Cyber bullying and traditional bullying differ from each other in many ways. In the former one, while a physical environment is required for the victim to be harassed in traditional bullying, this isn't necessary in cyber bullying (Patchin and Hinduja, 2006: 154). Another important difference between the traditional and the cyber bullying is the confidentiality of the cyber bullying. For this reason, it is more terrifying and effective. Confidentiality allows the assaulter to be as comfortable as s/he can't be in real life. The assaulter becomes more frightening and harassing and can even assume another character or personality, as there is no fear that this person can get reactions or be traced (Mesch, 2009: 389; Mishna et al., 2009: 1226).

Cyber bullying is a very common problem that can be experienced at any time in life. It has been reported that there is a significant relation between the possibility of being bullied and intensive use of mobile phone or internet (Patchin and Hinduja, 2006: 152, Arıca vd., 2008: 258, Kowalski and Limber, 2007: 27; Li, 2006; Moessner, 2007: 1-4; Ybarra et al., 2007: 42-50; Wolak et al., 2007: 55).

It has been extensively researched in many of the researches conducted on cyber bullying whether age is an important determinant and different results have been obtained. In some researches, it has been stated that the relation between age and cyber bullying is insignifi-

<sup>1</sup> <http://www.tdk.gov.tr>, 25.12.2014



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

cant (Patchin and Hinduja, 2006: 152; Wolak et al., 2007; Juvonen and Gross, 2008: 499; Li, 2007:1777-1791). In the results of the research emphasizing that age is decisive; it is observed that the bullying experience peaks between the ages of 12 and 14 and then declines in next years (Mesch, 2009: 388; Kowalski and Limber, 2007: 22-30; Dehue et al., 2008: 219; Slonje and Smith, 2008: 147-154; Smith et al., 2008: 379; Williams and Guerra, 2007: 17).

The researchers analyzing the gender factor in cyber bullying have obtained different results. Many researchers have pointed out that gender doesn't play a decisive role in cyber bullying and males and females play the roles of victims and bullies at a similar frequency (Patchin and Hinduja, 2006: 160; Slonje and Smith, 2008: 151; Smith et al., 2008: 376-385; Williams and Guerra, 2007:17; Topçu vd., 2008: 645). In research results emphasizing that gender difference is decisive, females are observed to be more victimized than males (Mesch, 2009: 389; Arıçak vd., 2008: 257; Kowalski and Limber, 2007: 26; Li, 2007: 1782).

The studies conducted on cyber bullying have shown that cyber bullying negatively affects victims (Cited by Tanrikulu et al., 2013:42), the feelings of anger, despondency and restlessness are commonly observed in those who are subject to cyber bullying (cited by Horzum

and Ayas, 2011: 41), which may lead to many devastating mental health problems that may extend to suicide (Arıçak vd., 2008: 258).

The referees are the individuals assuming responsibility for the management of sports competitions impartially and appropriately for the competition rules. Today, the changes and developments in information technologies attract people from all walks of life into the virtual world and the comments that often cross the boundaries of criticism can turn into cyber harassment and cyber bullying.

Audio or video unreal news, unfounded accusations and defamations, insults based on a certain event, humiliating photomontage and cartoons, criticisms and comments degrading honor and dignity particularly before and after the competition in internet newspapers and on private or commercial websites can directly affect the performance of referees. In this regard, the questions below will be tried to be answered:

1. What are the experiences of basketball referees showing cyber sensitivity and suffering from cyber victimization?
2. Does the cyber sensitivity of basketball referees significantly differ by age, sex, marital status, education, profession, starting year of refereeing, classification, daily use of internet, priorities on internet, place of access for internet and internet tools?



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**3. Does the cyber victimization of basketball referees significantly differ by age, sex, marital status, education, profession, starting year of refereeing, classification, daily use of internet, priorities on internet, place of access for internet and internet tools?**

## METHOD

This research aiming to analyze cyber sensibility and cyber victimization awareness of basketball referees working in A, B and C Classifications of Turkish Basketball League was conducted in a survey model.

## Subjects

A total of 267 basketball referees working in A, B and C Classifications of Turkish Basketball Leagues in 2015-2016 Basketball season participated in this study. 32 of these referees are in A-classification, 68 in B-classification and 167 in C-classification.

## Instrument

Personal Information Form composed of 10 questions and prepared by the researcher, 14-item “Cyber Sensibility Scale” developed by Tanrikulu, Arıcak, and Kınay in 2013 and 24-item “Cyber Victimization Scale” developed by the same researchers in 2012 were used in this study (Tanrikulu vd., 2013; Arıcal vd., 2012).

In the Personal Information Form developed by the researcher, there are questions about

sex, age, marital status, education, profession, refereeing seniority, refereeing duration, the purpose of internet use, daily duration of daily internet use and the place of access for the internet.

Cyber Bullying Sensibility Scale (CSS) developed and ensured to be valid and reliable by Arıcak, Kınay and Tanrikulu is composed of 14 questions. Each item is answered as “No”, “Sometimes” and “Yes”. The scoring of the scale is as follows; No= 1point, Sometimes= 2 points and Yes= 3 points. The score that can be obtained from the scale is between 14 and 42 and how high the score to be obtained points out to the high level of sensitivity for cyber bullying. With the purpose of testing the reliability of research for this study, pre-test Cronbach Alpha test was applied and  $\alpha$ : 0.89 value was obtained.

Cyber Victimization Scale (CVS) developed by Arıcak, Tanrikulu and Kınay is composed of 24 questions and each one is answered as “Yes” or “No”. The scoring of the scale is as follows; Yes= 2 points and No= 1point. There is no contrary item. The score that can be obtained from the scale is between 24 and 48 and how high the score to be obtained points out to the increased cyber victimization. With the purpose of testing the reliability of research for this study, pre-test Cronbach Alpha test was applied and  $\alpha$ : 0.88 value was obtained.





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## Procedure

A three-step questionnaire composed of Personal Information Form, Cyber Sensibility Scale and Cyber Victimization Scale was applied to basketball referees. The questions in the scale were sent to a total of 267 referees working in the classifications through pollsters. Questionnaires that were considered to be incorrect, contradictory or incomplete were not included in the evaluation; however, 206 questionnaires were found to be statistically significant.

## Data Analysis

Data obtained were evaluated in statistics package program. In the analysis, data were found to be parametric following the normality test. In paired comparison of data, T test being among the parametric tests and Anova in multiple comparisons were applied. Tukey was used in determining the inter-group differences.  $p < 0.05$  value was accepted as the significance level.

## RESULTS

It may be useful to provide some descriptive statistics before the presentation of multiple comparison analyzes. As indicated in Table 1, 86.4% of the basketball referees are male and 13.6% of them are female participants. 6.3% has an associate degree, 71.4% has bachelor's degree, 18.9% has a master degree and 3.4% has PhD. 21.8% of them are students, 43.2% is self-employed and 35% is civil servant. 14.6% of referees are in A-classification, 30.6% in B-classification and 54.9% in C-classification. Basketball referees mostly visit "Facebook" (30.6%) and the least visited websites are those related to banking (1.9%). 55.8% of them get access to the internet from home, 31.6% from internet café, 10.2% from places of free access and 2.4% from workplace. 16% of them connect to the internet through desktop computer, 27.7% through mobile phones, 28.2% through tablets and 16.1% through laptops.



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**Table 1. Personal Information of Basketball Referees**

	N	%		N	%
<b>Sex</b>			<b>Priorities on the Internet</b>		
Male	178	86.4	Facebook	63	30.6
Female	28	13.6	Twitter	17	8.3
<b>Age</b>			News and newspaper	24	11.7
20-25	70	33.9	Chat rooms	20	9.7
26-30	69	33.5	Music	22	10.7
31-35	37	18.0	Movie, TV series	13	6.3
36-40	23	11.2	Video websites	11	5.3
40-45	7	3.4	Video chat	17	8.3
<b>Profession</b>			E-mail	10	4.9
Student	45	21.8	Online Game	5	2.5
Self-employed	89	43.2	Banking Services	4	1.9
Civil-servant	71	35.0	<b>Place of Access for Internet</b>		
<b>Education</b>			Home	115	55.8
Associate degree	13	6.3	Internet cafe	65	31.6
Bachelor's degree	147	71.4	Free places	21	10.2
Master's degree	39	18.9	Workplace	5	2.4
PhD	7	3.4	<b>Internet Tools</b>		
<b>Classification</b>			Desktop computers	33	16.0
A-classification	30	14.6	Mobile phones	57	27.7
B-classification	63	30.6	Tablets	58	28.2
C-classification	113	54.9	Laptop computers	33	16.1

As specified in Table 2, it is observed that basketball referees display the highest sensitivity in the items of “I never share my passwords related to e-mail and forum registrations etc.”

(85.92%) and “I do not communicate with people who are abusive or insulting in virtual environments” (81.07%) in cyber sensibility inventory.



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**Table 2. Arithmetic Mean and Percentage Values of the Replies of Referees Given to Cyber Sensibility Inventory**

NO	Questions	No	Sometimes	Yes	N	x	S.S.
1	I pay attention to keeping an updated virus program on my computer.	N 15	35	156	206	2.68	0.60
		% 7.28	16.99	75.73			
2	I bear in mind that my information can be stolen by others on the internet.	N 5	41	160	206	2.75	0.49
		% 2.43	19.90	77.67			
3	I keep in mind that my private information on social networking sites (Facebook, Twitter etc.) can be used maliciously by others.	N 5	61	140	206	2.66	0.53
		% 2.43	29.61	67.96			
4	I try not to encounter with the people I have problems in real life in virtual environment.	N 13	54	139	206	2.61	0.60
		% 6.31	26.21	67.48			
5	I feel I need to take some precautions in order to prevent others from harming me in virtual environments.	N 12	80	114	206	2.50	0.61
		% 5.83	38.83	55.34			
6	I keep in mind that a hacker in a virtual environment can also pose danger to me.	N 15	54	137	206	2.59	0.62
		% 7.28	26.21	66.50			
7	I think someone who wants to hurt me can do it through internet and mobile phones etc.	N 12	65	129	206	2.57	0.60
		% 5.83	31.55	62.62			
8	I never share my passwords related to e-mail and forum registrations etc.	N 1	28	177	206	2.85	0.37
		% 0.49	13.59	85.92			
9	I do not communicate with people who are abusive or insulting in virtual environments.	N 3	36	167	206	2.80	0.44
		% 1.46	17.48	81.07			
10	I sometimes imagine the danger that a picture or image that I do not want to be seen can spread unaware of me.	N 13	73	120	206	2.52	0.61
		% 6.31	35.44	58.25			
11	I think that irrelevant rumors may spread about me on communication in virtual environments.	N 27	63	116	206	2.43	0.71
		% 13.11	30.58	56.31			
12	I keep in mind that internet can also be used to harm other people.	N 12	79	115	206	2.50	0.61
		% 5.83	38.35	55.83			
13	I am sometimes worried about what to do if a false information about me spreads on the internet.	N 36	102	68	206	2.16	0.70
		% 17.48	49.51	33.01			
14	I do not communicate in the virtual environment with the people who can threaten me via e-mail or text message (SMS) from my mobile phone.	N 22	23	161	206	2.67	0.66
		% 10.68	11.17	78.16			



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

As specified in Table 3, it is observed that basketball referees experience victimization most in the items of “My friends or other people on the Internet sent

me a virus warning message (e-mail).” (74.3%) and “Unpleasant messages were sent to me on the internet” (52.4%) in cyber sensibility inventory.

**Table 3. Arithmetic Mean and Percentage Values of the Replies of Referees Given to Cyber Victimization Inventory**

NO	Questions		Yes	No	N	X	S.S.
1	Someone on the internet has used my name to open an e-mail account (such as MSN, Yahoo, Gmail, Mynet).	N	35	171	206	1.85	0.38
		%	17	83			
2	Someone else secretly used my name to open accounts on sites like Facebook and Twitter.	N	46	160	206	1.79	0.42
		%	22.3	77.7			
3	My friends or other people used my personal information on the Internet.	N	30	176	206	1.85	0.35
		%	14.6	85.4			
4	My friends or other people sent me a virus warning message (e-mail) on the Internet.	N	153	53	206	1.26	0.44
		%	74.3	25.7			
5	My friends or other people used my passwords on the internet without my knowledge.	N	24	182	206	1.88	0.32
		%	11.7	88.3			
6	My friends or others tried to secretly enter my e-mail addresses (such as MSN, Yahoo, Gmail, Mynet) using my passwords on the internet.	N	29	177	206	1.86	0.35
		%	14.1	85.9			
7	Some people tried to secretly enter my games on the internet by using my passwords.	N	27	179	206	1.87	0.34
		%	13.1	86.9			
8	I was threatened on the internet.	N	26	180	206	1.87	0.33
		%	12.6	87.4			
9	Unpleasant messages were sent to me on the internet.	N	108	98	206	1.48	0.50
		%	52.4	47.6			
10	My photos were published on some websites without my permission.	N	40	166	206	1.81	0.40
		%	19.4	80.6			
11	My photos were sent to some people via message (e-mail) on the internet without my permission.	N	25	181	206	1.88	0.33
		%	12.1	87.9			



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

12	Unpleasant news were published about me on the internet.	N	50	156	206	1.77	0.44
		%	24.3	75.7			
13	False rumors were spread about me on the internet.	N	30	176	206	1.86	0.36
		%	14.6	85.4			
14	Offensive messages were sent to me on the internet.	N	40	166	206	1.82	0.40
		%	19.4	80.6			
15	I was mocked on the internet.	N	19	187	206	1.91	0.29
		%	9.2	90.8			
16	I was given a bad name or nickname on the internet.	N	16	190	206	1.92	0.27
		%	7.8	92.2			
17	I was told things they couldn't tell to my face easily on the internet or phone.	N	56	150	206	1.73	0.45
		%	27.2	72.8			
18	Threatening messages were sent to me from mobile phone.	N	23	183	206	1.89	0.32
		%	11.2	88.8			
19	My photos were sent to other people on the mobile phone without permission.	N	17	189	206	1.92	0.28
		%	8.3	91.7			
20	Displeasing messages were sent to me on mobile phone.	N	31	175	206	1.85	0.36
		%	15	85			
21	Unreal rumors about me were spread on the mobile phone.	N	22	184	206	1.89	0.31
		%	10.7	89.3			
22	Offensive messages were sent to me on the mobile phone.	N	29	177	206	1.86	0.35
		%	14.1	85.9			
23	I was mocked on the mobile phone.	N	16	190	206	1.92	0.27
		%	7.8	92.2			
24	I was disturbed with the calls from mobile phone.	N	51	155	206	1.76	0.43
		%	24.8	75.2			

As specified in Table 4, it is observed that basketball referees have high sensitivity regarding cyber bullying at high level ( $\bar{x} = 36.29$ ). While the highest score obtained

from the scale is 42, the lowest score is 22. Such a scale value as 2.59 has been found to be close to yes.





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**Table 4. Average Scores for Cyber Sensibility Inventory of Referees**

Scale	N	Min	Max	Scale score	Scala Value
Cyber Sensibility	206	22.00	42.00	36.29	2.59

As specified in Table 5, it is observed that basketball referees are subject to cyber victimization at high level ( $\bar{x}=43.55$ ). While the highest score obtained from the

scale is 48, the lowest score is 29. Such a scale value as 1.81 has been found to be close to yes.

**Table 5. Average Scores for Cyber Victimization Inventory of Referees**

Scale	N	Min	Max	Scale score	Scala Value
Cyber Victimization	206	29.00	48.00	43.55	1.81

In Table 6, cyber sensibility and victimization score averages of basketball referees were compared with personal variables. Accordingly, a significant

difference was established between sex and cyber sensibility ( $=0.002$ ,  $p<0.05$ ). It has been determined that this significant difference results from the male basketball referees and the cyber sensibility level of male basketball referees ( $\bar{x}=2.60$ ) are higher than female basketball referees ( $\bar{x}=2.52$ ). A significant difference has been determined between the classification and cyber sensibility and cyber victimization ( $=0.001$ ,  $p<0.05$ ). It has been determined that the significant difference results from the referees in B-classification and

the cyber sensibility levels of B-classification referees ( $\bar{x}=2.57$ ) are lower than the A-classification referees ( $\bar{x}=2.64$ ) and C-classification referees ( $\bar{x}=2.58$ ). Similarly, cyber victimization levels of B-classification referees ( $\bar{x}=1.86$ ) are higher than A-classification referees ( $\bar{x}=1.81$ ) and C-classification referees ( $\bar{x}=1.79$ ). A significant difference was found between daily use of internet and cyber victimization ( $=0.001$ ,  $p<0.05$ ). This significant difference results from the referees using internet for 9-12 hours a day and the cyber victimization levels of the referees using internet for 9-12 hours a day ( $\bar{x}=1.79$ ) are lower than the referees using internet for 1-4 hours a day ( $\bar{x}=1.82$ ) and those using internet for 5-8 hours a day ( $\bar{x}=1.81$ ).



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**Table 6. Comparison of Cyber Sensibility and Cyber Victimization of Referees with Personal Variables**

Cyber Sensibility			Personal Variables			Cyber Victimization		
X	SS	p		N	%	X	SS	p
			<b>Sex</b>					
2.60	0.28	0.002*	Male	178	86.4	1.81	0.17	0.189
2.52	0.36		Female	28	13.6	1.83	0.18	
			<b>Classification</b>					
2.64	0.32	0.566	A-classification	30	14.6	1.81	0.19	0.296
2.57	0.18	0.001*	B-classification	63	30.6	1.86	0.05	0.001*
2.58	0.33	0.566	C-classification	113	54.9	1.79	0.21	0.296
			<b>Duration of Daily Internet Use</b>					
2.58	0.28	0.749	1-4 hours	158	76.7	1.82	0.17	0.352
2.62	0.29		5-8 hours	42	20.3	1.81	0.14	0.352
2.61	0.37		9-12 hours	6	2.9	1.79	0.03	0.001*
2.59	0.26	0.919	<b>Age</b>	206	100	1.82	0.11	0.963
2.60	0.28	0.425	<b>Marital Status</b>	206	100	1.81	0.17	0.920
2.62	0.25	0.726	<b>Education</b>	206	100	1.77	0.18	0.069
2.59	0.29	0.535	<b>Profession</b>	206	100	1.80	0.18	0.841
2.59	0.25	0.891	<b>Starting Year for Refereeing</b>	206	100	1.79	0.15	0.334
2.55	0.28	0.259	<b>Priorities on the Internet</b>	206	100	1.80	0.18	0.298
2.50	0.28	0.119	<b>Place of Access for the Internet</b>	206	100	1.82	0.15	0.052
2.59	0.28	0.640	<b>Internet Tools</b>	206	100	1.80	0.18	0.360

\*p<0.05

On the other hand, no significant difference was established between cyber sensibility

and victimization and age, sex, marital status, education, profession, starting year of refereeing, classification, daily use of internet, pri-



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

curities on internet, place of access for internet and internet tools ( $p>0.05$ ).

## DISCUSSION

Analyzing the prominent data of the participant basketball referees, it is observed that 86.4% of them are male, 42.23% is aged between 20-25, 65.50% is single, 71.4% has a bachelor's degree, 43.2% is self-employed, 54.9% is C-classification referees, 30.6% of them mostly visit the website "Facebook", 55.8% connects internet from home and 55.9% prefers mobile phones and tablets to connect internet.

The findings obtained following the research are surprising. Although the participant basketball referees have high sensibility related to cyber bullying ( $\bar{x}=36.29$ ), it has been determined that they are subject to high cyber victimization ( $\bar{x}=43.55$ ). In other words, basketball referees are subject to cyber victimization although they show sensibility. This situation can be explained with the possibilities beyond the control of the referees.

The sensibility of male basketball referees has been found to be significantly higher than the female basketball referees. This can be explained with the low number of female basketball referees participating in the research. The researchers analyzing the gender factor in cyber bullying have obtained various results. Many researchers have stated that gender doesn't play a deterministic role in cyber

bullying, males and females are in the roles of victim and bully at similar frequency (Patchin and Hinduja, 2006: 165; Slonje and Smith, 2008: 151; Smith et al., 2008: 378; Williams and Guerra, 2007: 18; Topçu vd., 2008: 646). In research results emphasizing the importance of gender difference, females are observed to be more victimized than males (Mesch, 2009: 389; Arıcak vd., 2008: 110; Kowalski and Limber, 2007: 28; Li, 2007: 1788).

Examining the basketball referees by their classifications, it has been determined that there is a significant difference between groups regarding sensibility for cyber bullying and cyber victimization and this difference results from the B-classification referees. The fact that B-classification referees display less cyber sensibility than other referees and they are subject to cyber victimization more has been found to be significant. In this regard, it can be stated that the B-classification referees are not aware of the cyber bullying actions they may encounter in virtual environments and are not inclined to take measures to ensure their personal security against such actions. Following the analysis of 80 studies in international literature with meta-analysis method, the ratios of cyber bullying and cyber victimization have been established as 15-16% approximately. According to the researches conducted in Turkey, it has been reported that the ratio of cyber bullying varies between 6.4% and 47.6%



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

while the rate of cyber victimization is between 5.1% and 56% (Uzer and Tanrikulu, 2017: 1-17).

Another surprising finding is that basketball referees' daily use of the internet has a significant effect on exposure to cyber victimization. What is really surprising here is that the referees using the internet for a longer time are subject to cyber victimization less. This situation suggests that the exposure to victimization results from other reasons rather than the time spent on the internet. Moreover, the low number of the people using the internet for 9-12 hours a day can be regarded as a reason for the low rate of experiencing cyber victimization for these people. Researchers investigating the effect of duration of daily internet use on cyber bullying have achieved different results. In a study analyzing the football referees, it has been stated that the duration of daily internet use doesn't affect the sensibility for virtual bullying and victimization and the occupational differences in referees aren't a factor at the level of sensibility (Yılmaz, 2015: 1-121).

In conclusion, it can be uttered that basketball referees are exposed to cyber victimization although they display sensibility towards cyber bullying; however, the duration of daily internet use isn't related to victimization.

In terms of delivering clearer results, it can be suggested that the studies to be conducted in this matter shouldn't be limited to A, B and C-classification referees and applied to all referees registered to Basketball Federation, various branch referees with high percentage of audience, managers, athletes and athletic elements (journalist, presenter, commentator etc.).

## REFERENCES

- ARICAK, O.T., KINAY, H., TANRIKULU, T., (2012).** Siber Zorbalık Ölçeği'nin İlk Psikometrik Bulguları. Hasan Ali Yücel Eğitim Fakültesi Dergisi, 17 (1): ss.101-114
- ARICAK, T., SİYAHHAN, S., UZUNHASANOĞLU, A., SARİBEYOĞLU, S., ÇIPLAK, S., YILMAZ, N., MEMMEDOV, C., (2008).** Cyberbullying among Turkish Adolescents. Cyber psychology and Behavior, 11(3), ss.253-261
- DEHUE, F., BOLMAN, C., VÖLLINK, T., (2008).** Cyberbullying: Youngsters' experiences and parental perception. Cyberpsychology and Behavior, 11(2), ss.217-223
- ERDUR-BAKER, Ö., KAVŞUT, F., (2007).** Akran Zorbalığının Yeni Yüzü: Siber Zorbalık Eurasian Journal of Educational Research, 27, 31-4



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**HORZUM, M.B., AYAS, T., (2011).** Orta Öğretim Öğrencilerin Sanal Zorba ve Mağdur Olma Düzeylerinin Okul Türü ve Cinsiyet Açısından İncelenmesi. Eğitim Bilimleri ve Uygulama Dergisi, 10 (20), ss.139-159

**JUVONEN, J., GROSS, E.F., (2008).** Extending the school grounds? Bullying experiences in cyberspace. Journal of School Health, 78 (9), ss.496-505

**KOWALSKI, R.M., LIMBER, S.P., (2007).** Electronic bullying among middle school students. Journal of Adolescent Health, 41, ss.22-30

**LI, Q., (2006).** Cyberbullying in schools: A research of gender differences, School Psychology International, 27, ss.157-170

**LI, Q., (2007).** New bottle old wine: A research of cyberbullying in schools. Computers in Human Behavior, 23, ss.1777-1791

**MESCH, G.S., (2009).** Parental mediation, online activities and cyberbullying. Cyber-psychology and Behavior, 12(4), ss.387-393

**MISHNA, F., SAINI, M., SOLOMON, S., (2009).** Ongoing and online: Children and youth's perceptions of cyberbullying. Children and Youth Services Review, 31, ss.1222-1228

**MOESSNER, C., (2007).** Cyberbullying. Trend Tudes, 6, 1-4. Access: [www.ncpc.org/resources/files/pdf/bullying/Cyberbullying%20Trends%20-%20Tudes.pdf](http://www.ncpc.org/resources/files/pdf/bullying/Cyberbullying%20Trends%20-%20Tudes.pdf)

**PATCHIN, J.W., HINDUJA, S., (2006).** Bullies move beyond the schoolyard: a preliminary look at cyberbullying. Youth Violence Juvenile Justice. 4(2): ss.148-169

**PULUR, A., KAYNAK, İ., ORHAN, S., (2004).** Polislerin Spor Müsabakalarındaki Saldırgan Seyirciye Müdahalede Kendi Taraftarlığının Etkisinin Araştırılması, Gazi Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 5 (2), ss.241-260

**SLONJE, R., SMITH, P.K., (2008).** Cyberbullying: Another main type of bullying? Scandinavian Journal of Psychology, 49, ss.147-154

**SMITH, P.K., MADHAVI, J., CARVALHO, M., FISHER, S., RUSSEL, S., TIPPETT, N., (2008).** Cyberbullying. Its nature and impact in secondary school pupils, Journal of Child Psychology and Psychiatry, 49 (4), ss.376-385

**TANRIKULU, T., KINAY, H., ARICAK, O.T., (2013).** Siber Zorbalığa İlişkin Duyarlılık Ölçeği: Geçerlilik Güvenirlilik Çalışması. Trakya Üniversitesi Eğitim Fakültesi Dergisi, 3 (1); ss.38-47

**TDK (Türk Dil Kurumu),** “Genel Türkçe Sözlük” <http://www.tdk.gov.tr> /in-





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

July – August – September Issue 24 Summer Season Year: 2017

JEL CODE: L85-L86 ID:350 K:129

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

dex.php?option=com\_gts&view=gts  
25.12.2014

**TİRYAKİ, Ş., (2000).** Spor Psikolojisi, Eylül Yayınları, Ankara, s.149

**TOPÇU, Ç., ERDUR-BAKER, Ö., ÇAPA-AYDIN, Y., (2008).** Examination of Cyberbullying experiences among Turkish students from different school types. *Cyberpsychology and Behavior*, 11(6) ss.643-648

**UZER, Ç.T., TANRIKULU, İ., (2017).** Siber Zorbalığı Önleme ve Müdahale Programları: Ulusal Bir Alanyazın Taraması, Uludağ Üniversitesi Eğitim Fakültesi Dergisi, 30 (1), ss.1-17

**WILLARD, N.E., (2005).** Educator's guide to cyberbullying and cyberthreats: Responding to the challenge of online social aggression, threats, and distress. Retrived September 23, 2016, from [http:// www.csriu.org /cyberbully Docs / cbct educator.pdf](http://www.csriu.org/cyberbully_Docs/cbct_educator.pdf)

**WILLIAMS, K.R., GUERRA, N.G., (2007).** Prevalence and predictors of internet bullying. *Journal of Adolescent Health*, ss.41-14-21

**WOLAK, J., MITCHELL, K.J., FINKELHOR, D., (2007).** Does online harassment constitute bullying? An exploration of online harassment by known peers and online only contacts. *Journal of Adolescent Health*, ss.41-51-58

**YBARRA, M.L., DIENER, WEST, M., LEAF, P.J., (2007).** Examining the overlap in internet harassment and school bullying: Implications for school intervention. *Journal of Adolescent Health*, ss.41-42-50

**YBARRA, M.L., MITCHELL, K.J., (2004a).** Online aggressor/targets, aggressors and targets: a comparison of associated youth characteristics. *J Child Psychol Psychiatry*, 45: ss.1308-1316

**YBARRA, M.L., MITCHELL, K.J., (2004b).** Youth engaging in online harassment: Association with caregiver-child relationships, internet use and personal characteristics. *Journal of Adolescence*, 27, ss.319-336

**YILMAZ, İ.H., (2015).** Futbol Hakemlerinin Sanal Duyarlılık ve Mağduriyetlerinin İncelenmesi, Yüksek Lisans Tezi, Elazığ: Fırat Üniversitesi, Sağlık Bilimleri Enstitüsü Beden Eğitimi ve Spor Anabilim Dalı

**AUTHOR NOTES. This study was submitted as a verbal presentation in the 10th International Conference on Physical Education, Sports and Physical Therapy Fırat University, Elazığ, Turkey, 18-20 November, 2016.**

**BEDEN EĞİTİMİ ÖĞRETMENLERİNİN ETİK İKLİM  
PERSPEKTİFİNDEN BAĞIMSIZLIK ALT BOYUTUNUN İNCELENMESİ<sup>1</sup>****EXAMINATION OF THE INDEPENDENCE SUB-DIMENSION OF PHYSICAL  
EDUCATION TEACHERS FROM THE ETHICAL CLIMATE PER-  
SPECTIVE***Gokhan ACAR<sup>1</sup>, Barbaros Serdar ERDOĞAN<sup>2</sup>*<sup>1</sup>*Faculty of Sport Sciences, Usak University, Uşak / Turkey*<sup>2</sup>*Physical Education and Sports, Mehmet Akif Ersoy University, Uşak / Turkey**ORCID ID: 0000-0002-3617-1958<sup>1</sup>, 0000-0001-6039-1494<sup>2</sup>*

**Öz: Amaç:** Bu araştırmanın amacı, beden eğitimi ve spor öğretmenlerinin çalıştıkları kurumlardan algıladıkları etik iklim anlayışlarından Bağımsızlık alt boyutunun incelenmesidir. **Yöntem:** Araştırmanın evrenini 2016 – 2017 eğitim öğretim yılında Burdur ilinde bulunan Milli Eğitim İl Müdürlüğüne Bağlı özel ve resmi eğitim kurumlarında çalışan 125 beden eğitimi ve spor öğretmenine tesadüfi (random) yöntemiyle ulaşılmıştır. **Bulgular:** Etik iklim algısının bağımsızlık boyutu ile ilgili genel ortalamaya bakıldığında  $x=2,97$  değeri ile 5’li likert ölçeğinin Kararsız aralığına girmektedir. Buna göre görev yapmakta olan Kadrolu ve sözleşmeli öğretmenlerin işleriyle ilgili bağımsız hareket edebilme düzeylerini Kararsız düzeyinde, diğer bir ifadeyle orta düzeyde görmektedirler. Bağımsızlık boyutunda medeni durumu diğer olan öğretmenlerin etik iklim algıları evli olan ve bekâr olan çalışanlara göre anlamlı bir şekilde daha yüksek çıkmıştır. ( $p<0,05$ ). Örgütsel çıkar boyutunda ise medeni durumu diğer olan öğretmenlerin etik iklim algıları bekâr çalışanlara göre anlamlı bir şekilde daha yüksek çıkmıştır. ( $p<0,05$ ). **Sonuç:** Çalışmadan elde edilen sonuçlara göre beden eğitimi öğretmenlerinin etik iklim algılarını görev pozisyonlarına göre değerlendirdiğinde etik iklimin tüm boyutlarından Bağımsızlık boyutunda Kadrolu öğretmenler ortalama ile yeterli düzeyde bir etik iklim görmektedir. Sözleşmeli öğretmenler ortalama ile düşük düzeyde bir etik iklim algıladıkları görülmüştür. Görev pozisyonu ile ilgili en belirgin farklılık Bağımsızlık boyutunda görülmekte olup Kadrolu öğretmenlerin etik iklim algısı Katılıyorum düzeyinde iken, Sözleşmeli öğretmenlerin etik iklim algısı Katılmıyorum düzeyinde gerçekleşmiştir.

**Anahtar Kelimeler:** Beden Eğitimi Öğretmenleri, Bağımsızlık, Etik İklim

**Abstract: Aim:** This study is to examine the independence sub-dimension of ethical climate understanding that physical education and sports teachers perceive from the institutions they work with. **Method:** The population of the study was reached by the random method to 125 physical education and sports teachers working in private and public educational institutions connected to Provincial Directorate of National Education in the province of Burdur in 2016 - 2017 academic year. **Result:** When looking at the general mean regarding the independence dimension of the ethical climate perception,  $x = 2,97$  value and the Likert scale of 5 are in the range of Neutral. According to this, permanent and contracted teachers who are on duty see their levels of the independent act regarding their work at the level of Neutral, in other words, they see it at the level of moderate. In the dimension of independence, ethical climate perceptions of teachers with other marital status were significantly higher than those who were married and single employees ( $p<0,05$ ). In the dimension of organizational interest, ethical climate perceptions of teachers with other marital status were significantly higher than single employees ( $p<0,05$ ). **Conclusion:** According to the results obtained by the study, when physical education teachers evaluate ethical climate perceptions according to their task positions, it is seen that permanent teachers perceive a sufficient level of ethical climate with the mean in the dimension of independence from all dimensions of ethical climate whereas the contracted teachers perceive a low level of ethical climate with the mean. The most significant difference regarding the position of the task is seen in the dimension of independence, the ethical climate perception of the permanent teachers is at the level of Agree, whereas the ethical climate perception of the contracted teachers is at the level of Disagree.

**Key Words:** Physical Education Teachers, Independence, Ethics Climate

*Doi: 10.17363/SSTB.2017.3.4*

- (1) *Corresponding Author: Gökhan ACAR, Faculty of Sport Sciences, Usak University, Uşak / Turkey, gokhnacar@gmail.com, Received: 29.03.2017, Accepted: 17.08.2017, Type of article (Research -Application) Conflict of Interest: None / “None of Ethics Committee”*



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:346 K:44

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## INTRODUCTION

This word derived from the Greek “ethos” word which means character, has become a sub-dimension that examines the ideal, intangible and moral rules of philosophy by turning into an “ethics” word in time (Simsek et al. 2011; Aydın, 2006). The term “climate” as used in business literature, describes how business members consider the internal and external environment of the organization (Bute, 2011). Perceptions of employees’ regarding the ethical climate of the organization are influenced by organizational politics, procedures, reward systems, and formal or informal systems within the organization (Dogan and Kilic 2014). The ethical climate guides which behaviors towards employees will be correct, and the shared thoughts about how problems should be addressed and resolved in moral dilemmas. In other words, the ethical climate also gives a direction to employees regarding which behavior is appropriate and supported (Victor and Cullen 1988: Treviño et al. 1998: Demirtas, 2014).

## AIM

The aim of this study is to examine the independence sub-dimension of ethical climate understanding that physical education and sports teachers perceive from the institutions they work with.

## RESEARCH METHOD

The population of the study was reached by the random method to 125 physical education and sports teachers working in private and public educational institutions connected to Provincial Directorate of National Education in the province of Burdur in 2016 - 2017 academic year. The data obtained from the study were evaluated by using the statistical methods in the SPSS 14.0 program included in package program. In the study findings and evaluation section, The Independent-Samples T test was used to determine the independence dimension of the scale related to ethical climate perceptions, and the One-Way ANOVA test was used to determine whether there was a significant difference between more two groups. In the present study, the ethical climate scale developed by Cullen et al. (2003) was used. The original version of the scale has nine dimensions; however, it has been compacted into five dimensions in the studies conducted by Victor and Cullen, (1988) 2; Wimbush and Shepart (1994); Peterson (2002); Vardi, (2011); and Ogut and Kaplan, (2011). The adaptation to Turkish of the expressions used in the scale was carried out by means of the translation – back translation method by getting help from a linguist. To that end, the expressions in the scale were translated by the author into Turkish (Yurdakul 2013).



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:346 K:44

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## RESULTS

**Table 1. Ethical Climate Perceptions of the Physical Education Teachers According to Their Task Positions**

Ethical Climate Dimensions	The Position of the Task	N	Mean	SD	P
Independence	Permanent Staff	92	3,657	1,006	0,000 *
	Contracted Staff	33	2,504	0,831	

\* It refers to a significant difference at  $P < 0,05$  level.

When we evaluate the ethical climate perceptions of the physical education teachers according to their task positions, there was a significant difference seen between the views of contracted staff and permanent staff in all dimensions of ethical climate.

In the dimension of independence, the permanent teachers perceive a sufficient level of ethical climate with  $x = 3,657$  mean, whereas

the contracted teachers perceive a low level of ethical climate with  $x = 2,504$  mean. The most significant difference regarding the position of the task is seen in the dimension of independence, the ethical climate perception of the permanent teachers is at the level of Agree, whereas the ethical climate perception of the contracted teachers is at the level of Disagree.

**Table 2. Conclusions Regarding Independence Dimension of Physical Education Teachers**

Independence			
	N	Mean	SD
23. Employees in our institution are expected to act according to their own personal and moral beliefs.	125	3,10	1,20
24. Employees of the institution decide for themselves what is right and what is wrong.	125	2,91	1,27
25. The most important subject in our institution is the employees' own right and wrong perception.	125	2,92	1,24
26. Employees working in our institution are driven by their own personal ethical values.	125	2,94	1,31
Mean		2,97	1,25



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:346 K:44

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

When looking at the general mean regarding the independence dimension of the ethical climate perception,  $x = 2,97$  value and the Likert scale of 5 are in the range of Neutral. According to this, permanent and contracted

teachers who are on duty see their levels of the independent act regarding their work at the level of Neutral, in other words, they see it at the level of moderate.

**Table 3. Tukey Test Regarding Ethical Climate Perceptions of Physical Education Teachers According to Their Marital Status**

Tukey HSD				
Ethical Climate Dimensions	(I) Marital Status	(J) Marital Status	Difference Between Means	P
Independence	Other	Married	1,022	0,009 *
		Single	1,031	0,011 *

\* It refers to a significant difference at  $P < 0,05$  level.

In the dimension of independence, there was a significant difference found between teachers with other marital status and those who were married and single employees. In the dimension of organizational interest, there was a significant difference found between single employees and those whose marital status was other.

In the dimension of independence, ethical climate perceptions of teachers with other marital status were significantly higher than those who were married and single employees ( $p < 0,05$ ). In the dimension of organizational interest, ethical climate perceptions of teachers with other marital status were significantly higher than single employees ( $p < 0,05$ ).

## CONCLUSION and DISCUSSION

When we evaluate the ethical climate perceptions of the physical education teachers according to their task positions, there was a significant difference seen between the views of contracted staff and permanent staff in all dimensions of ethical climate. In the dimension of independence, the permanent teachers perceive a sufficient level of ethical climate with  $x = 3,657$  mean, whereas the contracted teachers perceive a low level of ethical climate with  $x = 2,504$  mean. The most significant difference regarding the position of the task is seen in the dimension of independence, the ethical climate perception of the permanent teachers is at the level of Agree, whereas the ethical climate perception of the





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:346 K:44

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

contracted teachers is at the level of Disagree. When looking at the general mean regarding the independence dimension of the ethical climate perception,  $x = 2,97$  value and the Likert scale of 5 are in the range of Neutral. According to this, permanent and contracted teachers who are on duty see their levels of the independent act regarding their work at the level of Neutral, in other words, they see it at the level of moderate. Donertas (2008) and Topaloglu (2010) concluded in their research that ethical climate has a strong and positive effect on the organizational trust of employees. Our study is similar to the results of similar research in the literature. In the dimension of independence, there was a significant difference found between teachers whose marital status were other and those who were married and single employees. In the dimension of organizational-interest, there was a significant difference found between single employees and those whose marital status was other. In the dimension of independence, we can say that ethical climate perceptions of teachers with other marital status were significantly higher than those who were married and single employees.

## REFERENCES

**AYDIN, I., (2006).** *Egitim ve Ogtimde Etik.* Pegem Press, pp.23, Ankara

**BUTE, M., (2011).** Relation between the Ethical Climate, Corporal Trust and Individual Performance, *Journal of Ataturk University Economics and Administrative Sciences*, 25, 172- 173

**CULLEN, J.B., PARBOTEEAH K.P., BART, V., (2003).** The Effects of Ethical Climates on Organizational Commitment: A Two Study Analysis. *Journal of Business Ethics*, 46, 127-141

**DEMİRTAS, O. (2014).** The whistleblowing impact on ethical climate: Moderator role of mobbing perception. *Istanbul University Journal of the School of Business*, 43, 136-156

**DOGAN, S., KILIC, S., (2014).** The Examination of Relations between Perceived Organizational Ethical Climate and Counterproductive Work Behaviors. *C.Ü. İktisadi ve İdari Bilimler Dergisi*, 15, 269-292

**DONERTAS, F.C., (2008).** *The Effect of Ethical Climate on Institutional Trust*, Master Thesis, Marmara University, İstanbul

**OGUT, A., KAPLAN, M., (2011).** The Analysis of the Relation between Ethical Climate Perception and Organizational Loyalty in Hotel Enterprises, *Journal of Dumlupinar Social Sciences*, 30, 191-206



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:346 K:44

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**PETERSON, D.K., (2002).** The Relation-ship between Unethical Behavior and the Dimensions of the Ethical Climate Questionnaire. *Journal of Business Ethics*, 41, 313-326

**SİMSEK, M.S., AKGEMCİ, T., CELİK, A., (2011).** *Introduction to Behavioral Sciences and Behaviors in organizations*, pp.33-34, Gazi Publisher, Ankara

**TOPALOĞLU, I.G., (2010).** *The Organizational Trust and Organizational Commitment Relationships of Employees in terms of Their Perception of Justice and Ethics*. Master Thesis, Atilim University, Ankara

**TREVIÑO, L.K., BUTTERFIELD, K.D., MCCABE, D.L., (1998).** The Ethical Context in Organizations: Influences on Employee Attitudes and Behaviors. *Business Ethics Quarterly*, 8, 447- 476

**VARDI, Y., (2001).** The Effects of Organizational and Ethical Climates on Miscon-

duct at Work. *Journal of Business Ethics*, 29, 325-337

**VICTOR, B., CULLEN, J.B., (1988).** The Organizational Bases of Ethical Work Climate. *Administrative Science Quarterly*, 33, 101-125

**WIMBUSH, J.C., SHEPARD J.M., (1994).** Toward an Understanding of Ethical Climate, Its Relationship to Ethical Behavior and Supervisory Influence. *Journal of Business Ethics*, 13, 637-647

**YURDAKUL, M., (2013).** *Investigation of Ethical Climate in the Banking Sector in Terms of Individual and Institutional Characteristics*. Master Thesis, İstanbul University, İstanbul

**ACKNOWLEDGEMENT: This paper has been published as a poster presentation in the World Sports Sciences Research Congress held in Manisa, Turkey between 23-26 November 2017.**

ÇOCUKLARDA İNVAZİV İŞLEMLER SIRASINDA DİKKATİ BAŞKA  
YÖNE ÇEKME TEKNİKLERİNİN KULLANIMI <sup>1</sup>USE OF DISTRACTION TECHNIQUES ON DURING THE INVASIVE  
PROCESSES OF PEDIATRIC PATIENTSAyşegül ÖZDEMİR<sup>1</sup>, Meltem KÜRTÜNCÜ<sup>2</sup><sup>1</sup> Bülent Ecevit University, Institute of Health Sciences, Department of Child Health and Diseases Nursing  
Graduate Student, Zonguldak / Turkey<sup>2</sup> Bülent Ecevit University, Faculty of Health Sciences Nursing Department, Zonguldak / TurkeyORCID ID: 0000-0001-6975-0262<sup>1</sup>, 0000-0003-3865-6868<sup>2</sup>

**Öz: Amaç:** Bu derleme, 6-12 yaş arası çocuklarda invaziv işlemler sırasında dikkati başka yöne çekme tekniklerinin anksiyete, korku ve ağrı yönetimine etkisini belirlemek amacıyla yapılmış olan literatürü incelemek amaçlanmıştır. **Yöntem:** Veri tabanlarından yapılan literatür taraması sonucu oluşturulmuştur. **Bulgular:** Çocuklarda anksiyete, korku ve ağrı yönetimiyle ilgili YÖK Ulusal Tez Merkezi'nde 2 adet tıpta uzmanlık tezi, 3 adet doktora tezi ve 7 adet yüksek lisans tezi bulunmaktadır. Konuyla ilgili sayısız yayın ve makale taranmış olup, genel itibarıyla ağrılı / invaziv işlemler sırasında uygulanan dikkati başka yöne çekme tekniklerinin çocuk hastalar ve aileleri üzerinde olumlu etkiler yaptığı gözlenmiştir. **Sonuç:** Kan alma, damar yolu açma gibi invaziv işlemler sırasında uygulanan dikkati başka yöne çekme tekniklerinin çocuklarda oluşan anksiyete, korku ve ağrıyı azaltmasının yanında tedavi ve bakıma olan uyumu artırarak kısa ve uzun dönem sonuçları olumlu etkileyeceği düşünülmektedir. Bu derlemede, çocuklarda invaziv işlemler sırasında dikkati başka yöne çekme tekniklerinin kullanımından bahsedilmiştir.

**Anahtar Kelimeler:** Ağrı, Anksiyete, Korku, Dikkati Başka Yöne Çekme, İnvaziv İşlemler

**Abstract: Aim:** This review aimed to examine the literature on the effectiveness of distraction techniques on anxiety, fear, and pain management during invasive procedures in children aged between 6-12 years old. **Method:** The literature was searched using databases. **Results:** In the Higher Education Council National Thesis Center, there were 2 medical specialty theses, 3 doctoral theses, and 7 master's theses on anxiety, fear, and pain management in children. Numerous publications and articles were also reviewed and it was found that distraction techniques, in general, had positive effects on pediatric patients and their families during painful/invasive procedures. **Conclusion:** Distraction techniques used during invasive procedures such as drawing blood and opening vascular access increase adherence to treatment and care as well as reducing anxiety, fear, and pain, which may lead to positive long-term outcomes. This review addressed the use of distraction techniques in children during invasive procedures.

**Key Words:** Pain, Anxiety, Fear, Distraction, Invasive Procedures

Doi: 10.17363/SSTB.2017.3.5

- (1) *Corresponding Author: Meltem KÜRTÜNCÜ, Bülent Ecevit Üniversitesi Sağlık Bilimleri Fakültesi Hemşirelik Bölümü, Zonguldak / Türkiye, meltemipekkurtuncu@gmail.com, Received: 21.06.2017, Accepted: 19.09.2017, Type of article (Research - Literature) Conflict of Interest: None / "None of Ethics Committee"*



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## INTRODUCTION

Painful medical procedures constitute one of the biggest sources of pain, fear, and anxiety in hospitalized children. These fears often cause unwillingness in the child or the family against medical procedures such as drawing blood, opening vascular access, and suturing and affect the future treatment and care experience of the child. Especially children with chronic diseases face may painful procedures in the diagnosis and treatment process (Arts et al., 1994: 797; Uman et al., 2013:10).

Studies have shown that children experience both pain and anxiety during these procedures (Uman et al., 2013:10). Besides affecting the behavior, family interactions, and nutrition levels of the child, the pain experienced by the child also cause changes in the development of the brain and senses, negatively affecting growth (Derebent and Yiğit, 2006:41; Dinçer et al., 2011:46).

According to the International Pain Studies Association Taxonomy Committee, pain is defined as an unpleasant biochemical situation or experience caused by a certain area of the body with or without relation to tissue damage that is affected by the past experiences of the person and presents in order to distance an unwanted condition (Task Force on Taxonomy, 2004).

The American Academy of Pediatrics and the American Pain Society (2001: 793) both state that pain is insufficiently evaluated in children. When evaluating pain, it should not be forgotten that pain is subjective and contains personal differences. The aim in evaluating pain is to determine, decrease, and effectively manage pain (Conk et al., 2013: 893-910).

Pain evaluation in children is important with regard to (Törüner and Büyükgöneç , 2013: 146-172)

- Determining the child's need for pharmacological and non pharmacological interventions
- Deciding whether the interventions were successful,
- Helping with diagnosis in certain conditions
- Observing surgical or other complications

The hospital environment is a stressful environment which breeds anxiety for children. The factors that cause a hospital to increase stress in children are the disruption of health, the unknown environment, the strangers in this environment, different sounds, lights, and tools, painful procedures applied to the child, disruptions in routine, disruptions in body integrity or the risk of such, and mental developments (Törüner and Büyükgöneç, 2013:



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

146-172; Conk et al., 2013: 893-910). The child should be informed on why the procedures that will be applied were chosen, how long the procedures will take, and what the child will feel during the procedures in order to prevent stress and anxiety in the child (Çavuşoğlu, 2013: 296-308).

The American Society of Pain Management Nursing-ASPMN states that nurses are responsible before, during and after a painful procedure for the use of pharmacological and non pharmacological methods for pain management in people exposed to painful procedures (Czarnecki et al., 2011:154). The AAP and the APS (2001: 793) both state that even in minor interventions, such as opening a venous pathway, pain and stress should be minimized.

To decrease pain in children, non pharmacological methods are used alongside pharmacological methods. The child needs someone to hold hands and verbally relax him/her during procedures. The child and the family should be provided with a sense of safety continuously, and simple explanations on the procedures that are and will be done should be given. The applications may be needed to repeat from time to time, and team members should be patient (Çevik Ü, 2003: 91-95; Çavuşoğlu, 2013: 296-308).

Non pharmacological methods used in pain management are grouped into three categories as supportive methods, cognitive/behavioral methods, and physical methods. Supportive methods encompass the psychosocial care of children and include techniques such as watching videos, reading, and ensuring that the family is with the child during procedures. Physical methods include touching, positioning, massage, skin stimulation, and hot/cold applications. Cognitive/behavioral methods deal with the sensory, behavioral, and perceptual dimension of pain. This group includes techniques such as drawing attention to another place, hypnosis, and relaxation (Uman et al., 2013:10; Törüner and Büyükgönenç, 2013:146-172).

Distraction focuses attention to somewhere else than the painful stimulus, increasing pain tolerance. This method is used as a strong pain and anxiety management tool in pediatric pain (Sloman et al., 2005:125; Gupta et al., 2006: 1372; Cohen et al., 2008: 939). There are many methods to draw attention. The evidence based distraction methods that can be effectively used in painful procedures are as follows:

- Virtual reality goggles
- Using distraction cards
- Music





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

- Using a kaleidoscope
- Blowing balloons and making balloons out of bubbles
- Cartoons
- The parents drawing attention (talking of something other than the intervention) (İnal and Canbulat, 2015:116).

## PURPOSE of STUDY

This review aimed to examine the literature on the effectiveness of distraction techniques on anxiety, fear, and pain management during invasive procedures in children aged between 6-12 years old.

## SCOPE of STUDY

For this review, The national thesis center of the Council of Higher Education, google scholar, and PubMed were searched for journals and articles on the topic. In this regard, studies investigating the effects of distraction techniques applied to children during invasive procedures on anxiety, fear, and pain management were examined.

## METHOD

The literature was searched using databases.

## RESULTS

In the Higher Education Council National Thesis Center, there were 2 medical specialty theses, 3 doctoral theses, and 7 master's the-

ses on anxiety, fear, and pain management in children. Numerous publications and articles were also reviewed and it was found that distraction techniques, in general, had positive effects on pediatric patients and their families during painful/invasive procedures.

## Virtual Reality Goggles

The virtual reality goggle is a 3D technological product that is attached to the head of the patient and enables him/her to watch the visuals in a bigger and clearer manner through the special lenses within. Since it prevents the perception of hospital noises and draws attention during procedures, it has a relaxing and pain decreasing effect (İnal and Canbulat, 2015: 116). However, in children with histories of migraine, epilepsy or vestibular disorders, negative responses to virtual reality goggles, albeit small, may develop (nausea, vertigo etc.) and these children thus can't participate in virtual reality studies. Alongside this, children who are applied virtual reality should be monitored for side effects throughout the procedure (Patrick, McGrath and Allen Finley, 2006: 6).

Sander Wint et al. (2002: 8) have separated 30 children into two groups as 17 in the study (virtual reality) and 13 in the control group to research the effect of using virtual reality goggles during lumbar puncture. As a result of the study, they found that the pain scores of the study group were lower than the control



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

group without a significant statistical difference.

Das et al. (2005:1) have examined 9 children between the ages of 5 and 18 who would have the dressings of their burn wounds changed, and concluded that the pain scores of the group using virtual reality were lower during dressing change than the group not using the method.

Lange (2006) has compared 88 children who underwent blood drawing, venous pathway opening, and suturing procedures in the pediatric emergency room through watching movies and using virtual reality goggles during the procedures. As a result, the behavioral pain and anxiety scores of the group who used virtual reality goggles were found to be lower, with the parents and personnel also finding the use of virtual reality goggles more effective.

Ayyıldız and Göksu (2017) examined 80 children, of which 40 were in the study group and 40 were in the control group, in order to determine the effect of virtual reality goggles in decreasing the pain during venous blood drawing, and as a result observed that there was a statistically significant difference between the study and control groups, with the pain scores of the study group being lower.

Even though studies show that the use of virtual reality goggles is effective in decreasing

the pain and anxiety occurring during medical procedures, more studies on the subject are needed.

### **Distraction Cards**

Distraction cards contain hidden pictures and patterns that the child can see when he/she looks attentively. During the procedure, the child is asked questions regarding the cards, and the attention of the child is drawn elsewhere (İnal and Canbulat, 2015: 116-21).

İnal and Kelleci (2012:210) have separated 123 children between the ages of 6 and 12 whose blood would be drawn, and the study group was asked questions regarding distraction cards while the control group was only applied the routine blood drawing application. As a result, the pain and anxiety scores of the group to which distraction cards were applied were found to be lower.

Canbulat et al (2014: 23) separated 188 children into three groups in a study where they compared distraction cards and kaleidoscope use in children between the ages of 7 and 11 during blood drawing, and while the control group was only applied the routine blood drawing procedure, the study groups were applied distraction cards or a kaleidoscope. As a result, distraction cards were found to be more effective compared to kaleidoscope use in decreasing procedural pain and anxiety scores.



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

Şahiner and Bal (2016: 277) separated 120 children between the ages of 6 and 12 into four groups and while the control group was only applied the routine blood drawing procedure, the study groups were applied distraction cards, balloon blowing, and listening to cartoon music. As a result, the pain and anxiety scores of those who were applied distraction cards were found to be significantly lower compared to the control group, with all of the other distraction techniques being also effective (blowing balloons, listening to cartoon music) in the management of procedural pain and anxiety.

Literature review shows that distraction cards can be safely used during painful invasive procedures.

### **Listening to Music**

Nurses and doctors apply music in pediatrics clinics as a relaxing method for children (Dündar, 2011: 11-15). Studies show that listening to music decreases hospitalization duration and relaxes pain and anxiety.

Nilsson et al. (2009: 1184-90) have separated 80 children into study and control groups in numbers of 40 to determine pain, anxiety, and concern post surgery in school children, and applied music to the study group before the procedure. It was concluded that morphine intake rates and pain scores in the music group in the postoperative period were lower

compared to the control group. Additionally, at the end of the study, children stated that music was relaxing and calming.

In a randomized controlled study, Bahadır and Kürtüncü (2016) separated 60 children in the 6-12 age group who would undergo surgery into music therapy and control groups each 30 in number, and found that the post-operative pain, anxiety, and fear scores of the children in the music therapy group were significantly lower with parent satisfaction also being higher in the study group compared to the control group.

Aydın and Şahiner (2017: 164-168) separated 200 children between the ages of 7 and 12 who would undergo blood drawing into four groups of 50 each, and while the control group was only applied the routine blood drawing procedure, the study groups were applied distraction cards, the study groups were applied distraction cards, music, and distraction cards and music combined. As a result, the pain and anxiety levels of all three study groups were found to decrease with no statistically significant difference.

Moving from these study results, music can be said to safely usable during invasive procedures.



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

## **Kaleidoscope Use**

The Kaleidoscope can be defined as a game material that shows objects of various colors and patterns when looked into. It is also called the flower binocular. The patterns in the kaleidoscope are often obtained by moving the tool and reflecting light from various points. Its inside is painted black or another dark color. Inside is three mirrors attached with 60 degree intervals. Between the mirrors are colored glass pieces, feathers, scales, thin beads etc. While rotating above eye level, the beads move and their vision is combined through the mirrors. Various images thus emerge. When a kaleidoscope rotates, the designs change according to bead movements and the same design rarely shows up.

In a study with 206 children between the ages of 7 and 11 who would undergo blood drawing, Tüfekçi et al. (2009: 2180-6) separated the children into a 101 child control group and a 105 child study group, asking the children in the study group to look into a kaleidoscope during the procedure. As a result, male children who had blood drawing experience from 1 to 3 previous procedures who feared the procedure were found to experience ore pain. Additionally, the pain scores of the children in the study group were found to be lower compared to those of the children in the control group.

Gözen and Karakaya (2014) separated 144 children in the 7-14 age interval into study and control groups, and gave children in the study group kaleidoscopes, asking them to look into it during the procedure and tell what they saw. The children in the control group were applied the routine blood drawing procedure. As a result, the children in the control group were found to feel more pain than those in the study group.

According to these results, the use of a kaleidoscope during invasive procedures can be seen to be effective. Additionally, the fact that different patterns emerge each time the kaleidoscope is rotated causes children to focus on the patterns and not the procedure, decreasing pain.

## **Blowing Balloons and Making Bubbles out of Foam**

In a study conducted with 149 children in the 4-7 age range, French et al. (1994: 384-8) separated the children into study and control groups and applied the method of blowing bubbles out of foam for the children in the study group. As a result, the pain scores of the group which was applied foam bubbles were found to be lower.

Gupta et al. (2006: 1372-5) separated 75 children in the 6-12 age range into 3 groups of 25 children, applied the routine blood drawing procedure to the control group, asked children





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

in one of the study groups to blow balloons during blood drawing, and asked the other study group to squeeze and release a plastic ball in one hand. As a result of the study, the pain scores of the control group were found to be higher than the study groups, with the pain levels of the children blowing balloons being lower among the study groups.

In a randomized controlled study, Balcı and Mutlu (2012) separated 142 children in the 9-12 age interval into three groups of 44, applied the routine blood drawing procedure to the control group, asked children in one of the study groups to blow balloons during blood drawing, and asked the other study group to cough during blood drawing. As a result, the control group was found to experience more pain compared to the study groups, with a statistically significant difference. However, no significant difference could be found between the children blowing balloons and those that coughed, with both being effective in decreasing pain.

As a result of the studies, the applications of blowing balloons and making bubbles out of foam were thought to be effectively usable during invasive procedures.

### **Cartoons**

In a study conducted with 13 children in the 4-12 age range with burns, Landolt et al. (2002: 61-5) examined whether watching

cartoons decreased the pain during dressing changes, and as a result found that cartoons had no effect in significantly decreasing pain during burn dressing changes. However, the fact that burn debridement is a very painful procedure for children is thought to have an effect in this.

Bellieni et al. (2006: 1015-7) separated 69 children into three groups to determine the effect of watching cartoons during blood drawing in children in the 7-12 age range, applied the routine blood drawing procedure to the control group, asked the mothers of children in one group to talk about things irrelevant to the intervention, and applied cartoons to the other group. As a result, the pain scores of the children in the cartoon group were found to be lower than the other two groups.

Dovney and Zun (2012: 3-5) examined 44000 children between 3 and 18 years of age who presented at the pediatric emergency room, and researched the effect of presenting cartoons to children during painful procedures. They observed the children with regard to pain 5 minutes before, during, and 5 minutes after the procedure, and concluded that presenting cartoons during painful procedures was effective in decreasing pain. Additionally, they stated that there was a need for more methods to decrease pediatric pain.





SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

Moving from these results, it can be said that the method of presenting cartoons to children during invasive procedures can be used.

### **Parents Drawing Attention (Talking about things irrelevant to the intervention)**

Gonzalez et al. (1993: 593-60) observed 42 children who were applied intramuscular injection and their mothers, and found that mothers who talked about things irrelevant to the intervention with their children during the procedure were disturbed less by the injection and that the pain levels of such children were lower.

In a study conducted with 8 cancer patients in the 2-6 age range, Mason et al. (1999: 239-48) separated children into three groups, applied routine treatment to the first group, presented cartoons to the second group during treatment, and had the mothers of the children in the third group read them stories during treatment. As a result, the pain levels of the children who were read stories by their mothers were found to be lower than the other two groups.

Inal and Inan (2017) separated 180 children between the ages of 6 and 10 whose blood would be drawn into four groups, applied the routine blood drawing procedure to the control group, presented cartoons to the second group, made the children in the third group play video games, and asked the parents of

the children in the fourth group to talk to their children and divert their attention. The pain and anxiety scores of the parental support group were found to be lower than the control group.

As a result, the method of the parents diverting attention is thought to decrease pain and anxiety during invasive procedures.

### **CONCLUSION**

It is thought that attention diversion techniques applied during invasive procedures such as blood drawing and opening venous pathways would, besides decreasing the fear, anxiety, and pain in children, increase compliance with treatment and care, positively affecting short and long term results.

### **REFERENCES**

- AMERICAN ACADEMY OF PEDIATRICS, AMERICAN PAIN SOCIETY, (2001).** The assessment and management of acute pain in infants, children and adolescents. *Pediatrics*, 108:793-79
- ARTS, S.E., ABU-SAAD, H.H, CHAMPION, G.D., CRAWFORD, M.R., FISHER, R.J., JUNIPER, K.H., et al., (1994).** Age-related response to lidocaine-prilocaine (EMLA) emulsion and effect of music distraction on the pain of intravenous cannulation. *Pediatrics*, 93(5):797-801



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**AYDIN, D., ŞAHİNER, N.C., (2017).** Effects of music therapy and distraction cards on pain relief during phlebotomy in children. *Applied Nursing Research*, 33:164-168 Doi: 10.1016/j.apnr.2016.11.011

**AYYILDIZ KUZLU, T., GÖKSU F., (2017).** Çocuklarda venöz kan alımı sırasında kullanılan sanal gerçeklik gözlüğünün hissedilen ağrı üzerine etkisi. Yüksek Lisans Tezi, Bülent Ecevit Üniversitesi Sağlık Bilimleri Enstitüsü, Zonguldak

**BAHADIR, Ö., KÜRTÜNCÜ, M., (2016).** Müzik terapinin cerrahi uygulanan 6-12 yaş arası çocuklarda anksiyete, korku ve ağrı yönetimine etkisi. Yüksek Lisans Tezi, Bülent Ecevit Üniversitesi Sağlık Bilimleri Enstitüsü, Zonguldak

**BALCI, S., MUTLU, B., (2012).** Çocuklarda venöz kan örneği alırken oluşan ağrıyı azaltmada balon şişirme ve öksürme yöntemlerinin etkisi. Doktora Tezi, İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul

**BELLIENİ, C.V., CORDELLI, D.M., RAFFAELLI, M., RICCI, B., MORGESE, G., BUONOCORE, G., (2006).** Analgesic effect of watching TV during venipuncture. *Archives of Diseases in Childhood*, 91(12):1015-7

**CANBULAT, N., İNAL, S., SÖNMEZER, H., (2014).** Efficacy of distraction methods on procedural pain and anxiety by applying distraction cards and kaleidoscope in children. *Asian Nursing Research*, 8(1):23-28

**COHEN, L.L., LEMANEK, K., BLOUNT, R.L., DAHLQUIST, L.M., LIM, C.S., PALERMO, T.M., MC KENNA, K.D., WEISS, K.E., (2008).** Evidence-based assessment of pediatric pain. *Journal of Pediatric Psychology*, 33(9):939-955

**CONK, Z., BAŞBAKKAL, Z., BAL YILMAZ, H., BOLIŞIK, B., (2013).** Pediatri hemşireliği. Ankara, Türkiye: Akademisyen Tıp Kitabevi, ss: 893-910

**CZARNECKI, M.L., SIMON, K., THOMPSON, J.J., ARMUS, C.L., HANSON, T.C., BERG, K.A., et al., (2011).** Barriers to pediatric pain management: A nursing perspective. *Pain Management Nursing*, 12(3):154-162

**ÇAVUŞOĞLU, H., (2013).** Çocuk sağlığı hemşireliği. Ankara, Türkiye: Sistem Offset Basımevi, ss: 296-308

**ÇEVİK, Ü., (2003).** Yanıklı çocuklarda ağrı ve hemşirelik yaklaşımları. *Atatürk Üniversitesi Hemşirelik Yüksekokulu Dergisi*, 6(3): 91-95



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

**DAS, D.A., GRIMMER, K.A., SPARNON, A.L., MCRAE, S.E., THOMAS, B.H., (2005).** The efficacy of playing a virtual reality game in modulating pain for children with acute burn injuries: a randomized controlled trial. BMC Pediatrics, Mar 3;5(1):1-10

**DEREBENT, E., YİĞİT, R., (2006).** Yenidoğanda ağrı: değerlendirme ve yönetim. Cumhuriyet Üniversitesi Hemşirelik Yüksekokulu Dergisi, 10(2):41-48

**DİNÇER, Ş., YURTÇU, M., GÜNEL, E., (2011).** Yenidoğanlarda ağrı ve nonfarmakolojik tedavi. Selçuk Üniversitesi Tıp Dergisi, 27(1):46-51

**DOVNEY, L.V., ZUN, L.S., (2012).** The impact of watching cartoons for distraction during painful procedures in the emergency department. Pediatric Emergency Care, 28(10):1033-35

**DÜNDAR, S.A., (2011).** Pediatri kliniğindeki hemşire ve doktorların, müziğin klinikteki kullanımı hakkındaki düşünceleri. ADÜ Tıp Fakültesi Dergisi, 12(3):11-15

**FRENCH, G.M., PAINTER, E.C., COURY, D.L., (1994).** Blowing away shot pain: a technique for pain management during immunization. Pediatrics, 93(3):384-8

**GONZALEZ, J.C., ROUTH, D.K., ARMS-TRONG, F.D., (1993).** Effect of mater-

nal distraction versus reassurance on children's reactions to injections. Journal of Pediatric Psychology, 18(5):593-604

**GÖZEN, D., KARAKAYA, A., (2014).** Okul çocuklarında kan alma sırasında dikkati başka yöne çekilmesinin hissedilen ağrı düzeyine etkisi. Yüksek Lisans Tezi, İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul

**GUPTA, D., AGARWAL, A., DHIRAAJ, S., TANDON, M., KUMAR, M., SINGH, R.S., et al., (2006).** An evaluation of efficacy of balloon inflation on venous cannulation pain in children: a prospective, randomized, controlled study. Anesthesia and Analgesia, 102(5):1372-5

**İNAL, S., CANBULAT, N., (2015).** Çocuklarda İşlemsel Ağrı Yönetiminde Dikkati Başka Yöne Çekme Yöntemlerinin Kullanımı. Journal of Current Pediatrics/ Guncel Pediatri, 13(2):116-21

**İNAL, S., İNAN, G., (2017).** Kan alma işlemi sırasında uygulanan üç farklı dikkati başka yöne çekme yönteminin çocukların ağrı ve anksiyete düzeyine etkisi. Yüksek Lisans Tezi, İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul

**İNAL, S., KELLEÇİ, M., (2012).** Distracting children during blood draw: looking through distraction cards is effective in



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

pain relief of children during blood draw.  
International Journal of Nursing Practice,  
18(2):210-9

**LANGE, B.L., (2006).** Pain and anxiety associated with minor medical procedures in pediatric clients and their parents: is virtual reality a useful distraction technique. PhD thesis in progress, University of South Australia, Australia

**LANDOLT, M.A., MARTİ, D., WİDMER, J., MEULİ, M., (2002).** Does cartoon movie distraction decrease burned children's pain behavior? The Journal of Burn Care Rehabilitation, 23(1):61-5

**MASON, S., JOHNSON, M.H., WOOLEY, C., (1999).** A comparison of distractors for controlling distress in young children during medical procedures. Journal of Clinical Psychology in Medical Settings, 6(3):239-48

**NİLSSON, S., KOKİNSKY, E., NİLSSON, U., SİDENVALL, B., ENSKAR, K., (2009).** School-aged children's experiences of postoperative music medicine on pain, distress and anxiety. Pediatric Anesthesia, 19(12):1184-90

**PATRİCK, J., MCGRATH, G., ALLEN FİN-LEY, (2006).** Virtual Reality distraction during pediatric medical procedures. Pediatric Pain Letter, 8(1):6-10

**SANDER WİNT, S., ESHELMAN, D., STE-ELE, J., GUZZETTA, C.E., (2002).** Effects of distraction using virtual reality glasses during lumbar punctures in adolescents with cancer. Oncology Nursing Forum, 29(1):8-15

**SLOMAN, R., ROSEN, G., ROM, M., SHİR, Y., (2005).** Nurses' Assesment of Pain in Surgical Patients. Journal of Advenced Nursing, 52(2):125-32

**ŞAHİNER, N.C., BAL, M.D., (2016).** The effects of three different distraction methods on pain and anxiety in children. Journal of Child Health Care, 20(3):277-85

**TASK FORCE on TAXONOMY., (2004).** Classification of chronic pain. Seattle, USA: IASP Press, ss:1-215

**TÖRÜNER, E.K., BÜYÜKGÖNENÇ, L., (2013).** Çocuk sağlığı temel hemşirelik yaklaşımları. Amasya, Türkiye: Göktuğ Yayıncılık, ss:146-172.

**TÜFEKÇİ, F.G., ÇELEBİOĞLU, A., KÜ-ÇÜKOĞLU, S., (2009).** Turkish children loved distraction: using kaleidoscope to reduce perceived pain during venipuncture. Journal of Clinical Nursing, 18(15):2180-6

**UMAN, L.S., BİRİNİE, K.A., NOEL, M., PARKER, J.A., CHAMBERS, C.T., MC GRATH, P.J., et al., (2013).** Psychologi-



SSTB

www.sstbdergisi.com

International Refereed Academic Journal of Sports, Health and Medical Sciences

April – May - June Issue 23 Winter Season Year: 2017

JEL CODE: I1-I12-I19-I21 ID:353 K:447

ISSN Print: 2146-8508 Online 2147-1711

(ISO 18001-OH-0090-13001706 / ISO 14001-EM-0090-13001706 / ISO 9001-QM-0090-13001706 / ISO 10002-CM-0090-13001706)

(TRADEMARK)

(2015/04315- 2015-GE-18972)

cal interventions for needle-related procedural pain and distress in children and adolescents. The Cochrane Database of Systematic Review, 10(10):1-135

**AUTHOR NOTES: This work was presented as the 2nd International Congress on the Promotion of Women's Health and Education, 5-6 October 2017, Kocaeli.**



## ABOUT US

Our Journal introduced its publishing activities in 2011. Publications are accepted from the fields accepted jointly by health sciences and sports sciences, especially including sports sciences. With the facilities brought by technology in today's conditions, our Journal entered into publication arena to meet the need for scientific studies, at least to some extent. It mainly accepts publications from such fields as sports sciences, sports education, sports medicine, history of medicine and ethics, nutrition for the athlete, athlete psychology, medical and biological sciences for sports, and "doping". Moreover, it accepts studies from the sub-branches of these scientific fields which are evaluated and assessed positively by referees expert in their fields. Studies which are included in the pharmacology, but are on athletes and athlete health are also accepted and evaluated in our Journal. Moreover, studies which are conducted in the field of forensic sciences for sports and athletes are accepted and evaluated in our Journal. Our Journal accepts and publishes studies which are originally scientific and will serve and contribute to the science world as well as research, collection and translation for these studies.

Our Journal publishes four issues every year, each of which is published as printed in the first quarter of the year. In line with the working principle, our Journal includes studies from all fields equally and fairly. Studies which come to our Journal are reviewed by two different field expert referees, and the time period of reviewing is two months within the scope of the workload of the referees. Studies approved by two referees are queued to be published as printed following the approval of the council of publication. Our magazine article writing rules should be prepared according to the examples in the journal website. Editorial office is responsible for all kinds of system of the Journal, no referee or author hold the responsibility of it. Authors have the right to publish in line with their independent will and knowledge, and they are regarded as accepted all the responsibility of studies which are accepted for publication and published. Our Journal serves as a bridge between publishers and readers. Our Journal and referees who review publications do not have any legal obligation for the published study. All kinds of obligations belong to authors. Our Journal does not have any impact and forcing sanction on referees in terms of publications. No study has any priority against another. Each study is subject to the same conditions and requirements. It does not have a priority or privilege. No author can have information about the referee who review and create an obligation on referees. Journal management and editor cannot decide that a study or author is priority. The system is operated with the same conditions and requirements for each study and author. Our journal writing language is English.

Our Journal is international and accepts studies with such qualities. Studies which have been sent to another journal for any reason are rejected even if they have been accepted to be published in our Journal, provided that a refutation is issued. Rights of a study which has been sent to our Journal have been given by the author to the Journal. It is regarded that the author has accepted it in advance. Such conditions and requirements begin to be operated once the publication is uploaded on our Journal's system. No special declaration or signature is requested from authors in this regard. In cases of legal problems occurring or likely to occur, legal advisors of our Journal reserve unilaterally the right to take all actions to protect our Journal and its referees.

The Article No. 101 has been brought as the condition to Apply for the Exam of Associate Professorship in the Main Area of Health Sciences by T.R. Head of Interuniversity Council. In this article, 1- (b) section of the international article part states that Original research articles (10 points) published in the journals indexed by international field indices (the journals in the indices apart from those specified in 1a) are required. International Refereed Academic Journal of Sports, Health and Medical Sciences (SSTB) is included in the criteria for the journals indexed in its field and evaluated accordingly.

## INFORMATION FOR AUTHORS

- 1 The language of the journal is English. Original researches, analyses, compilations, case studies, projects and book launches are accepted (they must be in an article format).
- 2 If the editorial board and the administrative board approve the papers prepared in different languages, it is accepted. The journal acts unilaterally.
- 3 The journal has a printed and electronic version. The articles are downloaded from the website and the relevant manuscript can be used on condition that it is referred to our journal and “article”. The readers can have an access to all volumes of the journal for free on the website.
- 4 Papers are accepted on condition that the author is registered to be a member of the journal.
- 5 None of the authors can assert legal rights on the journal.
- 6 The journal cannot be held ethically and biostatistically responsible for the papers; however, the author himself/herself is unilaterally responsible for the articles. Our journal cannot be put under an obligation. Author(s) must get the relevant approvals and inform the journal management for the articles requiring ethics board or institutional approval. The information of the papers requiring ethics board and institutional approval should be entered into the system by the responsible member author while uploading the article. In case of a problem, author(s) are unilaterally held responsible. Our journal never accepts liability in any matters.
- 7 The papers, submitted to the journal, should not have been sent to another journal previously and under consideration of another journal for publication simultaneously. Also, if it is determined that an article sent and processed in our journal has been in the publication process at the same time, our journal unilaterally reserves its legal rights against the relevant author(s). If such cases occur, the article is rejected on condition that refutation is published and the journal imposes the required sanctions on the author(s).
- 8 Each study is evaluated by the two referees, and the approved papers by the two referees are saved to be published in the following issues. Evaluation period of papers is three months according to the responses of referees. The papers that don't yield any response regarding the evaluation within three months are directed to another referee. In this case, a time extension is in question and a demand cannot be raised. The author cannot claim any right or withdraw the article from the system. The manuscripts in the referee evaluation process must be analyzed in terms of plagiarism and they should be sent to us and uploaded to the

system in line with the scientific ethical rules. In case it has been determined that the articles published in our journal don't comply with the scientific ethical rules, we reserve our legal rights against the relevant author(s).

- 9 None of the studies and authors has privileges in the journal. Each author and study has the same rights and they're equal. No privilege is granted.
- 10 The names of the referees-experts in their fields will not be revealed to the authors. Information concerning the authors is known only by the system manager and the editor. It is kept confidential.
- 11 The papers uploaded to the system are first evaluated by the editor. A correction demand can be raised by our editorial board for the manuscripts not complying with the spelling rules. The articles edited in line with the spelling rules are sent to referee evaluation. The corrections demanded by the referee can be seen on the system by the relevant responsible author with the membership information and the correspondent author is informed via the system by e-mail. Every referee has the right to claim correction three times for a paper. If the correction isn't still made after three demands, the paper is automatically "REJECTED". The papers corrected in accordance with the referee suggestions are "ACCEPTED" or "REJECTED" after being evaluated by the editor again. The correspondent author is informed via the system by e-mail. The paper can be REJECTED with the decision of chief editor even though it has gone through the referee approval. All rights belong to the chief editor in this matter. None of the author(s) can impose a sanction on the decisions of chief editor or raise any demand.
- 12 If the article is produced from the thesis, presentation, and so on, it should be stated and explained in the footnote. Otherwise the author is accused of plagiarism. In that case, the journal cannot be held responsible for this situation.
- 13 If the paper is not within the scope of the journal, it is the editors and the administrators who will accept or reject the paper unilaterally. The author cannot assert any legal rights.
- 14 The uploaded study belongs to the journal with its exclusive rights by author(s). For this reason, it is not necessary for the author(s) to sign any other documents. The studies uploaded to the system are regarded as being transferred to our journal with all rights. If necessary, author(s) can be demanded a transfer contract with wet signature.
- 15 In the articles evaluated in our journal, the correspondent author is regarded as the addressee; other authors are not communicated and informed. The journal is not supposed to give information to other authors.

- 16 The referees act independently in the journal. Authors cannot exercise power over the referees or cannot demand anything from the referees.
- 17 The journal publishes four times a year in March, June, September and December. However, there might be changes in the periods depending on the publication process. The journal cannot be held responsible for this.
- 18 Following the evaluation process of the papers, the referee report can be seen on the system and sent to the correspondent author by e-mail. After completing the two-referee evaluation process, correction demand can be made via the system by e-mail. The corrections made before that cannot be allowed in the system. The edited paper should be uploaded again with the registered ID number. The authors should make the required corrections in 15 days. If the corrections are not made within 15 days, the article is rejected by the system automatically. None of the authors can impose sanctions on the journal in this case.



## WRITING RULES OF THE JOURNAL

- The bibliography is arranged according to the Turkish alphabet order. The sample article for the writing rules and preparation of papers can be found on our website in Word format. All authors are required to take into account the writing format in the last volume of the journal.
- The main text of papers, abstract, tables and footnotes that will be sent to the journal must be written in MS Word Program, with Times New Roman in 12 pt. and single spaced.
- Page layout must be with 3 cm margin in the top, bottom, left and right.
- Texts must be between 15-20 pages, they must be no longer than 20 pages and page number must be indicated at the bottom of the page. Annex documents, tables, figures, charts and similar materials aren't included in the number of pages.
- Page layout must include the titles, abstract and tables written in one column, the main text and the references should be given in two columns, justified and without indentation, spacing 12nk below the titles and paragraphs. Extended English Abstract must be provided after the references in 12 pt. and one column.
- On the first page, Özet and Anahtar Kelimeler in Turkish must be below the Turkish heading, Abstract and Key Words must be below the English heading. Abstract in Turkish and English must be no longer than 150-200 words in 12 pt. Sub-headings must include Abstract, Aim, Method, Findings, Conclusion and Key Words. Anahtar Sözcük(Ler)/Key Words must be given in 3-7 words below the Abstracts by capitalizing the first letters of each word. In addition to this, key words must be written in the space provided by the system by capitalizing the first letters of each word and by separating each word by comma. It is necessary to choose the Turkish keywords according to "Türkiye Bilim Terimleri" and English key words in accordance with the "Index Medicus Medical Subject Heading (MeSH)" standards (<http://www.bilimterimleri.com>).
- If the article has been presented in a conference, the title of the conference, the date and the place of the conference and the type of the presentation must be provided below the "Author's note," after the References part. For example, Author's Note: This study has been presented at "1.Ulusal Ana Çocuk Sağlığı Kongresi," on 19-20 December 2014, in İzmir as an oral presentation.
- The names and the affiliations of the authors must not be given on the text below the title; this information must be uploaded to the system on the website.

- It should be stated that research articles have been prepared according to the scientific ethical principles and ethical board report information (Name of the institution from which report is received, its date and the serial number of report) must be added to the system. It is also necessary to scan the ethical board's report and the institution's permit document and to send to our editorial office via e-mail. For the papers without ethical board report, a signed document indicating that it doesn't have the ethical board report must be sent to the editorial board via e-mail.
- The main text must include such parts as Introduction, Method, Findings, Discussion, Conclusion, References, Acknowledgement (persons and institutions not participated in the study but contributed to the development of the study should be acknowledged here) and Extended Abstract. Extended English Abstract must be 750 words and more. Extended abstract must be prepared apart from Turkish abstract. It must be added to the paper after the references. The title (Extended English Abstract) must be written in capital letters, bold and centered, and the text must be justified without indentation, in 12 pt. and one column. Below the titles of Definition and Importance (references can be given only in this part), Aim, Method, Findings, Results and Conclusion, data concerning the article must be provided.
- Tables and figures must be placed in the text appropriately. Numbers and headings of tables/figures must be above the table; sentence case must be used in 12 pt., bold and justified. There must be a full stop between the table number and heading. Tables must only contain horizontal line. Each table must be referred to within the text. Items in the table must be in 1 line spacing and 12 pt. Explanations of the tables must be indicated below the table in 10 pt. and by putting \* before it. E.g.: \*Saraçoğlu, 2004:416-21.. Explanations about the abbreviations must be stated below the table and figure by using “\*,\*\*” or “a, b” in 12 pt. The number of tables and figures must be no longer than 6.
- Reviews must incorporate Turkish and English Headings, Abstract, Text, References and Extended English Abstract. Text should include a structure within a purpose, Conclusion parts must be completed. Headings, Abstract must be in one column; Text, References and Extended English Abstract must be in two columns, justified without indent and with 12 nk spacing in heading and at the end of the paragraph. Extended English Abstract must be 750 words and more. Extended abstract must be prepared apart from Turkish abstract. It must be added to the paper after the references. The title (Extended English Abstract) must be written in capital letters, bold and centered, and the text must be justified without indentation, in 12 pt. and one column. Below the titles of Definition and Importance, Aim, Method, Findings, Results and Conclusion, data concerning the article must be provided within the Extended English Abstract.

- Case reports must include Turkish and English headings, Abstract, Introduction, Case Report, Discussion, References and Extended English Abstract. Headings and Abstracts must be 12 pt. and in one column; Introduction, Case Report, Discussion, References must be 12 pt. and in two columns justified without indent and with 12 nk spacing in heading and at the end of the paragraph. Extended English Abstract must be 750 words and more. Extended abstract must be prepared apart from Turkish abstract. It must be added to the paper after the references. The title (Extended English Abstract) must be written in capital letters, bold and centered, the text must be justified without indentation, in 12 pt. and one column. Below the titles of Definition and Importance, Aim, Method, Findings, Results and Conclusion, data concerning the article must be provided. Reports can be supported with photos and flow charts. Necessary permissions must be taken for photos and flow charts and references must be indicated in 10 pt. with “\*”. E.g.: \*Saraçoğlu, 2004:416-21.

## REFERENCES WITHIN PAPER

- The sample article in the system must be used for citation rules. In other words, references are indicated with the name of author, the year of publication and page numbers in parentheses beside the main text (Surname, Year of Publication: Cited Page Number).
- Footnotes of extra explanations about the content and other explanations must be given below the page. Notes numbered in the text are located below the page by numbers with the explanations.
- Citations made from a source are indicated between double quotes in the text.
- Citations longer than 30-40 words are given as an indented paragraph without using quotes.
- While providing references, if the name of the author isn't within the text, the surname of the author and date of publication and the cited page are indicated in parenthesis: (Korkmaz, 2007: 23-45).
- If the name of the author is in the text, only the publication date of source and page number is given in parenthesis: Oskay et al.. (2005:36) in his/her study.....
- In sources with two authors, the surnames of both authors are indicated. If it is an English publication, it is separated with "and" (Morley and Robins, 2007:20).
- If it is Turkish, in sources with more than two authors, "vd." is indicated: (Yücel vd., 2012:236).
- If it is English, in sources with more than two authors, "et al." is indicated: (Hossain et al., 2007:156).
- If more than one study from the same author published in the same year must be used, the sources are separated by adding the letters like a, b, c: Such as (Ortaylı, 1999a:25) (Ortaylı, 1999b:43).
- If more than one source about the same subject is cited within the text, sources are separated with a semicolon: (Geray, 2005:33; Moran, 2006:36).

## WRITING REFERENCES

- Only the sources cited in the text must be included in the references and those sources must be put in order alphabetically by the surnames of authors. If more than one study belonging to the same author is included in the references, it must be sorted by the date of publication (from old to new).
- If the number of the authors is 6 or less, all the authors must be listed, if it is 7 or more, the first 6 authors must be listed and “vd.”, for Turkish articles and “et al.” for English articles must be used. After the last author, “&” must be used before “vd.” or “et al.”
- Anonymous writers from Internet sources must not be cited.



**\* BOOKS**

**SEVİL, Ü., YANIKKEREM, E., (2006).** Kadına yönelik aile içi şiddet. İzmir, Türkiye: İzmir Güven Kitabevi, ss.36-66

**\*CHAPTERS IN A BOOK**

**TAŞKIN, L., YANIKKEREM, E., (2014).** Aile planlaması. İçinde Kadın Sağlığı Hemşireliği, 12. Baskı, Ankara, Türkiye: Özyurt Matbaacılık, ss.527-545

**SEVİL, Ü., YANIKKEREM, E., (2008).** Adölesan dönemi. İçinde A. Şirin (Ed.), Kadın Sağlığı , İstanbul, Türkiye: Bedray Basın Yayıncılık, ss.57-90

**BAYIK, A., SEVİL, Ü., (2004).** Hemşirelik disiplini ve araştırma. İçinde İ. Erefe (Ed.), Hemşirelikte Araştırma İlke Süreç ve Yöntemleri, 3. Baskı, İstanbul, Türkiye: Odak Baskı Ofset, ss.13-26

**\* ARTICLES**

**EGELİOĞLU, N., MUSLU, G.K., ŞEN, S., GÜNERİ, S.E., BOLIŞIK, B., SARUHAN, A., (2014).** Ege Bölgesinde doğum sonu dönemde uygulanan geleneksel uygulamalar. Uluslararası Hakemli Hemşirelik Araştırmaları Dergisi (UHD), 1(1):22-35. Doi: 10.17371/UHD.2014018935

**ÖZCAN, B., KOCAMAN, H., (2016).** Eşler Arasındaki Yaş Farkının Boşanmalar Üzerindeki Etkisi, ACED Dergisi, 10:1-17 Doi: 10.17359/ACED.20161024262

**ŞEN, E., GÜNERİ, S.E., YANIKKEREM, E., HADIMLI, A., KAVLAK, O., ŞİRİN, A., et, al., (2012).** Determination of knowledge requirements and health practices of adolescent pregnant women. International Journal of Caring Sciences, 5(2):171-178

## **PUBLICATION PRINCIPLES**

- 1** Papers which are submitted to the journal for publication are expected not to have been published somewhere else, not to be in the evaluation process of another publication organ. If it is determined that the manuscript uploaded by the relevant author(s) has been sent for evaluation or REJECTED by another journal, we reserve all kinds of legal rights about the relevant author(s).
- 2** Papers outside the accepted disciplines and fields in our journal are rejected. The accepted fields are stated under the “DISCIPLINES” title of our journal. None of the papers outside these fields can be published or requested to be published in this journal.
- 3** The content and scientific responsibility of the papers cannot be imposed on the journal under any circumstances. The whole responsibility belongs to relevant author(s).
- 4** In articles with more than one author, the correspondent author is the one who ranks first. Or the member uploading the paper to the journal accepts and has to accept the whole responsibility.
- 5** The abstract should be prepared both in Turkish and English and between 150 and 250 words. The title should also be both in Turkish and English. The purpose of the paper, scope, method, limitations of research, findings and conclusion should be included in Turkish and English parts.
- 6** If the paper has been prepared from such organs as thesis, book etc., it should be stated at the end of references part with “Author’s Note” by referring to the first title. If the paper has been prepared from a master’s or doctoral thesis, the name of the advisor should be ranked in the second place. If the thesis advisor doesn’t want to see her/his name in the relevant paper, our journal should be informed about this situation with a document. It should be a document with wet signature. Our journal and management doesn’t have such a liability to question author(s) about the source of papers reproduced from thesis or another paper. The whole responsibility belongs to author(s). The author(s) already accept these conditions.
- 7** Sources used in the works must be prepared according to the appropriate template of the journal. This template is presented to all author(s) as a Word file on our website. Besides, the last volume of our journal should always be taken into account. Our journal and management unilaterally belongs the right to change these criteria in line with their own demands.
- 8** Every paper evaluated should get the approval of two referees. If one of the referees has rejected and the other one has approved, the editor sends the paper to the third referee. In

line with the opinions and suggestions of the third referee, editor acts in accordance with her/his own authority. Chief Editor of the journal unilaterally reserves the right to REJECT even if the paper has been approved by referees. In this case, none of the author(s) can claim a right or demand. All kinds of management, practice and procedure belong to the chief editor of the journal. The relevant paper prepared in English is evaluated by the English language editor. Also, every paper is evaluated in terms of the writing rules of our journal by the technical editor. If the English language editor decides that the paper is inappropriate for our journal, the authorized person who will REJECT or amend this decision is the chief editor. Language editor and technical editor don't have the right to REJECT. They transmit their suggestions to the chief editor and the chief editor unilaterally applies the decision in line with the demands and suggestions. Field editors transmit their opinions regarding evaluation and publication of the papers uploaded to the system to the chief editor. The chief editor acts with her/his own authority in line with the opinions and suggestions of field editors. Major or minor corrections can be made after the evaluation of papers. Author(s) are requested for corrections THREE times. If the corrections aren't made after three demands, the article is rejected after the chief editor is informed by the system editor. The manuscripts uploaded to the website are first analyzed by system editor or technical editor before sending to the referee. This analysis is performed within the framework of spelling rules. System or technical editor informs author(s) about the necessary demands. If these demands aren't satisfied, the chief editor is informed about the result. Chief Editor makes the final decision according to the information. This decision is unilaterally up to the chief editor either in a negative or positive way. None of the institutions and individuals has the right to impose sanction on the decision made.

- 9 English and Turkish abstracts should be written in Times New Roman with 12 pt. All author(s) are obliged to act and arrange their papers in accordance with the sample article format on our website.
- 10 The names of the institutions of author(s) should be written in 12 pt. and italic with Times New Roman. It is stated in the sample article format.
- 11 The paragraph spacing of the whole manuscript should be single spaced.
- 12 The references should be stated in a way that the reference is italic and the name and author's surname rank at the first place just like in the sample article. For example; *Yılmaz, A., Güven, M., (2017). İşletmelerde Sağlık Yönetiminin Önemi, ..... Dergisi, Sayı: 1, Cilt: 1, ss.1-2* The references should be indicated within the text as (Yılmaz, 2017: 1-2) or (Yılmaz, ve diğ., 2017: 1-2). Internet resources are never used within the text. These sources are numbered and indicated at the bottom of the page. The citations

made from such internet resources as Wikipedia should never be used. If such use of resources is determined, the manuscript is unilaterally REJECTED. None of the author(s) can impose a sanction and raise a demand on our journal in this matter.

- 13 The internet resources should be indicated in the references part under the title of “INTERNET RESOURCES”. The link should be included in the resources and the Access date should be after the link like “E.T. 01.01.2017).
- 14 Typesetting and editing of the paper should be in accordance with the sample article format on the website and the references within the text must be prepared as per the sample article.
- 15 The current papers are uploaded to the system by the author being the member of the system step by step. The paper uploaded is sent to the relevant field editor by the system manager and asked for approval for referee evaluation. If there are more than one author name in the paper, this information should be inserted in the system together with the names and institutions of author(s) while uploading the paper to the system. Our journal and management never accepts responsibility regarding the problems that may arise about the names and institutions of authors related to the article. This information must be unilaterally inserted in the system by author(s). Our journal and management aren't responsible to insert this information to the system. Our journal and management only take into account the information uploaded to the system by author(s).
- 16 The language of our journal is English. However, the papers prepared in different situations and principles are accepted in other languages. In this case, the publication board unilaterally reserves the right to use initiative or reject. Relevant author(s) cannot be effective or impose sanction on our journal in this matter.
- 17 The author cannot decide on which referee will evaluate the paper and won't know the information of the referee making the evaluation. After the referee evaluation of the relevant paper, the correspondent author who accepts the responsibility in uploading the paper to the system is informed via the web system. The e-mail address in the journal system should be valid and correct. The member author is unilaterally responsible for any delay and problem that may arise about the authors whose membership information isn't valid and correct in the system. Our journal doesn't address comments to other authors. The member author who uploads the paper to the system is the addressee and the responsibility belongs to the relevant author. If the paper is uploaded to the system by someone else whose name isn't in the paper, the relevant member becomes responsible for this situation. Our journal and management are never responsible for possible problems. All kinds of correspondences and information related to the article are directed to the member author. Our journal isn't supposed to inform other author(s).

- 18 Information about the authors and the materials of communication are confidential and it is only known by system manager and the editor. Therefore, authors don't have such a right to ask for referee evaluation or any other demand. Information on referees and authors are only shared with the system editor, technical editor, chief editor and the field editor.
- 19 The number of pages uploaded to the system is 20. This number can increase according to the subject of the paper. Annexes and tables can be excluded from this number. However, publication board, field editor and the chief editor unilaterally reserve their right to make a positive or negative evaluation. Author(s) cannot claim a right in this matter.
- 20 Our journal is an "e" electronic journal but is also published in paper version. Individuals who would like to get printed version of the journal can obtain it by paying the necessary fee to the relevant printing company. Our journal does not have to provide printed version of the journal to any author or individual. Annual membership fee should also be sent to relevant printing company for works sent to our journal. A reasonable amount of fee is requested from the author of the paper approved for publication considering the journal expenses and according to the conditions of that time. The relevant author or the person who makes the payment is sent a receipt about the payment by the beneficiary company.
- 21 Evaluation process of works uploaded to the system is two months. Works which are not evaluated within this period of time and about which information report is not received are sent to a different referee. Author(s) cannot claim a right on our journal and management because of this delay. It is out of question for the papers being in the referee evaluation process to be withdrawn from the journal under any circumstances.
- 22 Our journal publishes four times a year. The journal and publication board has a right to publish special issues. This is up to the initiative of journal management.
- 23 Publication and copyright of published papers belong to our journal. Publication right of every paper uploaded to the system is automatically transferred to the journal. The responsible author approves the transfer contract created at the same time with the button on the website while uploading the paper to the system. None of the authors are requested to sign the copyright agreement for this procedure. Journal management has the right to demand transfer agreement with wet signature if required. The papers being in the referee evaluation process cannot be withdrawn from the publication. A valid reason should be indicated for the papers that are withdrawn. Otherwise, legal action is unilaterally taken against the relevant author(s). Author(s) approve these conditions in advance for the paper uploaded to the system. None of the author(s) have a right to object.



- 24** Relevant author(s) are supposed to insert the ethics board or institutional approval while uploading the paper to the system if necessary. The whole responsibility unilaterally belongs to author(s) in case of a possible problem if the information of papers for which ethics board or institutional approval is required isn't inserted in the system or the journal management isn't informed. Our journal is never asked to accept such a responsibility. Our journal and management doesn't have to ask or monitor this information.

IT IS CONSIDERED THAT ABOVEMENTIONED 24 ITEMS OF PUBLICATION PRINCIPLES GUIDELINE ARE ACCEPTED BY AUTHOR OR AUTHORS WHO ARE INVOLVED IN THE SYSTEM. NO AUTHOR HAS THE RIGHT TO OBJECT TO THESE PRINCIPLES. OUR JOURNAL HAS UNILATERAL RIGHT IN TERMS OF PUBLICATION PRINCIPLES, AND PUBLISHING, EVALUATION OR REFUSAL OF WORKS. THIS RIGHT CANNOT BE CHANGED UNDER ANY CIRCUMSTANCES AND CONDITIONS. OUR JOURNAL HAS THE RIGHT TO USE ITS LEGAL RIGHTS WITHIN THE FRAMEWORK OF RELEVANT LAWS AND LIABILITIES IN CASE OF AUTHOR/AUTHORS WHO DO NOT ACT IN ACCORDANCE WITH RELEVANT PRINCIPLES AND RULES. EVERYBODY WHO IS INVOLVED IN THE SYSTEM HAS AUTOMATICALLY AGREED ON THESE POINTS IN ADVANCE.

## FREQUENTLY ASKED QUESTIONS

**1 Is your journal a refereed and international journal?**

Our journal is a refereed, scientific and international journal. It is indexed by many international indices.

**2 Which fields are accepted in your journal?**

Only the papers in the fields accepted by the journal are approved.

**3 Does your journal charge any publication fee?**

A certain amount of fee is requested per the manuscript accepted for publication in return for some expenses. There is no such demand for the rejected papers.

**4 Are the readers allowed to access to the volumes and the articles without being a member of the journal?**

All the volumes can be downloaded from our website in pdf format without being a member.

**5 What is the publication frequency of the journal?**

The journal publishes three times a year; the volumes with full texts are uploaded to the system at the end of April, August and December. However, some special issues can be published in some cases.

**6 Are the authors informed about the evaluation process of the submissions?**

The journal is web-based, and the authors can follow all kinds of information concerning their submissions from the membership panel of the system. The authors will also be provided with the necessary information about the process and procedure.

**7 How many referees evaluate a manuscript?**

Manuscripts are firstly evaluated by the field editors and then the ones found appropriate are sent to the referees by the field editors. Field editors send the approved papers to two field referees and referee evaluation process begins. This process takes two months at most according to the referee evaluation. If evaluation reports are not received within three months, the article is sent to the third referee. If there is still not any progress, field referee, and the editorial board decide on the publication process.

**8 Is any information concerning “the author and authors” confidential?**

In this journal and all the international refereed journals, information, concerning the author(s) is known only by the system editors, field editors, chief editor and assistant chief

editors. This information is completely kept confidential. The referees or members of the journal are not allowed to access to the relevant information.

**9 Are there a certain number of articles to be published in the journal?**

There are not a certain number of articles in the journal. Each article, approved by the referees and the editorial board, is accepted to be published in the journal without delay and sent for the layout process which is the final stage.

**10 Is an author allowed to submit more than one paper in the same issue?**

It is out of the question in terms of ethics. However, more than one manuscript of the same author can be published in the same journal or the following issues if the publication and editorial board approve the articles. But this situation is only valid for specific cases and those requiring initiative. This case is only valid for special conditions and those requiring initiative.

**11 Is there sufficient number of referees in all the fields that the journal accepts articles?**

All the submissions sent to our journal are subjected to evaluation by expert academicians and scientists and referees are not getting paid for the evaluation they make. Evaluation and reports are only on a volunteer basis.

**12 What is the duty of the science and advisory board?**

The science and advisory board is responsible for solving the incompatibility problems that the referees experience; the board gives the final decision independently, and they act actively to solve such problems. The decisions of the science and advisory board are accepted without questioning. The decisions are applied accordingly. Their decisions cannot be changed and offered to be changed.

**13 Is an author allowed to submit his/her paper to the science and advisory board in a negative situation?**

This situation is out of the question. Functionality of science and advisory board occurs only with the approval of the editor-in-chief.

**14 If an author submits her/his paper simultaneously to another journal for consideration, and the paper is accepted in that journal too, what kind of procedures is taken?**

The executive board and editorial board give the final decision in such cases. As the publication board does not regard such attitudes as ethical, even if the paper has been published, it is removed from the system on condition that refutation is published, necessary institutions are informed, and the rights are reserved. However, in order to avoid such problems, the guidelines for the authors should be read carefully and the appropriate papers should be submitted. Our journal's all rights are kept reserved under the guidance of journal's

legal advisors within the framework of Turkish Commercial Law and Law on Intellectual and Industrial Rights in such negative conditions. It defends its material and moral rights within the framework of Laws of Turkish Republic.

**15 Does your journal accept papers from other languages?**

Currently, the language of our journal is Turkish and English. However, studies in English and other languages are also accepted.

**16 Is an author allowed to get information about referees evaluating her/his paper?**

It is out of question. The names of the referees will never be revealed to the authors even if they want to learn. The author cannot recommend a referee for the paper s/he sent. Only the editor-in-chief, assistant editors, field editor and system editor can decide on this. It is also out of the question to assign a referee outside those boards and to give information.

**17 Is an author allowed to give a name of a referee that s/he does not want her/his paper to be evaluated by?**

If such a problem occurs, and the referee is in the journal list, on condition that the process is confidential, the author should submit the necessary explanations and reasons in an official document to the editor-in-chief. If this is approved by the chief editor, necessary steps are taken; otherwise, common procedures and standard working are carried out.

**18 Is an author allowed to suggest a referee to contribute to the evaluation process?**

It is out of question. The field and system editors decide on the issue. Authors cannot interfere in this process.

**19 Are the authors to sign the transfer agreement or publishing transfer contract?**

This situation is stated on the main page of the journal in the section titled publication principles. All the submitted papers are accepted to be transferred to the journal with exclusive rights. The author is not asked to **sign the document** concerning the submission. However, in some cases the author should sign the contract, required by the field editors or administrative board and submit it to the chief editor officially. Otherwise the paper will not be published.

**20 Is an author allowed to withdraw his/her paper when desired?**

If the evaluation process has started, papers cannot be withdrawn. The paper can only be withdrawn in case of plagiarism and scientific disquality and if the author sends an official letter, explaining the situation to the chief editor. The journal acts unilaterally in this issue.

**21 What is the process in papers requiring the approval and report of ETHICS BOARD?**

As in “Media Organs” of National and International journals, author(s) has to upload “Date of Report”, “Report Information-Report Number” to “Ethics Board Report Information”

part of the publication submission system of the journal in “EXPERIMENTAL, CASE STUDY and INSTITUTIONAL” works requiring ETHICS BOARD approval and report. The chief editor has the right to ask for the original report if deemed necessary with an official approval of the institution. In such cases, if the chief editor doesn’t get the ethics board report despite the request made, the manuscript cannot be included in the system and published even if it has obtained referee approval and completed the publication process. The paper is rejected with the decision of chief editor and other editors. In this case, author(s) cannot make a demand for right. This information isn’t necessary for the papers not requesting ethics board report or being lack of this report. However, this information should be uploaded to the system by author(s) for the papers requesting and having the ethics board report. Author(s) are held responsible for this situation. Our journal doesn’t accept any liability and responsibility regarding this matter. The whole responsibility in legal process belongs to author(s). Otherwise, our journal cannot bear any legal, spiritual and material responsibility. Journal management and referees cannot be imposed any liability in this matter. In case of a possible negative condition, our journal unilaterally reserves its legal rights.



## SSTB - Uluslararası Hakemli Akademik Spor Sağlık ve Tıp Bilimleri Dergisi

Kayabaşı Mh. Evliya Çelebi Cd.  
Emlakkonut Başakşehir Evleri 1/A D Blok  
Kat: 4 Daire: 29 Başakşehir, İstanbul, Türkiye  
Tel: +90 212 801 40 63

[www.sstbdergisi.com](http://www.sstbdergisi.com)  
[info@sstbdergisi.com](mailto:info@sstbdergisi.com)