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## **EXAMINING DIFFERENT TECHNOLOGY AREAS IN SPORTS IN THE ATHLETE MENTAL HEALTH DIMENSION**

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### **Abstract**

*Sports technologies have been in constant 'change and development' since the day they first emerged until today. With each passing year, sports technologies develop by taking reference from each other through new technologies. With the development of sports technologies, generations are encountering more 'new and advanced' technologies every day. Sports have an important place in protecting the physical and psychological health of individuals. Mental health has an important place in sports as well as physical health. In this respect, the aim of the current research is; It is aimed to examine different technology areas in sports in terms of mental health. As a data collection tool for this purpose; For Turkish sources, DergiPark, Higher Education Institution*

*National Thesis Center (YÖKTEZ) and Google Scholar, and for English sources, in Web of Science and PubMed databases, with the keywords "Sports Technology", "Sports Mental Health", "Sports Entertainment" and "Technology Addiction". scanning has been done. As a result of the research; It is seen that technology in sports is used for different purposes such as 'entertainment, exercise and performance sports'. In some cases, the use of technology for more equipment or time than necessary reveals that it can create technology addiction in individuals and negatively affect their mental health. On the other hand, it is thought that conscious technology users can turn their current sports/exercises into productive and entertaining ones with sports technologies developed for different purposes. In this respect, as with all newly developing technologies, it has been concluded that determining the needs well and being a conscious sports technology user while using these technologies is important for mental health.*

### **Keywords**

Sports Technology, Sports Mental Health, Technology Addiction, Sports Entertainment

## **1. Introduction**

Technology generally finds its place in every aspect of life. So much so that; in today's world, a life without technology has become unthinkable. When technology is considered as a definition, it is the presentation of a good or service as a whole for the current need with the knowledge and experience needed (Camkıran, Sersan, & Yıldız, 2021).

Technology finds its place in every field in daily life. One of the areas where technology has the most impact is 'sports technologies'. While different areas of sports inspire many technological developments, they can also be directly affected by technological developments. Technology is used intensively for different purposes before, during and after sports and exercise (Yıldız & Algün Doğu, 2022). Sports technologies can sometimes be developed for the general sports world and sometimes for a specific branch. In some cases, the technology developed for a specific field of sport may be adapted to a different field of sport.

Being successful in the developing and constantly progressing sports environment and being able to exist in an intense competitive environment is directly related to the technological power (Şimşek & Deveci, 2018). It can be said that countries are in a state of competition in different fields today in technology races that peaked with the cold war period.

Öztürk (2021) shows us that the development of technology in sports assumes that the development of technology in sports will increase the pleasure of watching competitions, especially cycling. From this point of view, sports technologies are not only at the point of tracking the athlete, but also create the basis for the audience to better understand and interpret the environment and conditions in which the sport is carried out by instantly reflecting the data received from the athletes on the screen. It is thought that such developments not only increase the athletic performance of the athlete, but also pave the way for the audience to benefit directly from sports technologies.

The aim of this research is to examine the need for technology in sports and mental health with the development of different technology areas in sports.

## **2. The Need for Technology in Sport**

While technology in sport has an impact on almost all sports, it is more prominent in some sports branches than others in terms of creating a competitive advantage (Giblin, Tor, & Parrington, 2016). In recent years, the need for technology in human life has been increasing. One of the areas where the need for technology is increasing is sports technologies. The way to achieve a high-level result in a short time is to have enough sports technologies (Camkıran, Sersan, & Yıldız, 2021).

In the world, sport is in a continuous development and transformation in every field. Especially with the widespread use of mass media, different sports branches can spread rapidly all over the world, not only in the region where they originated. Especially in the case of the Olympic Games, the addition of a new sports branch to each new Olympic Games can be shown as a reference to this situation.

With the help of smart sensors, which are developing and increasing in popularity in the field of sports, it is aimed to examine not only the athlete's sporting performance but also the muscle groups and joint movement systems related to these muscle groups and to prevent the injuries of the athlete (Camkıran, Sersan, & Yıldız, 2021).

In addition to these technologies, we can see technologies where movement and biomotoric properties can be tested. To give an example of this situation, biomechanical measurements of the athlete can be made with underwater cameras, which were not possible in swimming sports in the past but are possible with developing technologies (Ride et al. 2013).

### **3. Mental Health And Entertainment in Sports Technology**

In recent years, rapid developments in 'communication and information' technologies have affected all sectors. In this respect, the services offered have gone beyond time and space (Kılıç, Mızrak, & Ünver, 2017). It is thought that the sports entertainment sector has a great share in the characterization of the period we are in as the 'age of technology'.

In the age of technology, the habits of individuals differ from those of the past. Instead of spending time outdoors and participating in outdoor activities, individuals prefer to spend time in online online games and virtual reality technologies developed for sports (Munusturlar & Gültekin, 2016). With such activities, the traditional understanding of exercise and sports has changed and sports have moved to the digital environment. Today, the biggest example of this situation can be characterized as e-sports. 'Turkish E-Sports Federation' was established in 2018, which can be characterized as a recent history in Turkey (TESFED, 2024).

When the concepts of sports technologies and entertainment are brought side by side, computer games in different branches (football, basketball, motor sports, etc.) come to mind, but with virtual reality, it is possible to experience almost one-to-one sports experience in 3D. With the development of virtual reality technology in the field of sports, a new sports entertainment area has emerged (Ekinici & Özer, 2019).

It brings with it a sedentary and sedentary lifestyle by moving away from the 'physical and real' environment. In addition to evaluating the exercise performance of the individual and the athlete, technologies developed for sports also provide the opportunity to monitor the general health status. From this point of view, today's smart technologies provide the opportunity to measure and monitor the individual's sleep status and quality, stress level. Measurements are thought to create a revolutionary, innovative and accessible structure to monitor the mental health of the individual or athlete. The physical health status of an individual is thought to have an impact on mental health. In this respect, it is assumed that technology has the potential to identify the cause of the mental health problems of the individual or athlete and solve them in advance.

### **4. Technology Addiction in Sport**

The innovations that have emerged with technological developments have brought a different dimension to the lifestyles of individuals and athletes (Karaman & Kurtoğlu, 2009). Today, it is seen that every sports branch and athlete, especially professional ones, take part in

social media platforms for different purposes. These platforms can be personal pages as well as for the general sports branch. Gündüzalp and Yıldız (2020) showed in their study that technology addiction increases as the time spent on social media networks increases. Especially individuals in the group characterized as young are more and easily accessible to technological devices than the elderly. This means that technology finds more space in daily life.

When the literature is examined, opinions may differ on whether internet addiction and technology addiction should be treated as the same or different. In his study, he found that beyond the internet, devices such as smart phone applications on cell phones, television, digital games that can be played offline or online have addictive potential (Dinç, 2015). In another study, Göymen and Ayas (2019) found that there is a significant relationship between computer game addiction and smartphone addiction level.

In the current period, with the rapid development of technology access and devices, devices such as smart watches, smart glasses, smart headphones, GPS positioning systems, especially smart watches, have become indispensable for sports activities. In addition to these, it is thought that the need for intensive use may occur due to the inclusion of exercise programs suitable for daily use. It is assumed that this situation may constitute a different dimension of technology addiction in the future.

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