e-Journal of New Media / Yeni Medya Elektronik Dergi – eJNM
ISSN: 2548-0200, May 2025 Volume 9 Issue 2, p.266-288
Research Article

EXAMINING THE EFFECT OF DIGITAL GAME ADDICTION ON LIFE SATISFACTION: DIGITAL GAMES PROVIDE EMOTIONAL SATISFACTION TO PLAYERS

Yunus Emre ÖKSÜZ
İstinye Üniversitesi, Türkiye
2433221009@stu.istinye.edu.tr
https://orcid.org/0000-0002-2952-3759

Gözde MASATCIOĞLU
Doğuş Üniversitesi, Türkiye
gmasatcioglu@dogus.edu.tr
https://orcid.org/0000-0003-3457-3539

Atıf	Öksüz, Y. E. & Masatcıoğlu, G. 2025). Dijital Oyun Bağımlılığı ve Yaşam Doyumu Arasındaki İlişkinin İncelenmesi: Dijital Oyunlar Oyunculara Duygusal Doyum Sağlar, *Yeni Medya Elektronik Dergisi, 9* (2), 266-288.

ABSTRACT

With the development of technology and the ease of access to technological devices, it is seen that a large audience, mostly young people and young adults, are intensely interested in digital games. Digital games can be played through various technological devices such as personal computers, game consoles or cell phones. It is known that digital games, which are a popular means of entertainment for a wide audience in the world and our country, have caused some problems in the lives of some individuals, especially in recent years. This study aims to understand the underlying causes of digital game addiction, which is often examined within the framework of technological addictions, and to examine the relationship between digital game addiction and life satisfaction, which stands out as a concept that concerns many disciplines with its psychosocial dimensions. The study sample consists of 248 university students aged 18-35 who play digital games for 28 hours or more per week. The participants have been playing at least one digital game for the last 6 months and own at least one personal computer or game console. The research is quantitative

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

research, and the relational survey method was preferred as a method. In the study, the digital game addiction scale for university students consisted of 3 different sub-dimensions, and the adult life satisfaction scale was used. Both scales are Likert-type scales. At the end of the study, there was no direct relationship between digital game addiction and life satisfaction. However, it was observed that there was a significant relationship between the sub-dimensions. In the study, it was concluded that playing digital games increased the life satisfaction of the participants.

Keywords: *Game Addiction, Digital Games, Video Games, Online Games, Life Satisfaction.*

DİJİTAL OYUN BAĞIMLILIĞI VE YAŞAM DOYUMU ARASINDAKİ İLİŞKİNİN İNCELENMESİ: DİJİTAL OYUNLAR OYUNCULARA DUYGUSAL DOYUM SAĞLAR

ÖZ

Teknolojinin gelişmesi ve teknolojik cihazlara erişimin kolaylaşmasıyla birlikte çoğunluğu gençler ve genç yetişkinlerden oluşan geniş bir kitlenin dijital oyunlara yoğun ilgisinin olduğu görülmektedir. Dijital oyunlar, kişisel bilgisayarlar; oyun konsolları ya da cep telefonları olmak üzere birçok farklı teknolojik cihaz aracılığıyla oynanabilmektedir. Dünyada ve ülkemizde geniş bir kitle için popüler bir eğlence aracı olan dijital oyunların özellikle son yıllarda bazı bireylerin hayatında birtakım problemlere neden olduğu bilinmektedir. Bu araştırma sıklıkla teknolojik bağımlılıklar çerçevesinde incelenen dijital oyun bağımlılığının altında yatan nedenleri anlamayı ve dijital oyun bağımlılığı ile psikososyal boyutlarıyla birçok disiplini ilgilendiren bir kavram olarak öne çıkan yaşam doyumu arasındaki ilişkiyi incelemeyi amaçlamaktadır. Araştırmanın örneklemini 18-35 yaş arasında, haftada 28 saat ve üzerinde dijital oyun oynayan 248 üniversite öğrencisi oluşturmaktadır. Araştırmaya katılan katılımcılar son 6 aydır en az bir dijital oyun oynamaktadır ve en az bir kişisel bilgisayara ya da oyun konsoluna sahiptir. Araştırma nicel bir araştırma olup yöntem olarak ilişkisel tarama yöntemi tercih edilmiştir. Araştırmada 3 ayrı alt boyuttan oluşan üniversite öğrencileri için dijital oyun bağımlılığı ölçeği ve yetişkin yaşam doyumu ölçeği kullanılmıştır. Her iki ölçek likert tipi ölçektir. Araştırmanın sonunda dijital oyun bağımlılığı ile yaşam doyumu arasında doğrudan bir ilişki görülmemiştir. Ancak alt boyutlar arasında anlamlı bir ilişkinin olduğu

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

görülmüştür. Araştırmada dijital oyun oynamanın katılımcıların yaşam doyumunu arttırdığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: *Oyun Bağımlılığı, Dijital Oyunlar, Video Oyunları, Online Oyunlar, Yaşam Doyumu*.

INTRODUCTION

New technologies that have developed from the recent past to the present deeply affect daily life and these effects bring about the emergence of new behavioral patterns. In this context, it is seen that digital games have gained popularity with a rapid increase and have become a common means of entertainment, especially among the young population. On the other hand, it is seen that excessive and uncontrolled use of digital games brings along serious problems called under different titles such as game addiction and internet game addiction (Griffiths et al., 2015). It is seen that many variables are effective in new behavior patterns that develop with new technologies. This situation brings about the question of the effect of psychosocial variables, which are known to be an important factor, especially in digital addictions, on life satisfaction in digital game addiction (Jeong et al., 2017).

Digital games have become an important cultural and economic phenomenon that transforms individuals' understanding of entertainment, forms of social interaction, and daily life habits with widespread access to technology. This process, which extends from traditional board games to modern video games, is considered not only as a means of entertainment but also as a dynamic that affects individuals' psychosocial development and cognitive processes (Granic et al., 2014). Today, games are not only individual experiences but also social ecosystems that bring together huge communities of players globally. Especially online multiplayer games (MMO, MOBA, etc.) are platforms where individuals socialize, compete, and assume various roles in different game worlds through digital identities. However, these interactive environments offered by digital games can sometimes evolve into a situation where individuals have difficulty controlling their gaming behaviors and bring up the concept of game addiction (Markey, 2016).

Gaming addiction is a condition characterized by the inability of individuals to control their gaming behaviors, becoming addicted to games at a level that disrupts daily life activities, and this situation negatively affects cognitive, emotional, and social functioning. Its inclusion in the DSM-5 diagnostic criteria as “Internet Gaming Disorder” by the World Health Organization (WHO) shows

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

that this condition requires to be addressed not only as an individual but also as a global public health problem (Feng et al., 2017).

The concept of addiction is addressed by many different disciplines such as psychology, neuroscience, sociology, and economics, and is discussed by developing various approaches that sometimes contradict each other. While some researchers see game addiction as a problem of individual self-control, others see it as a phenomenon related to game design, in-game reward mechanisms, and digital capitalism's strategies to keep users hooked. From a cultural perspective, game-playing habits differ from one society to another. Especially in countries with a high youth population, it is observed that the rates of digital game playing and thus addiction increase (Hendriks, 1990).

When considered in the context of Turkey, it is seen that the widespread use of digital games, the increase in internet access, and the use of smart devices as an integral part of daily life have increased the time spent playing games. These developments significantly increase the risk factors for addiction. Studies conducted in Turkey show that young adults and students have a high interest in digital games and that the popularity of online competitive games is increasing. Studies on the effects of digital game addiction on individuals' life satisfaction, academic achievement, social relationships, and psychological well-being emphasize that addiction is a multidimensional phenomenon and is affected by cultural, economic, and individual factors (Altınok, 2021; Satılmış et al., 2023).

Game studies is an interdisciplinary research field that examines the cultural, narrative, technical, and experiential dimensions of games that emerged in response to the rapidly developing digital game industry in the early 2000s. The main debates in this field have been shaped around the axis of “ludology vs. narratology”. Juul (2011), representing the ludology side, defines digital games not only as storytelling tools but also as rule-based, interactive systems. For him, a game is a “structure” in which the player's choices have consequences; in this respect, the game experience is not passive like a novel or a movie, but active and variable. Frasca (2013) draws attention to the simulation nature of games and argues that the alternative worlds presented to the player resemble real-life practices, making games not only a form of entertainment but also a form of cultural expression. Ian Bogost (2007), with his concept of “procedural rhetoric”, argues that games teach certain ways of thinking through their rules and that game design can shape the perceptions and values of the player. This theoretical framework helps to understand games not only as a leisure activity but also as a cultural product with social, political, and cognitive implications.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

This study aims to investigate the relationship between life satisfaction, which stands out as an important psychosocial concept, and digital game addiction. It is believed that the findings obtained at the end of this study will help studies on combating digital addictions, especially digital game addiction

DEFFINITIONS

Digital Game Addiction

The concept of play is generally defined as a process that is played within the framework of certain rules, in which players aim to achieve certain goals, sometimes competitively and sometimes cooperatively. Games are recognized as a structured activity that not only provides entertainment but also facilitates learning and experiential processes. They play a significant role in fostering cognitive, emotional, and social development across all stages of life, from childhood to adulthood (Ruckenstein, 1991).

Developmental psychologists such as Piaget and Vygotsky have argued that play plays a central role in children's cognitive development, contributing to the development of skills such as problem-solving, imagination, and social interaction. Traditional games range from those that require physical movement and social interaction (e.g., hide-and-seek, chess, and card games) to modern types of games that have moved to digital environments (Piaget & Play, 1962; Vygotsky & Cole, 1978).

Digital games emerged with the transformation of traditional games into a form that can be played electronically by combining with computer technology. Since the mid-20th century, with the development of personal computers and video game consoles, the gaming experience has gained a new dimension through digitalization (Robinson, 2008). While one of the first digital games, Pong (1972), was a simple table tennis simulation, today digital games have evolved into highly complex structures with large open worlds, AI-powered characters, and advanced graphics. Today, digital games can be categorized into different genres ranging from single-player story-based experiences to multiplayer online games (MMOs) (Wolf, 2007). With easier access to technological devices and widespread individual use, digital games play an important role in entertainment, education, and professional use by providing interactive experiences accessible through computers, game consoles, mobile devices, and virtual reality platforms (Robinson, 2008).

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

Digital games are not only seen as a means of individual entertainment. They also have an important function in social contexts. Especially online multiplayer games (e.g. League of Legends, World of Warcraft, Call of Duty) allow individuals to socialize in virtual worlds. While such games help players develop teamwork, problem-solving, and strategic thinking skills, they can also bring negative effects such as overuse and the risk of addiction. Emerging technologies have transformed digital games from mere entertainment tools to powerful tools for education, therapy, and simulation. Today, digital games are considered a multidimensional phenomenon with cultural, economic, and psychological aspects and are an important subject of academic studies (Granic et al., 2014).

Addiction is widely defined in the literature as a psychological and neurobiological condition characterized by the development of an uncontrollable urge for a particular substance, activity, or behavior and its negative impact on daily life. While addiction has traditionally been considered a condition that develops due to substances such as alcohol, tobacco, and drugs, behavioral addictions such as technology addiction, social media addiction, and digital game addiction are increasingly being investigated (American Psychiatric Association, 2013).

The World Health Organization (WHO) and the American Psychiatric Association (APA) associate addiction with changes in reward, motivation, and memory systems in the brain. While substance addiction is known to show physical and psychological withdrawal symptoms, behavioral addictions are known to show symptoms such as loss of cognitive control, impulsivity, and compulsive use. For example, in individuals with digital game addiction, symptoms such as an inability to control the duration of gameplay, avoidance of activities other than gaming, and restlessness when not playing games are observed (Feng et al., 2017).

Approaches to addiction can be viewed from biological, psychological, and sociocultural perspectives. The biological approach focuses on the effects of addiction on the dopaminergic system in the brain and specifically examines how reward mechanisms change. According to this approach, the reward system is overstimulated in addicted individuals and this increases the individual's sensitivity to the addictive stimulus (MacNicol, 2017). The psychodynamic approach links addiction to the individual's unconscious conflicts and early experiences. From this perspective, an individual's development of gaming addiction can be considered an effort to fill the emotional gaps experienced in early childhood (Khantzian, 2003). The cognitive-behavioral approach considers addiction as a learned behavior and analyzes the environmental and internal

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

factors that reinforce the individual's gaming habits. In particular, stress, loneliness, and escape motivations are among the factors that trigger individuals to become addicted to games (Carroll, 1998). Sociocultural approaches evaluate addiction in the context of the social environment and cultural factors. For example, the spread of digital gaming culture on a global scale causes gaming addiction to be more common among younger generations (Stan et al., 2020).

When the causes and consequences of addictions on a global scale are examined, it is seen that awareness and prevention strategies for digital game addiction are handled more systematically in developed countries. For example, in South Korea, gaming addiction is recognized as an official public health problem, and legal regulations such as the "Shutdown Law" are implemented by the government to prevent excessive gaming by young people (Kim et al., 2006). In Western countries, psychosocial support programs and therapy methods for digital game addiction have become widespread, especially cognitive-behavioral therapy (CBT) has been adopted as an effective method in the treatment of addiction. On a global scale, the psychosocial and neurobiological effects of digital games are being researched, and it is emphasized that game addiction is associated with negative consequences such as depression, anxiety disorders, and academic failure (Kuss & Griffiths, 2014).

In Turkey, digital game addiction has been increasingly researched in recent years. However, policy and intervention programs on the issue remain more limited compared to global examples. Research in Turkey shows that especially young people and university students are at high risk of developing addiction to digital games. Cultural and economic factors are among the important determinants of individuals' gaming habits. For example, while games provide low-cost entertainment and escape for individuals experiencing economic difficulties, they can also increase psychosocial problems such as social isolation and loneliness (Koral Alptekin, 2023; Kızılkaya & Erol, 2024). In Turkey, parents' awareness of digital game addiction is at a low level and there are not enough awareness-raising activities in schools. On the other hand, the rapid growth of the gaming industry and the increase in domestic game developers have led to the proliferation of digital game culture in Turkey, which brings new research and regulatory requirements regarding game addiction to the agenda. In this context, game addiction needs to be addressed at both individual and societal levels and examined with multidisciplinary approaches (Baysan et al., 2019)

Digital game addiction has become a current research topic for both clinicians and researchers working in literature with the increasing use of technology in the recent past. Griffiths et al. (2015) emphasize that digital game addiction is a

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

complex phenomenon that needs to be evaluated within a biopsychosocial framework and draw attention to the role of the proliferation of digital technologies such as the internet, computer games, smartphones, and social media. Today, this topic, which is frequently included in behavioral addiction research, is often examined within the framework of technological addictions. In addition, the fact that internet gaming disorder is included in the DSM-5 under the title of conditions requiring additional study emphasizes the seriousness of the issue (Griffiths et al., 2015).

When the etiology of digital game addiction is examined, it is seen that gaming habits that start in childhood play an important role as a result of the research. Billieux et al. (2011) and Kuss et al. (2012) emphasize that many children turn to video games as a way to escape from problems such as bullying and family problems. It is underlined that this situation increases the risk of digital gaming habits that starts at an early age turning into an addiction in the future (Billieux et al. 2011; Kuss et al., 2012).

Studies have reinforced that global processes are associated with many behavioral addictions, especially digital game addiction (Teng et al., 2021; Zhang et al., 2024). For example, during the COVID-19 pandemic, it is known that the popularity of digital games has increased in parallel with the increase in time spent at home, and people who spend time at home spend more time playing digital games (Zhang et al.; 2024). It is also emphasized that the increase in access to online devices, especially among children and young adults, intensifies game addiction (Teng et al., 2021).

When the neurobiological background of digital addictions and satisfaction from digital games is examined, it is seen that the brain reward center has an important role in this process (Palaus et al., 2017). Studies show that excessive video game playing leads to significant changes in the reward system of the brain (Turel et al. 2021; Weinstein, 2017). A study by Weinstein (2017) revealed that the neural mechanisms underlying Internet Gaming Disorder show similar characteristics to substance addiction. During gaming, dopamine release increases in the reward centers of the brain, which is associated with feelings of pleasure and reward (Weinstein, 2017). In another study investigating the neurobiological background of digital game addiction, it was emphasized that players showed strong activation in the reward system when exposed to game-related cues, while weaker activation was observed in prefrontal regions. However, it was emphasized that insula activation increased in withdrawal (Turel et al. 2021). In addition, it was stated that functional and structural changes were observed in the

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

brain reward system - a group of structures associated with the feeling of pleasure - in gaming addicts (Palaus et al., 2017).

In the last decade, there have been many influential studies examining how digital games are reproduced along axes of identity, power, economy, and experience. Shaw (2014) emphasizes that games are not only a medium for representing identities, but also a space where certain groups (especially LGBTQ+, women, and ethnic minorities) are excluded. This point emphasized by Shaw (2015) shows that the concept of gaming concerns personality dynamics, orientations, genders, and many other concepts. Therefore, it is understood that the lack of in-game representations can directly affect player identity and sense of belonging. Poell and Nieborg (2018) discuss digital games in the context of platform capitalism and state that game companies have developed data-driven systems that manipulate user behavior. This approach reveals that the player is not only an entertained subject but also a data producer guided by algorithms.

While Mia Consalvo (2009) analyzed the relationship between game culture and ethics, community dynamics, and toxic behavior, Christopher Paul (2018) discussed the motivational structure of players through the concept of "challenge". According to Paul, difficulty in games is not just a technical setting but is related to the player's perception of self-efficacy and motivation to participate. This motivation can sometimes translate into excessive performance-oriented behaviors or addiction-like structures. Sjöblom and Hamari (2017) analyzed live streams on Twitch and showed that the digital gaming experience no longer belongs only to the players, but the audience also plays an active role, creating a new form of digital socialization.

Jenkins (2004), while discussing digital games as cultural products shaped by popular narratives in multimedia environments, put forward the concept of "participatory culture". According to him, players not only play games but also interpret, reproduce and even transform the game world. This approach supports the idea that games are not mere objects of consumption but a creative narrative experience. This view brings narratological discussions, traditionally centered on cinema and literature, to the field of games, making "narratology" an important axis for the analysis of digital games. However, this approach has been in conflict for many years with the ludology side, which emphasizes that games are primarily systems based on rules and interaction. Today, it is seen that these two approaches complement rather than exclude each other, and hybrid theoretical frameworks are emerging in which games are evaluated through both narrative and interactional dimensions.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

In parallel to this, recent research on understanding the player's experience has considered games within the complex relational structures established by the individual's cognitive and emotional processes. For instance, Taylor (2015), in her study "Raising the Stakes", examined how gamer identity is constructed in e-sports environments and how gender roles are reproduced in this process. According to Taylor, digital games do not only offer players a competitive space; they also create a social identity construction environment that includes psychosocial components such as performance, belonging, and recognition. Yee (2014), in his study "The Proteus Paradox", showed that participants can behave in virtual environments in ways that they do not in real life, but over time their virtual selves can affect their real selves. This reveals the long-term effects of the gaming experience on the individual, especially when considered in the contexts of identity development, self-efficacy, and belonging. Thus, gaming is not only a means of instant gratification or entertainment but also a dynamic cultural practice that can transform an individual's identity, emotional structure, and social relationships.

Additionally, the study conducted by Nacke and Lindley (2010), one of the studies on FPS games helped to better understand the psychological and cognitive effects of the game. In the study, the "flow" and "immersion" experiences of players during the game were evaluated with electrophysiological measurements. Similarly, Drachen et al. (2010) examined the physiological responses of players in FPS games, such as heart rate and skin conductance, and reasserted that the intensity of the gaming experience is related to these biological indicators, with results that overlap with previous studies in the literature (Nacke & Lindley, 2010).

MOBA-type games have also been examined in a similar way. Berga et al. (2023) analyzed how the competitive nature of the game affects the physiological responses of players by measuring the stress levels of "League of Legends" players during the game. Furthermore, Kwak et al. (2015) examined the prevalence of toxic behaviors in online team-based games and the effects of these behaviors on players' social interactions. These studies have been helpful in understanding how digital games shape not only individual experiences but also social dynamics.

Life Satisfaction

Life satisfaction is broadly defined as the degree to which an individual who can meet his/her physical, emotional, social, and mental needs perceives his/her

quality of life and his/her own life positively (Diener, 1984). Life satisfaction is a concept in which subjective evaluation is prominent and it draws attention as a concept defined by many disciplines with their perspectives. However, it is seen that these definitions underline the positive thoughts about the general quality of one's life as a whole (Haybron, 2011).

Kapteyn et al. (2010) emphasize two points in their definition of life satisfaction. The first of these two points is expressed as the existence of the basic conditions necessary for life, while the second is stated as the implementation of a life that the person can enjoy (Kapteyn et al. 2010).

In the recent past, increasing studies have drawn attention to the fact that life satisfaction has a neurobiological basis. At this point, the reward system of the brain, which is known from addiction research, stands out as a neurobiological system that is frequently underlined by studies on life satisfaction. In addition, studies indicate that emotion regulation mechanisms are also important in life satisfaction and that life satisfaction is closely related to neurobiological conditions (Kong et al., 2015).

Neuroimaging studies emphasize that there are several differences in individuals with high life satisfaction. Based on the studies, it is stated that these individuals have higher activation and stronger connectivity in brain structures such as the ventral striatum and nucleus accumbens, which are associated with the brain reward center (Heller et al., 2013).

On the other hand, researchers point out that the balanced release of neurotransmitters such as serotonin and dopamine, which are known to affect addiction neurobiology and emotional systems, has a positive effect on life satisfaction (Heller et al., 2013; Kong et al., 2015).

METHODOLOGY

Research Design and Research Sample

This research is quantitative research. Relational survey methods were used in the research.

The research sample consists of 104 female and 144 male university students between the ages of 18-35 who have been studying at the associate and undergraduate level, have been residing in Istanbul for the last 2 years, own at least 1 personal computer or 1 game console, have played at least one digital game for the last six months, and have spent 28 hours or more on digital games per week for the last six months. The minimum sample size required for a

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

meaningful result in the study was calculated by evaluating the results of similar studies through the G*Power 3.1.9.7 program. Accordingly, it was concluded that a total of 202 participants should participate in the study to obtain a meaningful result.

The participants in our study play different types of digital games. When the games played by the participants were analyzed, it was seen that the most intensely played games were FPS games. 141 participants in the sample, i.e. 56.85% of the sample, mainly spend time on FPS games. FPS games are productions in which the player plays through the eyes of a character and usually have fast-paced action scenes and mechanics that require reflexes. Due to their competitive nature, these games can significantly affect players' attention processes, reaction times, and strategic thinking skills. The most played FPS games in our sample include popular titles such as Call of Duty, Counter-Strike; Global Offensive (CS: GO), and Rainbow Six Siege.

When the game preferences of the other players in the sample were analyzed, 64 participants stated that they play RTS games. This corresponds to 25.81% of our sample. RTS games are generally competitive games that emphasize players' resource management, strategic decision-making, and tactical development skills. StarCraft and Total War series stand out among the most played RTS games in the sample.

On the other hand, 17.34% play multiplayer online (MMO) and multiplayer online battle arena (MOBA) games. Players in this group usually play games such as World of Warcraft, Final Fantasy XIV (MMO), and League of Legends, and Dota 2 (MOBA). MMO and MOBA genres allow players to engage in social interaction; they are particularly notable for their teamwork and prolonged gaming sessions.

Tools

First, the “Digital Gaming Addiction Scale for University Students” adapted into Turkish by Hazar and Hazar (2019) and the “Adult Life Satisfaction Scale” developed by Kaba et al. (2017) were used (Hazar & Hazar, 2019; Kaba et al., 2017). The scales used are Likert-type scales.

The Digital Game Addiction Scale for University Students has three sub-dimensions. These sub-dimensions are over-focusing and procrastination; deprivation and seeking; and emotional change. The scales were administered face-to-face to volunteer participants who were willing to participate in the study.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

Statistical Analysis

The statistical analysis of the study was carried out with the IBM SPSS 21 program. Correlation analysis and regression analysis were performed in the statistical analysis of the study.

Ethical Permissions

This study was conducted with the permission of the ethics committee of Doğuş University with the number 2023/46. Informed voluntary consent was obtained from all participants in the study. For the scales applied in the study, permission was obtained from the researchers who developed and adapted the scales.

FINDINGS

Table 1

Correlation Analysis of Satisfaction with Life and Digital Game Addiction Scales

Variable	N	Pearson Correlation	p
Life Satisfaction and Game Addiction	248	0.063	0.325
Focus and Procrastination Subscale	248	0.116	0.069
Deprivation and Search Subscale	248	0.302	0.014
Emotion Change Subscale	248	0.547	< 0.001

$p > 0.05$, the relationship is not significant.

The correlation coefficient for the participants' responses to the Adult Satisfaction with Life Scale and Digital Game Addiction Scale for University Students was found to be $r = 0.063$ and $p = 0.325$. This result shows that there is no significant relationship between life satisfaction and digital game addiction.

In the correlation analysis between the life satisfaction scale and digital game addiction scales, no significant relationship was found in the focusing sub-dimension of the digital game addiction scale, while a significant relationship was found in the deprivation and emotional change sub-dimensions.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

At this point, in the correlation analysis between sub-dimensions, the correlation in the focusing sub-dimension was found as ($r = 0.116$) and ($p = 0.069$). This finding is close to the significance limit ($p < 0.10$) but not statistically significant.

The correlation relationship in the deprivation subscale was found to be ($r = 0.302$) and ($p = 0.014$). Here, a significant relationship is observed ($p < 0.05$). This statistically significant relationship indicates that there is a relationship between digital game withdrawal and life satisfaction.

The emotion change correlation relationship of the digital game addiction scale was found to be ($r = 0.547$) and ($p < 0.001$). This finding is expressed as a statistically significant and strong relationship. This result indicates that the emotional effects of digital games play an important role in life satisfaction.

Table 2

Multiple Linear Regression Analysis

R	R Square	Adjusted R Square	SD
0.144	0.021	0.009	5.09695

$p > 0.05$, the relationship is not significant.

In the multiple regression analysis, the three sub-dimensions of the digital game addiction scale and the life satisfaction scale for adults were examined. The statistical analysis explains 2.1% of the variance in life satisfaction ($R^2 = .021$, Adjusted $R^2 = .009$). This low R^2 value indicates that digital game addiction has a limited effect in explaining life satisfaction.).

Table 3

ANOVA Analysis

Model	SS	df	MS	F	p
Regression	134.490	3	44.830	1.726	0.162
Residual	6338.848	244	25.979	1.726	0.162
Total	6473.339	247			

$p > 0.05$, the relationship is not significant

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

Anova analysis to assess the overall significance of the regression model showed that the model was not statistically significant ($F(3, 244) = 1.726$, $p = .162$). This finding indicates that the sub-dimensions of game addiction, namely emotion change, withdrawal, and focus, did not as a whole predict life satisfaction in a significant way. However, a small portion (134.490) of the total variance (6473.339) was explained by the regression model, indicating the presence of significant results in the sub-dimensions.

DISCUSSION

In the correlation analysis, no direct significant difference was found between life satisfaction and the game addiction scale. This situation emphasizes that there is no statistically significant relationship (Table 1) However, a significant correlation was found between the sub-dimensions of the digital game addiction scale and the life satisfaction scale (Table 1). The findings show that the habit of playing digital games should be considered. It also indicates that a relationship between excessive digital game-playing behavior and different variables in different sub-dimensions may be possible (Table 1).

When the results in the sub-dimensions of the study are examined in more detail, it is statistically seen that deprivation from digital game-playing behavior affects life satisfaction ($p < 0.014$). At the same time, this finding supports that the life satisfaction of individuals who are deprived of digital games increases when they start playing digital games again. Indeed, this result supports the potential role of the brain reward circuit in digital game-playing behavior, which has been underlined in previous studies on behavioral addictions (Kuss & Griffiths, 2012). At the same time, this result emphasizes once again in the light of statistical results that gamers who play digital games for long hours, which constitute the sample of this study, show withdrawal symptoms when deprived of digital games (Table 1).

The statistically strong and significant result ($p < 0.001$) in the emotional change sub-dimension in Table 1 indicates the existence of a positive relationship between digital games and emotional processes. This result supports the results of Granic et al.'s study emphasizing the benefits of video games (Granic et al., 2014). In addition, this statistically obtained result ($p < 0.001$) emphasizes that emotional states can change significantly concerning the duration of playing games and the level of addiction, thus affecting life satisfaction (Table 1).

The participants in the sample of this study spend 28 hours a week on digital games. However, from the results of the study, it is seen that the participants

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

obtained satisfaction as they played games and their life satisfaction increased in the face of this satisfaction (Table 1). Therefore, as stated in the literature, this situation indicates a cyclical process in which individuals with low life satisfaction will play more games to achieve more life satisfaction (Kuss et al., 2012).

In a study conducted by Kardefelt-Winther, it was reported that individuals with low psychosocial symptoms were more prone to excessive digital gaming to escape from the stress of daily life. Our study is similar to the study conducted by Kardefelt-Winther in this respect (Kardefelt-Winther, 2014). Participants in our study reported the positive effects of digital gaming through the emotion change subscale of the digital gaming addiction scale. Therefore, according to the statistical result, it is thought that the participants in our study play digital games to be emotionally satisfied and consequently increase their satisfaction with life (Table 1).

The results obtained in Table 1 also suggest that digital games can be used as a means of stress relief and relaxation in the short term, as stated in the study of Lemmens et al. In the same study, it is emphasized that long hours spent on digital games will negatively affect life satisfaction in the long term (Lemmens et al., 2019). However, in our study, no direct relationship was found between life satisfaction and problematic gaming habits (Table 1). In this respect, our study differs from the study of Lemmens et al. (Lemmens et al., 2019).

On the other hand, in the study conducted by Lemmens and colleagues, it was stated that the long hours spent in digital games may provide social interaction and entertainment in the short term, but in the long term, it may reveal pathological game-playing behavior. In our study, the long-term effects of this situation are seen in the deprivation and seeking sub-dimension in Table 2. The statistical findings in the deprivation and seeking sub-dimension of the digital game addiction scale used in our study support the study of Lemmens et al. (Lemmens et al., 2011).

In a study conducted by Blasi et al., it was reported that some gamers use video games to cope with negative emotions. The strong and significant statistical relationship ($p < 0.001$) in the emotion change sub-dimension of digital game addiction found in our study supports the statement made by Blasi et al. (Blasi et al., 2019). This potential effect of digital games on emotion change supports the process in the brain reward system emphasized by Kuss and Griffiths. This underlines the potential relationship between digital games and the development of behavioral addiction (Kuss & Griffiths, 2012).

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

The focusing sub-dimension did not show a significant relationship ($p = 0.069$), suggesting that this dimension did not have as significant an effect as the other sub-dimensions. However, it suggests that this sub-dimension may also have a significant effect in studies with larger samples (Table 1).

The multiple regression analysis conducted in this study showed that there was no statistically significant relationship between the variables ($F(3, 244) = 1.726$, $p = .162$). This finding contradicts the findings of Lemmens et al. (2011) that pathological gaming may negatively affect life satisfaction. However, Kardefelt-Winther (2014) supports the positive effects of game-playing behavior (Table 3).

It is seen that the results of our study are consistent with the findings of Granic et al. regarding the potential benefits of video games. In this study, the positive results of digital-based games for some individuals in terms of stress-coping mechanisms were pointed out (Granic et al., 2014). However, the low R^2 value (.021) in our study indicates that life satisfaction may be affected by many factors other than game addiction. These findings support Kuss and Griffiths' multivariate structure of internet game addiction (Kuss & Griffiths, 2012).

In the findings of our study, participants who played FPS games (141) constitute the majority. It is thought that the participants of these FPS games, which require competition and strategic thinking, experience a higher emotional interaction. This coincides with studies in the literature examining the link between digital game addiction and reward mechanisms in the brain. Especially FPS games are known to cause sudden stimulation in the dopaminergic system due to their structure which requires instant decision-making and reflexes (Koepp et al., 1998). The contribution of digital games to the increase in life satisfaction found in our study reveals the necessity of addressing digital game addiction not only with playing time but also with the type of game and the motivations of the players. In this respect, it is thought that it would be useful to examine the correlations between game types and even specific games in more detail in future studies for more detailed analyses.

Digital game addiction is shaped not only by individual psychological factors but also by sociocultural and economic factors, and our study has results that overlap with studies in the local literature in this respect (Altınok, 2021; Satılmış et al., 2023). In the context of Turkey, it is seen that economic difficulties and social isolation are some of the main factors that lead individuals to games. The positioning of games as a low-cost means of entertainment and especially the fact that online games offer social interaction may cause individuals experiencing economic difficulties to spend more time on games. In our study, the fact that the relationship between playing time and life satisfaction was not directly

significant, but certain relationships were found in sub-dimensions indicates that the effects of digital games on individual satisfaction should be evaluated in a more complex framework. In this context, it is thought that a detailed examination of the factors associated with game addiction in individual, social, and economic dimensions will contribute to the development of more effective policies in the fight against addiction.

The potential contribution of digital game addiction to life satisfaction found in our study overlaps with the study conducted by Granic et al. (2014) and sheds light on the beneficial aspects of digital games. In this respect, our study draws attention to the fact that digital game addiction should not be considered only as a pathological process.

Based on the results of our study, it is thought that digital games can be considered as a functional mechanism to meet the psychological needs of individuals and that games can have positive psychosocial outcomes under certain conditions. Indeed, in our study, the significant relationship between the emotional change subscale and game addiction indicates that games can directly affect individuals' emotional states. However, considering the long-term effects, how sustainable this interaction is and its long-term consequences on individuals' life satisfaction need to be further investigated. In a broad assessment, the fact that digital games are both an entertainment tool and a potential risk factor shows that studies in this field should be addressed with a multidimensional approach.

In conclusion, our study shows that there is no direct relationship between digital game addiction and life satisfaction. However, significant results were found in the correlation analysis performed with the sub-dimensions of the scales. At this point, it shows the positive effects of digital games on life satisfaction in a concrete way, however it is possible to see the potential for reversal of these effects in the long term in the correlation reached in the sub-dimensions.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

REFERENCES

Altınok, M. (2021). Lise öğrencilerinin dijital bağımlılık ve yaşam doyumunun incelenmesi. *Türk Eğitim Bilimleri Dergisi, 19*(1), 262–291.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Baysan, Ç., Eş, A. Ç., & Tezer, M. (2019). Ergenlerin dijital oyun bağımlılığının okulda öznel iyi oluş açısından incelenmesi. *Anadolu Psikiyatri Dergisi, 20*, 17–20.

Berga, D., Pereda, A., De Filippi, E., Nandi, A., Febrer, E., Reverte, M., & Russo, L. (2023). Measuring arousal and stress physiology on Esports, a League of Legends case study. *arXiv preprint* arXiv:2302.14269.

Billieux, J., Chanal, J., Khazaal, Y., Rochat, L., Gay, P., Zullino, D., & Van der Linden, M. (2011). Psychological predictors of problematic involvement in massively multiplayer online role-playing games: Illustration in a sample of male cybercafe players. *Psychopathology, 44*(3), 165–171. https://doi.org/10.1159/000322525

Blasi, M. D., Giardina, A., Giordano, C., Coco, G. L., Tosto, C., Billieux, J., & Schimmenti, A. (2019). Problematic video game use as an emotional coping strategy: Evidence from a sample of MMORPG gamers. *Journal of Behavioral Addictions, 8*(1), 25–34. https://doi.org/10.1556/2006.8.2019.02

Bogost, I. (2010). *Persuasive games: The expressive power of videogames*. MIT Press.

Carroll, K. (1998). *A cognitive-behavioral approach: Treating cocaine addiction* (Vol. 1). National Institute on Drug Abuse.

Consalvo, M. (2009). *Cheating: Gaining advantage in videogames*. MIT Press.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*(3), 542–575.

Drachen, A., Nacke, L. E., Yannakakis, G., & Pedersen, A. L. (2010). Psychophysiological correlations with gameplay experience dimensions. *arXiv preprint* arXiv:1004.0243.

Feng, W., Ramo, D. E., Chan, S. R., & Bourgeois, J. A. (2017). Internet gaming disorder: Trends in prevalence 1998–2016. *Addictive Behaviors, 75*, 17–24. https://doi.org/10.1016/j.addbeh.2017.06.010

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

Frasca, G. (2013). Simulation versus narrative: Introduction to ludology. In M. J. P. Wolf & B. Perron (Eds.), *The video game theory reader* (pp. 221–235). Routledge.

Granic, I., Lobel, A., & Engels, R. C. M. E. (2014). The benefits of playing video games. *American Psychologist, 69*(1), 66–78. https://doi.org/10.1037/a0034857

Griffiths, M. D., Kuss, D. J., & Pontes, H. M. (2015). A brief overview of internet gaming disorder and its treatment. *Australian Clinical Psychologist, 2*(1), 20108.

Haybron, D. M. (2011). Taking the satisfaction (and the life) out of life satisfaction. *Philosophical Explorations, 14*(3), 249–262.

Heller, A. S., van Reekum, C. M., Schaefer, S. M., Lapate, R. C., Radler, B. T., Ryff, C. D., & Davidson, R. J. (2013). Sustained striatal activity predicts eudaimonic well-being and cortisol output. *Psychological Science, 24*(11), 2191–2200.

Hendriks, V. (1990). *Addiction and psychopathology: A multidimensional approach to clinical practice*.

Jenkins, H. (2004). Game design as narrative architecture. *Computer, 44*(3), 118–130.

Jeong, E. J., Kim, D. J., & Lee, D. M. (2017). Why do some people become addicted to digital games more easily? A study of digital game addiction from a psychosocial health perspective. *International Journal of Human–Computer Interaction, 33*(3), 199–214.

Juul, J. (2011). *Half-real: Video games between real rules and fictional worlds*. MIT Press.

Kapteyn, A., Smith, J. P., & Van Soest, A. (2010). Life satisfaction. In E. Diener, D. Kahneman, & J. Helliwell (Eds.), *International differences in well-being* (pp. 70–104). Oxford University Press.

Kaptsis, D., King, D. L., Delfabbro, P. H., & Gradisar, M. (2016). Withdrawal symptoms in internet gaming disorder: A systematic review. *Clinical Psychology Review, 43*, 58–66.

Kardefelt-Winther, D. (2014). The moderating role of psychosocial well-being on the relationship between escapism and excessive online gaming. *Computers in Human Behavior, 38*, 68–74.

Khantzian, E. J. (2003). Understanding addictive vulnerability: An evolving psychodynamic perspective. *Neuropsychoanalysis, 5*(1), 5–21.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

Kim, K., Ryu, E., Chon, M. Y., Yeun, E. J., Choi, S. Y., Seo, J. S., & Nam, B. W. (2006). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: A questionnaire survey. *International Journal of Nursing Studies, 43*(2), 185–192.

King, D. L., & Delfabbro, P. H. (2018). *Internet gaming disorder: Theory, assessment, treatment, and prevention*. Academic Press.

Kızılkaya, M. F., & Erol, F. Z. (2024). Üniversite öğrencilerinin dijital oyun bağımlılığı düzeylerinin incelenmesi. *Batı Anadolu Eğitim Bilimleri Dergisi, 15*(2), 987–1012.

Koepp, M. J., Gunn, R. N., Lawrence, A. D., Cunningham, V. J., Dagher, A., Jones, T., ... & Grasby, P. M. (1998). Evidence for striatal dopamine release during a video game. *Nature, 393*(6682), 266–268.

Kong, F., Hu, S., Wang, X., Song, Y., & Liu, J. (2015). Neural correlates of the happy life: The amplitude of spontaneous low frequency fluctuations predicts subjective well-being. *NeuroImage, 107*, 136–145.

Koral, F., & Alptekin, K. (2023). Dijital oyun bağımlılığı: Bir derleme çalışması. *Karatay Sosyal Araştırmalar Dergisi, (11)*, 283–308.

Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction, 10*, 278–296.

Kuss, D. J., Louws, J., & Wiers, R. W. (2012). Online gaming addiction? Motives predict addictive play behavior in massively multiplayer online role-playing games. *Cyberpsychology, Behavior, and Social Networking, 15*(9), 480–485.

Kuss, D., & Griffiths, M. (2014). *Internet addiction in psychotherapy*. Springer.

Kwak, H., Blackburn, J., & Han, S. (2015, April). Exploring cyberbullying and other toxic behavior in team competition online games. In *Proceedings of the 33rd annual ACM conference on human factors in computing systems* (pp. 3739–3748). https://doi.org/10.1145/2702123.2702529

Lemmens, J. S., Valkenburg, P. M., & Peter, J. (2011). Psychosocial causes and consequences of pathological gaming. *Computers in Human Behavior, 27*(1), 144–152.

MacNicol, B. (2017). The biology of addiction. *Canadian Journal of Anesthesia/Journal canadien d'anesthésie, 64*(2), 141–148.

Markey, P. M. (2016). The video game debate: Unravelling the physical, social, and psychological effects of digital games. *American Journal of Play, 8*(3), 404–406.

Nacke, L. E., & Lindley, C. A. (2010). Affective ludology, flow and immersion in a first-person shooter: Measurement of player experience. *arXiv preprint* arXiv:1004.0248.

Nieborg, D. B., & Poell, T. (2018). The platformization of cultural production: Theorizing the contingent cultural commodity. *New Media & Society, 20*(11), 4275–4292.

Palaus, M., Marron, E. M., Viejo-Sobera, R., & Redolar-Ripoll, D. (2017). Neural basis of video gaming: A systematic review. *Frontiers in Human Neuroscience, 11*, 231323. https://doi.org/10.3389/fnhum.2017.00248

Paul, C. A. (2018). *The toxic meritocracy of video games: Why gaming culture is the worst*. University of Minnesota Press.

Piaget, J. (1962). *Play, dreams and imitation in childhood*. Norton. *(Orijinal eser: La formation du symbole chez l'enfant, 1945)*

Robinson, C. L. (2008). An introduction to medievalist video games. In *Medievalism in technology old and new* (pp. 123–124).

Ruckenstein, M. (1991). Homo ludens: A study of the play element in culture. In *Leisure and ethics* (pp. 237–250).

Satılmış, S. E., Öntürk, Y., Özsoy, D., & Yaraş, A. (2023). Üniversite öğrencilerinin serbest zaman doyumu ve dijital oyun bağımlılık düzeyleri arasındaki ilişkinin incelenmesi. *CBÜ Beden Eğitimi ve Spor Bilimleri Dergisi, 18*(1), 1–15.

Shaw, A. (2015). *Gaming at the edge: Sexuality and gender at the margins of gamer culture*. University of Minnesota Press.

Sjöblom, M., & Hamari, J. (2017). Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Computers in Human Behavior, 75*, 985–996. https://doi.org/10.1016/j.chb.2016.10.019

Stan, F., Drăgoi, A. M., & Costea, R. V. (2020). The impact of socio-cultural factors in addiction comorbidities. *Journal of Educational Sciences & Psychology, 10*(2), 69–75.

Taylor, T. L. (2015). *Raising the stakes: E-sports and the professionalization of computer gaming*. MIT Press.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006

Teng, Z., Pontes, H. M., Nie, Q., Griffiths, M. D., & Guo, C. (2021). Depression and anxiety symptoms associated with internet gaming disorder before and during the COVID-19 pandemic: A longitudinal study. *Journal of Behavioral Addictions, 10*(1), 169–180. https://doi.org/10.1556/2006.2021.00016

Turel, O., He, Q., Wei, L., & Bechara, A. (2021). The role of the insula in internet gaming disorder. *Addiction Biology, 26*(2), e12894. https://doi.org/10.1111/adb.12894

Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Harvard University Press.

Weinstein, A. M. (2017). An update overview on brain imaging studies of internet gaming disorder. *Frontiers in Psychiatry, 8*, 185. https://doi.org/10.3389/fpsyt.2017.00185

Wolf, M. J. (Ed.). (2007). *The video game explosion: A history from PONG to PlayStation and beyond*. Bloomsbury Publishing USA.

Yee, N. (2014). *The Proteus paradox: How online games and virtual worlds change us—and how they don't*. Yale University Press.

Zhang, G., Lin, Y., Jiang, Q., et al. (2024). The longitudinal relationship between depression, internet addiction and self-control during the repeated COVID-19 pandemics: A cross-lagged study among Chinese college students. *Current Psychology, 43*, 35759–35771. https://doi.org/10.1007/s12144-022-03637-3

Zhou, X., Liao, M., Gorowska, M., Chen, X., & Li, Y. (2024). Compliance and alternative behaviors of heavy gamers in adolescents to Chinese online gaming restriction policy. *Journal of Behavioral Addictions, 13*(2), 687–692.

Atıf İçin: Öksüz, Y. E. & Masatcıoğlu, G. 2025). Examining The Effect Of Digital Game Addiction on Life Satisfaction: Digital Games Provide Emotional Satisfaction To Players, *Yeni Medya Elektronik Dergisi,* 9 (2), 266-288.

Research Article- Submit Date: 17.12.2024, Acceptance Date: 15.04.2025
DOI NO: 10.17932/IAU.EJNM.25480200.2025/ejnm_v9i2006