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Covid-19 Salgını ve Spor Sektörüne Etkileri

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Öz

Tüm dünyayı etkisi altına alan yeni tip koronavirüs (covid-19) salgını spor dünyasını da derinden etkilemeye devam etmektedir. En başta sağlık sektörü olmak üzere, sosyal yaşamın tüm alanlarını, ekonomik yaşamı, bireylerin gündelik pratiklerini köklü bir biçimde etkileyen salgın, sporun tüm alanlarına derinden etkilemiştir. Öncelikle kalabalık izleyici kitlelerince takip edilen profesyonel spor etkinlikleri olmak üzere, her türlü spor hizmeti sağlayan işletmeler, sportif ürün üreten endüstri kolları, bu ürünlerin pazarlama zincirinde yer alan işletmeler, spor turizmi sektörü, spor teşkilatının her kademesinde çalışan bireyler ve bu sektörle ortak hizmet üreten/yürüten her türlü iş kolu büyük kayıplara uğramıştır. Tarama modeliyle yapılan bu nitel araştırmada, spor sektörünün maddi kayıpları özetlenerek mevcut durumun gerçekçi bir fotoğrafı verilmeye çalışılmış ve henüz sürecin ortasında yer aldığımız bu dönemde geleceğe dair bazı kestirimler ve öneriler geliştirilmiştir.

Anahtar kelimeler: Covid-19, Salgın, Spor Sektörü

Covid-19 Pandemic and Its Impact on Sports Industry

Abstract

The new type of coronavirus (Covid-19) pandemic which has been affecting the whole world is also strongly shaking the sports world. Primarily the health sector, then all aspects of the social, economic life, the daily lives of individuals, and finally all the sports activities are facing an excessively big challenge. Professional sports events which are followed by crowded spectators, all the business initiatives providing various sports services, industries producing sports products, the businesses within the marketing chain of all these products, the industry of sports tourism, all the individuals working for sports organizations of different levels, and all other industries and businesses linked with the sports industry have suffered from huge financial losses. In this qualitative research conducted with the screening model, the financial losses of the sports sector were summarized and a realistic photo of the current situation was tried to be given, and some predictions and suggestions for the future were developed during this period while we are still in the middle of the pandemic process.

Keywords: Covid-19, Pandemic, Sports Industry

Giriş

Büyük spor etkinlikleri nedeniyle bir araya gelen devasa topluluklar, sayısı milyonları bulan uluslararası ziyaretçi ve ev sahibi ülke sakinleri yerel olarak endemik hastalıklar dahil olmak üzere bulaşıcı hastalıklara yakalanma riskiyle karşı karşıyadır (Petersen ve ark., 2016; Yanagisawa ve ark., 2018). Organize yarışmalar çok sayıda seyirci bulunan büyük spor stadyumlarında yapılır ve bu da virüslerin yayılması için elverişli bir ortam oluşturur (Halabchi ve ark., 2020). Bu nedenle toplulukları bir araya getiren bu tür etkinlikler, çok önemli insan sağlığı sorunları ile de yakından ilişkilidir (Memish ve ark., 2019).

İçerisinden geçmekte olduğumuz bu süreçte pek çok önemli spor etkinliği ya iptal edilmiş ya da belirli/belirsiz bir ileri tarihe ötelenmiştir. Zirâ salgının son derece etkili olduğu bugünlerde devam ettirilecek mega spor organizasyonlarında virüsün hızla yayılmasının biyolojik bomba etkisi yaratacağından bahsedilmektedir (Gilat ve Cole, 2020). Bu durumun sebebi ise koronavirüs salgınının giderek küreselleşen ve birbirine bağımlı dünyanın hemen hemen her köşesine dokunması, psikolojik ve ekonomik olarak umulan çok ötesinde olma potansiyelini barındırmasıdır (Brown ve Horton, 2020; Campigotto, 2020; Lazzerini ve Putoto, 2020). Bu tür salgınların geçmişte olduğu gibi köklü devletleri bile sarsması ve dahası yıkılmalarına sebep olması muhtemeldir (Kırık ve Özkoçak, 2020). Durumun ciddiyeti çeşitli ülkelerin hükümetleri tarafından salgının yayılmasını önlemede alınan tedbirlerin sertliğinden de okunabilmektedir (Corsini ve ark., 2020).

Süreç içerisinde hükümetler çeşitli koruma önlemleri uygularken, sağlık birimleri ise tedavi görecek çok sayıda enfekte bireylerin oluşturacağı tsunaminin önünü almak için çalışmaktadır (Perc ve ark., 2020). Toplumsal yaşantımızın organik bir parçası haline gelmiş olan spor kurumu da şimdilerde etkisi tüm dünyayı saran covid-19 virüsünün etkisi altına girmiştir. Bu tehdit nedeniyle neredeyse dünyada bulunan 206 ülkenin (Wikipedia, 2020) tamamı teyakkuz haline geçmiştir. Dinamik bir yapıya sahip olan spor kavramı, hayati derecede önemli tehditler nedeniyle sosyal bağlarından koparılarak tüm üniteleriyle birlikte dört duvar arasına sığdırılmaya çalışılmaktadır. Ancak gelinen durum özünde dinamizm bulunan ve hareketli yapısı nedeniyle kitleleri peşinden sürükleyen spor için oldukça düşündürücü bir tablo ortaya çıkarmıştır.

Araştırmamızda, dünya genelinde yaşanılan mevcut durum spor penceresinden bazı yönleri ile ele alınarak, salgının spor evrenindeki etkileri ve muhtemel sonuçları tartışılmaya çalışılmış, buna bağlı bazı gelecek kestirimleri yapılmıştır. Nitel türde yapılan bu araştırmada tarama yöntemi kullanılmış, ilgili literatürün yanı sıra gündeme dair güncel makaleler ve haber kaynakları incelenmiştir.

Yeni Koronavirüs Hastalığı Covid-19

Koronavirüsler (COV), soğuk algınlığından Orta Doğu Solunum Sendromu (MERS) ve Şiddetli Akut Solunum Sendromu (SARS) gibi daha ciddi hastalıklara kadar çeşitli hastalıklara neden olan büyük bir virüs ailesidir (T.C Sağlık Bakanlığı, 2020). Bunlardan covid-19 olarak kodlanan yeni tür koronavirüs, insanlarda genelde solunum ve gastrointestinal sistemde hastalıklara neden olur. Erişkinlerde klinik tablo, soğuk algınlığından, bronşit, pnömoni, ağır akut solunum sıkıntısı sendromu (ARDS) ve ölümle sonuçlanan çoklu-organ yetmezliğine kadar değişebilir (Özdemir ve Pala, 2020; Reyad, 2020). Covid-19'un küresel toplum üzerinde giderek hızla artan önemli bir etkisi ortaya çıkmış ve bu nedenle 11 Mart 2020 tarihinde Dünya Sağlık Örgütü (WHO) pandemi (salgın) ilan etmiştir (AIS, 2020). WHO raporuna göre, Covid-19'un yayılmasını yavaşlatmak veya durdurmak için halk sağlığı ve sosyal önlemler toplumun

tüm üyelerinin katılımıyla uygulanmak zorundadır ve küresel düzeyde bir mücadele yürütülmelidir (World Health Organization, 2020).

Covid-19'un Spor Sektörüne Etkileri

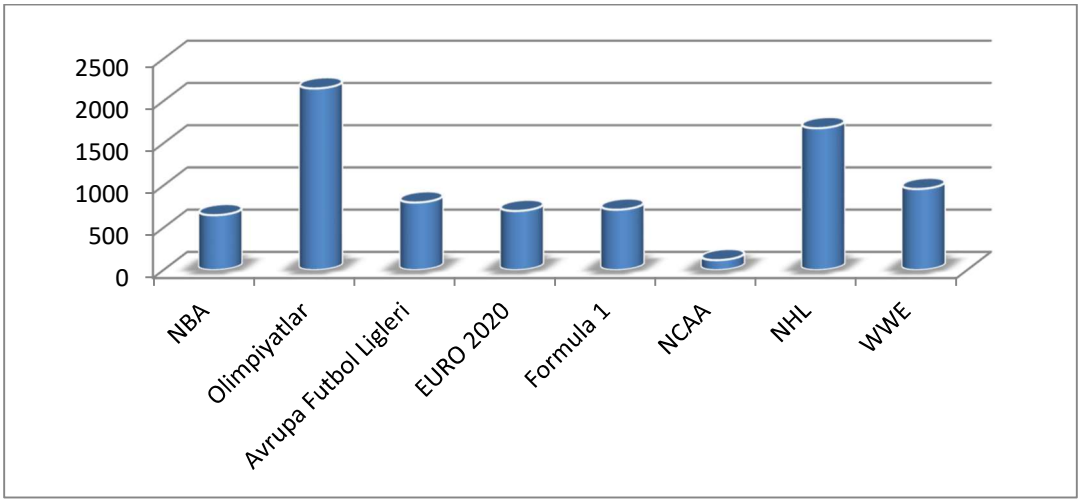
Dünya Covid-19 ile savaşırken, spor dünyası eşi görülmemiş bir krizle karşı karşıya kalmıştır. Turnuvaların iptali, ertelenen maçlar ve karantinaya alınan sporcular derken, sportif faaliyetler üzerinde bir dizi olumsuz kararlar alınmak zorunda kalınmıştır: Dünyanın hemen hemen tüm spor liglerinin ve uluslararası spor organizasyonlarının ertelenmesi veya iptali, ticari veya çok branşlı sportif mega etkinliklerin ertelenmesi veya iptali, Avrupa Futbol Liginde maçların durdurulması, UEFA'nın önde gelen uluslararası etkinliği EURO 2020'nin bir yıl sonrasına ertelenmesi (Avrupa bölgesinin kültürel birlikteliğini ve değişkenliğini göstermek için 12 ülkeye yayılmış ve 60 yıllık rekabeti geliştirmek üzere tasarlanan önemli bir turnuva), Formula 1 Grand Prix sezonu-Çin-Vietnam Grand Prix 2020, İtalya ve İrlanda'da Six Nations Rugby Şampiyonası, dünyaca ünlü ve tarihi at yarışı Grand National 2020'nin iptali, Fransa bisiklet turunun ertelenmesi, ulusal şampiyonalar ve dünya şampiyonalarının tamamıyla iptal edilmeleri veya ertelenmeleri, dünya kupası durakları ve tabii ki olimpiyat elemeleri gibi büyük uluslararası etkinlikleri içeren devasa bir spor ekosisteminin merkezi ve bu merkezin bu dönemki durağı olan Tokyo 2020 Olimpiyat Oyunlarının, Uluslararası Olimpiyat Komitesi (IOC) (2020) tarafından tarihinde ilk kez ertelenmesi ve oyunlarının açılış töreninin 23 Temmuz 2021'de gerçekleşmesinin planlanması (yaklaşık 15 bin sporcu, 70 bin gönüllü ve 20 milyon ziyaretçi katılımıyla) ve Türkiye'de gelince de bütün alt ve üst ligler dahil spor faaliyetlerinin tamamıyla iptal edilmesi veya ertelenmesini, Covid-19'un sportif faaliyetlere yaptığı sayısız etkilerden örnekler olarak sıralayabiliriz (Gallego ve ark, 2020; Parnell ve ark, 2020; Gough, 2020; McCloskey ve ark, 2020; Widdop ve ark, 2020; Mann ve ark, 2020).

Bütün bu erteleme ve iptal kararları sadece sportif sonuçlar doğurmamakta, aynı zamanda çok boyutlu ve ciddi düzeyde ekonomik ve sosyal sorunları da zincirleme olarak tetiklemektedir. EURO 2020'nin ertelenmesi nedeniyle sponsorluk ve yayın gelirleri ortadan kalkmıştır; bu durum turnuvanın oluşturması beklenen 2 milyar avroluk gelirlerinin olmayacağı anlamına gelmektedir. UEFA bu gelirlerin %80'ini ülke federasyonları ile paylaşmaktaydı; federasyonlar ve doğal olarak kulüpler verilecek gelirlerden mahrum kalmışlardır. Örneğin bu turnuvaya katılan bir takımın 9.2 milyon avro katılım ücreti alması planlanmıştı, ayrıca takımlar galibiyette ve beraberlikte gelir elde etmeye devam edecekti. Diğer yandan FIFA, Covid-19 ile mücadele kapsamında Dünya Sağlık Örgütü (WHO) Dayanışma müdahale fonuna doğrudan 10 milyon dolar katkı sağlamıştır. Kısacası spor sektöründe kullanılacak finans kaynakları salgınla mücadeleye harcanmaktadır. Liglerin ertelenmesiyle birlikte takımlar çok önemli bir gelir kaynağı olan maç günü gelirlerinden de mahrum kalmıştır. Örneğin Barcelona ve Real Madrid'in maç günü gelirleri toplam gelirlerinin %19'unu oluşturmaktadır. Aynı şekilde Arsenal %25, M.United %17, Liverpool %16, M.City % 10 gelir kaybına uğramışlardır. Juventus'un borsadaki hisseleri çok ciddi bir değer (580 milyon avro) kaybı yaşamıştır. Geride kalan süreçte M.United'ın tahmini kaybı milyonlarca avroyu bulmakla birlikte, firma sponsoruyla yaptığı sözleşme gereği 25 milyon avroluk tazminat ödeme riskiyle de karşı karşıya kalmıştır. İngiltere'de yayın ve maç günü gelirleri ve maçlardan elde edilen gelirlerle birlikte toplam kayıp 1 milyar avroyu geçmiş durumdadır. Kulüplerin kurumsal kayıpları düşünüldüğünde, yaşanılan zararın rekor seviyeye ulaşması kaçınılmaz olmuştur (FIFA, 2020; TRT, 2020). Türkiye ve Avrupa liglerinin iptal edilmesinin ardından spor medyası da diğer medya kategorilerine kıyasla daha olumsuz etkilenmiştir. Bu kategorideki firmaların farklı bir

içerik yaklaşımı geliştirmedikçe negatif trendin devam etmesi kaçınılmaz gözükmektedir (Deloitte, 2020).

Olimpiyatların ertelenmesi nedeniyle reklam ve sponsorluk gelirleri kaybı 2,150 milyon dolar civarında olduğu hesaplanmakla birlikte, ayrıca Tokyo'daki yeni olimpiyat stadyumu için harcanan miktar da 277 milyon doları buluyor. Japon yetkililer ertelemenin toplam maliyetinin 3 milyar doları geçeceğini öngörüyor. Sporcuların olumsuz etkilenmelerinin ötesinde olimpiyatların ertelenmesinin finansal yankısı tüm dünyada hissedilecektir. Diğer yandan NBA (Profesyonel basketbol) liginin gelir kaybı 650 milyon dolar. Euro 2020'nin ertelenmesi UEFA'ya tahmini 300 milyon avroya mal olurken, etkinliği iptal etmek federasyona yaklaşık 400 milyon toplamda 700 milyon avroya mal olmuştur. Formula 1 sezonundaki çeşitli yarışlar da dahil olmak üzere birçok etkinlik iptal edilmiş, bireysel ev sahibi ülkeler tarafından ödenen tüm sezon boyunca kombine barındırma ücretlerinden elde edilecek gelir kaybı toplamda 715 milyon dolar ve Formula 1 grubunun borsadaki piyasa değerinin yüzde 45'ini kaybetmesi tahminen 5 milyar dolar kümülatif bir kayıp anlamına gelmektedir. NCAA (Erkekler Kolej Basketbol Turnuvası)'nın tüm faaliyetlerinin ertelenmesi ve final-four olarak bilinen ve nisan ayı başında Atlanta'da yapılması planlanan finallerin ertelenmesi nedeniyle şehir şimdiden 100 milyon dolardan fazla geliri kaybetmiş durumda. ABD'deki NHL (Ulusal Hokey Ligi)'nin askıya alınması nedeniyle (bu ligde yer alan takımlarının her biri 41 iç saha maçından 32 ile 37'sini oynamıştı) ortalama 1,680 milyon dolar kaybedileceği tahmin edilmektedir. WWE (Dünya Güreş Eğlencesi)'nin ise koronavirüs salgını nedeniyle canlı yayın gelirinde ortalama 960 milyon dolara kadar ulaşabilecek büyük bir gelir kaybı yaşayacağı öngörülmektedir (Dichter, 2020; Gough, 2020; Statisca, 2020; Stuff, 2020).

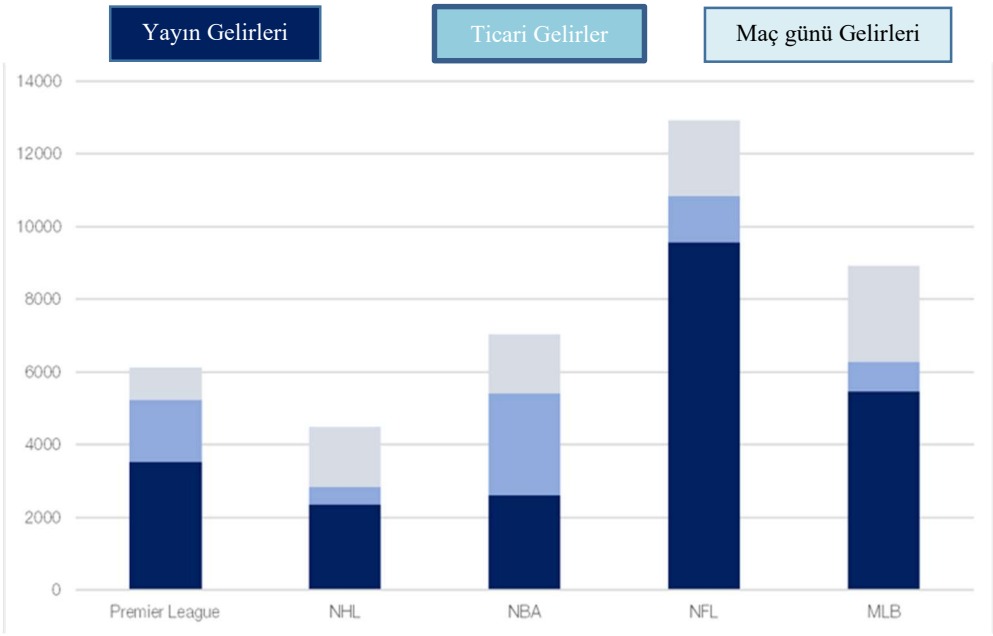
Tablo 1. Muhtemel gelir kayıpları



Kaynak: Uluslararası analiz sitesi Statisca (2020) verileri bu makale yazarları tarafından derlenmiştir.

Hall (2020) sportif liglerin 3 temel gelir kaynağı bulunduğunu ifade etmektedir. Bunlar; "yayın gelirleri", "sponsorluk ve reklam gelirleri" ile "maç günü gelirleri". Büyük spor ligleri yayıncılık gelirlerine güvenmektedir. Son 5 yılda en büyük spor liglerinden elde edilen gelir tablosu aşağıda gösterilmiştir. Sportif faaliyetlerdeki medya haklarının küresel değeri 50 milyar dolar civarında; ancak bu miktarın % 60'lık kısmını 10 önemli spor ligi oluşturmaktadır.

Tablo 2. Büyük liglerin ortalama 5 yıllık gelirleri



Bir kulübün finansal başarısı kapsayıcı bir lige katılmasına bağlıdır. NBA'in şu anki yayıncılık anlaşması 9 yıl boyunca 24 milyon dolar karşılığında yapılmışken, geçen yıl Premier Lig için 3 yıl karşılığında 12 milyon dolar değerinde yayıncılık anlaşması imzalanmıştır. MLB ligi için 7 yıllığına 5 milyon doları aşan bir yayıncılık anlaşması yapılmıştı (Hall, 2020). Türkiye'de ise futbol süper ligi için bu tutar 410 milyon dolar olarak belirlenmişti. Ancak bütün bu liglerin durdurulması, bu gelirlerin elde edilemeyeceği anlamına gelmektedir. Covid-19'un Avrupa'ya yayılmasından bu yana beş büyük lig 4 milyar avro kaybetmiştir. İngiliz Premier Liginin yayıncılık sektöründe gelir kaybının yaklaşık 800 milyon avro olduğu tahmin edilmektedir. Peki, stadyum içi ve fiziksel maçlara dayanan gelir akışları mevcut olmadığında ne olur? Spor sektörü bu kayıp gelirin yerini nasıl dolduracak? Sadece takımları, ligleri ve sporcuları değil, ürünlerini sporseverlere tanıtmak için kendilerini sporla tanıtan çok sayıda şirket ve marka nasıl etkilenecek? Eğer ligler tamamlanmazsa yayın ve sponsorluk gelirleri kaybının yıkıcı bir etkisi olacaktır. Pazarlama sektörünün her türlü ekonomik gerilemede ilk olarak sponsorluk yatırımlarında tasarrufa gideceği düşünüldüğünde, spor sponsorlarının sayısında büyük bir düşüş göreceğimize şüphe kalmıyor. Özellikle havayolu şirketleri, turizm-seyahat şirketleri, vb. kendi kayıplarını gerekçe göstererek 2020'de spor endüstrisinden desteklerini çekecek ve sözleşmelerinde yer alan mücbir sebep maddelerinden yararlanabilecekler (Chiliz, 2020). Telafisi mümkün olmayacak mali tehditler nedeniyle riskler de göz önünde tutularak pek çok ligin oynatılması için adım atılacağını söylemek mümkün olmakla birlikte, olağanüstü şartlarda özel önlemlerle ve muhtemelen seyircisiz oynanacak liglerin öngörülen zararı tatminkâr bir ölçekte karşılamayacağını öngörmek mümkündür.

Sadece profesyonel spor hizmetlerinin 150 milyar dolara ulaştığı günümüzde, spor malzemeleri, lisanslı ürün, sağlık ve fitness merkezleri gibi alanlarla birlikte spor sektörü toplam 700 milyar dolara yaklaşan bir büyüklüğe sahip. Sponsorluklar, yayın hakları, reklam, yasal ve yasa dışı bahisleri de konunun dahilinde düşündüğümüzde rakam öngörülemeyen devasa boyutlara ulaşıyor. Spor endüstrisinin ulaştığı bu büyük rakamlar, 150 ülkenin milli gelirinden daha fazladır. Deloitte Futbol Para Ligi 2020 Raporuna göre, dünyanın en çok gelir elde eden 20 kulübün gelirlerinin toplamı 2018/2019 sezonunda bir önceki döneme

oranla %11'lik artış göstermiş ve 9,3 milyar avroya ulaşmıştır. Barcelona 840 milyon avro, Real Madrid 757 milyon avro, Manchester United 711 milyon avro gelirle ilk üç sıradaki kulüp olmuştur. Araştırma şirketi Kearney 2019 verilerine göre küresel spor pazarı CAGR (yıllık bileşik büyüme oranı) %5,9 ile 480 milyar dolar ile 620 milyar dolar arasında bir değere sahip. Buna altyapı inşaat yatırımları, spor malzemeleri, lisanslı ürünler ve canlı yayın gelirleri de dahildir. Brezilya, Rusya, Hindistan ve Çin gibi hızlı büyüyen ekonomilerde ve Avrupa ve Kuzey Amerika'daki daha olgun pazarlarda spor endüstrisinin gayrisafi yurtiçi hasıladan daha hızlı büyüdüğü ortaya konulmuştur. Business Sports Company'nin Spor Global Pazar Fırsatları ve Stratejileri 2022 Raporuna göre, küresel spor pazarının değerinin 2022 yılına kadar yıllık yaklaşık %6 artışla 614 milyar dolara yükselmesi bekleniyordu. 2020 Mart ayında Amsterdam'da gerçekleştirilen 44. UEFA Olağan Kongresinde, 2018-19 sezonu için bir önceki yılki %38 artışla birlikte toplam 3,86 milyar avro gelir açıklanmıştı (Devecioğlu, 2020). Ancak açıklanan bu rakamlar, salgının dünya sporuna etkisi dikkate alınmadan hazırlanan verilere dayanmaktadır ve bu veriler göz önüne alındığında ülkelerin spor sistemlerinin büyük bir yıkıma uğrayacağı anlaşılmaktadır. Unutulmamalıdır ki gelirler ne kadar büyükse kayıplar da aynı derecede büyük olacaktır.

Spor dünyasının en önemli çok-sporlu etkinliği niteliğini haiz olan Yaz Olimpiyat Oyunları da salgınla ortaya çıkan olumsuz tablodan şiddetli bir biçimde etkilenmiştir. Her ne kadar Tokyo 2020 bir yıl sonrasına ertelenmiş olsa da organizasyonun ilave maliyetlerinin nasıl karşılanacağı ve 2021 yılında salgının etkisini devam ettirip ettirmeyeceğine dair tartışmalar perde arkasında yoğun bir biçimde devam ediyor. Tokyo 2020 Düzenleme Kurulu Başkanı Toshiro Muto, oyunların 2021'de yapılmasına kesin gözüyle bakmanın mümkün olmadığını vurgularken (McInnes, 2020), Uluslararası Olimpiyat Komitesi (IOC) üyesi Dick Pound ise oyunların 2021'de yapılamaması halinde bir daha ertelenmesinin mümkün olmayacağını dile getirmiştir (Dichter, 2020). Muto'nun endişesine katılan Kobe Üniversitesi bulaşıcı hastalıklar profesörü Kentaro Iweta da Olimpiyatlara katılacak sporcuların ve diğer kişilerin tüm dünyadan Japonya'ya geleceğinin altını çizerek, bu kadar kısa sürede küresel düzeyde bir salgının kontrol altına alınmasını mümkün görmediğini ve bu nedenle de olimpiyatların 2021'de yapılması konusunda iyimser olmadığını ifade etmiştir (Gillen, 2020). Yine kota yarışmalarının henüz sadece %57 oranında tamamlandığı dikkate alındığında, 2021'in ilk yarısında düzenlenmesi gereken yarışmaların ne derecede sağlıklı şartlar altında yapılacağı başka bir soru işareti olarak karşımızda durmaktadır. Japan Today (2020)'de yer verilen bir başka değerlendirmede olimpiyat araştırmaları uzmanı olan Tokyo Metropolitan Üniversitesi profesörlerinden Naofumi Masumoto'nun aşı geliştirme çalışmalarının 12 ile 18 ay süresi bir zamanı kapsayacağını dile getirdiği hatırlatılarak, "zannımızca olimpiyatlar için ikinci bir erteleme (2021 güz dönemi) şansımız bulunuyor, ancak 2022 Pekin Kış Olimpiyat tarihleri dikkate alındığında organizasyonun yıl sonuna bırakılması pek mümkün değil. Dolayısıyla güz döneminde yapılmazsa oyunların iptali gündeme gelebilir" dediği aktarılmıştır. Aynı haberde Düzenleme Kurulu Başkanı Toshiro Muto'nun ertelemeden doğacak mali sorumluluğun kimler tarafından karşılanacağının net olarak belli olmadığı ve bu konuda doğacak her türlü ilave maliyetle ilgili olarak vergi yükümlüsü vatandaşlara geçerli bir açıklama yapmaları gerektiğine dair sözlerine yer verilmiştir. Uzun süredir görevde olan Japonya Başbakanı Shinzo Abe'nin görevini yakın gelecekte üstlenmesi muhtemel olan güçlü rakiplerinden birisi ve eski Savunma Bakanı olan Shigeru Ishiba da oyunların 2021'de yapılmasının tek yolunun salgının tüm dünyada kontrol altına alınmasıyla mümkün olacağını ifade ederek, bu konudaki endişelerini dile getirmiştir (Etchells, 2020). Son günlerde uzmanların yaptığı değerlendirmelerin hemen hepsinde Olimpiyat Oyunlarının ertelendiği tarihlerde yapılamaması riski dillendirilmektedir.

Covid-19 ve Gelecek Öngörüleri

Salgının gelecekteki seyrini derinlemesine tartışmak için belki biraz erken, ancak yukarıda aktarılan belli başlı rakamlar üzerinden bir değerlendirme yapacak olursak; spor kulüpleri, işletmeleri, birlikleri ve örgütlerinin tamamının uzun yıllarının ipotek altına alınacağı ve sektörde çalışan milyonlarca insanın işsiz kalacağı ya da gelirlerinin önemli bir kısmını yitirecekleri bir döneme gireceğimizi söyleyebiliriz. Özellikle spor liglerinin mevcut durumla tescil edilmesi ya da gecikmeli olarak tamamlanması, ortak aklın gereği olarak meşruiyet kazanacak olsa da bir ucu insan sağlığına dayanan etik tartışmalar, diğer ucu ise sporun evrensel imajının göreceği geri dönülmez zarar nedeniyle hep tartışmaya açık olacaktır. Bu süreçte politika yapanları bekleyen gerçekçi tercih daha az kötü olan seçenekleri tercih etmek olacaktır. Bu nedenle eleştiri oklarından kurtulmanın hiçbir biçimde mümkün olmayacağını bilmek gerekiyor. Ayrıca ulusal liglerle ilgili bazı ara formüller gündeme gelmekle birlikte, uluslararası nitelikli etkinlikler ise salgının küresel boyutu nedeniyle kısa sürede gündeme alınması mümkün olmayacaktır. Özellikle uluslararası sporda 2020 yılı için "kayıp yıl" tanımını kullanmak yanlış olmayacaktır. Başta olimpiyatlar olmak üzere, küresel ve bölgesel nitelikli uluslararası mega etkinliklerin ertelenmiş olması, bu etkinliklere katılacak sporcuların psikolojik ve fiziksel performanslarını son derece olumsuz etkilediği gibi, bu etkinliklerin gelirleri üzerinden yapılacak maddi desteklerin gecikmesi veya azalmasına bağlı olarak da ilave tehditler ortaya çıkacaktır. Tabi diğer yandan hazırlıklarını tamamlamamış sporcu ve takımlar için ertelemelerin yeni bir fırsat doğurduğu yolundaki açıklamaların ise fazla iyimser yorumların bir argümanı olduğu dikkate alınmalıdır.

Burada değerlendirilmesi gereken en önemli konulardan bir tanesi salgın sonrası dönemde sektörel toparlanmadır. Spor sektörü için gelecek projeksiyonları ve bunlara bağlı politikalar oluşturmak için salgına dair farklı senaryoların dikkate alınması son derece önemlidir. Salgın bağlamında göz önünde tutulması gereken anahtar terim "belirsizlik" olmakla birlikte, şu ana kadar elde edilen veriler doğrultusunda sayısız biyoistatistik ve matematik modelleme çalışmaları yapılmaktadır. Bütün bunlar bir bütün olarak takip edilmeli ve küresel ölçekte bir bilgi havuzu oluşturularak, salgın karşısında spor sektörünü ayakta tutacak ve salgın sonrasında sektörün en kısa sürede toparlanmasını sağlayacak politikalar üretilmelidir. Bu politikalar, salgının muhtemel yeni dalgalarına veya muhtemel farklı salgın tehditlerine uyum sağlayabilecek bir esneklikte geliştirilmelidir (Lupia ve ark., 2020).

Koronavirüs salgını dünya çapında milyonlarca insanın yaşam şeklini önemli ölçüde değiştiriyor ve bu değişimlerin çoğunun bir biçimde kalıcı olması bekleniyor (BBC,2020). Çünkü salgın hastalıklar insanlık tarihi boyunca sadece yaşandıkları zaman toplumda büyük bir korku ve paniğe yol açmakla kalmamış, uzun vadede de köklü toplumsal değişimlere yol açmıştır (Terzioğlu, 2020). Spor sektöründe bu değişimleri dikkate alarak salgın sonrasına hazırlık yapılmalıdır. Kendisi olimpiyat altın madalyalı sporcu olan, Fransa'da Spor Bakanlığı görevi de üstlenmiş olan ve 1996 yılından beri IOC üyeliği görevini sürdüren Guy Drut, 2024 Paris Olimpiyat Oyunları ile ilgili planlamaların tamamıyla baştan ele alınmasının kaçınılmaz olduğunu belirterek, "Bu salgından sonra her şeyi yeniden keşfetmeliyiz. Olimpiyat Oyunları ve Paralimpik Oyunlar da buna dahil. Tarih ertelemek sadece buzdağının görünen yüzüne bir cevap olur. Oyunlar için artık ekonomik ve organizasyonel olarak tamamıyla yeni bir model geliştirilmesi gerekiyor" derken adeta bu yeni düzene işaret etmiştir (CNA, 2020). Şüphesiz Drut bu sözleri söylerken spor paradigmasının önümüzdeki yıllarda güçlü bir kırılmaya/değişikliğe maruz kalacağını öngörmektedir. Alberto Carrio Sampedro (2020) da mevcut durumu analiz ederken, salgının etkilerinin beklenenden çok daha uzun ve öngörülemez olabileceğinin altını çizmiş, sağlık, sosyal katılım, eğitim gibi sayısız alanda faydası olan spor pratiğinin taşıyıcı gücü olan endüstrileşmiş profesyonel spor örgütlerinin salgınla başa

çıkmasının mümkün olmayacağını belirterek, yakın gelecekte yarı canlı yarı sanal olmak üzere yeni sportif ürünlerin ortaya çıkarılması gerekeceğinin altını çizmiştir.

Ülkemizde de böyle bir değişimi okumak üzere ulusal spor yönetimi ve sektörün tüm temsilcilerinin buluşacağı bir ortak akıl şurası toplanmalı ve geleceğe dönük muhtelif senaryolar ele alınarak esnek politikalar oluşturulmalıdır. Spor sektörünün normal rutinine geri dönmesinin zaman alacağı göz önünde tutularak, yapılması zaruri kabul edilen etkinliklerin, özellikle profesyonel liglerin mutlak bir kontrol altında yapılması sağlanmalıdır. Bu tür etkinlikler için seyircisiz oynama, mutlak koruma önlemlerinin ve hijyenin sağlanması son derecede önemlidir. Aksi halde asemptomik sporcu ve izleyicilerin geniş bir kitleye virüsü yayması kaçınılmaz olacaktır (Halabchi ve ark., 2020).

Bununla birlikte salgın bağlamında alınan yasal tedbirlerin bir uzantısı olarak uygulanmaya başlanan ve günlük yaşantımızın değişmez bir parçası haline gelen izolasyon ve karantina gibi tedbirler çerçevesinde hem zamanın verimli kullanılması hem de bağışıklığın güçlendirilmesi adına fiziksel aktiviteyle ilgili çok geniş bir farkındalık oluşmuştur. Bu durum ileriye dönük olarak hem dijital destek hem de bireysel antrenörlük gibi enstrümanların devreye sokulmasıyla birlikte, özellikle fitness sektörünün kurtuluşu adına bir imkân sağlayabilir. Çokça uzun bir süre normal koşullarda kalabalık tesislerde spor yapmanın mümkün olmayacağı dikkate alındığında, sektörün kendi önünü açacak yaratıcı çözümler geliştirmesi zorunlu olacaktır.

Spor Dijitalleşir mi?

Covid-19'un en önemli etkisi, sosyal ve ticari yaşamı büyük oranda dijitalleşmeye zorlamasıdır. Bu bağlamda fitness sektöründe olduğu gibi performans sporlarında da online destekli çözümler üretilmesi gerekmektedir. Bunların ötesinde son yirmi yıl içerisinde büyük gelişme kaydeden E-spor sektörü için de daha geniş bir kapının aralanmış durumdadır. Futbol başta olmak üzere bütün sportif etkinliklerin geleceğinin şimdilik belirsiz olması, E-spora olan ilginin daha da artmasını sağlamıştır. Türkiye E-spor Federasyonu, ülkemizde oyun sektörünün kademeli olarak geliştirilmesi amacıyla 2018 yılında Gençlik ve Spor Bakanlığı bünyesinde kurulmuştur (TESFED, 2020). Dünyanın değişik ülkelerinde E-sporun hızlı bir biçimde yaygınlaştığı bilinmektedir. Günümüzde Uluslararası E-spor Federasyonu (IeSF) 61 ülkede ulusal üye federasyonu bulunan küresel bir spor örgütlenmesi olup, milyonlarca sporcusu ve milyarlarca izleyici kitlesi bulunan devasa bir camiaya sahiptir (IeSF, 2020). Uzun erimde modern spor örgütlenmesiyle iç içe geçmesi öngörülen E-spor, gördüğü ilgiye bağlı olarak yakın gelecekte Olimpiyat Oyunlarının da bir parçası haline gelebilir. Şimdiden 2024 Paris Olimpiyat Oyunlarında yan etkinlik olarak E-spor organizasyonlarının yapılması gündeme gelmiştir (Morgan, 2019). Masaüstü ve dizüstü bilgisayarlar, konsollar ve telefonlarda oynanan oyunları aynı çatı altında toplayan E-sporun ekonomisi, tüm dünyadaki koronavirüs salgınının ardından zirve yapmıştır ve yaklaşık 250 milyar dolara ulaştığı bilinmektedir. Ülkemizdeki bazı kulüpler (Galatasaray, Fenerbahçe ve Beşiktaş) de aynı ya da farklı E-spor liglerinde mücadele etmektedir. Türkiye'de düzensiz de olsa E-spor oyunları oynayanların sayısı 32 milyonun üzerindedir. Ülkemiz bu alanda dünya gelir sıralamasında 18. sırada yer almaktadır. E-sporda Ortadoğu'nun toplam oyun pazarı cirosu 8 milyar dolar iken Türkiye'de toplam oyun pazarı cirosu 830 milyon dolara ulaşmıştır (Kanalben, 2020). Salgın sürecinde uzaktan eğitimin çok yaygın biçimde kullanılmaya başlanması ülkelerin, kurumların ve hatta kişilerin içinde bulundukları çağa ve erişilmiş teknolojiye uyum sağlayabilme göstergelerinden biri olarak değerlendirilebilir (Yamamoto **ve** Altun, 2020). Ülkemizin de içinde yer aldığı pek çok ülkede uzaktan eğitimin ulusal ölçekte her kademede başarılı bir biçimde uygulanıyor olması, E-spor için sağlıklı bir altyapıya ve tecrübeye sahip olunmasını sağlayacaktır.

Günümüzde sporcuların antrenmanlarını sanal ve elektronik imkânlarla yapmaya başlamış olması, pek çok düzenli spor etkinliğinin simülasyon eğitiminin teknolojik ekipmanlarla yapılabilir olması ve salgın hastalıklara dair geniş bir farkındalık oluşması gibi etmenlerin E-sporların önünü daha da açacaktır. Mevcut şartlarda sporcular ve spor sektörü önemli tecrübeler kazanmaktadır. Bu tecrübelerin hızlı bir biçimde E-spor olgusuyla kesişmesi ve spor felsefesinde köklü değişikliklerin gündeme gelmesi sürpriz olmayacaktır. E-sporların hızla yükselen popülaritesi ve salgının ortaya çıkardığı gerçeklik, spor yöneticilerinin bu alanın sağlayacağı imkânları daha yakından takip etmesiyle sonuçlanacaktır. Yakın gelecekte hem bireysel hem de sosyal yaşamın daha fazla dijitalleşeceği dikkate alınarak, sanal ve elektronik ortamların, yazılımların, plan ve projelerin şimdiden desteklenmesi ve yarının sorunlarına cevap verecek planlamanın bugünden yapılması yerinde olacaktır.

Sonuç

Salgının şu ana kadar en olumsuz etkilediği sektörlerden bir tanesi spor sektörüdür. Son yirmi yılda devasa büyüklüğe erişen ve gelişmiş/gelişmekte olan bütün ülkelerin gayrisafi milli gelirlerinde önemli bir paya sahip olmakla kalmayıp, oldukça geniş bir istihdam imkânı sağlayan spor sektörünün ayakta kalması salgın sonrası dönem için hayatî bir önemi haizdir. Küresel düzeyde spor etkinliklerinin amiral gemisi niteliğini taşıyan Olimpiyat Oyunları ile ilgili yaşanan belirsizliğin ve buna bağlı olarak perde arkasında süregiden ekonomik ve politik tartışmaların tüm spor dünyasını etkileyeceği aşikârdır. Bunun önüne geçilmesi için başta IOC olmak üzere uluslararası spor örgütlenmesinin tüm bileşenleri ve bunların ulusal temsilcilerinin bir araya gelerek, salgına dair gerçekçi çözüm önerileri ortaya koymaları gerekmektedir. Diğer yandan profesyonel nitelikli sportif etkinliklerin spor endüstrisini ayakta tutan en önemli kaynak olduğu ve amatör sporların bu etkinliklerden doğan gelirlerle sürdürülebilir olduğu gerçeği akıldan çıkarılmamalıdır.

Sonuç olarak, covid-19'un salgın haline dönüşmesi salgının yaşandığı ülkelerin spor sistemlerini hem ekonomik hem de psiko-sosyal anlamda felce uğratmıştır. Tüm dünyadaki sınırları ortadan kaldıran bu salgın, sportif etkinlikleri askıya kalmakla kalmayıp, iptal ve ertelemelere bağlı olarak sektöre çok büyük zararlar vermiştir. Bununla birlikte mevcut koşullar sportif etkinlik ve ürünlerin dijitalleştirilmesi ve spor paradigmasının yeniden üretilebilmesi adına bir fırsat doğurmuştur. Yeni spor paradigmasının sağlık merkezli olarak kurulması, çevreye saygıyı benimsemesi, küresel bir vizyon ve ancak yerel motifler/değerler ile inşa edilmesi, dijital araçları daha yoğun kullanması, yazılım, yapay zekâ ve robotik teknolojisiyle entegre olması, şeffaf ve katılımcılığı benimsemesi ve bütün bunların yanı sıra sosyal sorumluluğu esas alması gerekeceği düşünülmektedir. Şu da açıktır ki covid-19, insanlığın aynı gemide yol aldığını ortaya koymuş ve insanlık türünün genel iyiliğini esas almayacak bütün planlamaların kısa erimde boşa çıkacağını kanıtlamıştır.

Son olarak, sportif faaliyetlerin ertelenmesi veya iptali ile salgının önemli ölçüde kontrol altına alınmasına önemli bir katkı sağlandığının altı çizilmeli ve salgın sonrası dönemde daha hızlı toparlanması için spor sektörüne pozitif ayrımcılık uygulanması gerektiği belirtilmelidir. Sporun, sadece sosyo-ekonomik bir değer olarak değil aynı zamanda sağlık ekosisteminin önemli bir bileşeni olarak da pozitif ayrımcılık görmeyi hak ettiği söylenebilir.

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Conflict of Interest

The authors have not declared any conflicts of interest.

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Evaluation of Communication Skills of Wrestling Trainers

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Abstract

The aim of this study is to evaluate the communication skills of wrestling coaches. In order to collect data from the trainers attending the wrestling coaches development seminar in Trabzon province, Cronbach's alpha reliability analysis, 904 was found, applied to 22-item scale coaches inspired by the 50-question Communication Skills Inventory. A total of 118 wrestling coaches, 19 females and 99 males, participated in the study. SPSS 24 program was used to analyze the data, and descriptive statistical techniques (frequency, percentage, arithmetic mean, standard deviation) factor analysis, t test, one-way variance analysis (ANOVA) were used to analyze the collected data. In the research, demographic characteristics of the trainers including age, gender, education level, trainer level, coaching times and working status were determined. The lowest average verbal communication skill (X = 3.95) and the highest average value was determined as listening skill (X = 4.28) in the sub-dimensions of the evaluation of the communication skills of the coaches. According to the results obtained, it can be said that coaches should be more sensitive about verbal communication skills and improve themselves in this regard.

Keywords: Communication, Communication Skills, Wrestling Coach

Introduction

Communication is defined as sharing the news, thoughts, emotions, knowledge and skills in general, in other words, creating the ground for all situations and movements among people (Sever, 1998). Communication according to Yağmurlu (2004); it is a general situation and an ongoing process used for individuals to understand the world.

As a concept, the word skill expresses expertise in some activities. Communication skills require the flexibility to choose and apply one of the possible preferences related to the situation faced by the person and to look at the events from different dimensions. Communication skills make it easier for individuals to establish satisfying relationships with other individuals and to live in the society (Köknel, 1997).

Communication skills are included in the social skills class and they are learned behaviors that are accepted socially and get positive reactions while avoiding negative reactions when individuals are with others (Eroğlu, 2011). Effective communication skills make relationships more positive in all human relationships and all professional fields (Kumcağız et al., 2011: 50).

Considering the relationship between sports and communication; With humanity moving away from the agricultural community and being an industrial society, society had the opportunity to get industrialization, industry, trade, education, art, sports and science. Developments in these fields have expanded their field of science, education, trade, art and sports by improving communication opportunities (Cüceloğlu, 2000; Bozkus, 2014).

In a sports branch, coaching is related to individuals' activities, training, development, abilities and performances during the competition. This profession is a bilateral process in which the potential of the athlete is developed and examined through regular studies and feedback, and it is evaluated after this result and reached a defined qualification (Kabadayı, 2010).

The athlete, who can come to a certain extent with his talent and competence in any sport, needs the support of the trainer in order to achieve success regardless of his ability (Yücel, 2010). The personality of the coach plays a major role in the success of the athlete and team trains. For this reason, in order for a person to be a successful coach, he must have effective communication skills in the events he faces (Konter, 1996).

When the scores in both national and international competitions are examined, our sport branch, which has a great success rate, is a wrestling sport. Wrestling, besides being a traditional Turkish sport in our country, is a sacred sport in which spiritual values are loaded. These factors underlie the respect for athletes and coaches who perform wrestling in society.

Conceptually wrestling is the struggle they show in order to defeat their opponents with certain rules within a certain period without using any tools (Yalçın, 1995).

Today, Turkey Wrestling Federation; Youth and Sports Services Act No. 3289 Annex Article 9 of the seventeenth paragraph (www.mevzuat.gov.t), and 29136 dated 01/10/2014 (repeated) published in the Official Gazette No. Main Statute of Turkey Wrestling Federation (www.tgf.gov.tr) organizes trainer training programs in cooperation with the General Directorate of Sports Services (abolished) Sports Education Department.

Material and Method

Research Model

In this research, the screening model, which is one of the quantitative research patterns, was used. Surveys aiming to determine individuals' perceptions, attitudes, perspectives, expectations and evaluations about a subject are called screening researches (Gürbüz et al., 2017: 104).

Research Group

Research universe; The wrestling coaches held in Trabzon consist of 275 people attending the development seminar.

The sample of the study consists of 118 coaches selected using the random sampling method.

Data Collection Tools

In the research, a 25 question scale was applied to coaches, inspired by the 50 question Communication Skills Inventory developed by Kabadayı (2010) in order to evaluate the communication skills of wrestling coaches. The reason for this inspiration; the number of questions in this scale is high for the sample group. The validity and reliability of the scale was applied to a pilot group with 22 questions and the cronbach alpha internal consistency coefficient was found to be ,904 (Table 1). These data are above acceptable limits and even considered as “good” (Çokluk et al., 2018: 199).

Scale; It consists of 5 point Likert type and 4 sub-dimensions. The said scale sub-dimensions and related items are as follows; verbal communication skill: 1-3-4-5-8-24 (6 items), non-verbal communication skill: 9-10-11-12-25 (5 items), listening skill: 13-14-15-19-21 -23 (6 items), ability to give feedback: 16-17-18-20-22 (5 items).

How often the coaches show or do the behaviors or attitudes depicted in the items; One of the five options in the questionnaire between “not doing at all” and “always doing” was marked and answered. "I don't do it" option is 1 point, "I do very little" option is 2 points, "Sometimes I do" option is 3 points, "I do it often" option is 4 points, "I always do" option is 5 points. Grouping was done to interpret the level of results. This value, which is divided into 5 (4/5 = 0.80), is determined as the group range, as the lowest score is 1 point (5-1 = 4), which is the highest score in the grouping. The small value is added to 1 and group ranges are created (1.00 + 0.80 = 1.80, 1.80 + 0.80 = 2.60, 2.60 + 0.80 = 3.40, 3.40 + 0.80 = 4.20, 4.20 + 0.80 = 5.00).

Whether X1 = 1.00-1.79 score range is at "I don't do at all" level, X2 = 1.80-2.59 score range is at the level of "I do very little" It is assumed that the status of whether to make X4 = 3.40-4.19 score range is at the level of “I do it frequently” and whether it is in the range of X5 = 4.20-5.00 points is at the level of “I always do”.

Data Analysis

The collected data were analyzed using SPSS 24 program. Descriptive statistics techniques (frequency, percentage, arithmetic mean, standard deviation) were applied in the analysis of the collected data. Then, the findings were interpreted. While interpreting the data obtained, the following coding format was used.

Findings

Descriptive statistics techniques (frequency, percentage, arithmetic mean, standard deviation), factor analysis, t test, one way variance analysis (ANOVA) test are used in this section.

Table 1. Reliability analysis.

Cronbach's Alpha	Number of Questions
,904	25

As seen in Table 1, since the cronbach alpha value calculated for the scale is 0.70≤ α = 904, it can be said that the scale is quite reliable. Cronbach alpha ranges from 0 to 1. Cronbach alpha reliability coefficient value of 70 and above indicates that the scale is reliable.

For the validity analysis of the scale, firstly, it was checked with KMO and Barlett tests whether the data was suitable for validity analysis. The results of KMO and Bartlett Analysis are given in table 2.

Table 2. KMO validity analysis

Kaiser-Meyer-Olkin (KMO Sample Sufficiency Criterion)		**,912**
Bartlett Testi	Chi-Square Value	1368,931
	Degree of freedom	231
	Significance level (p value)	,000

As seen in Table 2, KMO test is 91.2%. The fact that the KMO value is meaningless at the level of .50 indicates that the data are suitable for making validity analysis (Özdamar, 2002).

Alpha Coefficient:

0.00 ≤ α <0.40, the scale is not reliable.

0.40 ≤ α <0.60, the scale is low reliability.

0.60≤ α <0.80, the scale is very reliable.

0.80≤ α <1.00, the scale is a highly reliable scale (Çokluk et al., 2018: 198).

The obtained value of 0.912> .50 means that the scale is highly reliable. Since the Bartlett test p value = 0.000 <0.05, the data show normal distribution. KMO and Barlett values show that the data are suitable for validity analysis. In order to increase the validity and reliability, 3 people who were considered as discrete value from the survey applied to 121 people were excluded and the number of people participating in the research was reduced to 118.

The validity and reliability analysis results of the scale showed that the scale is suitable for measuring the communication skill levels of the trainers. The scale consists of 22 items in its final form and is a 5 point Likert type.

Table 3. Skewness and stickiness of skills

	Total Distribution Measures	**Oral communication Skill**	**Nonverbal Communication Skill**	**Listening Skill**	**Ability to Give Feedback**	**Total Skills**
Total	**Skewness**	-0,670	-0,776	-1,326	-0,906	-0,937
	Stickiness	0,083	0,604	-1,345	0,090	-0,200

As seen in Table 3, it is accepted that the distribution is normal distribution in cases where the skewness and kurtosis values are between ± 1,500t (Gürbüz et al., 2017: 106).

Table 4. Demographic characteristics of the trainers participating in the research

Variables	Frequency (fi)	Percent (%)
Gender		
Female	19	16,1
Male	99	83,9
Age		
27-33 age range	33	28
34-40 age range	44	37,3
41-47 age range	31	26,3
48 age and above	10	8,4
Coaching Stage		
Second Stage	57	48,3
Third Stage	49	41,5
Fourth Stage	12	10,2
Education level		
High school	27	22,9
Associate degree	11	9,3
License	69	58,5
Master and above	11	9,3
Service Period		
1-5 year	36	30,5
6-10 year	54	45,8
11-15 year	19	16,1
15 year and above	9	7,6
Employment Forms		
Regular	91	77,1
Contractual	27	22,9
TOTAL	**118**	**100**

As seen in Table 4, when the ages of 118 coaches participating in the study were female, 16.1% were female and 83.9% were male, 28% of the trainers were between 27-33 years old and 37.3% were 34-40 years old. between 26.3% of the age range of 41-47, 8.4% of 45 years of age and above, 48.3% of them are second level, 41.5% of third level, 10.2% When the level of education, which is the fourth stage, is examined, 22.9% of the trainers are from high school education program, 9.3% from associate degree, 58.5% from undergraduate and 9.3% from master degree and above. When the service period they graduated is examined, 30.5% of them are between 1-5 years, 45.8% of them are between 6-10 years, 16.1% are between 11-15 years, 7.6% are 15 years. When the employment patterns are analyzed, it is seen that 77.1% of them are employed and 22.9% of them are contracted.

Table 5. Descriptive statistics of communication skills

	N (Number of Samples)	Average Statistics	
		Average	Standard Error
Oral Communication Skill	118	3,959	0,531
Nonverbal Communication Skill	118	4,098	0,641
Listening Skill	118	4,285	0,779
Ability to Give Feedback	118	4,235	0,683
Total Communication Skill	118	4,142	0,570

As seen in Table 5, the verbal communication skill X = 3.959 (SD = 0.531), non-verbal communication skill X = 4.098 (SD = 0.641), listening skill X = 4.285 (SD = 0.779) and feedback in trainers' sub-dimensions of communication skills scale. ability to be found to have X = 4,235 (SD = 0.683) point average. The average value of the coach communication skills scale is X = 4.142 (SD = 0.570).

Table 6. The difference of communication skills of coaches by gender

	Gender	N	$\overline{X}$	SS	t Value	p Value
Oral Communication Skill	Female	19	4.30	0.716	0.234	
	Male	99	4.22	0.680		0,630
Nonverbal Communication Skill	Female	19	4.37	0.642	0.312	
	Male	99	4.26	0.805		0,575
Listening Skill	Female	19	3.89	0.593	0.330	
	Male	99	3.97	0.521		0,567
Ability to Give Feedback	Female	19	4.21	0.559	0.691	
	Male	99	4.07	0.656		0,407

p>0,05

As seen in Table 6, it was determined that verbal communication skills, non-verbal communication skills, listening skills and feedback skills did not make a significant difference in terms of gender variable. However, in the analysis of the average scores received, it was observed that the average score of male wrestling coaches in all communication sub-dimensions was lower than the average score of female coaches in all communication sub-dimensions.

Table 7. The difference between the communication skills of the coaches by age

	Age Groups	N	$\overline{X}$	SS	F Value	p Value
Oral Communication Skill	27-33 age	33	3.92	0.507		
	34-40 age	44	3.99	0.472	1,752	0,160
	41-47 age	31	3.84	0.619		
	48 age and above	10	4.26	0.504		
Nonverbal Communication Skill	27-33 age	33	4.15	0.554		
	34-40 age	44	4.06	0.642	0,818	0,486
	41-47 age	31	4.00	0.703		
	48 age and above	10	4.34	0.724		
Listening Skill	27-33 age	33	4.34	0.643		
	34-40 age	44	4.20	0.890	0,562	0,641
	41-47 age	31	4.25	0.833		
	48 age and above	10	4.53	0.477		
Ability to Give Feedback	27-33 age	33	4.18	0.643		
	34-40 age	44	4.18	0.746	1,096	0,354
	41-47 age	31	4.24	0.702		
	48 age and above	10	4.60	0.365		

p>0,05

As seen in Table 7, it was determined that verbal communication skill, non-verbal communication skill, listening skill and feedback skill do not make a significant difference in terms of age variable.

It is observed that the lowest average (X = 3.84) of the verbal communication skills belongs to the 41-47 age group and the highest average (X = 4,26) is between the age of 48 and over.

It is observed that the lowest average (X = 4.00) of non-verbal communication skills is between 41-47 years old and the highest average (X = 4.34) is between the age of 48 and over.

It is seen that the lowest average (X = 4.20) regarding listening skills is between the ages of 34-40, and the highest average (X = 4.53) is between the age of 48 and over.

It is seen that the lowest average (X = 4.18) regarding the skills of giving feedback is between 27-40 years old, and the highest average (X = 4.60) is between the age groups 48 and over.

Table 8. Difference table of the communication skills of the trainers by stages

	Coaching Stage	N	$\overline{X}$	SS	F Value	p Value
Oral Communication Skill	Second Stage	57	4.03	0.455		
	Third Stage	49	3.92	0.567	1.951	0,147
	Fourth Stage	12	3.72	0.668		
Nonverbal Communication Skill	Second Stage	57	4.15	0.528		
	Third Stage	49	4.08	0.690	0.685	0,506
	Fourth Stage	12	3.91	0.908		
Listening Skill	Second Stage	57	3.90	1.001		
	Third Stage	49	4.26	0.804	1.972	0,144
	Fourth Stage	12	4.38	0.691		
Ability to Give Feedback	Second Stage	57	4.35	0.649		
	Third Stage	49	4.13	0.656	1.712	0,185
	Fourth Stage	12	4.08	0.896		

As seen in Table 8, it was determined that verbal communication skills, non-verbal communication skills, listening skills and feedback skills did not make a significant difference from the sub-dimensions of the communication skills scale in terms of the trainer variable.

It is seen that the lowest average (X = 3.72) of the verbal communication skills belongs to the fourth level and the highest average (X = 4.03) to the second level.

It is seen that the lowest average (X = 3.91) of non-verbal communication skills belongs to the fourth level and the highest average (X = 4.15) belongs to the second level coaches.

It is seen that the lowest average (X = 3.90) for listening skills belongs to the second level and the highest average (X = 4.38) belongs to the fourth level coaches.

It is seen that the lowest average (X = 4.08) of the feedback skills belongs to the fourth level and the highest average (X = 4.35) belongs to the second level coaches.

Table 9. Difference table of the communication skills of the trainers according to their education level

	Education level	**N**	$\bar{X}$	**SS**	**F Value**	**p Value**
Oral Communication Skill	High school	27	3.89	0.652		
	Associate degree	11	3.78	0.700	0,856	0,466
	License	69	3.98	0.472		
	Master and above	11	4.10	0.352		
Nonverbal Communication Skill	High school	27	3.94	0.674		
	Associate degree	11	3.89	0.695	2,084	0,106
	License	69	4.22	0.592		
	Master and above	11	3.90	0.718		
Listening Skill	High school	27	4.14	0.843		
	Associate degree	11	4.34	0.693	0,962	0,413
	License	69	4.37	0.769		
	Master and above	11	4.03	0.770		
Ability to Give Feedback	High school	27	4.13	0.750		
	Associate degree	11	4.23	0.715	1,471	0,226
	License	69	4.32	0.624		
	Master and above	11	3.90	0.802		

p>0,05

As seen in Table 9, it was determined that verbal communication skill, non-verbal communication skill, listening skill and feedback skill do not make a significant difference in terms of educational status sub-dimensions of communication skills scale.

It is observed that the lowest average (X = 3.78) associate degree and the highest average (X = 4.10) graduate and related graduate trainers belong to the trainers.

It is seen that the lowest average (X = 3.89) associate degree in non-verbal communication skills and the highest average (X = 4.22) belong to the trainers who are undergraduate graduates.

It is seen that the lowest average (X = 4.03) master's degree and above regarding listening skills and the highest average (X = 4.37) belong to the trainers who are undergraduate graduates.

It is seen that the lowest average (X = 3.90) master's degree and above and the highest average (X = 4.32) belong to the trainers who are undergraduate graduates.

Table 10. Difference table of the communication skills of the coaches according to their duration of service

	Service Period	N	$\bar{X}$	SS	F Value	p Value
Oral Communication Skill	1-5 year	38	3.96	0.558		
	6-10 year	55	3.98	0.445		
	11-15 year	19	3.94	0.646	0,143	0,934
	15 year and above	6	3.83	0.803		
Nonverbal Communication Skill	1-5 year	38	4.17	0.558		
	6-10 year	55	4.09	0.633		
	11-15 year	19	3.99	0.787	0,399	0,754
	15 year and above	6	4.00	0.810		
Listening Skill	1-5 year	38	4.29	0.683		
	6-10 year	55	4.30	0.822		
	11-15 year	19	4.30	0.886	0,179	0,910
	15 year and above	6	4.06	0.772		
Ability to Give Feedback	1-5 year	38	4.22	0.691		
	6-10 year	55	4.21	0.678		
	11-15 year	19	4.29	0.737	0,196	0,899
	15 year and above	6	4.40	0.657		

p>0,05

As seen in Table 10, it was determined that verbal communication skill, non-verbal communication skill, listening skill and feedback ability sub-dimensions did not make a significant difference in terms of service duration variable.

It was observed that the lowest average (X = 3.83) of oral communication skills was 15 years and above and the highest average (X = 3.98) belonged to coaches with a service of 6-10 years.

The lowest average (X = 3.99) 11-15 years regarding non-verbal communication skills and the highest average (X = 4.17) were found to be between 1 and 5 years.

It was observed that the lowest average (X = 4.06) of listening skills was 15 years or more and the highest average (X = 4.30) belonged to coaches with a service of 6-15 years.

The lowest average (X = 4.21) 6-10 years regarding the feedback skills and the highest average (X = 4.40) were found to be the trainers with 15 years and more service.

Table 11. Difference of communication skills of coaches by employment patterns

	Employment Forms	N	$\bar{X}$	SS	t Value	p Value
Oral Communication Skill	Regular	91	3.99	0.608	0,317	
	Contractual	27	3.95	0.510		0,752
Nonverbal Communication Skill	Regular	91	4.11	0.628	0,359	
	Contractual	27	4.06	0.697		0,720
Listening Skill	Regular	91	4.30	0.790	0,384	
	Contractual	27	4.23	0.757		0,702
Ability to Give Feedback	Regular	91	4.28	0.679	1,208	
	Contractual	27	4.10	0.694		0,230

p>0,05

As it can be seen in Table 11, it has been determined that verbal communication skill, non-verbal communication skill, listening skill and feedback skills do not make a significant difference in terms of employment variable.

It has been observed that the low average (X = 3.95) of the verbal communication skills belongs to the contract workers, and the high average (X = 3.99) belongs to the coached staff.

It has been observed that the low average (X = 4.06) of non-verbal communication skills belongs to the contract workers and the high average (X = 4.11) belongs to the staff working in the staff.

It was observed that the low average (X = 4.23) regarding listening skills belongs to the contract workers, and the high average (X = 4.30) belongs to the staff working in the staff.

It has been observed that the low average (X = 4.10) regarding the skills of giving feedback belongs to the contract workers and the high average (X = 4.28) belongs to the coached staff.

Discussion and Conclusion

In the light of the findings obtained in this study conducted to determine the demographic characteristics and communication skills of wrestling coaches;

It is observed that the average of the coach communication skills scale applied to wrestling coaches (X = 4,142) is high (Table 5). It is seen that the verbal communication skill average score (X = 3.959) of the trainers' communication skills scale sub-dimensions is lower than the other skill scores. Resting skill average scores (X = 4,285) are higher than other skill scores (Table 5). In the studies of Özbey (2019) and Abakay (2010), similar to our research results, the communication skills levels of the trainers were found to be high, and the fact that the verbal communication skill was lower than the other skill points in the general average is thought to be due to the individual branch of the wrestling sport.

There is no statistically significant difference in the communication skills expressions of the trainers according to gender (Table 6). It is seen that the highest average in terms of gender is in non-verbal communication skill and the average of the female coach is higher than the male coaches. In general, when the literature review is evaluated, the results obtained support our study; It is seen that women are more successful than men in expressing gestures and facial

expressions and body language in using non-verbal communication and are more confident in exhibiting these behaviors (Mutlu et al., 2018: 167). This situation is thought to stem from the structural features of women.

There is no statistically significant difference in the communication skills expressions of coaches by age variable (Table 7). Unlike our study results, Gerçek (2017) concluded that female coaches had higher communication skills than men. When looking at the general average according to the age variable, it is seen that the highest average of the skill of giving feedback belongs to the trainers who are in the age range of 48 and over. This result is thought to increase the level of tolerance and empathy as coaches get older and their professional experience increases, and their communication skills develop positively thanks to their professional knowledge.

There is no statistically significant difference in the communication skills expressions of the trainers according to the trainer variable (Table 8). When looking at the general average according to the level variable, it is seen that the highest average belongs to the listening skill and when evaluated according to the levels, the lowest average belongs to the second stage coaches and the highest average belongs to the fourth stage coaches. The aim of the trainer training programs is to support the findings obtained in the literature review. improving the cognitive, affective and psychomotor skill levels of the participants (Özbey et al., 2019: 42). Coaches are required to have a certain period of time (years) experience and to participate in a certain number of development seminars in the transition between stages. This situation is thought to be positively affected by the professional development of the trainers as the levels progressed.

There is no statistically significant difference in the communication skills expressions of the trainers according to the educational status variable (Table 9). When the training status of the trainers is evaluated according to the variable, it is seen that the trainers who graduated from undergraduate, graduate and higher degrees have a higher average in all of their communication skills compared to high school and associate degree trainers. As a result of Afyon and Işıkdemir (2013) researches, there is no significant difference between trainers' educational status and communication skills; Buğdaycı (2018) concluded that communication skills increase as the education level increases. This situation is thought to be due to the fact that as the education level of the trainers increases, the main purpose of the training is to develop the human skills and the level of perception of the person, the people around him and the events that have been experienced.

There is no statistically significant difference in the communication skills expressions of the trainers according to the duration of service variable (Table 10). When the trainers are evaluated according to the variable of service periods, it is seen that the highest average belongs to the feedback giving skills and the highest average among the service groups belongs to the coaches with a service of 15 years or more. Similarly, Buğdaycı (2018) concluded that as coaches' service time increases, their ability to communicate increases. This situation is thought to arise from the increase in communication skills as well as the experience of coaches.

There is no statistically significant difference in the communication skills expressions of the trainers according to the employment patterns variable (Table 11). When coaches are evaluated according to employment types variable; It has been observed that the average of all communication skills of the coaches employed as permanent staff is higher than the contracted coaches.

As a result, communication skills of wrestling coaches were evaluated in this study and it was observed that the communication skill levels of coaches were generally high. Despite the absence of a statistically significant difference in the analysis conducted throughout the study, the evaluation of the demographic characteristics of the coaches according to the subscale average scores of the communication skills scale; female coaches used their communication skills more effectively than the male coaches, and their communication skills increased as their ages progressed, and their education and training according to their educational status. It has been determined that the coaches who work at the upper level according to their rank and their ranks evaluate the communication skills more effectively and that all the communication skill levels of the coached employed trainers are higher than the trainers employed in contract status.

In the light of the information obtained as a result of the research, the suggestions are presented below:

• Trainers who are at the beginning of their professional careers can be trained on effective communication skills.

• Requirements for trainers to be employed should be at least undergraduate level.

• Platforms can be created in which upper level coaches and lower level coaches can share their knowledge and experience.

• Communication skills of coaches can be evaluated by adapting this study subject to other sports branches.

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The Effect of Participation in Sports Competitions on Decision Making Style

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Abstract

The aim of this study is to examine the decision making styles of secondary school students who have participated and have not participated in sports competitions among schools. The research was carried out on 313 students who attended and did not participate in school sports in different secondary education institutions. "General Information Form" and "Decision Making Styles Scale (DMSS)" were used to collect data in the research. In the analysis of the data, independent samples t-test was conducted to determine whether there was a significant difference between the groups in the variables of participation in gender and inter-school sports competitions. The significance level was determined as p<,05 in the study. As a result of our study, it was found that the intuitive decision-making styles of the girls were significantly higher than the male students, while there was no statistically significant difference between the genders in DMS mean scores and Rational DMS, Dependent DMS, Avoidant DMS, and Instant DMS subscales. Also, the rational decision-making styles of the students participating in sports competitions between schools were found to be significantly higher than those who did not. It was determined that there was no statistically significant difference in the average scores of DMS and Intuitive DMS, Dependent DMS, Avoiding DMS and Instant DMS sub-dimensions of the students who participated and did not participate in sports competitions between schools.

Keywords: Decision Making Styles, School Sports, Secondary School

Introduction

The decision is expressed as the preference of the most suitable of the different forms of action to achieve a goal. More clearly, decision making is stated as a method used in the solution of this problem in case of any problem encountered. (Kuzgun, 1992). Decision making is also interpreted as a dynamic process in which the individual takes an active part. In this process, the individual carries out the functions of collecting information, getting feedback from the environment, examining the information obtained and planning for the future (Daft, 1994). For this process to be carried out more effectively and for decision-making behavior to occur; it is necessary to have a problem situation, to be aware of the problem, to create alternative solutions to overcome the problem and to evaluate these ways (Tekin, 2009). While the individual exhibits his decision making behavior; İt refers to various situations such as personality, life experience, environment, attitude towards the event and knowledge. These reference situations constitute the decision-making style of the individual. Decision-making style is called the process that guides the individual how to act when the individual has to make a decision (Ersever, 1996). Decision-making style is influenced by the motivational and individual attributes of individuals (Taşdelen, 2002), social factors (Payne et al., 1993 act. Avşaroğlu, 2007), problem-solving, income level, self-perception and status (Balkıs, 2007). Many ideas have been put forward on decision making styles. Scott and Bruce (1995), who developed the decision-making style scale, stated that there are five types of decision-making styles. These:

1. Sensible decision-making style: It refers to the decision of the individual regarding the most appropriate option as a result of research and examination of the situation. Individuals with rational decision making style behave more carefully when making decisions.
2. Intuitive decision-making style: It refers to the individual's decision making based on his feelings and intuition. Individuals with an intuitive decision-making style make their decisions more rapidly and act according to their preliminary intuition.
3. Dependent decision-making style: It refers to the decision making by the individual according to the thoughts and directions of others. Individuals with dependent decision making style impose the responsibilities required by the decisions on other individuals.
4. Evasive decision-making style: It refers to the individual's departure from the decision. Individuals with this style have a hard time making decisions and avoid responsibility for making decisions.
5. Instant decision-making style: It refers to the decision of the individual according to the current situation and conditions. Individuals with this style decide according to the natural functioning of the situation or event.

Decision-making is also very important for achieving success in sports. Sport is not only an area where psychomotor skills are exhibited but also an event where cognitive skills are used (Egesoy et al., 1999). Athletes are constantly making new decisions to produce solutions to different problem situations that arise during the competition (Sanchez, Calvo, Onuel, and Godoy, 2009). Decision-making in sports is expressed as analyzing the play order using physical, technical and tactical recall tips and thus creating new defense and offensive organizations (Berry, Abernethey, & Cote, 2008). Rasmussen on the other hand, decision-making behavior in sports; explained by 3 different types of decision-making behavior based on ability, rule, and knowledge. The individual who takes action in skill-based decision-making performs the behavior by using his / her ability in a situation where consciousness control is not complete. Sensory-motor performance is effective here. Depending on the arrival of the

ball, the athlete's body position can be given as an example of the skill-based decision-making process. The rules that determine the behavior in rule-based behavior are rules. The individual displays his behavior within the limits of the rule. While the individual performs behavior automatically in talent-based decision-making, the individual is more careful in rule-based decision making. In information-based decision making, the individual behaves more precisely. The individual pays attention to the details here and makes more clear evaluations about the situation (Mac Mahon, 1999 act. Satman, 2005). The differentiation of decision-making styles has raised the curiosity of whether participation in sports competitions among schools has an impact on decision-making styles. The study was handled for this purpose and the decision making styles of secondary school students who participated in and did not participate in sports competitions between schools were examined.

Method

Pattern of the Study

In the research, a scanning model was used. The relational scanning model is a research model that aims to determine the presence and/or degree of co-exchange between two or more variables (Karasar, 2013).

Sample of the Research

The research was carried out with students studying in different secondary education institutions. The research was conducted on a voluntarily and the study was carried out on 313 secondary school students who participated in and did not participate in school sports. After the surveys were collected, erroneous and incomplete surveys were removed.

Data Collection Tools

The data of the research, " General Information Form " which was prepared to determine students' participation in gender and inter-school sports competitions, and " Decision-Making Styles Scale (DMSS) " were used to determine the decision-making styles.

Decision-Making Styles Scale (DMSS)

Decision-making scale was developed by Scott and Bruce (1995) and adapted to Turkish by Taşdelen (2002). The scale is a five-point Likert type and is scored as "absolutely disagree" (1), "disagree" (2), "undecided" (3), "agree" (4), "strongly agree" (5). There are no inverse items in the scale. The original form of DMSS with 24 items; It consists of five sub-dimensions: rational, intuitive, dependent, self-instantaneous and avoiding decision making styles. Internal consistency coefficients in the adaptation of the scale into Turkish: Rational Decision Style dimension: ,76, Intuitive Decision Style dimension: ,78, Dependent Decision Style dimension: ,76, Evasive Decision Style dimension: ,79, Self-Instant Decision Style dimension Internal consistency alpha: ,74 for: ,79 and the total score of the scale. In our study, the internal consistency coefficients are: Rational Decision Style dimension: ,82, Intuitive Decision Style dimension: ,77, Dependent Decision Style dimension: ,70, Avoiding Decision Style dimension: ,85, Self-Instant Decision Style In the dimension: ,81 and the internal consistency coefficient for the total score of the scale were found to be ,80.

Analysis of the Data

The analysis of the data was carried out with the SPSS 20 package program. Frequency and percentage analyzes were used for the descriptive statistics of the study. In the analysis of the data, independent samples t-test was conducted to determine whether there was a significant

difference between the groups in the variables of participation in gender and inter-school sports competitions. The significance level was determined as p<,05 in the study.

Results

In this section, there are findings from the study.

Table 1. Descriptive Statistical Information

		Frequency	Percent
Gender	Female	183	58,5
	Male	130	41,5
Participating in inter-school sports competitions	Yes	155	49,5
	No	158	50,5
	Total	313	100,0

Table 2. Unrelated Samples Related to Gender Variable T Test Results

	Gender	N	X	SS	t	df	p
ADMS	Female	183	3,30	,44	,856	248,710	,393
	Male	130	3,25	,52			
Rational DMS	Female	183	3,93	,71	1,757	239,776	,080
	Male	130	3,76	,88			
Intuitive DMS	Female	183	3,73	,76	1,993	311	,047*
	Male	130	3,55	,83			
Dependent DMS	Female	183	3,50	,74	-,188	311	,851
	Male	130	3,52	,74			
Avoiding DMS	Female	183	2,51	,98	-,917	311	,360
	Male	130	2,62	1,04			
Instant DMS	Female	183	2,87	,96	,043	311	,965
	Male	130	2,87	,89			

*p<,05 ADMS: Average decision making styles

As a result of the analysis, it was determined that there was no statistically significant difference in the DMS mean scores and Rational DMS, Dependent DMS, Avoiding DMS, and Instant DMS sub-dimensions according to gender. However, there was a significant difference between the groups in favor of female students in the Intuitive DMS sub-dimension (t_{311}=1,993, p=,047<,05). The scores of female students (mean=3,73, SS=,76) were statistically significantly higher than the scores of male students (mean=3,55, SS=,83) (p<,05).

Table 3. Unrelated Samples T-Test Results Regarding Participation in Sports Competitions Among Schools

	Participating in sports competitions between schools	**N**	**X**	**SS**	**t**	**df**	**p**
ADMS	Yes	155	3,30	,49	,503	311	,616
	No	158	3,27	,46			
Rational DMS	Yes	155	3,96	,75	2,252	311	,025*
	No	158	3,76	,82			
Intuitive DMS	Yes	155	3,67	,77	,254	311	,800
	No	158	3,65	,82			
Dependent DMS	Yes	155	3,47	,76	-,917	311	,360
	No	158	3,54	,71			
Avoiding DMS	Yes	155	2,53	,98	-,501	311	,617
	No	158	2,58	1,02			
Instant DMS	Yes	155	2,88	,95	,244	311	,808
	No	158	2,86	,91			

*p<,05 ADMS: Average decision making styles

As a result of the analysis, it was determined that there was no statistically significant difference in the average scores of DMS and Intuitive DMS, Dependent DMS, Avoiding DMS and Instant DMS sub-dimensions of students who participated and did not participate in sports competitions between schools. However, a significant difference was obtained between the groups in the rational DMS sub-dimension (t_{311}=2,252, p=,025<,05). The scores of students participating in sports competitions between schools (mean=3,96, SS=,75) were found statistically significantly higher (p<,05) than those of students who did not participate in sports competitions (mean=3,76, SS=,82).

Discussion

Decision-making behavior takes place in every area of an individual's life. Individuals decide to choose the most suitable option for different situations that develop in sports environments. While demonstrating the skill of dribbling a football player, analyzing the situation in seconds to choose the most suitable companion to get the result of his team from many idle teammates reveals the importance of decision making in sports. In our study, decision-making styles of secondary school students who participated and did not participate in sports competitions between schools were examined. Besides, all students participating in the study were compared in terms of gender variable and their decision-making styles were examined.

As a result of our study, a significant difference was obtained between the groups in favor of female students in the Intuitive DMS sub-dimension according to gender. The reason for this situation is that women have a more emotional structure and make their decisions based on their feelings. In some studies, it has been observed that girls make more intuitive decisions than

boys (Tiryaki, 1997; Dinklage, 1962 act. Kuzgun, 2000). The results of these studies are similar to the results of our research. However, there are also some studies that are not similar to the results of our study (Mutlu, 2019; Küçükkendirci et al., 2016, Dilmaç & Bozgeyikli, 2009). In our study, it was determined that there was no statistically significant difference between the genders in the DMS mean scores and Rational DMS, Dependent DMS, Avoiding DMS and Instant DMS subscales. Due to the increase in the level of education, the possibility of women to have the same opportunities as men due to the increase in the employment rate, mass communication tools, the importance of families to give importance to the education and personality development of their children, the difference in terms of society is getting closer day by day. These situations are thought to affect the thinking processes of women and men, therefore their decision making behaviors and the absence of a meaningful difference between genders. It has been determined that some studies in the literature have reached results that support our study and are similar to the results of our study (Adsız, 2016; Eraslan, 2015; Kırgil, 2015; Aktaş, 2014; Karahüseyinoğlu, 2013; Dinçer, 2013).

In our study, it was determined that there was no statistically significant difference in the average scores of DMS and Intuitive DMS, Dependent DMS, Avoid DMS and Instant DMS sub-dimensions of students who participated and did not participate in sports competitions between schools. In our study, the participation of the sample group in school sports is thought to cause no difference between the groups. The fact that it consists of a student group of athletes in both groups affects the benefits of sports in both groups. However, although it was not statistically significant, the mean scores of the students who participated in the sports competitions between schools, the Intuitive DMS and Instant DMS averages were higher than those who did not participate. There is no study for the variable we used in the relevant literature. However, in some studies, it was found that individual and team sports were compared and no significant difference was obtained between the groups (Kuru, 2003; Tekin et al., 2008; Çetin, 2009). In a study, it was reported that there was no significant difference in the decision-making styles of high school students who did and did not do sports (Ülker, 2017).

In our study, a significant difference was obtained in the rational DMS sub-dimension in favor of students participating in sports competitions between schools. In addition, it was determined that the students participating in sports competitions between schools displayed the least avoided behaviors. This result shows that when students take their behavior to participate in sports to the next level, they make more logical and careful decisions and do not avoid making decisions in case of a decision. The study conducted by Kösem (2019) supports our research data. In the Kösem study, it was found that senior athletes showed the most careful decision-making style, and at least the refraining decision-making style.

Conclusion and Suggestions

As a result of our study, it was found that the intuitive decision-making styles of the girls were significantly higher than the male students, while there was no statistically significant difference between the genders in the DMS mean scores and the Rational DMS, Dependent DMS, Evasive DMS, and Instant DMS subscales. As a result, the rational decision-making styles of students participating in sports competitions between schools were found to be significantly higher than those who did not. It was determined that there was no statistically significant difference in the average scores of DMS and Intuitive DMS, Dependent DMS, Avoiding DMS and Instant DMS sub-dimensions of the students who participated and did not participate in sports competitions between schools. In line with these results, it is concluded that increasing the level of participation in sports enables individuals to take more careful

decisions and move away from the avoided mixed-making style, making it clearer decisions in life. It is thought that the application of the study in different sample groups that do and do not do sports can reveal the effects of sports on decision-making styles more clearly.

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The role and importance of team leaders' skills for group/team dynamics in sport

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Abstract

In team and sports circles, leadership today is a key aspect of sporting success and achievement. In the last two or three decades, numerous studies have been conducted that deal with the role and skills of team leaders in sports performance, the assessment of leadership and its impact on team building, their effectiveness and dynamics.

This article examines the role and importance of team leaders' skills in representing them in sport, while assessing the key competencies of a leader through the prism of different leadership styles and ideas. By identifying the main leadership skills in sports, the article tries to present and analyze what are some of the strengths, qualities and competencies that build these leadership skills and how they persuade teams to perform in sports.

Keywords: Leadership, Sports, Skills, Competencies, Role, Teams

Introduction

Undoubtedly, today leadership is among the most key elements of achievements and successes in sports, incl. in team sports. As the main leading foundation in people management, modern research is characterized by an extremely wide range of definitions and definitions of the term "leadership". In recent decades, questions about leaders and their skills to achieve goals and the performance of teams in sports have been the subject of much research - in the theory and practice of leadership development. Science sees many different taxonomies and typologies proposed by leadership as a construction.

In modern sports, leadership is an extremely important concept in the management and performance of athletes and teams. Leaders are the people on the team who persuade others who are involved in key changes, lead the athletes and inspire, influence and guide them. Leadership is the coach's ability to persuade his team, to make it achieve the desired results "while doing everything possible for it" (Armstrong, 2014:641). This is a process that develops and presents the future vision of the group and the team, motivates the athletes, ensures their commitment. As early as the middle of the last century, authors defined leadership as "an influential process aimed at achieving the goal" (Stogdill, 1950:3).

The topic related to the leadership skills of coaches for the performance of their teams in sports is extremely relevant today. These activities are in accordance with the achievement of the goals of the teams, with the specifics of the work of the sports clubs and the individual players as an individual and character.

In the context of all this, the role of the effective participant in the process of achieving good sports results appears, who is not only a motivating figure and a key mediator between the team and achieving the goals of the group. This is the role of the sports leader. He is at the forefront of planning, implementing and reporting on everything the team achieves in the entire team performance management process.

In the present study, the focus is on leadership competencies, the role and importance of team leaders' skills for performance in sports - a topical issue that has attracted the attention of a number of foreign researchers in recent years.

The study defends the statement that today the impact and constant changes in the field of sports are accompanied by changes that not only require adaptation, but also the necessary effective methods and approaches to what is the potential future in developing players' skills to achieve high sports results. and successful presentation. At the heart of the thesis is the idea that the key role in the effectiveness of performance and the best possible performance of teams in sports is entrusted to the leader. The key role of the leader and his skills is among the main roles of great importance in sports, which must be constantly upgraded, enriched and improved through various innovative approaches and practices.

Overview of the main concepts, styles and typology in connection with the role and importance of the skills of team leaders for performance in sports - materials and methods

This presentation presents the theoretical basis on which the basic concepts, styles and typology of leadership rest in the context of the skills of sports leaders for the successful performance of their teams. The study examines leading postulates and definitions of leadership with a focus on the importance of leadership skills in sport, through analysis by various authors and researchers on the subject. It explores different points of view on the issue while at the same

time refracting this basic base through the prism of sports leadership for the successful performance of teams.

In this regard, it can be said that for the selection of information here (books, magazines, articles, online portals, documents, reports, etc.) a set of selection criteria is applied, such as: relevant field of study, similar issues, theoretical models, concepts and findings in the field of leadership in sports, the successful application of the role of the leader for high sports achievements of the teams, the importance of leadership achievements in achieving the goals of the teams as a whole. In summary, the present study uses methods of analysis such as: theoretical and scientific analysis; empirical analysis (author's observations and analyzes); comparative analysis (method of comparing different theoretical statements and the results of the research); systematic analysis (analysis of observations by collecting and summarizing data); secondary data analysis (review, analysis and formation of conclusions based on available publications on the topic).

Key concepts of leadership in the focus of good performance of teams in sports

There are many theories that define leadership as a concept. They develop and enrich over the years, exploring different leadership countries and behaviors. Trait theory is among those best known and explains the concept by referring to the leadership qualities that people possess, incl. and in sports. Its proven limitations and its emphasis on the nature of the types of behavior in leadership, rather than on the personality of the leader, contribute to the next steps in the development of leadership theory. This is the recognition by researchers that what leaders do and how they do it depends on the situation in which they find themselves (Fiedler, 1967:3). Thus, different leadership traits gradually acquire their importance, which requires the use of different behaviors (leadership styles) to achieve effectiveness in different situations. These studies also lead to theories of situational leadership. A little later, trait theory was revived in the notion of emotional intelligence as a necessary attribute of leaders, and then the idea of leadership as a holistic approach to leadership was put forward (Ulrich & Smallwood, 2007:35).

Despite all the research and attempts at theorizing, the concept of leadership is still problematic, elusive, and enigmatic, making it difficult to define an understanding of leadership that offers both an intellectual and an emotional scope to the concept. The difficulty in defining leadership as a concept creates some problems also given the different types of situations in which different types of sports leaders operate in many different leadership styles. Creating a theory that encompasses all of these variables is difficult, if not impossible.

For these reasons, when presenting teams in sports, it is most appropriate for sports leaders to take advantage of the various leadership theories that exist and to explain the various aspects of leadership, as a combination of one or more postulates without reliance. completely only on one theory. Leadership (and what makes a sports leader good) can be most properly defined by considering how and what leaders do in relation to the different leadership styles they perceive.

In the context of the present study, leadership focuses on the skills of team leaders to represent them in sport. Given this, for the purposes of the article, we assume that the term "leader" defines the personality of the "team leader", who gives guidance to a group of people (teams) in the implementation of their tasks; guides them and encourages them to achieve higher sports results; evaluates their implementation, corrects their actions and presents a vision for their improvement; discusses and comments with his team on the results of their performance, giving them adequate and timely feedback; works together with the team motivating it to achieve the goals of the whole team and its performance. Just as a leader's team leadership skills are

essential to achieving good results, so are individual leadership support, motivation and feedback skills essential. A good sports leader must be able to approach each athlete on his team individually and in groups to the group as a whole.

The leadership style of the coach in the context of the performance of the teams in sports

Leadership style is the approach used in the exercise of leadership when they are connected to the athletes on their team. In a broad sense, the understanding of leadership style includes the integration of a specific set of elements of activity, determined by the abilities of the individual and influenced by the circumstances and environment in which the leader operates. In a narrow sense, the understanding of leadership style is seen as a set of methods, ways, means, techniques, management procedures or in other words comes down to a technology for effective leadership of a sports team. There are many leadership styles, and here, like leadership concepts and postulates, it cannot be said that one style is necessarily better than another in every situation. To one degree or another, sports leaders can be authoritarian or democratic, subordinate or developmental, task-oriented and sport-oriented, or player-oriented.

According to the criterion "attitude towards subordinates", we can describe the following leadership styles (Lewin et al., 1999:237):

Authoritarian, which is characterized by a tendency to centralize power and excessive control over events;

Democratic, in which the sports leader acts together with his team members;

Liberal, which stimulates the development of creative intellectuality, because it is characterized by minimal power of the leader and maximum freedom of athletes.

Later, other leadership styles were explored and identified, which can also be applied by sports leaders (Goleman, 2001:78):

- Compulsory - it requires strict compliance and is applied in crisis situations in teams and group and / or in resolving issues related to problematic athletes;
- Authoritative - this style mobilizes athletes and is used when a new vision and a new direction is needed;
- Affiliate - this style creates harmony and is used to overcome past events to motivate players or teams under stress;
- Democratic - this style reaches consensus and is applied to build agreements and gain mutual trust between the coach and the team;
- Stimulating - this style sets high standards and is used to get fast results from a highly motivated team;
- Coaching (training) - this style develops athletes and is used to improve the performance and development of team strengths.

Given the constant possibilities for creating unforeseen situations in a team, under no circumstances can it be assumed that each style is correct or that there is an ideal leadership style. It all depends on the factors influencing the degree to which a style is appropriate, the

type of team, the nature of the sport, the nature of the skills the coach requires, the characteristics, qualities and personality of the athletes in the group and the team as a whole and last but not least - from the personality of the sports leader.

Effective leaders are able to change their style to meet the needs of the current team situation. Democratic leaders can quickly become coercive when faced with a crisis in the team, but they have a clear idea of what they are doing and why. Bad leaders change their style at random, so the athletes on their team get confused and don't know what to expect next. Good leaders can also change their style when working with individual athletes according to their characteristics. Some players need more positive guidance. Others respond best if they participate in decision-making with their coach.

Of course, there must be a limit to the degree of flexibility that sports leaders use. Excessive differentiation between one or another athlete on the team (for example, to one constant and often unfounded criticism, and to another - motivation and support even in case of non-fulfillment of his duties), as well as the sharp inconsistency of the coach can be considered inappropriate and unreasonable. in his approach. This shows a personal attitude towards certain athletes on the team and individual preferences of the coach, which, other things being equal, can lead to a quick and secure breakup of the team.

Typology of leaders in the performance of teams in sports

In addition to the analysis of the different leadership styles, the classification of the types of leaders is also important, as this can lead to a much better understanding of the process and help to create a basis for programs to develop leadership in sport.

The authors comment that: "leadership is a widespread phenomenon and its functions are best performed by those who have the interest, knowledge, skills and motivation to make this performance effective" (Huczynski & Buchanan, 2007:720; Ozgun et al., 2017:85). It is possible that people who become managers do not always possess these qualities to the desired degree and this creates the need for systematic programs for leadership development. If we look more deeply at the different typologies of leaders, we find charismatic, visionary, transformational, transactional, authentic.

Charismatic leaders rely on their personality, inspirational qualities and "aura" to get people to follow them. The researcher who coined the term (1978) suggested that "charismatic leaders are separated from ordinary people and treated as endowed with exceptional powers or qualities that inspire followers" (Burns, 1978:44-45).

Visionaries focus on a clear vision for an exciting future and inspire their followers by successfully passing that vision on to them. Some scholars describe vision as "a target that attracts" (Bennis, 2010:4), while others argue that "one of the most important leadership practices is to give life and work meaning and purpose by offering an exciting vision" (Kouzes & Posner, 2003:112).

Transformation leaders are among the most preferred and most desired in sports (Cotterill & Fransen, 2016:123-124). They are able through the strength of their personality to make significant changes in the behavior of their athletes in order to achieve the vision or goals of the leader, resp. and those of the whole team. Transforming sports leadership involves motivating athletes to pursue higher goals, and good leadership presupposes moral responsibility - to respond to the values and needs of athletes in a way that is conducive to the highest form of

human relationships. In fact, the ultimate test of moral leadership is "its ability to transcend the claims of many everyday needs, desires, and expectations" (Burns, 1978:46).

Transactional leadership occurs when the coach takes the initiative to make contact with other people in order to exchange valuables - money, players, security (Burns, 1978:19), for example, in search of sponsors for the team. These sports leaders display "specific leadership skills, usually related to the ability to get results, to control through processes, to solve problems, to plan and organize" (Tavanti, 2008:169) within the structure and boundaries of the team.

Authentic leaders sincerely want to serve athletes through their leadership. They are more interested in empowering the players they train to change results than in power, money or prestige for themselves. They lead with purpose, meaning and values; build lasting relationships with athletes. Others follow them because they know where they stand (George, 2003:12). These leaders are extremely consistent and self-disciplined. These leaders act in accordance with their deep personal values and beliefs in order to build trust and gain the respect of their followers. They promote different points of view, build cooperative relationships with their players and lead in a way that the team perceives as authentic (Harter, 2002:382).

One of the most popular typologies of leaders in sports includes four types of leaders (Fransen et al., 2014:1392):

-The first is the task manager - he is responsible for the team and helps him focus on goals, while also contributing to tactical decisions. This leader gives teammates tactical advice during the game, encourages them and sets them up positively if necessary.

- The second type of leader is motivational - he is the biggest stimulus factor for the team and encourages the team constantly. This type of leader is among the most respected leaders because it directs all the passions and emotions of athletes to the field of action - not just in the right direction, but also in a way that the team presents itself as optimally and effectively as a team.

- The third type is the social leader - he has a key role not only in the field of action of the team but as a person who promotes good relations between athletes and takes care of a good atmosphere in the group - in terms of social environment (in the locker room, on field, in the social activities of the team, etc.). In addition, this leader helps deal with crisis and conflict situations between teammates; he is an extremely good listener and trusts his team unreservedly.

- The last type is the so-called "external leader" - he can be an additional key figure for the group outside the coach as a leader and to act as a link between the team and outside stakeholders. This type of leader can be a representative of the members of the sports club or its management at a higher level. For example, the external leader is the one who takes over the communication with the sponsors; he informs and informs the team about the management of the club; he gives instructions to the group in connection with various sports, club and social activities, etc.

Some of the sports leaders and coaches may show different characteristics of different types depending on the situations in which they find themselves. Despite the individual type characteristics, the leadership in the sport must be distributed, thus spreading among the players and the team, who work together in their common processes of influence and interdependence.

Findings and results of the study of the role and importance of team leaders' skills for performance in sport

The key role of the skills and competencies of team leaders for performance in sport

Main roles of the leader in sports

Leadership roles are characterized in the first place by the fact that leaders do things differently because they are different in themselves. The leader's task is to influence and inspire players who expect guidance and support from him. What separates true sports leaders from others is awareness and concern for the needs of others.

One of the most convincing analyzes regarding the basic roles of the leader, incl. and in sports, it is a series of three actions that include (Adair, 1973:3): (1) determining what the team must perform; (2) achieving the set goal; (3) maintaining effective team relationships.

What the team wants to receive from its leader is defined as areas of need that need to be met. They can be described as follows (Adair, 1973:3-4):

- Need for the fulfillment of the goal - the achievement of high results;
- Individual needs - the need to harmonize the needs of each player with the needs of the goal and the team;
- Team needs - the need to build, maintain and motivate team spirit.

All these needs are interconnected - the goals of the team, individual and team needs are interdependent. If the need to achieve the goal is met, it will satisfy individual and team needs. However, the need to achieve the goal cannot be met without the necessary attention to individual and team needs. On the other hand, if the individual needs are met, it brings satisfaction to the group needs, and vice versa. If a sports leader focuses too much on the players and meeting individual or team needs at the expense of the goal, it can be quite dangerous. Therefore, the best sports leaders are those who keep these three needs satisfied, in balance and harmony and in accordance with the requirements of the situation.

The leader in sports as his main motivating figure

Every leader in sports must always keep in mind that the needs of his players cannot be covered in a hierarchy, because everyone changes individually. It depends on the athlete's life, the environment that affects him, the school in which he studied, family habits, customs and traditions, training conditions and sports, his closest teammates. The needs are dynamic, they can be combined in different ways, to be arranged individually. There can be no one strategy that is valid for every player and through it everyone in the team can be motivated. Both leadership styles and motivational approaches and models should be seen as useful options for developing certain specific leadership strategies, because each player on the team must be motivated. It is essential to find this specific motive that stimulates him the most and this is the key to motivating players and the most important task of the leader in sports. Motivational factors are those influences of the social subject of the general environment, as well as the sports environment itself on the players, which determine their motivation in the sports and training process, their desire to achieve a goal. If we look conceptually, we find their differentiation into two groups (Paunov, 2001:59-61):

- General motivating factors - here the influences of the general environment on the players are taken into account;
- Immediate motivating factors - here the influences of the leader and the club as a whole on the players are taken into account.

The general motivating factors can include: the level of needs, the state and development of the specific sport, the state and development of the money market.

Since in the context of the considered question for the leader as the main motivating figure in sports, the second group of factors (immediate) is more important, they can be referred to:

- The level and dynamics of the remuneration of athletes is considered one of the main motivating factors. In this way, the sports leader motivates to achieve the goals of the team and the club by encouraging and stimulating through monetary rewards and other benefits.

- Recognition of achievements is also a key motivating factor for leaders in sports, as it is associated not only with opportunities to provide higher remuneration, but also much greater responsibility in the sports process, development, improving team performance and achieving the goals.

- Presenting specific and higher requirements to the team - the full realization of the capabilities of this factor requires the sports leader to combine it with the encouragement of those who meet higher requirements in their performance and with the sanctioning (in a certain way) of those who do not meet the accepted standards. This is one of the motivational approaches through which a sports leader can strengthen the sense of justice in the team.

- Providing an opportunity for development and application of knowledge and skills of players is a motivating factor related to meeting their material and spiritual needs, as well as meeting their needs for prestige, self-esteem and self-expression.

- The granting of power. The expansion of influence is a motivating factor related to the needs of players to recognize their achievements, self-esteem, prestige and self-expression, the full realization of their athletic abilities.

- The expansion of the team form of work functions as a motivating factor primarily in connection with meeting the personal needs of the players in the team (respect from teammates, belonging, commitment, etc.).

- The socio-psychological climate can be considered as a complex motivating factor. In general, the normal climate, the absence of sharp conflicts in a team, caused by acute forms of sports "malice" and competition, improper management methods or interpersonal inconsistencies, favor formal and informal communication between the sports leader and his team and between the team and other groups of people in the club. The thesis has been proven that the good psychological climate motivates the higher sports activity of the players, and hence for a much better performance in general.

Motivation is among the main techniques used by leaders, incl. and for more effective implementation and achievement of team goals. The practical realization of motivation in the sports and training process implies a choice of techniques, methods, approaches that best reflect any problems that may arise. In addition, each leader must take into account the factors

influencing the motivational process (organizational structure of the club, team climate, requirements for players, etc.).

In summary, it can be added that an important prerequisite for increasing the motivation of the team by the leader is the creation of conditions in which each player feels significant. This can be achieved in many ways: through the leader's attention to the needs of the athletes that lead to motivation; by emphasizing challenges, responsibilities, development; through the urge for success and empathy; by individually distinguishing each of the teams in the process; by influencing players' expectations; through their training in order to improve their sports skills and qualities; through satisfaction with the sport as a whole and their adequate remuneration.

Maintaining an ongoing dialogue between the group and the leader can help each party to understand the other party's position on all issues related to the implementation of the team's goals. In this way, the optimal result can be achieved not only for the team, but also for the sports club as a whole.

Skills and competencies of the leader for higher team efficiency and achieving high sports results

There are many factors that can contribute to the potential success of the leader in terms of his qualities and competencies, incl. and during its training and development. Among the qualities that good leaders have are (Tamkin et al., 2010:12-13):

- A holistic view of things as a whole without being divided into constituent parts;
- Connecting the parts through a guiding sense of purpose;
- Strong motivation to achieve high results, focused on the goals, vision and mission of the team;
- Awareness that the leaders in sports cannot perform the overall performance of the tasks on their own, but are conductors for this performance through their influence on the players in the team;
- Attentive look and exceptional consistency for high sports achievements through your interactions with the team and their embodiment in the role of the leader.

If we have to summarize, it can be said that a leader in sports must have the following distinctive qualities: character; charisma; devotion; communication; competence; courage; foresight; focus; generosity; initiative; listening; passion; positive attitude; ability to solve problems; relationships; responsibility; confidence; self-discipline; ability to serve the team; ability to learn; vision.

Although theories and concepts of leadership have their limitations, they are of considerable value in the study of the qualities required of good leaders in sport. One of the main qualities that a sports leader needs is the ability to analyze and "read" situations and to establish order and clarity in those that can be considered unclear. Leadership requires "a sense of purpose and ability to influence others, to interpret situations, to negotiate, and to express personal views, often in the face of opposition" (Gold et al., 2010:6).

Conclusions

At the end of the study it can be summarized that in modern sports leadership serves to reveal the existing opportunities to improve the work of teams and achieve much higher results. In this way, an opinion is formed about how and how successfully or unsuccessfully the athletes are doing. In addition, leadership in sport has the opportunity to bring to the fore those players who can be given greater responsibilities, incl. and for career development. For this reason, it is in the interest of every sports club to have good and competent leaders. Leadership in sports gives an insight into the extent to which the professional knowledge, skills and training of the players are adequate to the requirements of the team. Along with this, the key role of the leader in sports as one of the most important participants in the process is extremely important for achieving these goals. As a motivator and in the competencies of many personal characteristics, he is a kind of buffer between the team and achieving the goals of the team. His role is central in the whole process of preparing and presenting the team, while at the same time he properly manages this process and its effectiveness.

The results and analyzes of this study reveal a clear picture in which the leader, his role and leadership skills, as well as team leadership have a unique influence on the achievement of team goals. His findings show that not only adaptability as a quality of a sports leader, but also the need for effective methods and approaches for the development of players' skills to achieve high sports results are of particular importance. Of course, this is based on the key role of leadership skills in performance and the best possible performance of teams in sport. The research proves that the main role of the leader and his skills are among the most important roles of exceptional importance in sports, which must be constantly upgraded, enriched and improved through various innovative approaches and practices.

The issue of leadership in sport is not limited to this framework. Future research on the topic can be focused on specific programs and innovative methods of improving these skills and competencies of a sports leader, on real research on how these models are tested and reflected in different sports, in assessing their effectiveness in achieving high sports results and achievements.

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The Relationship between Postural Stability, Performance and Trunk Muscle Endurance in Adult Female Athletes

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Abstract

Background: Postural stability is considered as the most important component of athletic performance as it occurs in almost all movement types. This study aims to identify the relationship between the postural stability, performance and trunk muscle endurance of female athletes in different branches of sports.

Materials and Methods: 45 female athletes participated in the study. Trunk muscle endurance of the participants was measured with the McGill core endurance tests and the prone bridge test. Postural stability of the participants was evaluated using Biodex Biosway Balance System, sportive performance was tested with the vertical jump and the hexagonal obstacle test.

Results: A negative relationship was observed between the prone bridge test and right postural stability overall index, between the prone bridge test and right anterior - posterior postural stability index, and also between the prone bridge test and left medial - lateral postural stability index parameters. No relationship was observed between sportive performance tests and postural stability, and between trunk muscle endurance and sportive performance tests.

Discussions: It can be said that in female athletes in order to have a better postural stability, trunk muscle endurance should be increased as postural stability and trunk muscle endurance are related with each other.

Keywords: Postural Balance, Performance, Trunk Muscle Endurance

Introduction

Sport is an activity that involves performing high level activities and maintaining static and dynamic balance simultaneously during training or competition (Hugel, Cadopi, Kohler, & Perrin, 1999; Perrot, Deviterne, & Perrin, 1998). Athletes need to have good physical fitness and some performance factors that need to be improved in order to acquire some sports-related movements (Sayers, 2000). Today, it is argued that both physical and psychological mechanisms affect an athlete's performance capability. For a successful performance, a gymnast needs to touch the ground without losing his or her balance at the end of the movement; a football player needs to take the correct position maintaining his/her balance depending on the ball coming towards him/her while at the same time checking the position of both his/her teammates and the opponent; or a basketball player needs to maintain his/her balance when s/he touches down the ground after the player jumps for a rebound with his/her opponent (Erkmen, Suveren, Göktepe, & Yazıcıoğlu, 2007).

Balance is defined as the ability to maintain the body gravity center within support limits(Shumway-Cook, Anson, & Haller, 1988).Static balance is the skill of sustaining a base of support with minimum movement (Coskun, Unlu, Golshaei, Kocak, & Kirazcı, 2019). Maintenance of postural balance is an important requirement for the efficient performance in undertaking most sporting activities (Sarabon, Hirsch, & Majcen, 2016).

Trunk muscles are composed of 29 pairs of muscle groups that support lumbo-pelvic-hip complex. This muscle group contributes to the stabilization of pelvis, vertebra and kinetic chain (Crisco, Panjabi, Yamamoto, & Oxland, 1992). The core region which is defined as the center of functional kinetic chain resembles a cylinder which is formed by the paravertebrals and gluteals at the back, the abdominals in the front, the diaphragm at the top, and the pelvic flor and hip circumference muscles at the bottom. The contraction of these muscles creates maximum stability proximally and leads to optimal controlled and effective movement in distal regions (Kibler, Press, & Sciascia, 2006; Richardson, Jull, Hodges, & Hides, 1999).

Studies that examine the importance of postural stability, sports performance and trunk muscle endurance parameters separately for athletes and that show the relationship between these parameters are not very common in the literature. To the best our knowledge, no studies have yet examined postural stability, performance and trunk muscle endurance in a single study and explored the relationship among these parameters.

This study aims to investigate the relationship between postural stability, performance and trunk muscle endurance in female athletes and to reveal differences specific to different branches of sport.

Material and Method

Participants

A total of 45 female athletes (15 volleyball, 15 handball, and 15 football players) and 15 healthy sedentary controls volunteered to take part in the study after being informed about the study in written form. The average age of the participants was 22.91 ± 5.86 years; average height was 1.69 ± 0,08 meters, and average weight was 62.08 ± 10.43 kilograms. Inclusion criteria were; 1. not being injured in the last 3 months; 2. being a professional athlete that does training 5 days a week for the last two years.

Each participant voluntarily provided written informed consent before participating and the study was approved by the Ethics Committee of the Gazi University.in the study

Procedure

Vertical Jump Test: While the athletes were standing upright on the side of the wall, the place where their fingertips touched was marked. Then, the athletes were asked to jump as much as possible in a way that their feet are in the air, and they were also asked to mark the last point they jumped to with the marker they were given. The difference between the marked points was taken in centimeters. The test was repeated three times and at the end, the best value was taken (Mackenzie, 2005). This test is known to have excellent interrater reliability (ICC = 0.97) (Sattler, Sekulic, Hadzic, Uljevic, & Dervisevic, 2012)

Hexagonal Obstacle Test (HOT): A hexagonal was formed on the ground in a way that the side length is 66 centimeters. While the participant was standing in the middle of the hexagonal, s/he was asked to jump out of all the sides facing the same side all the time and to return to the center again. When the participant first jumped, a chronometer was started. Participants were asked to repeat this behavior three times. When the third round was over, the chronometer was stopped. After the participant relaxed for 5 minutes, the second test was carried out and the average of the two tests was taken. When the participant jumped to the wrong side or stepped on the side, the test was repeated (Mackenzie, 2005). According to Paoule et al. intraclass correlations (ICC) ranged between 0.86 and 0.95 for the HOT (Pauole, Madole, Garhammer, Lacourse, & Rozenek, 2000).

Trunk flexion test: The participant was asked to cross his/her arms on his/her chest. The trunk of the participant was positioned at 60° flexion on the floor and the knees were positioned at 90° flexion. A chronometer was started. When the position of the participant was disrupted, the chronometer was stopped and the test was terminated. The trunk flexion test is known to have excellent interrater reliability (ICC = 0.97-0.98) (Evans, Refshauge, & Adams, 2007).

Trunk extensor test: The participants were positioned in prone position and their spina iliaca anterior superiors were at the side of the bed. The participants were asked to move their upper trunk forward and straight over the side of the table. This position was fixed over the knees with a belt. A chronometer was started. When the position of the participant was disrupted, the chronometer was stopped and the test was terminated. This test has been shown to have good reliability (ICC = 0.83) (Latimer, Maher, Refshauge, & Colaco, 1999).

Side Bridge test: The participant was asked to lie on his/her dominant side and put one foot over the other. Also, s/he was asked to put his/her non-dominant arm over his/her dominant shoulder by crossing the arm and to stand on the dominant forearm and elbow. A chronometer was started. When the position of the participant was disrupted, the chronometer was stopped and the test was terminated. This test has excellent intra-rater reliability (ICC = 0.97) (McGill, Childs, & Liebenson, 1999).

Prone bridge test: The participant was asked to lie down in prone position in which his/her hands and feet were open at shoulder width. Then, the participant was asked to raise his/her body by raising himself/herself on hands, forearms and toes. A chronometer was started. When the position of the participant was disrupted, the chronometer was stopped and the test was terminated. The test has been shown to have excellent reliability (ICC = 0.98) (Tong, Wu, & Nie, 2014).

Postural stability test: Postural stability of the participants was evaluated using the Biodex Biosway Portable Balance System (950- 460 USA) device. This device tests participants' ability to maintain the center of balance. The stability index used in this test shows the participant's level of distance from the center. In this test, the participant stood on one leg on

the platform for 20 seconds without moving and without joining his legs. This test has been shown to have good reliability (ICC = 0.85) (Arifin, Osman, & Abas, 2014)

Statistical Analysis

Statistical analyses were conducted using Statistical Package for the Social Sciences (SPSS) version 22. Whether the data have shown normal distribution or not was examined using the Kolmogorov-Smirnov test. The variables that showed normal distribution were calculated using the Pearson test, while the variables which did not show normal distribution were subjected to the Spearman test in order to calculate the correlation coefficient and statistical significance. For numerical variables, range values (IQR) like average, standard deviation, median, and interquartile range (IQR) were used as complementary statistics. The Kruskal Wallis Test was used in order to determine whether there was any significant difference between the averages pertaining to one dependent variable in the independent group. In numerical variables, the Mann-Whitney U test was used to make a comparison between two independent groups. Type-1 error level was identified as 5% ($p \leq 0.05$) for statistical significance. The power of the work was found to be %99 when the effect size was taken as 0.50.

Findings

Table 1. Demographic characteristics of the participants

n=60	Mean ± SD	Median	IQR (25/75)	Min	Max
Age (year)	22.91 ± 5.86	23.00	17.00/ 27.75	14.00	35.00
Height (m)	1.69 ± 0.08	1.70	1.65/ 1.75	1.48	1.93
Body mass (kg)	62.08 ± 10.43	62.02	55.50/ 66.95	40.00	93.50
Body mass index (kg/m²)	21.44 ± 2.26	21.32	20.15/ 22.49	16.79	29.49

Table 2. The relationship between parameters in athletes

n=45		Age	Bmi	Vj	Hot	Tf	Te	Pb	Sbd	Rps	Rpsap	Rpsml	Lps	Lpsap	Lpsml
Age	r		0.39*	0.23	-0.13	0.10	0.30*	0.34*	0.06	-0.35*	-0.37*	-0.24	-0.19	-0.12	-0.28
	p	1	**0.007**	**0.141**	**0.39**	**0.49**	**0.04**	**0.01**	**0.67**	**0.01**	**0.01**	**0.10**	**0.19**	**0.41**	**0.05**
Bmi	r			0.002	-0.07	-0.01	-0.03	0.10	-0.01	-0.15	-0.14	-0.06	0.08	0.12	-0.03
	p		1	**0.99**	**0.63**	**0.92**	**0.80**	**0.50**	**0.44**	**0.31**	**0.33**	**0.66**	**0.57**	**0.40**	**0.83**
Vj	r				-0.29	0.24	0.21	0.06	0.18	-0.10	-0.02	-0.05	0.20	0.18	0.06
	p			1	**0.06**	**0.11**	**0.15**	**0.67**	**0.23**	**0.48**	**0.88**	**0.72**	**0.16**	**0.22**	**0.67**
Hot	r					0.04	-0.14	-0.05	-0.15	0.11	0.15	0.10	0.08	0.09	0.10
	p				1	**0.78**	**0.35**	**0.71**	**0.31**	**0.44**	**0.29**	**0.50**	**0.57**	**0.54**	**0.48**
Tf	r						0.48*	0.38*	0.27	-0.18	-0.15	-0.03	0.33*	0.28	0.14
	p					1	**0.001**	**0.001**	**0.06**	**0.22**	**0.31**	**0.83**	**0.02**	**0.05**	**0.35**
Te	r							0.44*	0.45*	-0.23	-0.30*	-0.01	0.10	0.08	-0.04
	p						1	**0.002**	**0.002**	**0.12**	**0.04**	**0.92**	**0.50**	**0.58**	**0.78**
Pb	r								0.65*	-0.38*	-0.44*	-0.04	-0.17	-0.11	-0.30*
	p							1	**0.001**	**0.009**	**0.002**	**0.78**	**0.24**	**0.44**	**0.04**
Sbd	r									-0.22	-0.26	0.05	-0.05	-0.03	-0.09
	p								1	**0.14**	**0.07**	**0.71**	**0.717**	**0.83**	**0.55**
Rps	r										0.87*	0.67*	0.11	-0.01	0.31*
	p									1	**0.001**	**0.001**	**0.47**	**0.94**	**0.03**
Rpsap	r											0.29*	0.13	-0.003	0.35*
	p										1	**0.04**	**0.36**	**0.98**	**0.01**
Rpsml	r												0.05	0.00	0.08
	p											1	**0.72**	**0.99**	**0.59**

Lps	r													0.83*	0.71*
	p												1	**0.001**	**0.001**
Lpsap	r														0.31*
	p													1	**0.03**
Lpsml	r														
	p														1

Abbreviations: **Bmi:** Body Mass Index, **Vj:** Vertical Jump, **Hot:** Hexagonal Obstacle Test, **Tf:** Trunk Flexion, **Te:** Trunk Extension, **Pb:** Prone Bridge, **Sbd:** Side Bridge Dominat, **Ps:** Postural Stability, **Rpsap:** Right Postural Stability Anterior Posterior, **Rpsml:** Right Postural Stability Medial Lateral, **Lpsap:** Left Postural Stability Anterior Posterior, **Lpsml:** Left Postural Stability Medial Lateral, ***:** Significance With P < 0.05

Table 3. Pairwise comparison of the parameters that were found to be different in different sports branches

	Trunk flexion	Trunk extension	Prone bridge	Side bridge dominant	Vertical Jump	Hexagonal obstacle
Volleyball - Handball P value	**>0.0083**	**>0.0083**	**>0.0083**	**>0.0083**	**>0.05**	**<0.01****
Volleyball – Football P value	**>0.0083**	**>0.0083**	**>0.0083**	**>0.0083**	**<0.01****	**<0.01****
Handball – Football P value	**>0.0083**	**>0.0083**	**>0.0083**	**>0.0083**	**<0.01****	**>0.05**
Control- Handball P value	**<0.0083****	**<0.0083****	**<0.0083****	**<0.0083****	**<0.01****	**<0.05***
Control – Football P value	**<0.0083****	**<0.0083***	**>0.0083**	**<0.0083****	**>0.05**	**<0.01****
Control – Volleyball P value	**<0.0083****	**<0.0083****	**<0.0083****	**>0.0083**	**<0.01****	**<0.01****

For the parameters that do not show normal distribution, as the new equation is $\alpha=\alpha/6=0{,}0083$ with Bonferroni adjustment, $p<0{,}0083$ was denoted as significant. According to the table, trunk flexion, trunk extension, prone bridge, and side bridge dominant parameters do not show normal distribution. *: Significance with $P < 0.05$, **: Significance with $P < 0.01$

Results of the analysis pertaining to the athletes

A negative moderate relationship was found between trunk extension and right anterior posterior postural stability index (r=-0.30, p=0.04) parameters (Table 2).

A negative moderate relationship was found between prone bridge parameter and right postural stability overall index (r=-0.38, p=0.009), between the prone bridge test and right anterior posterior postural stability index (r= -0.44, p=0.002), and also between the prone bridge test and left medial lateral postural stability index (r=-0.30, p=0.04) as seen in Table 2.

No significant relationship was observed between the test parameters that evaluate trunk muscle endurance and those evaluating sports performance (Table 2).

No significant relationship was found between the parameters evaluating postural stability and those that evaluate sports performance (Table 2).

Differences in Sports Branches

Differences were observed in football, volleyball and basketball branches in terms of age, the vertical jump test, the hexagonal obstacle test, and all the trunk muscle endurance test parameters (Table 3).

A significant difference was observed between volleyball and handball players in terms of the hexagonal obstacle test variable ($p < 0.01$). It was found that volleyball players completed the hexagonal obstacle test in a shorter time compared to the football players (Table 3).

A significant difference was observed between volleyball players and football players as far as the vertical jump test and the hexagonal obstacle test variables are concerned ($p<0.01$). It is further seen that volleyball players were more successful in both the vertical jump and the hexagonal obstacle test (Table 3).

A significant difference was observed between handball and football players in terms of the vertical jump test variables ($p< 0.01$). It was observed that in the vertical jump test, handball players jumped higher than football players (Table 3).

A significant difference was observed between the control group and handball players in terms of the variables in the whole trunk muscle endurance test, the vertical jump test and the hexagonal obstacle test. It was revealed that better results were obtained from the control group in the tests measuring the performance and trunk muscle endurance of handball players (Table 3).

A significant difference was observed between the control group and football players in terms of the variables in the trunk flexion, trunk extension, side bridge, and hexagonal obstacle tests. Football players were found to be more successful in these tests compared to the control group (Table 3).

A significant difference was found between the control group and the volleyball players in terms of the trunk flexion, trunk extension, prone bridge test, vertical jump test and hexagonal obstacle test variables. It was observed that volleyball players were more successful in all the parameters compared to the football players with significant differences (Table 3).

Discussion and Conclusion

According to the results of the study, which focuses on the female athletes in football, volleyball and handball branches, there is a significant relationship between trunk muscle endurance and postural stability. Furthermore, when these three sports branches are compared with each other, it was seen that there are significant differences in performance parameters like the vertical jump and hexagonal obstacle test, in all the trunk muscle endurance tests and in risks of fall. Volleyball players are the most successful athletes in sportive performance test. It was also observed that handball players have the best time records in trunk muscle endurance tests.

Kaji et al. examined the acute effects of core stability exercises on postural sway in 17 healthy individuals by observing postural sway before and after core stability exercises. They found that core stability exercises significantly reduce medial lateral sway (Kaji, Sasagawa, Kubo, &

Kanehisa, 2010). Granacher et al. examined the relationship between trunk muscle strength, spinal mobility and balance performances of 34 elderly individuals and found a significant relationship between static and dynamic balance and trunk muscle strength. In another study, Granacher et al. systematically compiled and examined 20 articles and found that trunk muscle strength is significantly related with balance, functional performance and the prevention of falling in the elderly (Granacher, Lacroix, Roettger, Gollhofer, & Muehlbauer, 2014). In present study, a relationship was observed between the prone bridge test showing trunk muscle endurance in the athletes, and trunk extension muscle strength and postural stability. This finding means that as trunk muscle endurance rises, postural stability improves. However, in our study, no significant relationship was found between trunk flexion and lateral bridge tests, and postural stability. As Ekstrom et al. mentioned in their study, this result may be attributed to the fact that different core tests include different muscular activations (Ekstrom, Donatelli, & Carp, 2007).

Furthermore, our study found that compared to the athletes, only right medial lateral postural stability and prone bridge test are related with each other in sedentary controls. This finding may be attributed to weak core muscle endurance and to the fact that core muscles only have an effect on hip knee kinematics on frontal plane while measuring balance standing on one foot.

One of the most significant variables for performance measurements in team sports is condition. Condition is generally measured through some functional measurements targeting lower extremity. One of these measurements is the vertical jump test, which is used to identify lower extremity muscle strength (Özçakar et al., 2003). Sharrock et al. examined the relationship between core stability and athletic performance in 35 athletes, and they revealed no significant relationship between the vertical jump test and trunk muscle endurance (Sharrock, Cropper, Mostad, Johnson, & Malone, 2011). In their study, Parkhouse et al. investigated the effects of core exercises done on static and dynamic ground by 12 adults on performance. They found no significant change in vertical jump values in two groups who did core training on static and dynamic ground at the end of six weeks (Parkhouse & Ball, 2011). In Prieske et al.'s study, 39 football players did core training for nine weeks. The results showed that there was no significant relationship between trunk muscle endurance and vertical jump (Prieske et al., 2016). The results of the study were not compatible with the results of studies in the literature as no relationship was found between the vertical jump test and the McGill core stability test evaluating trunk muscle endurance. The reason behind this finding may be the fact that the vertical jump test evaluates the efficiency of anaerobic energy systems revealed by blasting power rather than evaluating the muscular endurance of lower extremity muscles. Nesser et al. examined the relationship between core stability and performance in 29 adult male football players and found a significant relationship between trunk muscle endurance and vertical jump. However, they did not reveal any significant relationship between other performance parameters and core stability. Thus, they argued that performance tests must be chosen considering the sports branch while evaluating the effect of core stability on performance (Nesser, Huxel, Tincher, & Okada, 2008). This may be one reason for not finding a relationship between core stability and vertical jump in female athletes in the branches of volleyball, handball and football in our study.

Athletes need some performance factors that must be improved and a good physical conformity in order to acquire movements specific to sports. One of these factors is agility. The reason why agility s important in volleyball, handball and football is that athletes need to maneuver without losing control and balance throughout the game. For instance, for volleyball players, spike requires fast reaction or agility in order to rise to block the direction from which the ball is coming (Sayers, 2000). Ozmen et al. investigated the effects of core strength training on

balance, agility and core endurance on 20 adolescents. They revealed significant differences between dynamic balance and core endurance of individuals who received core training; however, no significant difference was found in agility (Ozmen & Aydogmus, 2015). Prieske et al. applied a nine-week core training program to 39 football players, and they examined the effect of this training program on agility. They found that core training has no significant effect on agility. Imai et al. conducted a study with 55 football players to examine the relationship between trunk performance and athletic performance. They found no relationship between agility and right and left side bridge tests which are among the trunk muscle endurance parameters (Prieske et al., 2016). Parallel to the findings in the literature, our study also revealed no significant relationship between the tests evaluating trunk muscle endurance and the hexagonal obstacle test which is one of the performance parameters and which shows agility. The reason behind not observing such a relationship may be the fact that there are differences between the three sports branches in the study.

Yaggie et al. investigated the effect of balance training on performance with 36 individuals. After the participants received balance training for four weeks, it was found that balance training had no significant effect on vertical jump height (Yaggie & Campbell, 2006). Zech et al. examined the effect of balance training on performance through a systematic compilation study, and they found that balance training has no significant effect on vertical jump (Zech et al., 2010). The findings of our study support the findings in the literature. In our study, no relationship was observed between the vertical jump test and balance parameters. This finding may be attributed to the fact that the athletes we evaluated had different sports branches and they have not been subjected to such a joint training program before.

In their study conducted in 2015, Engquist et al. compared the performance and balance of students who did sports and who led a sedentary life. 151 females and 119 males participated in the study. The study revealed that females who did sports had significantly better performance and balance compared to the sedentary females. Increased muscle mass and condition in individuals who do sports help them show better performance compared to sedentary individuals (Engquist, Smith, Chimera, & Warren, 2015). Our study further revealed that individuals who do sports have significantly better performance compared to sedentaries as expected. The comparison between the sports branches showed that female handball players are better in terms of trunk stability, while volleyball players are better in terms of performance parameters. This may be attributed to the fact that the football players in our study were younger and psychomotor developmental characteristics. The reason behind volleyball players' success in performance tests may be that volleyball includes movements that require jumping. Handball players, on the other hand, had the best results in the trunk muscle endurance tests, which may be because handball players had more core endurance training in their training programs compared to the other sports branches.

It may be argued that in order to have a better postural stability, trunk muscle endurance must be improved as there is a link between postural stability and trunk muscle endurance in female volleyball, handball, and football players. According to others, volleyball players are better in terms of performance and also handball players are better in terms of trunk stability.

Conflict of interest

There is no conflict of interest intellectually or financially.

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